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The contributions of behavioural economics to understanding and advancing the sustainability of worker cooperatives

ABSTRACT

We characterize how just-selfish workers are incompatible with long-run success in workers' cooperatives. Emphasizing mutual monitoring as key to cooperatives' organization design to combat "shirking" we discuss what possible mixes of behavioral types in the membership of a cooperative are compatible with sustainable success. Sustainability depends on social preferences and cooperative norms that are compatible with low levels of shirking and high levels of mutual monitoring. When worker types are partly unobservable, cooperatives must be more attractive to the types of workers they value most as members. We describe measures that enhance cooperative norms and measures that mitigate adverse selection.

KEY-WORDS

COOPERATIVE ENTERPRISES.

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1. Introduction

Worker cooperatives and other forms of employee ownership exist in many parts of the world and many have flourished. Studies that compare the productivity of cooperatives with conventional firms show that cooperatives are often on a par or better than their conventional counterparts. Yet many cooperatives have disappeared, frequently through transformation into conventional firms and sometimes through economic failure. And cooperatives rarely represent more than a very small proportion of economic activity.

There are various explanations for these phenomena (see Ben-Ner 1988). In this paper we emphasize an issue that has received little attention from scholars and practitioners, but that may have critical empirical importance for the long-term sustainability of worker cooperatives. This concerns the risk of mismatch between the type of individuals who work in cooperatives and the needs of an effective organization design. Unattended mismatches typically grow over time until their negative impacts become so severe that they end in the demise of the cooperative.

During the process of creating a new cooperative, often many members are infused with enthusiasm for their new enterprise, with solidarity bred of their common experience, with cohesion shaped by a common background and the sense of successfully overcoming a big challenge. The dedication of these members to their new enterprise and to each other motivates them to act in ways that defy individual rationality based on self-interest. These members do not require complicated incentive and monitoring schemes to exercise desirable effort and to refrain from shirking. Such members exert social pressure on each other to ensure that free-riders raise their effort levels or leave the cooperative.¹

However, solidarity may wane over time as the initial conditions are replaced by normality and as membership turnover introduces new members who rarely replicate the energy and values of the original members; new members tend to join the cooperative one at a time, without the same sense of ownership and togetherness, and often with personal job conditions as a primary motivation. When financial motivation, centred on individual self-interest, becomes dominant, the cooperative organization design, based on collective decision-making and sharing of profits, becomes a source of weakness rather than strength. The cooperative design is vulnerable to exploitation by selfish and relatively unscrupulous members; shirking in various forms, such as free-riding on team contributions, becomes increasingly prevalent. High-ability workers leave, and a sense of urgency may set in. Someone then has to take charge of discipline and the most common approach is to gradually centralize control in the hands of old-timers. However, as the numbers of dedicated old-timers dwindle, selling the enterprise to a conventional owner becomes a preferred solution over continued weakness.²

In this paper, we use economic theory to show concisely why a worker cooperative composed of just-selfish members is unsustainable, in that it cannot reproduce itself over the long run. We next explore several deviations from pure self-interest that can form the basis for types of workers who can sustain a cooperative. There is no unique type of cooperator but there is a range of types compatible with the needs of a cooperative's organization design.

The just-selfish individual is a theoretical abstraction and our analysis is relevant precisely because

¹ See Zamagni and Zamagni (2010) for a discussion of the creation of individual cooperatives and cooperative movements around the world.

² Burdin (2013) econometrically analyses many pertinent aspects of the life cycle of Uruguayan cooperatives.

people deviate substantively from the just-selfish archetype.³

We use the just-selfish individual as a benchmark for our analysis for two reasons. First, although not ubiquitous, an approximation to this type is quite prevalent, and most people behave similarly in some dimensions or in some contexts. For instance, an honest type of person may be self-interested in choosing effort at work, and an individual who is altruistic and trustworthy when interacting with friends and family may exhibit clear selfish tendencies in interactions with others (cooperatives cannot always rely on maintaining a close friendship network and shared identity among workers). Second, the economic theory of cooperatives and of conventional firms was developed on the assumption of just-selfish individuals, and this theory provides a useful set of stress tests for evaluating the likely weak points of a cooperative organization, even when worker types are not just-selfish. In essence, we ask which departures from a just-selfish workforce are sufficient to evade organizational problems that are severe for just-selfish workers.

The flow of the paper's argument is as follows. Our first step is to establish that a workforce composed of just-selfish workers is incompatible with the long-run success of a worker cooperative. This follows from the literature on joint production and incentives. The free-riding problem associated with profit-sharing is well known; theoretical solutions involve individual incentives and discipline (dismissal threats and the like), but they require information that can be obtained only through monitoring worker behaviour and performance. We argue that none of the correctives proposed in the literature – neither centralized monitoring nor mutual or peer monitoring – can work in this context.

Our second step has two parts. First, we describe the principal attributes of individuals in terms of their preferences and capabilities, drawing on behavioural and experimental economics and psychology. Second, we sketch the typical profiles or worker types analysed in the behavioural literature and investigate which of these types are likely to avoid shirking and to also monitor co-workers sufficiently, so as to make a cooperative viable. We also establish, on the basis of findings in experimental economics, that such types exist and are not rare.

The third step involves three elements: (a) we start with an exploration of what types of workers may self-select into (i.e. be attracted to) membership in cooperatives; (b) we examine some selection mechanisms that cooperatives may use to recruit the type of workers they need; (c) we evaluate various mechanisms that enhance the social preferences and values of existing members and support a culture that raises the sustainability of the cooperative.

It is worth mentioning that some researchers view collective decision-making costs as the prime barrier to worker cooperative success. We agree that collective choice can be a major obstacle to sustainability in cooperatives (especially when some workers try to form coalitions to subvert group decisions, e.g., to divert surplus towards themselves). We focus on the problem of motivation, but our approach could be applied to collective decision-making. In particular, mutual monitoring can reduce the informational asymmetries that plague collective decision-making; relatedly, monitoring of management from below can complement the use of a managerial hierarchy for day-to-day decisions (Mondragón, the large and long-lived Basque federation of cooperatives, being a classic case in point).

Motivation is fundamental to success: if all workers shirk, there is no surplus over which to conflict. Thus we view mutual monitoring as the make-or-break challenge for coops. Failure leads to a severe free-riding (or 1/N problem, as described below) which conventional firms may escape by combining

³ Limitations of the just-selfish methodology, long criticized by scholars from neighbouring disciplines such as the sociology of work, organizational psychology, economic anthropology and politics, are now well-established within economics, thanks to experiments conducted on human subjects in settings that carefully control for possible strategic incentives. Recent advances in experimental economics, psychology and field studies have classified individuals into approximate sets of types, which will figure in our analysis below.

centralized monitoring with concentrated profits that motivate monitor-bosses. Success can make the cooperative sharply more productive than its conventional counterparts with mutual monitors providing a much greater wealth of information than is typically transmitted up the hierarchy of a conventional firm.

The paper is organized as follows. In section 2 we characterize a worker cooperative by the twin features of shared control and shared profit among members. We then explore the implications of standard economic theory, which assumes just self-interest, for the viability of cooperatives in terms of monitoring and effort provision. In section 3 we describe alternatives to the just-selfish type and describe their empirical distribution on the basis of evidence from experimental economics. In section 4 we review experimental evidence related to shirking and monitoring, and elaborate on how certain alternative types of workers would behave in a worker coop. In section 5 we discuss self-selection into cooperatives from labour markets with heterogeneous workers, describe mechanisms for selection of workers suitable for cooperatives and discuss ways to shape the cooperative culture and members' preferences to reduce shirking and support mutual monitoring. Section 6 concludes the paper.

2. Worker cooperatives: shared control, shared profit and the monitoring problem

We take the defining attribute of a worker cooperative to be the sharing of control rights among workers (as opposed to providers of capital as in a conventional firm, or other stakeholders such as consumers and users, as in consumer cooperatives; Dow 2002).⁴

2.1. Shared control leads to shared profit

Shared control can lead to sharing of profits for four main reasons (drawn selectively from a large and technical literature). First, skewed profit-sharing rules give strong incentives for a group of low-share workers to form a coalition with sufficient control rights to force a change in the profit-sharing rule or to subvert the rule and divert profits or resources into their own hands. In this way, shared control tends to lead to a moderate degree of profit-sharing, even when profit-sharing is unintended. Second, profit-sharing may be chosen to minimize the risk of such coalition-building efforts: egalitarian rules minimize the largest potential gains of any coalition. Lowering the risk is valuable since coalition-building involves both direct costs (such as time and effort) whether they succeed or fail, and added costs when they succeed (successful coalitions extract value in distortionary ways). In sum, profit-sharing is a relatively stable and conflict-

⁴ Ownership shares may or may not be tradable, but to qualify as a worker cooperative, non-workers, such as providers of capital, cannot hold substantial control rights; capital providers cannot hold significant profit shares either, but we view this as a consequence and not a definition (creditors instead make loans and gain fixed payment rights that are contingent on non-declaration of bankruptcy). Employee-owned firms may stray from the ideal type where sharing is egalitarian by having unequally distributed shares, but ultimate control rights must be shared on a one-worker, one-vote basis to qualify as a true worker cooperative. A subgroup may hold effective day-to-day control (indeed management is sometimes contracted out) but workers must, together, hold ultimate control (including the power to oust management). The ideal-type cooperative does not use hired labour except during probation periods. We focus on this case. As such, essentially all workers are members of the cooperative.

reducing distributive rule.⁵

Third, quite aside from coalition-building concerns, one-worker, one-vote procedures have a wage compression effect under plausible conditions. This is obvious if cooperatives attract more egalitarian worker types than standard firms (a correlation between material egalitarianism and concerns for shared control enhances this self-selection). Voting can also lead to wage compression with purely self-interested workers: Kremer (1997) shows how, when median productivity exceeds average productivity, majority voting over redistribution leads to substantial profit-sharing (indeed excessive sharing from an incentive perspective). Fourth, and relatedly, profit-sharing can cause above-average productivity workers to quit (unless motivated by the social preferences discussed below). Such selective resignations eventually lead to the collapse of the cooperative or an egalitarian cooperative with full profit-sharing among low-productivity members.

2.2. Shared profits and just-selfish workers: the problems of shirking and monitoring

Most production technologies entail some degree of joint production: individual contributions cannot be identified separately from each other. Shared control in a cooperative tends to enhance non-separability, because shared control allows all workers to potentially become involved in all aspects of production.⁶

Consider a cooperative composed of just-selfish members in a joint production setting (this means there are no contracts providing incentives to members as a function of individual productivity). The benefits from effort by one member are then distributed among all members. In the case of N worker/members and equal profit shares, each worker only gains $1/N$ th of the total (social) returns on his/her effort. With unequal sharing, the sum of these fractions is still unity. Each worker (being just-selfish) is only motivated by the personal return on effort and neglects the externality on co-members. So efforts are far below the optimal level in any cooperative with more than a handful of members. This is the standard free-rider or $1/N$ problem (for a proof in the general case with asymmetric shares see Holmström 1982).

In principle, a monitoring system can resolve the joint production problem. Monitors can measure the individual efforts that combine to determine the joint output. The results of monitoring can be used as a basis for providing incentives or meting out disciplinary measures such that worker effort is optimal for worker and organization. Such incentives and discipline cannot be used without the information provided by monitoring.⁷

However, nonverifiable monitoring is “itself” subject to the free-rider problem! Monitoring involves individual efforts (those of the monitors) and the return to monitoring is simply an increase in production (of those monitored) which is shared among all the members of the cooperative. Thus, if each monitor gains only $1/N$ th of the return to monitoring, there will be too little monitoring by direct application of the standard free-riding problem.

⁵ Profit sharing is also valuable for informal agreements; equal sharing is a particularly clear rule that can be applied quite generally, reducing the scope for self-serving interpretation and misunderstandings; in addition, its attractive fairness properties make it a salient option for mutual agreement (see Brandts, Charness and Ellman 2012, for a discussion and evidence on the role of simple agreements in improving cooperative relationships - see also Hart and Moore 2008; Fehr, Hart and Zehnder 2011).

⁶ The conventional economic solution to this problem is to appoint a manager to monitor efforts and results and provide incentives to individual workers; the manager must then be held responsible for team profits, via profit rights or superiors with the power to promote, reward or fire the manager.

⁷ Prendergast (2002) and Ben-Ner, Kong and Lluís (2012) discuss the role of monitoring in relation to incentives and decision-making.

In an environment with just-selfish workers, free-riding in monitoring provides the main disadvantage of the cooperative organizational form relative to conventional firms. A conventional firm is also susceptible to the joint production problem just described, but monitoring by a supervisor/manager may solve the problem by enabling the provision of individualized incentives to workers. This is the crux of Alchian and Demsetz's (1972) argument against cooperatives which we describe in the next subsection.

It is worth emphasizing that throughout this paper we use the term shirking as in the standard economic analysis, where the meaning is broader than the colloquial notion of "skiving" off work or being lazy. Shirking, as used in economic discourse, particularly agency theory, refers to taking advantage of the other party's bargaining weaknesses, exploiting asymmetric information and breaking promises if it pays to do so, as well as generally shirking duties that cannot be enforced. This means that a worker will evade assigned duties wherever possible, engaging instead in preferred activities or leisure. In particular, workers can shirk on a duty to monitor. Free-riding is the specific case of shirking that arises when it pays to shirk, because the personal pay (net gain) from refraining from shirking is too small for a specific reason: they are shared among a group of actors who decide their "efforts" independently.⁸

2.3. Centralized and mutual monitoring as possible solutions to the problem of shirking

Two correctives to the problem of shirking in cooperatives have been suggested: centralized monitoring on the one hand, and mutual monitoring (decentralized) monitoring on the other hand. Alchian and Demsetz (1972) argue in favour of centralizing monitoring and supervision on the grounds that it is easier to motivate a single actor to monitor effectively than to engage many actors to monitor. There is plenty of room for debating how well a central monitor can monitor in complex environments; often peers who work closely together are better placed to monitor at low cost (see, e.g., Putterman 1982, on the technology of monitoring). However, it is true that having a single monitor permits an escape from the free-rider problem in monitoring: as Alchian and Demsetz (1972) argue, concentrating residual profits in the hands of the single monitor provides the monitor with the appropriate incentives to monitor.

Giving all or most of the profit shares to the central monitor is essentially impossible in cooperatives as shown in subsection 2.1 above. So the Alchian and Demsetz (1972) solution is not compatible with the cooperative form.

There has been some debate on whether cooperatives can still benefit from centralized monitoring despite profit-sharing. For instance, in vote-based cooperatives, workers might vote to delegate day-to-day managerial powers to a central monitor. Indeed, delegation to some degree of managerial hierarchy is common practice, and is especially prominent in large cooperatives such as Mondragón.⁹ However, monitors are a type of worker, so assuming just-selfishness, workers would have to monitor their monitors with great care and the free-rider problem would simply be pushed back one level instead of being resolved. Certainly, it would be a strange scenario to have altruistically or ideologically motivated managers manage selfish and non-ideological members "for their own good". In sum, centralized monitoring solutions are

⁸ Under the standard assumption that workers who take simultaneous actions recognize the independence of each other's actions, free-riding is a form of shirking that grows with the size of the group.

⁹ Having salaried managers in charge of members is a possibility, with its own oddities: in US Pacific Coast plywood cooperatives, managers claimed that the threat of firing by members made them less effective than in conventional firms (Greenberg 1986). The general manager of a mill which had been converted from a cooperative to a conventional firm said, "It sure as hell is easier now. Before I had 250 bosses [...] everyone wanted to put his two cents in. Now I just answer to one man." (Greenberg 1986, p. 44).

not compatible with cooperatives populated entirely by just-selfish workers.¹⁰

An alternative to centralized monitoring is mutual monitoring among members, a decentralized solution. This is the solution that bears most promise for cooperatives. The key claim is that workers are often readily able to observe the efforts and results of close co-workers, making monitoring costs small and sometimes even negligible (see, e.g., Dow and Putterman 2000; Greenberg 1986; Knez and Simester 2001). But this is too optimistic a view, because there are many costs associated with mutual monitoring (we elaborate on this below). Furthermore, closely interacting workers might collude to manipulate mutual reports, exploiting the fact that the output of each subgroup is not verifiable. Thus the problem with this solution in the just-selfish case is precisely that indicated in section 2.2 and highlighted by Alchian and Demsetz (1972). Repeated interactions among workers open the door to relational contract solutions to the effort enforcement problem, but again just-selfish workers undermine such solutions. If workers value future returns nearly as much as present benefits (minimal time discounting) and if time horizons are effectively infinite, then mutual monitoring can work. However, both assumptions are implausible.¹¹ Moreover, when monitoring efforts are required for observing co-worker efforts, the repeated games involve asymmetric information, making successful enforcement greatly more complicated and implausible.

Nevertheless, mutual monitoring remains the most promising solution to shirking problems that undermine cooperatives' sustainability. So we return to further analysis of this solution in the remainder of the paper, where we evaluate the efficacy of mutual monitoring with alternative types of workers who exhibit a range of behavioural deviations from just-selfishness.

Before moving beyond the just-selfish worker paradigm, we turn to a brief discussion of what shirking and mutual monitoring entail. This serves to show why monitoring typically involves time and effort costs and is sensitive to manipulation, and it sets the stage for understanding the psychological issues we discuss later on.

2.4. The multiple steps involved in monitoring

To set the stage for our treatment of monitoring in a social preference context, we now describe in some detail the full sequence of actions that are involved in monitoring. Monitoring may be performed by actors with more decision-making power (superiors, supervisors or managers) or by equals (peers or co-workers). In either case, monitoring consists of several necessary actions which can, together, reduce or eliminate shirking.

“Observation” of (co-)workers' actions or results is the first step in the monitoring process. This is often incorrectly regarded as the only element.¹² “Feedback” to (co-)workers has a dual function. Ostensibly,

¹⁰ Another solution proposed by Holmström (1982) is theoretically clever: a third party, not involved in the cooperative's team production, is paid a sum of money upfront in return for committing to pay the cooperative $N-1$ times whatever total profit the cooperative manages to produce; dividing the sum of the profit and this top-up payment equally among all the workers ensures that each worker is rewarded with the full profit of the team; accordingly, each worker would exert the optimal effort level. But this solution is vulnerable to both collusion by the members against the third party (as a group, they gain from inflating apparent profits) and to collusion between the budget-breaking third party and a subgroup of members who could carry out a sabotage that reduces output (and with it the obligatory payments from the third party to the cooperative). We refer to Eswaran and Kotwal (1984) on the latter problem.

¹¹ Empirical evidence shows that individuals have low time discounts and short time horizons (Frederick, Loewenstein and O'Donoghue 2002; Andreoni and Sprenger 2012).

¹² In fact, it has no impact when workers are just-selfish and even workers who are sensitive to shame respond much more when observers can communicate amongst themselves and with the monitored worker.

feedback is given to help a worker understand his or her actions, but it also serves to put a worker on notice that his or her effort or outcomes are being monitored. In addition, workers are, in general, “emotional beings” (unlike the just-selfish types), so positive feedback can be rewarding in itself, and negative feedback can be punishing (e.g. shaming). “Reporting” of observations to other workers represents an escalation of the process whereby information (possibly distorted) about a worker’s effort or results is passed on to workers who did not observe the monitored party’s actions directly. Reports typically go to a superior, but sometimes monitors report to a group of workers including the monitored worker. Reporting may also occur informally within social networks (“gossip” e.g., Burt and Knez 1996).

“Aggregation” of reports can serve to reduce noise and distortions during the information collection process. “Evaluation” of performance consists of using all the information to evaluate the relative merit or acceptability of the monitored worker’s actions/performance. “Reward” for performance (punishment, when negative) is the final step in the monitoring process. The evaluation determines what reward is deserved, while the reward stage implements this judgment. In a successful monitoring scheme, later stages of the full process may occur only rarely. For example, if feedback is given in a timely, fair, unbiased and honest fashion and heeded by the monitored workers, the remaining steps are unnecessary.

Successful monitoring does not simply hinge on having sufficiently altruistic monitors; humans are complex beings and subject to emotional influences and these emotions may be stronger precisely when people themselves strive to behave altruistically. In brief, the steps just outlined, while possibly simple in technical terms, are fraught with psychological difficulties. Manipulation is an important risk. So is unintentional distortion. The steps entailed in monitoring rely on advanced capabilities, such as the ability to accurately measure and compare performance and to distinguish among multiple possible sources of a given effect.

When inaccurate, monitoring may have deleterious effects on the monitored; they may become demoralized and dissatisfied or vengeful. More generally, the effectiveness of monitoring depends on how monitored workers react. Monitoring has greater likely positive effect, the greater the workers’ responsiveness to rewards and punishments such as praise, condemnation, and disciplinary action. If monitors (co-workers or supervisors) are not trusted, the monitoring process is likely to do more damage than good. Each step in the monitoring process needs to be carried out with sufficient consideration of potential undesirable impacts on the monitoring target. Systematic biases such as favouritism based on aspects of identity readily render the process ineffective.¹³

In sum, monitoring is a subtle and sensitive process. The characteristics of a cooperative’s membership play a major role in determining whether mutual monitoring is effective in motivating effort or instead generates friction and consequent problems that exceed those it was supposed to resolve.

3. Alternative worker types and their availability in ordinary labour markets

A just-selfish individual never trusts and is never trustworthy, does not consider fairness when making decisions, lies when it is expedient to do so, and so on. Such an individual need not be a monster, however: repeated interactions with others and the rewards and punishments associated with such interactions may constrain what the individual will do. In a well-structured organization, with guaranteed long-term

¹³ All these problems increase with the difficulty of monitoring and hence with the complexity of the work environment (which raises the asymmetry of information among co-workers and between superiors and their subordinates).

interactions, proper incentives and suitable monitoring crafted onto an environment that affords few opportunities for hidden action, just-selfish workers may be induced to work cooperatively, be trustworthy and be trusting of others in a manner almost indistinguishable from workers who are endowed with favourable social preferences. But, as we argued above, cooperatives are unlikely to generate sufficiently good outcomes with just-selfish workers to permit their survival.

Experimental economics has established that just-selfish individuals are in a minority. In this section, we characterize individuals in terms that are relevant to their behaviour in diverse contexts, with a focus on the workplace. Behavioural economists, working with a vocabulary that draws heavily on psychology, have focused on a number of characteristics and capabilities. We examine several social preferences, we discuss variations in their strength as a function of the identities of the interacting individuals and we explore capabilities that influence social interaction.

The principal social preferences include (a) altruism, (b) autonomy, (c) trusting, (d) trustworthiness and (e) inequity aversion. This list is not exhaustive, but the included preferences are correlated with preferences that we excluded, such as reciprocity (on which, see Sobel 2005 for a survey). The strength of these preferences varies with the context – work, social situations – and the identity of those with whom an individual interacts – co-workers, supervisors, management, financiers, the organization as a whole – as well as their specific identities.

The experimental economics literature has demonstrated that social preferences are important in economic as well as psychological terms. Evidence about the strength of social preferences is extracted from experiments, including many variants and manipulations on the dictator, *ultimatum* and trust (investment) games, to mention but a few. Virtually all experimental research finds considerable heterogeneity in social preferences across individuals (e.g., Andreoni and Miller 2002; Engel 2011; Johnson and Mislin 2011).¹⁴ Heterogeneity can be seen as the consequence of a very long process of evolutionary pressures as well as random mutations (Nettle 2006) as well as of events and situations during the lifetime of an individual, including upbringing, social influences and life experiences.¹⁵

Important variations in behaviour stem from the relationship between the identities of the acting individual and the identities of those with whom he or she interacts. Identity has many dimensions, including kinship, culture, political orientation, sports preferences, language, and ethnicity. The relative importance of the various dimensions of identity vary according to the context, but in most types of interaction, similarity between the identities of the interacting parties generates a more cooperative interaction than when identities are notably different.

The importance of identity for the expression of various social preferences has been documented in psychology, sociology and economics (for the latter, see, among others, Akerlof and Kranton 2005; Buchan, Johnson and Croson 2006; Güth, Levati and Ploner 2008; Hargreaves Heap and Zizzo 2009). These and many other papers highlight the favourable treatment individuals give to those with whom they are similar

¹⁴ Engel (2011), summarizing the results of 616 dictator game experiments, finds that on average subjects give away 28% of their endowment (in this game, one subject, in the dictator role, has an endowment that he or she can share in any proportion, including 0 and 1, with another subject). In the trust game, a participant in the role of trustor can keep the initial endowment for herself or share any amount of it with another person in the role of trustee who receives a multiple (commonly three) of what the trustor sent him, on top of her own endowment. Now the receiver-trustee decides how much to send back, if anything, to the initial sender-trustor. Johnson and Mislin (2011), in their analysis of 143 trust experiments, find that trustors sent on average 49% of their endowment and trustees returned on average 37% of what they received. For a discussion of distribution of some types in diverse communities around the world, see Henrich et al. (2005). Ben-Ner (2012) reviews experimental results to put bounds on the proportions of these types; see also Ben-Ner and Halldorsson (2010).

¹⁵ Most economic experiments are carried out with student subjects. Experiments with non-student samples obtain similar findings; field studies generally produce findings that are within the range of results obtained in the lab (Falk, Meier and Zehnder 2010).

on some dimensions and the more favourable interactions they have with them as compared to unrelated individuals. These relationships are particularly strong when the interacting parties consider themselves to be related through family, friendship and cultural ties (Ben-Ner, McCall, Stephane and Wang 2009). In other words, an individual may treat one person kindly and in a trusting manner but treat another person – a stranger – in a just-selfish manner.

The scope and quality of interactions of an individual with other individuals depends also on diverse capabilities. These include (a) self-control, (b) cost of effort and (c) cognitive abilities. Self-control primarily reflects the ability of an individual to persist in the pursuit of a goal while not giving in to short-term temptations that promise an immediate reward of a smaller magnitude than would be obtained by waiting.¹⁶ In interactions with others, self-control has many manifestations, including the ability to restrain oneself from actions that would satisfy short-lived emotions like anger. The cost of effort reflects the disutility that an individual experiences from various work-related activities. When the cost is very high an individual may be thought of as “lazy”, whereas a low-effort cost individual is “hard working”. Cognitive ability represents an individual’s ability to deal with complex problems, to think strategically and to adopt multiple perspectives.¹⁷ These capabilities, while important in all organizations, are particularly important in cooperatives, as we argue below.

4. Shirking and mutual monitoring: which worker types do better?

In a conventional firm, even one where workers operate in teams, the monitoring process is controlled by supervisors. Some actions, such as observation and reporting, may be delegated to workers, but management owns the overall process. In cooperatives, many monitoring actions are carried out by (or are under the responsibility of) workers who are on the same rung of the hierarchy and who are the very individuals whose shirking has to be curbed. A cooperative’s members collectively set their common organizational objectives and the means to achieve them. They set work and behaviour standards that advance the cooperative’s goals. The enforcement of work and behaviour standards is entrusted primarily to members themselves within and across their work groups through the mutual monitoring process described earlier. Some of the actions associated with mutual monitoring, particularly aggregation of individual reports, evaluation and the administration of rewards are commonly “delegated” to managers whose decision-making power can be recalled by members, either directly (in smaller cooperatives that practice direct democracy) or indirectly through higher-level bodies (a members’ assembly, an executive committee or a body they empower).

As argued earlier, all these monitoring-related actions are subject to the free-rider problem. A just-selfish member rarely engages in observation of others’ efforts and results in order to enforce the cooperative’s work and behaviour standards, because the personal costs typically exceed the personal benefits, which are much diluted in any cooperative with more than a few employees.

Standard personal costs include the effort and discretionary time, taken away from formal compensated duties, which must be spent watching and working out how to interpret others’ efforts and results (e.g.,

¹⁶ Muraven, Tice and Baumeister (1998). This translates into a high time discount, but psychologically it is a separate and more complex phenomenon.

¹⁷ Heckman, Stixrud and Urzua (2006) discusses cognitive ability and the effect of different abilities on behaviour in work situations.

distinguishing between shirking and honest mistakes) as well as time spent in the reporting and rewarding steps of the monitoring process. In addition, when workers are not just-selfish, mutual monitoring processes involve psychological costs and benefits. The two main categories of these additional costs are the psychic costs (emotional burden or embarrassment) of “telling on others” or directly “telling others off” and the psychic gains (satisfaction or sense of obligation) from “righting wrongs”. Meanwhile, the standard personal benefit arising from monitoring is the economic gain from enhanced effort of those who are successfully monitored, divided by the number of members sharing this benefit.

We are now ready to begin the discussion of identity; a sense of shared identity underlies the phenomenon of solidarity in cooperatives, which is in turn a major factor in the initial success of many cooperatives. The following subsections provide a more detailed examination of the social preferences and capabilities relevant to specific aspects of shirking and monitoring.

4.1. Identities conducive to less shirking and more effective mutual monitoring

Members who share important dimensions of their identities with most of their co-workers tend to exhibit solidarity with their co-workers and with the cooperative as a whole. They are less prone to exploit shirking opportunities and more prone to engage in actions that benefit the cooperative, such as providing help where needed. The experimental literature cited earlier is unequivocal on this matter: positive social preferences are stronger towards members of one’s own in-group as compared to members of out-groups. Cooperative members who consider themselves members of the same group will also be more willing and effective mutual monitors than otherwise (the group identity usually legitimizes some degree of mutual monitoring). In other words, they are more willing to invest in the monitoring process and more effective at providing informal praise and sanctions. These informal enforcements occur during the earlier steps of the monitoring process and are often more effective than the financial rewards and penalties that are used in later steps of the process.

As noted earlier, many cooperatives in the early stages of their existence are composed of members who share important identity attributes (ethnicity, language, ideology and more) which set them apart from others in the region or country.¹⁸ In such instances, mutual monitoring is embraced enthusiastically for the benefit of the cooperative, and economic success is generally attained. As Coleman (1990) has argued, people find it socially easier to sanction their friends for violating a norm, such as of high effort, if the consensus in their social group is supportive of that norm. In this regard, it helps if fellow workers also observe the violation so they can provide social support to the sanctioner. In addition, ostracism and social gossip (Merry 1984 and, for the organizational context, Burt and Knez 1996) become more effective and the risk of mistaken punishment falls. Furthermore, individual workers are less likely to shirk because of their altruistic attitude towards their co-workers, because trust is higher among friends and workers who regard each other as part of the same in-group (Fershtman and Gneezy 2001), and because loyalty rules out taking advantage of opportunities to pursue private interests at the expense of the cooperative.

However, in large cooperatives, identities, such as affiliation to a specific work group, may emerge as separate and to some degree conflicting with identity as a cooperative member. This is a particular concern when there is geographical separation of the organization’s units, especially when such separation

¹⁸ Numerous cooperatives were grounded in ethnic, cultural and linguistic groups, such as those of refuse collectors in San Francisco, taxi drivers in Los Angeles, barrel-makers in Minneapolis, factories in Mondragón and plywood producers in the US Pacific Northwest. Others, such as bus service operators and farmers in Israel before the establishment of the state, were united by ideology and ethnicity.

overlaps with other dimensions of identity such as cultural, ethnic and linguistic background. A conflicting identity is most likely and problematic when there are clear opportunities for a subgroup to take advantage of the rest of the cooperative (collective shirking), or to withdraw from a critical part of the mutual monitoring process that requires reporting evaluations to higher levels of the cooperative. The motive to sanction violators is usually strongest when the violator is from the same identity, because the violation can then threaten the sense of identity of other members. However, if the identity is not strongly tied to the cooperative and not directly supportive of the cooperative's production norms, as can be the case in large cooperatives with multiple identities, then solidarity among members of the same identity may lead them to be softer on each other than they would be with out-group co-workers.

These undesirable effects can be partially remedied through group-level rewards. Taxi cab, bus transportation, stores and other cooperatives with branches in different locations in different parts of the world appear to have been affected by such issues. Relatedly, the formation of identity-based factions tends to politicize the management of the cooperative's business. The problem is that under such identity configurations, shirking is not sufficiently curtailed and mutual monitoring not effectively executed.¹⁹ The literature on the consequences of factionalism (Costa and Kahn 2003) supports this perspective.

4.2. Social preferences conducive to less shirking and more effective mutual monitoring

Several departures from the just-selfish type, alone or in some combinations, can reverse the individual calculus to induce a member to engage in monitoring. Altruism may work in both directions. A selfish worker who cares very much about personal monetary returns will, *ceteris paribus*, be more likely to monitor co-workers in order to extract more effort from them than a less financially motivated worker. However, an altruistic member who cares about the cooperative's members will be more inclined to participate in personally costly mutual monitoring than a just-selfish member.

Shirking (pursuing private interests) reduces cooperative profit and hence all co-workers' earnings. Altruism has a clear positive impact on shirking, as it encourages each worker to forego the temptation to shirk in order to benefit others through profit-sharing.

"Inequity aversion" is a widespread social preference that concerns fairness of process and outcomes. It is particularly strong in the case of adverse inequality, where the individual concerned is on the adverse or lower side of the inequality (Fehr and Schmidt 1999). Inequality aversion is of great relevance to cooperatives thanks to its selection implications as we shall see in the next section. Here, we address its usefulness.²⁰

Workers who are more "inequity averse" are more likely to engage in mutual monitoring (for given levels of personal costs and benefits) because otherwise those who shirk end up with better outcomes than those who do not. By monitoring, a worker can prevent shirkers from getting ahead and therefore reduce the inequity. Experimental evidence reveals clearly that inequity-averse workers are more inclined than others to punish shirkers (see e.g., Gaechter, Renner and Sefton 2008). Second, inequity-averse workers are unlikely to shirk relative to the average. In this respect, they are "conditional cooperators": if others do not shirk, they too refrain from shirking (which would then create inequality), but if most others shirk, they

¹⁹ There is another aspect to the issue of identity heterogeneity: decision-making is slowed down by the diversity of opinions (Hansmann 1996).

²⁰ But recall that in section 2 we noted how inequality aversion can interfere with individualized incentives and is therefore not without its drawbacks from a standard economic perspective.

will shirk as well. The mutual monitoring effect may keep shirking at bay.

If sufficiently widespread in an organization, conditional cooperation and reciprocity, closely related to inequity aversion, may ensure a good, cooperative equilibrium outcome instead of an uncooperative equilibrium outcome (see, e.g., Fischbacher, Gaechter and Fehr 2001).²¹ Also beneficial in this respect is the maintenance of a reasonable degree of trust. First, trust matters if conditional cooperators must choose whether or not to cooperate before they know whether most co-workers will also cooperate. In this situation, an optimistic belief that others will cooperate can substitute for positive past evidence of cooperation among the group. So trusting workers are more likely to cooperate. Second, communication allows workers to commit to cooperating, so that, if enough workers are trustworthy, and enough others are at least conditional cooperators, cooperation becomes a likely outcome (trustworthy people tend to keep agreements, including collective decisions about standards of work and behaviour). Of course, workers who are more trusting may perceive less need to monitor their co-workers, but trustworthiness can counteract this problem if there is a collective decision to engage in mutual monitoring.

4.3. Capabilities conducive to less shirking and more effective mutual monitoring

We now turn to an examination of the role of various capabilities for shirking and mutual monitoring. Workers with greater capacity for self-control are better able to weigh the costs and benefits both of shirking and mutual monitoring because they are better able to resist the temptations of short-term gains. This is particularly relevant for workers with social preferences, who already have reason and ability to engage in less shirking and more mutual monitoring.

Furthermore, self-control in the sense of restraint plays an important role in preventing mutual monitoring from backfiring. Giving feedback and reporting observations that may be inaccurate or unnecessarily moralistic, or negative without being relevant, can create a hostile and demoralizing environment and fuel mutual suspicions. Indeed, while much experimental research supports the positive impact of punishment opportunities in team production, such as shown in Fehr and Gaechter (2000), recent work has identified the serious risk that those who are punished may respond by punishing the monitor responsible (see, e.g., Nikiforakis and Normann 2008). The problems are particularly serious when there are various forms of uncertainty; see, e.g., Bornstein and Weisel (2010), Abbink and Sadrieh (2009) where pointless feuds develop.

Similarly, emotional awareness is important to cooperatives. There is a need to channel emotions appropriately and this relies on good social skills. Empirical evidence in economics is not well developed, but Hopfensitz and Reuben (2009) show (using emotion questionnaires during an economic experiment) that punishment is valuable if it evokes shame and guilt, but not when it evokes anger.

A central role in shirking and mutual monitoring is played by the cost of effort born by a member from engaging in various activities. The lower the cost of effort required for work – for example, the more intrinsically motivated a worker is – the lower the tendency to shirk. It is likely that the cost of effort in one area is correlated with that in other areas. So some workers can observe other workers' effort and behaviour, make sense of the causes of a worker's outcomes and provide useful reporting at lower costs. In that case, lazy workers will shirk more and monitor each other less, whereas hard-working members will shirk

²¹ For a formal application of such a model of reciprocity to the case of team production with directed punishment (this is the second step in our mutual monitoring process – observation is for free in their analysis), we refer to the work by Bowles and Gintis (2004). Carpenter, Bowles, Gintis and Hwang (2009) provide related empirical evidence that emphasizes the need for moderate unconditional altruism in conjunction with negative reciprocity.

less and will be willing to control each other's behaviour more. High effort-cost workers are potentially problematic to a cooperative.

Greater cognitive ability often reduces effort costs, but it may enhance a worker's ability to shirk in that he or she will be better able to take advantage of asymmetric information and more able to act opportunistically. For monitoring, these risks are lower, since cognitive ability that improves the ability to observe, evaluate and make sense of observations is a benefit and the strategic possibilities are lower (given that sophisticated manipulation of monitoring is hard to practice in an environment with many monitors). Moreover, given the serious problems from erroneous or "unfair" monitoring, an ability to distinguish between errors and intentional neglect associated with shirking is generally very valuable to a cooperative.

We started this section noting that mutual monitoring is based on collective agreement and understanding what and how cooperative members want to achieve. The "what and how" can be reached only through extensive discussion among members. Communication is independently important to the monitoring process; in particular, to find out what problems occurred and to pass on the information to others. However, in strategic contexts, where individuals who interact care only about their payoffs and do not have any social preferences, communication is just "cheap talk".²² Communication that leads to actionable, even if not enforceable, agreements (of the kind that cooperatives require for their existence) is more effective, the more altruistic, trusting and trustworthy the parties are towards each other. Good communication skills are, of course, a valuable complement.

We can now draw the profiles of workers who are less likely to engage in shirking, and who are more likely to be effective mutual monitors. A member who is not excessively trusting of others but is himself or herself a trustworthy person, averse to inequities and concerned with the wellbeing of co-workers and the cooperative at large, is a reliable cooperative monitor, and has less tendency to shirk. Such a person is an ideal cooperator, but is not the only type that can be a good cooperative member. Inequity aversion (and other variants of reciprocity) can lead to sufficiently sharp monitoring to limit shirking by less than ideal co-workers. Hard workers are, of course, ideal, but self-control can substitute to some degree for a strong motivation to work.

5. Self-selection, selection and the development of cooperative members for sustainability

The identities, social preferences and capabilities of the workforce of an organization arise out of three sets of processes: self-selection of workers seeking to join or stay in the organization, selection and retention of workers by the organization and motivation, training and development of existing workers. In this section, we discuss self-selection to a cooperative by individuals drawn from a labour market with heterogeneous worker types, we evaluate selection mechanisms that help ensure that suitable workers are recruited and we examine how a cooperative can shape members' preferences to reduce shirking and support mutual monitoring.

²² Cheap talk refers to situations when the choice of message has no direct impact on the material payoffs of the message sender – talk is cheap.

5.1. Self-selection of workers into cooperatives

The key features of cooperatives that distinguish them from conventional firms in the same industry are shared control and shared profits. There are several derived features that arise from the specific organizational features of cooperatives, including participation in collective decision-making, the various actions involved in mutual monitoring, muted individual incentives and egalitarian distribution of pay. These varied features are more attractive to certain types of workers than to others.²³

We begin with shared control. Workers who enjoy a sense of community, enhanced co-worker interaction, job stability, relative autonomy from supervisors (Ryan and Deci 2000) and egalitarianism (those who are inequity averse) will be drawn by these features. Such workers may have stronger concern for others – often, specifically for members of their in-group, or more broadly, the cooperative. So altruistic workers or workers who enjoy the experience of solidarity (these may be conditional cooperators) are likely to be attracted to cooperatives. Similarly, workers who value shared control rights, perhaps because they value autonomy, naturally self-select to work in cooperatives. In addition, workers who value autonomy may not fit well in conventional firms where they will respond poorly to standard incentives (see, e.g., Frey and Jegen 2001, on the phenomenon of “crowding out” intrinsic motivation, which builds on the ideas of Festinger 1957); see Bartling, Fehr and Herz (2012) and Fehr, Herz, and Wilkening (2013) for clear experimental evidence on preferences for autonomy.

On the reasonable assumption that valuing equality implies a preference for compressed compensation schemes, egalitarian workers will also tend to value profit sharing. This in turn suggests the attraction of inequality-averse workers to cooperatives. This is valuable for cooperatives, given our argument in section 4 that inequality aversion is a good motivator of mutual monitoring. Related to this, Jirjahn and Lange (2012), using questionnaires related to the attraction of students to working in a firm with a works council, find that negative reciprocators (the type of reciprocity in which unkind acts from others get punished) are attracted to firms with worker participation in decision-making, because they enjoy punishing. This is not theoretically guaranteed, because negative reciprocity can merely serve to evade a psychic loss (rather than generate pleasure); in conventional firms, the lack of profit-sharing may leave workers immune to slacking by co-workers. Nonetheless, for a given loss from slacking by colleagues, reciprocators value the opportunity to respond by punishing these slackers.

While the compressed wage distribution is valuable for self-selection of the inequity averse, it also has a notable drawback. Workers who expect to benefit from a relatively loose connection between effort and compensation will be attracted by the highly compressed wage distributions that characterize cooperatives. There are two types of workers in this category: the “lazy” (who have a high cost of effort) and the low ability. Both can expect higher compensation than in a conventional firm that pays salaries that are closer to each workers’ marginal product. The flip side of this point is that the most capable and energetic workers will choose to work elsewhere if they choose on personal material grounds; that is, the best workers may self-select against working in a cooperative. In economic terminology, the cooperative is at risk of suffering from “adverse selection” in this respect: worker self-selection has adverse consequences for the cooperative. Burdin (2013) finds some evidence that high-ability workers are faster to quit than low-ability workers in cooperatives in Uruguay.

Phillips, Gully, McCarthy and Schurman (2012), using questionnaires related to the attraction of

²³ Self-selection by employees into non-profit and public organizations relative to for-profit firms presents an issue related to that discussed here. For example, Handy and Katz (1998) model the possibility that below-market wages, common for managers, attract intrinsically motivated employees into non-profit organizations. See also Ben-Ner, Ren and Paulson (2011); DeVaro and Brookshire (2007); Rose-Ackerman (1996) and Prendergast (2007).

students to working in a employee-owned firm, find that individuals with high self-esteem and high ability are attracted to employee-owned firms, whereas individuals with high self-esteem but low ability are not attracted to such firms. This study is preliminary but the line of inquiry can be very helpful in informing about the issue of self-selection into cooperatives.

Trusting and trustworthiness may serve as a basis for favourable self-selection by workers into cooperatives because there is a heavier dependence on the social preferences of their colleagues compared to a conventional firm. However, opportunistic and cunning workers may seek to join cooperatives in the expectation that they will be able to take advantage of trusting and trustworthy members, usually by free-riding.

In summary, cooperatives attract a mix of worker types, some of whom have characteristics that are desirable in any organization (trustworthy), some with characteristics that are especially desirable in cooperatives (trusting, egalitarian, sociable, reciprocal and altruistic),²⁴ and some types that are not wanted anywhere and can be particularly damaging in cooperatives (lazy and low ability). The exact composition of this mix depends on the composition of the labour market from which a cooperative draws its workforce, and on how the cooperative came into existence.

The problem of adverse selection has not been significant during the birth and early stages of many cooperatives. In some environments there are many altruistic-solidaristic types; this was the case in the small Scandinavian immigrant communities in the rural US Pacific Northwest that gave birth to the plywood cooperatives, as well as for the ethnically and religiously homogenous, tight-knit and politically unified community of the rural and (at the time) isolated part of the Basque country that gave rise to the Mondragón cooperative.²⁵ These types of workers, often also egalitarian, trusting, trustworthy and reciprocal thanks to their common roots, could support a cooperative without succumbing to the free-rider problems identified earlier and could overcome the costs imposed by entry of some lazy or low-ability types who could not be separated from the rest or were tolerated (or even supported, in the case of low ability). With membership comprised primarily of the valued types of workers, there was enough cooperative élan (which, in our terms, means unselfish willingness to work for the good of the cooperative) to overcome the free-rider problems highlighted earlier, and in fact to support higher productivity than in comparable conventional firms.

As we argued in the introduction, the pool of current and potential cooperative workers is often much better in the heady formative days of the cooperative's life cycle.²⁶ The early environment may last for years or decades but not forever. New members may draw from a different distribution of types than that of the founders. Most populations include some, often a significant minority, of just-selfish individuals, as well as many types with differing degrees of trusting, trustworthy, reciprocal, altruistic, selfish and other characteristics. Selection is then a serious issue.

As just shown above, far from being a magnet for the most desirable types in a community, a cooperative may attract both "good" and "bad" types. In environments where the pool of potential workers is not especially good, the entry of "bad" types may cause some of the more cooperative types to leave, or even

²⁴ At the managerial level, conventional firms value trustworthy types, but cooperatives have a higher value for trustworthiness in general since workers typically have more discretion in cooperatives.

²⁵ There are numerous other examples that share some of these basic characteristics, such as early Italian cooperatives, the founding generation of the kibbutzim and the Amana colonies in Iowa in the 19th century.

²⁶ The case of cooperatives formed through employee buy-out of a conventional firm is often different. There, the founding workers were not attracted to a cooperative per se; rather the new form may be adopted out of expediency and under economic duress. Nonetheless, the process of change can be transformative for those involved and economic duress can initiate a change in outlook – witness, for instance, the recent trend of takeover by workers of firms that experienced bankruptcy or other forms of extreme financial difficulties in Argentina and elsewhere (so-called *empresas recuperadas*).

to adjust their behaviour and preferences to those of the self-interested ones (Ben-Ner and Ellman 2012). The composition of a cooperative's workforce may further worsen with the retirement of initial cooperative members. If unchecked, this can lead to the slow demise of the cooperative, or force the cooperative to take corrective action. Thus, despite the presence of positive as well as adverse selection effects, a reliance on self-selection into cooperatives as the principal way of recruiting new members may in general be hazardous to longer-run sustainability.

5.2. Selection and retention of workers by cooperatives

Faced with the potential for significantly damaging adverse selection, cooperatives have to take extreme care in the processes of attraction and selection of new members and in the retention of old members. Cooperatives, more than conventional firms, need to avail themselves of screening mechanisms that allow them to identify candidates who represent limited shirking risks and will support mutual monitoring. Specifically, they need to screen out just-selfish workers from sufficiently trusting, trustworthy, reciprocal and group-regarding workers; lazy workers from hard-working ones and low- from high-ability workers. There is no clear evidence to suggest that just-selfish individuals are hard working or lazy, or high or low in ability or self-control. So the task of screening cannot focus on just one attribute. Screening must address all the important preferences and capabilities discussed in sections 3 and 4. Furthermore, as we will argue in the next subsection, some workers have a greater capacity to change their preferences and capabilities; hence screening candidates for membership should take account, not only of current attributes, but also the flexibility for future change.

Business firms use a number of screening practices, including interviews; tests of technical skills, cognitive and social abilities and aptitudes; personality inventories and behaviour tests, as well as screening for illegal activities. These practices are rarely aimed at assessing any of the social preferences that are central to mutual monitoring, although some personality and behaviour tests do tap into candidates' ability to work in groups, their optimism, self-control and motivation (for material gain, public service, creativity and so on). These latter tests are possibly related to the social preferences relevant to mutual monitoring, but we know of no research that properly validates such relationships. Certainly, the conventional selection instruments are better designed for identification of low- and high-ability workers and to some extent hard-working versus lazy workers and various dimensions of self-control.²⁷ This is important to cooperatives, but cooperatives also need to apply screening methods oriented towards their specific organizational needs. They must go beyond the predominantly task-oriented instruments of conventional firms if they are to select candidates for cooperative membership who can contribute to the cooperative's sustainability.

We do not think it feasible to directly test candidates for the social preferences studied in behavioural economics that are relevant to successful mutual monitoring. It is very hard to conceive of circumstances that would permit the administration of the battery of economic experiments needed to identify an individual's social preferences (in any case quite imperfectly). For one thing, economic experiments require anonymity in order to elicit participants' true preferences and this would defeat the whole purpose. Moreover, respect for candidates would require the cooperative to explain the purposes of such experiments and this (or strategic investigation) would allow cunning, just-selfish candidates to misrepresent their preferences in order to get hired as if they were desirable cooperative members.

²⁷ For a textbook survey of selection instruments, see Gatewood, Field and Barrick (2008).

So what should cooperatives do?²⁸ Given the current state of screening and selection instruments, cooperatives should rely on a deliberate search for candidates who have at least several, if not quite all, the attributes discussed in the previous section. In view of the observation that founders and early members often have the requisite attributes, they (or a subgroup of them, depending on their numbers and the size and growth needs of the cooperative) should form an on-going search and screening committee, to which newer members who have proven themselves as good cooperators would be added. This committee would identify the most important attributes of good cooperators in their context and use this to evaluate all candidates with care. In larger cooperatives, candidates identified as good cooperators would be recommended to selection committees constituted to make the final choices for particular job categories or work groups.

If a cooperative has a reliable workforce already and needs to expand, selection via the social network of existing workers is particularly effective (Granovetter 1995; Casella and Hanaki 2008; Montgomery 1991 and especially McPherson et al. 2001). The body of research on employee networks shows that workers tend to refer candidates who are similar to themselves. So referrals from good cooperators are likely to work well. In addition, selecting candidates who are socially connected to current cooperative members is a good way to enhance the chances of mutual concern among members. These practices, however, may conflict with other objectives that a cooperative may have, such as the promotion of diversity as a social goal or for the purpose of enhancing creativity.

Most organizations have a probation period before new hires can become regular employees. This is true even in organizations that retain the right to fire employees at will and the probation period is longer when relevant worker attributes are slow to emerge or readily faked (over short periods). Probation is particularly lengthy, measuring years rather than months, in settings where firing is difficult, as for academic tenure, or impossible, as in many partnerships. In cooperatives, membership is often untouchable, making it impossible to fire a member. So probation should be correspondingly lengthy. In addition, while for many industries task-related capabilities emerge fairly soon after a worker joins the cooperative, important social preference attributes and effort costs are harder to identify and subject to faking. A long trial period may allow the cooperative to gather information about these attributes. Since judgment on these attributes is often coloured by subjective opinion, a candidate for membership should rotate among several work groups in order to obtain more independent assessments.

The costs of attraction and selection of new members – the costs of turnover – are generally quite high.²⁹ In a cooperative, the costs tend to be higher given the greater involvement of the average worker in a coop relative to a conventional firm. Cooperatives are therefore wise to invest in identifying candidates who are likely to be good cooperators and also to want to stay.

5.3. Development of cooperative preferences, values, norms and culture

Cooperatives and cooperative movements are generally well aware of the usefulness or necessity of a “cooperative spirit” and “solidarity” among their members. While some cooperators are probably born as cooperators, most people’s behaviour depends on their environment and they may evolve into cooperators

²⁸ As for what cooperatives actually do in cases where they post hiring documents, our informal Internet search suggests no clear distinction between their selection instruments and criteria and those of conventional firms.

²⁹ The total cost of turnover includes separation costs, replacement hiring costs, training of new hires and lost productivity and business costs. In conventional firms, the per capita cost of employee turnover is estimated to be 90%-200% of an employee’s annual compensation (Cascio 2006).

if the circumstances are propitious. Cooperatives therefore seek to foster a cooperative spirit and mutual feeling in a number of ways. Many cooperatives hold numerous social events at and outside work. These often include family members and aim at creating a sense of togetherness, common identity, trust and mutual care.

Linking in to the local community may also help the cooperative adapt existing social norms in support of cooperation within the cooperative. In addition, a wider awareness of the cooperative's values and practices sometimes helps enhance the social "rewards" that motivate good cooperators and the social penalties that dissuade shirking.

Social events also provide educational opportunities that enhance members' general human capital, including the ability to participate in various decision-making capacities.

No less important is the adoption of the cooperative spirit and immersion into the cooperative culture that has been established by founders and early members of the cooperative. To facilitate the socialization of new members who might hold different values, cooperatives should take in only a few new members at a time.

Ellman and Pezanis-Christou (2010) show that control rights can increase workers' perceived ethical responsibility for what their firm does. While this and related papers focused on productivity are conducted in a static environment, it is plausible that the experience of responsibility can lead to changes in social preferences. The participatory institutions of cooperatives are conducive to debates and deliberation in which workers have to learn to take each other into account. Initially, people may only try to understand others in order to achieve a strategic goal. However, the evidence on self-serving bias (see, e.g., Babcock and Loewenstein 1997) shows how simply adopting the perspective of others can reduce self-serving tendencies. In addition, listening to others and the need to express one's views in public can also lead people to challenge themselves and adopt more other-regarding attitudes which will manifest themselves as a change in preferences.

Deliberation and the need to reach agreements may foster common norms and standards of behaviour. Studies of leadership in conventional firms find that a leaders can nourish an organizational culture by ensuring, in part by example, that trust and reciprocity are practiced widely (Kreps 1990). Coaching is now widely used in conventional firms to facilitate workers' development within an organization, especially interpersonal effectiveness and trust. Coaching is particularly valuable to cooperatives given the heightened importance of group norms and interpersonal relations at all levels of the organization. In a bona fide cooperative, trust is easier to build and to sustain because extensive sharing of control and profits provide fewer incentives to breach it.^{30,31}

6. Conclusions

In situations where joint production makes it impossible to identify individual contributions separately from each other, central monitoring by a financially motivated manager can help induce high levels of effort from workers. Cooperatives, being unable to appoint such a central manager-owner, cannot induce

³⁰ The Trustworthy Leader Institute suggests practical measures leaders can take to promote trust in their organizations, with a particular emphasis on the opportunities available to employee-owned firms (<http://www.trustworthyleader.org/>).

³¹ There is a flip side to this. Ben-Ner and Ellman (2012) investigate how preference changes may move in the opposite direction. They focus on the problem of reliance on individual incentives and how that may contribute to the erosion of workers' social preferences in the direction of just-selfishness.

reasonable levels of effort from their members if members are just-selfish individuals. As a result, shirking will prevail and will endanger the economic stability of cooperatives. Several fixes have been proposed for this problem, of which mutual monitoring by cooperative members is the most relevant. Monitoring includes several steps: observation, feedback, reporting, aggregating reports, evaluating performance and rewarding and punishing. Many of these steps are costly to the workers who must carry them out, yet the benefits to monitoring are distributed across the whole cooperative. We have argued that just-selfish workers have insufficient incentives to engage in mutual monitoring and will shirk on their monitoring responsibilities just as they will shirk on their direct work responsibilities. The solution to this conundrum is to hire workers into the cooperative who are not just selfish but possess certain identities, social preferences and capabilities that lead them to shirk less and monitor better than just-selfish workers would. Getting the right workers into cooperatives and maintaining a supportive environment is the key to cooperatives' sustainability.

There are no easy fixes to the problems of shirking and mutual monitoring. However, the processes and procedures that we propose in this paper are feasible, and many are being used by cooperatives. The paper offers cooperative practitioners a theoretical guide (rather than specific canned solutions) concerning the nature of problems that may afflict a mature cooperative, and what feasible solutions may work while – and for the purpose of – retaining the cooperative character of the organization. The paper also identifies solutions that do not serve sustainability well. Cooperative members intent on preserving the cooperative nature of their organizations must be aware of these problems, especially when shaping or reshaping the institutional features of their cooperative.

Are cooperatives for everybody? Our analysis suggests that this is not feasible, at least in cooperatives that operate with production technologies entailing joint production. But as our review of the distribution of social preferences and capabilities indicates, there is a large proportion, most likely a majority, of individuals who have what it takes to be productive cooperative members, at least under propitious circumstances, and many more have the potential to become such members through experience within a cooperative that adopts deliberate measures to foster appropriate preferences.

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