



Paper to be presented at the DRUID Academy Conference 2017 at University of Southern Denmark, Odense, Denmark on January 18-20, 2017

## **Can Social Enterprises Use Incentives Effectively?**

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### **Abstract**

Can Social Enterprises Use Incentives Profitably? Theodor Vladasel, tv.l.ino@cbs.dk, Department of Innovation and Organizational Economics, Copenhagen Business School, enrolled October 2014, expected final date October 2018. State of the art. The rise of the social enterprise as a viable organizational form has not been accompanied by a similar increase in empirical documentation of either its existence rationale (Besley and Ghatak, 2015) or its functioning (Dacin et al, 2011). The latter is crucial, since this hybrid organization is constantly struggling to define its identity, caught in the tension between its economic and social logics (Pache and Santos, 2013). We define a social enterprise as a firm having both a (measurable) profit and a (non-measurable) social objective, (generating a multi-tasking problem, Holmström and Milgrom, 1991), in combination with a workforce of agents that either i) are intrinsically motivated for the social objective (Besley and Ghatak, 2005; Nellas and Reggiani, 2015), or ii) belong to groups with disadvantaged labor market positions and potentially uncommon preferences (Battilana, 2015). Research gap. As many social enterprises

face difficulties in meeting their economic goals, we attempt to address the interaction between an organization's identity, the workers it attracts, and its ability to incentivize them. Specifically, we ask: do social enterprises attract employees with strong social preferences, and does this put social enterprises in a unique position to solve the multi-tasking problem, allowing them to capitalize on sources of untapped market potential? Theoretical arguments. Labor market sorting has been acknowledged in many dimensions, including social preferences (Lazear et al, 2012). In our model, employees with the strongest social preferences join non-profits and do not respond to financial incentives; similarly, employees with low social motivation select into for-profits, and incentives for economic output redirect all their effort towards the remunerated task (the classical multitasking problem). Workers with relatively high social motivation join social enterprises and gain utility through mission match. While social enterprises routinely complain they cannot focus their employees on the economic tasks, we suggest they could increase the steepness of the financial incentives, as highly socially motivated agents face a lower cost of effort on the social task, which results in a lower indirect crowding out of social effort. Hence, financial incentives can redress the original effort allocation distortion. Methods. We test our propositions with a set of experiments. We assess the importance of sorting by comparing students randomly allocated to for-profit/non-profit/social enterprise contracts with students selecting their preferred contract. We expect sorting to increase total (real) effort. As incentives in the social enterprise contract are steepened, we expect a significant increase in effort along the economic task, and a smaller relative decline in the social task. We complement this with a lab-in-the-field experiment, where real-life employees are subjected to a similar design, exploiting their revealed preference (for a specific organizational form). We also assess whether having disadvantaged workers hampers the application of incentives. Finally, we test our experimental results in a field experiment with a large social enterprise, whereby we increase the incentives in a random subset of branches, with the expectation of higher subsequent profitability. Results. The experiments will be performed in early 2017. References Besley, T., and Ghatak, M., 2005. Competition and Incentives with Motivated Agents. *American Economic Review*, 95(3): 616-636. Besley, T., and Ghatak, M., 2016. Profit with Purpose? A Theory of Social Enterprise, *American Economic Review*, forthcoming. Battilana, J., Sengul, M., Pache, A.-C., and Model, J., 2015. Harnessing Productive Tensions in Hybrid Organizations: The Case of Work Integration Social Enterprises, *Academy of Management Journal*, 58(6): 1658-1685. Dacin, M.T., Dacin, P.A., and Tracey, P., 2011. Social Entrepreneurship: A Critique and Future Directions, *Organization Science*, 22(5): 1203-1213. Holmström, B., and Milgrom, P., 1991. Multitask Principal-Agent Analysis: Incentive Contracts, Ownership, and Job Design, *Journal of Law, Economics, and Organization*, 7: 24-52. Lazear, E.P., Malmendier, U., and Weber, R.A., 2012. Sorting in Experiments with Application to Social Preferences, *American Economic Journal: Applied Economics*, 4(1): 136-163. Margolis, J.D., and Walsh, J.P., 2003. Misery Loves Companies: Rethinking Social Initiatives by Business, *Administrative Science Quarterly*, 48(2): 268-305. Nellas, V. and Reggiani, T., 2015. Multitasking in Motivational Jobs, Working Paper. Pache, A.-C., and Santos, F., 2013. Inside the Hybrid Organizations: Selective Coupling as a Response to Competing Institutional Logics, *Academy of Management Journal*, 56(4): 972-1001. The paper is available from the authors upon request and will be sent directly to the discussants by e-mail at the beginning of January.

# Can Social Enterprises Use Incentives Effectively?

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January 13, 2017

## 1 Introduction

With a growing share of employment and turnover, social enterprises have become an established hybrid organizational form, combining the commercial and social goals that traditionally characterize for profits and non-profits (Dacin et al., 2011). While the ability of the latter types of companies to attract and stimulate workers has been extensively documented, social enterprises' human resource policies have attracted relatively little attention (Battilana and Dorado, 2010; Besley and Ghatak, 2016a). Given the inherent tension between these social and economic institutional logics, social enterprises have reported difficulties in attracting talent and directing employee effort towards revenue generation rather than social impact. Yet, most organizations of this form avoid the use of incentives.

One reason for social enterprises' reluctance to deploy financial incentives is given by the original multitasking problem: if the employee must perform two tasks, but performance can only be accurately measured on one – in this case, revenue generation –, managers should not use incentives, lest the employee's attention be focused solely on the rewarded task (Holmström and Milgrom, 1991). The classical solutions are to separate jobs, which social enterprises sometimes do (Battilana et al., 2015), or to dispose of performance pay. We contend, however, that social enterprises may be in a unique position to tread the fine line between competing logics by screening employees with matching social preferences. We thus ask a simple question: could social enterprises employ financial incentives effectively, without generating 'mission drift'?

As Battilana and Dorado (2010) also remarked, employee recruitment and socialization are key elements of making hybrid models work, alongside building a consistent organizational identity (Pache and Santos, 2013; Santos et al., 2015). To add conceptual clarity regarding the hybrid nature of social enterprises, we define them as enterprises having both a profit and a social objective (Besley and Ghatak, 2016a), in combination with a workforce that satisfies at least one of the following two characteristics: agents are intrinsically socially motivated (Besley and Ghatak, 2005) or belong to groups with disadvantaged positions in the labor market and potentially uncommon sets of preferences (Mongelli et al., 2013; Battilana et al., 2015).

This project aims to enhance our understanding of the use of incentives in the landscape of private sector organizational forms, as incentives affect both the selection into organizations as well as behavior or effort levels within organizations (Bénabou and Tirole, 2016). While most research focuses on employee selection into for-profits and non-profits (see, e.g., Barigozzi and Burani, 2016), we argue for selection into for-profits, non-profits, and social enterprises, based

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mainly on social motivation, similar to Besley and Ghatak (2016a). Given this sorting, we posit that increasing financial incentives in social enterprises should increase effort along the economic dimension, without harming effort along the social dimension to a large degree, i.e. total effort increases and the allocation is gradually tilted towards the economic goal.

We model employees that attach different weights to social outcomes – reflected in their cost of effort –, and gain utility from mission match with their preferred company (Akerlof and Kranton, 2005). Hence, the least (most) socially motivated individuals join for profits (nonprofits), while individuals in between join social enterprises. Conditional on joining a social enterprise, increasing financial incentives should redirect motivated agents' effort towards the measurable and remunerated task, but they would still exert effort in the unmeasurable task given their lower relative cost of effort in this direction (Schnedler, 2008). Of course, raising financial incentives too much may eliminate agents' utility from mission matching and re-shuffle employees between organizational forms.

To investigate the potential for social enterprises to use incentives, our experimental design allows us to see how the introduction and steepness of financial incentives affects the sorting of individuals into companies and their total effort (the relative importance of these two elements is also analyzed by, e.g., Cadsby et al., 2007); importantly, we also observe the effect of incentives on effort allocation, which has not been previously assessed. We conduct three experiments. The first experiment uses final year students at the University of Amsterdam to study sorting patterns. We measure their ability and social motivation beforehand and then randomly allocate individuals in the control group to three contracts (corresponding to for profit, non-profit, and social enterprises), while individuals in the treatment group can select into their preferred organizational form. Individuals have to allocate effort between two different (economic and social) framings of an online real effort task. We then vary the social enterprise incentive structure to check how it affects sorting and assess the conditions under which 'social enterprise workers' are amenable to performance pay.

The second experiment uses a different subject pool: real employees from for profits, nonprofits, and social enterprises of similar age and size play a series of multitasking games with increasing financial incentives. We take sorting as given (i.e. employees have already revealed their preferences), and expect that effort distortion is far more muted for social enterprise employees than for non-profit and for profit employees. The benefit of this experiment is that it offers a stringent test of external validity, allowing us to also examine the implications of the particular mix of social enterprise employees for the introduction of incentives. Finally, in order to test the real-world applicability of our findings, our third experiment is a field experiment with a social enterprise from the Netherlands, in which we manipulate the intensity of incentives in treatment branches and assess their impact on performance.

This series of experiments contributes to the literature in several ways. First and foremost, we bring arguments related to the intrinsic motivation of employees, as well as their identification with the company's hybrid identity, into the traditional arena of multitasking models. We thus respond to Besley and Ghatak's (2016a) call for empirical analysis of sorting

and effort choices under different organizational designs. We are able to document the traits that employees need to have for social enterprises to avoid tensions arising from competing institutional logics, and provide some guidelines for social enterprises to pursue human resource policies. It is not enough for social enterprises to attract employees without prior experience with either institutional logic and then socialize them, but to seek out employees with a specific level of social motivation.

The remainder of this paper is as follows. In Section 2 we outline the strands of literature closest to this paper, and use them to develop our theoretical framework and hypotheses in Section 3. We present our experimental designs in Section 4 and Section 5 describes our results. In Section 6 we discuss several reasons for why results may differ from our theoretical predictions. Section 7 concludes.

## **2 Related Literature**

This paper makes use of arguments stemming from several literature strands to make the case that social enterprises could effectively employ financial incentives. Below, we briefly discuss the literature on social enterprises, remuneration and sorting, employees' prosocial behavior, and useful theoretical and experimental results in multitasking settings.

### **2.1 Conflicting Goals in Social Enterprises**

Social enterprises are enterprises with stated economic and social goals, or a double bottom line (Dacin et al., 2011). While this type of firm may capture some of the benefits associated with the call for companies to be socially beneficial (Margolis and Walsh, 2003), it is unclear when they would be preferred to for-profits or non-profits. Baron (2007) suggests that, if personal giving and corporate giving are not substitutes, social enterprises manage to strategically bypass the market for control that would limit for-profit companies' ability to engage in corporate social responsibility practices. Their investors are a selected group with weaker preferences for profit maximization, which then allows the company to pursue a social objective.

More recently, Besley and Ghatak (2016a) suggest that founders and managers of companies have preferences on the continuum between profits and social goals: founders with very low social motivations require managers to seek profits and establish for-profits, founders with very high social motivations require managers to follow only social considerations, while for founders with moderate social motivations, social enterprises are the most appropriate organizational form. While we make use of some of their results, there is a major difference between this paper and Besley and Ghatak (2016a) in the manner in which the social goal is reached. In their formal model, the social payoff is only an externality from the production of the private good or service, and effort becomes one-dimensional. In contrast, our framework suggests that social payoffs may be generated independently of revenue; this places our analysis in the domain of multitasking models, where both total effort and effort allocation are important

(Holmström and Milgrom, 1991). In addition, our analysis extends to more rank-and-file employees, who (according to social enterprise representatives) tend to focus excessively on social impact, at the expense of financial sustainability.

The central tenets of our framework are supported by qualitative and quantitative evidence. Battilana and Dorado (2010) show that loan officers in commercial microfinance organizations must balance loan size, interest rates, and potential profit with ensuring the target population is reached. In studies of social enterprises operating within the domain of work insertion, Tracey et al. (2011), Pache and Santos (2013), and Battilana et al. (2015) show that employees must be able to ensure both financial profitability, and the skill development of workers. In a study of Belgian social enterprises, Stevens et al. (2015) show that high other-regarding values of managers direct attention towards social goals, while profit orientation and the lack of slack resources distract attention from social goals. This tension implies multitasking provides a useful conceptualization, although we recognize the diversity of the social enterprise landscape (Dacin et al., 2011).

Evidence on incentives in social enterprises is quite limited, although anecdotal evidence suggests that incentives are either missing or extremely low powered, and that it is sometimes difficult to elicit effort on the economic dimension (RippleWorks, 2016).<sup>2</sup> One reason could be the classic solution to the multitasking problem posed by Holmström and Milgrom (1991): incentivizing the measurable dimension completely shifts the focus of the worker, distorting the effort allocation away from the unmeasurable task. However, our framework suggests that motivated agents in social enterprises may exert too much effort on the social dimension, and incentives correct for this deviation from the optimal allocation.

## 2.2 Incentives and Sorting

Incentives affect both effort levels and the sorting of individuals into companies (Lazear, 2000; Cadsby, 2007; Bénabou and Tirole, 2016).<sup>3</sup> The latter effect has been shown to take place along multiple dimensions: skills, risk aversion, relative self-assessment, and gender (Eriksson and Villeval, 2008; Dohmen and Falk, 2011; Larkin and Leider, 2012; Bartling et al., 2012; Bandiera et al., 2015). In a field experiment with elite software developers, Boudreau and Lakhani (2011) show that, even conditioning on ability, individuals have preferences over institutional environments, i.e. the presence or absence of competition. In our framework, we rely on intrinsic social motivation as the driver of matching. In a seminal contribution, Besley and Ghatak (2005) define employees motivated by company mission as ‘motivated agents’ and show that the same

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<sup>2</sup> By contrast, compensation in for-profits has been widely studied. Compensation in non-profits has also attracted substantial attention, and most studies find lower promotion opportunities and weaker incentives in non-profits relative to for-profits (see, e.g., DeVaro et al.; 2016, and references therein).

<sup>3</sup> We abstract here from public sector jobs, by assuming that individuals sorting into the public sector have ‘policy-oriented preferences’ (Prendergast, 2007) or ‘public service motivation’ (Francois, 2000). It is, however, possible that these individuals share some social preferences with those who select into non-profits or social enterprises, but may not believe public office is able to solve social problems. For additional discussions of selection and incentives in the public sector, see also Delfgaauw and Dur (2008).

level of effort can be achieved with lower incentives; however, if firms compete for motivated employees, the latter are able to extract higher rents (Besley and Ghatak, 2006).

With regards to social preferences, Lazear et al. (2012) find that sharing behavior in the lab is strongly influenced by the option of selecting into an environment where sharing is possible. Individuals can then be classified as “willing sharers”, “non-sharers”, and “reluctant sharers” – it is this latter category that is most responsive to the possibility of opting in/out: if the sorting option is not available, they are likely to feel pressured into giving (and giving relatively large amounts) in a dictator game. This parallels the sorting mechanism we posit: most individuals put little value on social outcomes and select into for-profits, willing sharers with strong social preferences select into non-profits, and the rest into social enterprises.

Evidence for sorting on social motivations is also shown in Lagarde and Blaauw (2014), as socially motivated nurses are more likely to serve underdeveloped rural areas in South Africa, while Cabrales et al. (2010) show that agents display substantial heterogeneity in their levels of inequality aversion, and tend to choose contracts offered by principals with similar social preferences. The latter result is also linked to the notion that agents prefer to work in an environment that matches their ideal, thereby increasing their utility through an element of identity (Akerlof and Kranton, 2005). In our context, this identity utility is likely to be generated through alignment in the social orientation of the company and the employee and is important for sorting. The next section details results evidence in this direction.

### **2.3 Prosocial Incentives**

Several recent experiments corroborate the hypothesis that motivated subjects are easier to incentivize than non-motivated subjects, especially when motivation is generated through mission alignment between firm and employees (Besley and Ghatak, 2005). For instance, Tonin and Vlassopoulos (2015) find in an online real effort experiment that social incentives (introduced by aligning individuals’ mission preferences) lead to a rise in productivity, while Gerhards (2015) shows this result holds for two different subject samples: NGO workers and students. In addition, Koppel and Regner (2015) and Carpenter and Gong (2016) show that matching the mission of the firm/principal and the mission of the agent elicits higher effort levels; Cassar (2016) finds that agents exert extra effort to benefit charities they like, and that principals compromise on charity choice (to please the agent) and offer lower piece rates to these motivated individuals.

The positive effect of prosocial incentives is not, however, universal. Fehrler and Kosfeld (2014) do not find positive effects of prosocial incentives on effort when they analyze their entire sample, but that only a subset of individuals respond; moreover, this subset is willing to pay for prosocial incentives, and ultimately provide higher effort levels. Similarly, Ashraf et al. (2014) show that financial and non-financial rewards are effective at improving performance, but have stronger effects for more prosocially motivated agents, and Tonin and Vlassopoulos (2015) find that the positive effect of social incentives on effort provision is largely limited to subjects with

low initial productivity.<sup>4</sup> In their experiment, when subjects can choose the mix of incentives, around half sacrifice part of their private compensation to increase social compensation. These results suggest that i) there is substantial heterogeneity in prosocial behavior, and ii) for social incentives to work, assortative matching on social orientation is needed.

## 2.4 Multitasking

Since the economic and social goals pursued by social enterprises place competing requirements on agents' effort allocation, this paper is firmly embedded in the multitasking literature. As mentioned above, in the absence of social preferences and/or intrinsic motivation, incentives on the measurable task redirect the agent's effort towards that task, to the extent that the unmeasurable task is left unattended (Holmström and Milgrom, 1991). Fehr and Schmidt (2004) provide supporting evidence: agents focus on the incentivized task under piece rates, but not under a bonus contract; principals anticipate this and offer predominantly bonus contracts.

Three papers extend the classic multitasking model to include agents with intrinsic motivation. Canton (2005) models a multitasking principal-agent relationship where some agents are intrinsically motivated to provide the social optimum effort levels. Once incentives are introduced, the agent trades off the utility of additional income and the disutility of deviating from the socially optimum effort levels. At low incentive strengths, the former effect dominates and motivation is 'crowded in'; with stronger incentives, motivation is 'crowded out'. Importantly, this result is driven by considering intrinsic motivation as being given by full alignment with firm objectives (as suggested by Besley and Ghatak, 2005).

In our framework, identification with company goals enters the utility of the agent in a similar way to Akerlof and Kranton (2005), but mainly drives the sorting of individuals into companies. The ability of weak incentives to produce a more balanced effort allocation comes instead from the socially motivated agents' relatively lower cost of effort on their preferred task (Schnedler, 2008), and corresponds to task involvement as a source of intrinsic motivation (Murdock, 2002).<sup>5,6</sup>

Nellas and Reggiani (2015) adopt the latter parameterization; in their model, agents are intrinsically motivated towards the unmeasurable task, i.e. they have a lower cost of exerting effort on this task. Then, an increase in incentives on the measurable task (i.e. the task for which agents do not have intrinsic motivation) leads to an 'indirect moral crowding out' of the unmeasurable task. An implication of their model is that, conditional on incentive strength, the

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<sup>4</sup> Other studies also show how prosocial individuals respond to incentives. Blasco et al. (2016) find that pecuniary incentives are effective in generating workplace improvement proposals in a medical center, without loss of quality; in Lacetera et al. (2014), even volunteers in blood donation respond to financial incentives; journal referees respond to financial incentives for faster review times without crowding out intrinsic motivation (Chetty et al., 2014).

<sup>5</sup> Differences in effort costs between agents also feature in Schöttner's (2008) analysis of optimal job design.

<sup>6</sup> Murdock (2002) also develops a multitasking model with motivated agents, but the source of intrinsic motivation in his paper is goal identification (as also used by Canton, 2005). In his solution the firm commits to implementing positive-surplus, but negative payoff projects proposed by the agent in return for higher effort levels. In social enterprises, we expect both task involvement and goal identification to generate intrinsic motivation.



degree of indirect crowding out is decreasing in the level of intrinsic motivation. This would suggest that, conditional on the sorting of agents with higher social motivation into social enterprises, the introduction of incentives should lead to a smaller reduction of effort in the social dimension in social enterprises than in for-profits.<sup>7</sup>

Bénabou and Tirole (2016) develop a model of multitasking with agents heterogeneous in ability, and examine the effect of employer competition on wages: while a monopsony distorts the contract of low-ability employees, competition leads to distortions in contracts offered to high-ability employees, whom firms compete for. This leads to an escalation of compensation, and the risk of a ‘bonus culture’. They supplement this model with an analysis of agents that differ in ‘ethical’ motivations for the unmeasurable task: firms no longer compete for motivated agents, since the latter internalize the benefits of their actions. Importantly, more prosocial employees prefer lower-powered incentives, and sorting occurs with mission match between employees and firms, a result which confirms our intuition.

Several experimental results parallel the mechanism we outlined above. Brügger and Moers (2007) study the role of financial incentives in multitasking settings, looking at both effort levels and effort allocation. They show that incentives on the measurable task raise total effort levels, but distort the effort allocation as suggested by theory. In an orthogonal treatment, they introduce exposure to a social norm of allocating effort equally among the two tasks as a form of congruent social incentives: this exposure partly mitigates the distorting effect of financial incentives, allowing for a more balanced allocation of effort. Effort is even more balanced for individuals with stronger ethical concerns, though the allocation is still far from the one achieved with fixed wages (with or without social incentives).

Fryer and Holden (2012) evaluate a randomized field experiment in Texas public schools, where students, parents, and teachers receive incentives related to mastering math objectives on a learning platform. They find an across-the-board short run positive effect of incentives on statewide math assessment results, but a negative effect on reading assessment results, with the exception of high-achieving students. A similar distinction is found for students who experience ‘good’ vs. ‘bad’ shocks in the standardized test by comparison with the effort exerted on achieving math objectives.

Benerjee and Salmon (2015) focus on a multitasking setting where subjects can invest in two projects which generate a personal and a charitable payoff.<sup>8</sup> In their first stage, investments have equal returns across projects, although one is more profitable for the charity; in their second stage, one of the projects is highly profitable personally (ten times more than in stage one), while the other profits the charity more. They show that, without incentives, their subjects invest more in the project that benefits the charity; once a bonus is introduced, the allocation is dramatically

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<sup>7</sup> Their model predicts the strength of incentives is decreasing in the agent’s intrinsic motivation, in order to lower the opportunity cost of effort on the unmeasurable task. We also expect stronger incentives will attract less socially motivated individuals, but focus on the relationship between incentives and effort allocation, which is non-linear.

<sup>8</sup> Although their study draws its motivation from the literature on the intrinsic motivation of teachers and the multitasking problem of schools, their experimental game features an investment situation with a charitable payoff. This casts doubts on their ability to generalize their results to the desired teaching setting. In addition, they do not elicit any personal characteristics of the students they use as subjects.

shifted towards the personally profitable project. While this seems to run counter to our prediction, note that the increase in incentives is very strong, and that subjects still exert substantial effort on the project with higher charitable returns: at lower incentive strengths, this distortion would likely have been smaller, and the effort allocation more balanced.

Evidence against the mechanism we suggest is presented by Gubler et al. (2016). In their study of an attendance award program implemented in an industrial laundry plant, they find a positive effect on absenteeism (i.e. fewer absences), especially for employees with punctuality problems. However, this behavior only lasts as long as they are eligible for the award, and employees revert to low attendance. For employees with high pre-program attendance, they observe a loss in efficiency in laundry activities, consistent with a negative motivational spillover. It is debatable, however, how likely the label of social motivation can be used such a setting. We believe this highlights the particularity of the mechanism we posit and the unique position social enterprises find themselves in.

### **3 Theoretical Framework**

**Firm objectives.** Firms can be of three types, for-profits, non-profits, and social enterprises, and employees in all types of firm can engage in two tasks, one generating economic revenue, and one generating social impact. Conventionally, economic revenue is observable and contractible (even though it may be an imperfect measure of employee effort), and social impact – while potentially observable – is not verifiable, and thus not contractible. Therefore, companies can only incentivize agents to generate economic revenue. For-profits value profits, while non-profits value social impact; social enterprises combine the two objectives and have a double bottom line, which gives rise to their multitasking problem.

**Agent preferences.** In our framework, agents are heterogeneous in intrinsic motivation for the social task, or social preferences more generally. The term ‘social preferences’ is widely invoked in economics, although it is a catch-all definition, capturing most other-regarding deviations from selfish behavior (Fehr and Fishbacher, 2002; Charness and Rabin, 2002). Since the benefits of incentives in social enterprises hinge critically on agents’ social motivation in our model, we make our definition of social preferences more precise here. The interpretation closest to our context is that of prosocial behavior (Fehrler and Kosfeld, 2014); however, such behavior is usually measured by allowing subjects to select their favorite charity and measuring the effort expended. Since we want to avoid subjects forming beliefs about the precise nature of our experiment, this is not a practical interpretation. Moreover, it is possible that prosocial behavior is underpinned by more fundamental social preferences, such as altruism (Andreoni, 2002) or social welfare preferences (Charness and Rabin, 2002). We find this interpretation desirable both theoretically – since individuals and firms match on social orientation (Besley and Ghatak, 2016a) – and experimentally, since such preferences are elicited with either public goods games (Fischbacher and Gächter, 2010) or variations of the dictator game (Lazear et al., 2012).

Agents' social motivation enters their utility function in two different ways. First, the agent receives an identity utility from matching with the firm on social orientation, a mechanism inspired by Akerlof and Kranton (2005). Second, following Schnedler (2008) and Nellas and Reggiani (2015), social motivation is reflected in the lower cost of effort on the social task. The interplay of these two elements gives rise to the potential of incentives to solve social enterprises' specific multitasking problem, where agents exert too much effort on the social dimension, at the expense of the economic dimension.

**Sorting.** Motivated individuals select into companies based on the relationship between social preferences and the incentives offered (or their perception). This has been suggested theoretically by Akerlof and Kranton (2005), Besley and Ghatak (2006; 2016a), Nellas and Reggiani (2015), and Bénabou and Tirole (2016), and supportive evidence is presented, among others, by Cabrales et al. (2010), and Fehrler and Kosfeld (2014). Intuitively, individuals with a given social motivation will attempt to match with a similarly oriented company, as this affects the identity component of their utility function. We thus expect:

H1. On average, individuals who select into for-profits have the lowest social motivation, followed by individuals in social enterprises, and individuals in non-profits.

Once incentives are taken into account, several theoretical models have suggested a negative relationship between incentive strength and the selection of motivated agents (Nellas and Reggiani, 2015; Bénabou and Tirole, 2016). As incentives are increased, the deviation from their ideal identity also increases, leading to a greater disutility. Hence:

H2. The social motivation of individuals who select into social enterprises is negatively related to the strength of incentives.

**Efficiency.** We also expect that, conditional on incentive strength, workers exert more effort under their preferred contract, as suggested by, for instance, Fehler and Kosfeld (2014) in the case of mission alignment. Taking into account the larger literature on assortative matching between individuals and firms (see, e.g. Bandiera et al., 2015), we expect that:

H3. Matching between firms and employees on social preferences is efficiency enhancing, i.e. total effort is higher under sorting than under random assignment.

The distribution of social preferences matters for our argument. Experimental literature finds that most subjects exhibit selfish behavior (e.g., Andreoni, 2002; Lazear et al., 2012), and that a subsample of subjects respond to pro-social incentives (Fehrler and Kosfeld, 2014; Tonin and Vlassopoulos, 2015) or mission match (Carpenter and Gong, 2016). This suggests a higher density of low social motivation individuals, and a relatively long tail of high social motivation

individuals leading to a skewed distribution. Moreover, Levitt and List (2007) suggest that the real-world distribution of social preferences may be even more skewed than the experimental one. This suggests that even with sorting, individuals in non-profits will have the highest levels of social motivation, while those in social enterprises will have very high levels of social motivation (most likely above average).<sup>9</sup> This suggests that:

H4. In the absence of incentives, socially motivated agents in social enterprises exert more effort on the social dimension than on the economic dimension.

**Incentives conditional on sorting.** Hypothesis 4 serves to confirm our intuition that employees of social enterprises exert too much effort on the social dimension, leading to an imbalance in effort allocation. While incentives in the classic multitasking problem distort the agent's optimal allocation of effort towards the incentivized task, we contend instead that, with motivated agents, incentives can redress the imbalance created by agents with too strong a focus on the social task. This insight is supported by the theoretical result in Nellas and Reggiani (2015), where agents with higher social motivations face a lower cost of undertaking their preferred, social action (Schnedler, 2008); then, the higher the level of social motivations, the smaller the distortion in effort expended on the social task, i.e. a lower indirect moral crowding out. However, we expect this effect to happen mainly with low- and medium-powered incentives, as high-powered incentives have a much stronger effect on sorting, whereby social enterprises are only able to attract individuals with low social preferences. This effect likely parallels the results in Canton (2005) where high levels of incentives crowd out social motivation. Therefore, we expect:

H5. With low- and medium-powered incentives, socially motivated agents in social enterprises achieve a more balanced effort allocation than i) without incentives and ii) randomly assigned agents.

H6. With high-powered incentives, very few socially motivated agents sort into social enterprises, so the average allocation of effort resembles closely the one in for-profits.

In other words, with low- and medium-powered incentives the sorting effect allows social enterprises to extract a more balanced effort allocation, while with high-powered incentives the sorting mechanism dominates and social enterprises no longer find the approach profitable. This represents the core of our insight, suggesting that social enterprises could effectively employ mild incentives to better achieve their goals.

## 4 Experimental Designs

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<sup>9</sup> This distribution of social preferences may also help explain the relative size of the for-profit, social enterprise, and non-profit sectors in the economy.

## 4.1 Experiment I

**Subjects.** Our first experiment uses (final year) students at the University of Amsterdam and will be performed online. One reason to use students is that they bring into the lab a smaller employment background than real employees (Levitt and List, 2007). Since individuals not only shape the companies they work for, but corporate culture can also impact individuals' behavior, perhaps by altering their preferences (Akerlof and Kranton, 2005), it is possible that social enterprises – through founder imprinting – have attracted employees focused more on social than economic outcomes, leading to a self-reproductive cycle (Battilana et al., 2015). While this is representative of real-life complexities and real-life employees can provide a richer description of actual reactions to incentives, students could offer a more normative view. In addition, these future graduates will have to make a real-life labor market decision at the end of their studies. With careful planning and a longer time horizon, we can also collect data on these decisions.

**Task.** For any effort task to be useful in our experiment, it needs to fulfil several criteria. First, it should have sufficient generality, or be representative of social enterprises (which can span a large range of social goals: health, environment, inclusion, homelessness, fair trade, etc.); second, since our setup entails multitasking, the task should be amenable to a framing that introduces a clear distinction between economic and social goals; third, the desirability of the 'social' task should be neither trivial, nor overwhelming (such that effort would only be performed along this dimension if it is too salient, e.g. disabled children). Because we rely on the framing of a single task (instead of two different tasks), we ensure that the direct cost of the actions are fully equivalent, and the shadow cost given by the social motivation parameter is the only driver of effort allocation.

Our real effort task involves subjects preparing letters (Konow, 2000, Falk and Ichino, 2006, and Carpenter et al., 2010). In a paper similar in spirit to ours, Carpenter and Gong (2016) measure people's political preferences (Democrat vs. Republican), assign them to prepare letters for the Democrat or Republican candidate and look at effort provision under mission match. In our experiment, the 'letters' are emails that subjects prepare. They can send out a) discounts at local supermarkets or b) details on how to donate blood/donate to charity/volunteer/reminders to undergo a cancer test, to a list of randomly generated mailboxes (there would be no real mailbox, all that would happen is that we would measure the number of recipients they select). They have a drag and drop box, and they manually click on i) add recipient (they can only send one email at a time, or alternatively we can see how many people they send the discount to in  $t$  minutes) and ii) add text, where they can select which version to send out. The setting is flexible enough to check both total effort and effort allocation, and the effort for one click and one recipient is always the same, ensuring cost differences can only stem from social preferences.

**Treatments.** The main reason for this experiment is to test whether sorting does take place as outlined in our simple model. In order to check this, we generate three types of contracts,

corresponding to the three organizational forms: the non-profit firm has a strict preference for the social dimension (action a), the for-profit firm has a strict preference for the economic dimension (action b), while the social enterprise states its preference for both actions (a and b), and their incentive schemes reflect their mission. In the control group, subjects are randomly allocated to contracts; in the treatment group, they select into their preferred organizational form.

The table below summarizes the experimental design, where C and T denote control and treatment groups, respectively, FP, SE, and NP denote the for-profit, social enterprise, and non-profit, respectively,  $z$  is a fixed wage (which may differ between contracts to ensure the expected value of participating in the experiment is the same between contracts), and  $b_L$ ,  $b_M$ , and  $b_H$  are piece rates of varying steepness (low, medium, high). We also measure social preferences and obtain a measure of ability (see Section 4.4). Several comparisons are possible in light of this experiment; we hold the following expectations:

1. **The classic multitasking problem:** Under random allocation, total effort levels and effort allocation under the social enterprise contract will resemble that under the non-profit in  $C_0$ , and gradually moves towards resembling the one under the for-profit in  $C_H$ ; this shows the classical problem with incentives in the multitasking problem: incentives on task b (as opposed to just a flat wage) distort the effort allocation.
2. **Sorting on social preferences:** Given the incentive contract offered by each firm type (whose social orientation enters the identity component of workers' utility), in  $T_0$  subjects with the highest social preferences should choose the non-profit, and subjects with the lowest social preferences should choose the for-profit, while those in between should choose social enterprises. As a consequence of assortative matching, total effort levels across all three contracts should be higher under sorting than under random allocation, i.e. in  $T_0$  versus  $C_0$ .
3. **Lower indirect crowding out for socially motivated agents:** Since we posit that multitasking is less damaging for employees selecting into the social enterprise contract, we expect that increasing the piece rate under the social enterprise contract should lead to a more balanced effort allocation under sorting than under random allocation, or that the downward change in effort on the social task is smaller between  $T_0$  and  $T_L$ , than between  $C_0$  and  $C_L$ . The same effect should be seen when going from low to medium incentives, although the differences should be smaller (consistent with the idea of a larger deviation for an identity match between workers and companies).
4. **Sorting distortion with high-powered incentives:** With high powered incentives, in  $T_H$  we expect subjects to lose utility from matching on mission, and the distortion should take place in sorting (i.e. individuals who select into social enterprises are hardly distinguishable from individuals who select into for-profits).

### Experiment I

Variation	For-profit	Social enterprise	Non-profit
$C_0, C_L, C_M, C_H$	$z + b_H$	$z / z + b_L / z + b_M / z + b_H$	$z$
$T_0$	$z + b_H$	$z$	$z$
$T_L$	$z + b_H$	$z + b_L$	$z$
$T_M$	$z + b_H$	$z + b_M$	$z$
$T_H$	$z + b_H$	$z + b_H$	$z$

To sum up, the first experiment allows us to assess whether sorting is efficiency enhancing in general, and in social enterprises in particular, as it allows a group of individuals with relatively high social preferences who are responsive to low- and medium-powered incentives to select into the appropriate organizational form. The experiment also allows us to see how large the efficiency advantage of motivated agents in social enterprises is at different levels of incentive intensity.

### 4.2 Experiment II

The second experiment uses a different subject pool in order to enhance external validity. The subjects in this lab-in-the-field experiment would be real-life employees of for-profits, non-profits, and social enterprises of similar age and size. They play a series of multitasking games with increasing financial incentives, where they must allocate effort between an ‘economic’ and a ‘social’ real-effort task. We also give subjects a set of hypothetical questions, such as driving a cab for busy executives (or installing lightbulbs in the headquarters of multinationals) for a high price, or driving a cab for children with disabilities (or installing lightbulbs in homeless shelters), for a very low price. This design allows us to vary incentive strength on the economic task, both within- and between-individuals. We taking sorting as given (i.e. employees have already revealed their preferences), and expect that effort distortion is far more muted for social enterprise employees than for non-profit and for-profit workers.

We measure social preferences in this experiment as well, in order to compare them across the three groups of employees. This allows us to see how important sorting is in practice. In addition, we can use potential mismatches to assess how incentives work. For individuals correctly matched with social enterprises, we expect effort allocation not to be distorted once incentives are increased, whereas for workers incorrectly matched with social enterprises, incentives completely distort effort towards the economic task (if their social preferences are too low, and analogously for for-profit employees) or not to be responsive (if their social preferences are too high, and analogously for non-profit employees).<sup>10</sup>

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<sup>10</sup> In general, agents with very low social preferences should be matched with for profits, and agents with high social preferences should be matched with non-profits, where we can examine robustness to different cutoffs, perhaps using the distribution of social preferences in Experiment I. However, real-life matching is likely not to be perfect; therefore we posit some workers are mismatched, of special interest in social enterprises.

One potential implication of using employees is that they bring their background into the experiment (Levitt and List, 2007). If that background involves a set of norms that favor the absence of incentives (see Section 6 on potential reasons for this), then our predictions may not be borne out. It is important, then, to find a framing that reduces such pre-ordained normative behavior (Hossain and List, 2012). In the case of social enterprises, it is important to ensure that employees do not perceive incentives as a source of control (Falk and Kosfeld, 2006). Hence, one treatment variation will involve different framings for the incentive schemes, emphasizing either the ability of incentives to reward employees' valuable contributions to the firm's value, or the firm's ability to use the higher output generated through its incentive scheme in order to do better socially.<sup>11</sup>

As we suggested initially, in their goal of achieving social/work integration, social enterprises may also include employees otherwise disadvantaged in the labor market, such as individuals with mental or physical impairments, the homeless, prison convicts, or the long-term unemployed (see, e.g., Defourny and Nyssens, 2008, Bagnoli and Megali, 2011, Katz and Kauder, 2011; Tracey et al., 2011, Pache and Santos, 2013, and Battilana et al., 2015). Given that the outside option of these individuals is quite limited (i.e. alternative employment opportunities are scarce), their main concern should be the satisfaction of the participation constraint, with the incentive constraint taking playing a minor role. While this does not preclude some sensitivity to financial incentives, we believe this to be a mainly empirical issue, and our experiment allows us to observe the impact of incentives on their effort provision and allocation.

### **4.3 Experiment III**

In order to fully document that there may be efficiency gains from increasing incentive intensity in social enterprises given the type of socially motivated workers that they attract, we perform a third experiment. This will be a natural field experiment, whereby we manipulate the incentive schemes at different branches of a Dutch social enterprise. We will observe effort levels (mainly visible in sales) both in the short run (3-6 months) and in the long run (18 months). The latter allows us to see whether employee characteristics change over time, i.e. whether there are any extra dynamics of selection after incentives change (as in Lazear, 2000, for instance). We believe the contribution of this experiment is both empirical – confirming our theoretical prediction and previous experimental results –, as well as practical, providing some guidelines for social enterprises to use in setting their incentive policy or their human resource management practices.

### **4.4 Eliciting Social Preferences and Ability Measures**

An important part of the mechanism we suggest is selection into firms on the basis of social preferences. As suggested earlier, prosocial behavior and altruism measures correspond quite well to our interpretation of social enterprises. While the first one is usually induced by allowing

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<sup>11</sup> This involves ensuring that the extra effort and output cover the costs of the incentive system.



subjects to choose their preferred charity, we believe this may affect subjects' perception of our experiment. While this holds for most elicitation methods, it is less problematic if the elicitation comes in the form of games. For instance, altruism is sometimes elicited through dictator games (for a recent improvement, see Lazear et al., 2012) or public good games (see, e.g., Gächter and Fischbacher, 2012). In addition to measuring altruism through these games, we can explore other dimensions in different methods. For instance, we could elicit their orientation towards the greater social good through a public service motivation scale (Perry, 1996), a social value orientation scale (van den Lange, 1999), or hypothetical questions (Dal Bó et al., 2013). It would also be useful to elicit a measure of inequality aversion (Fehr and Schmidt, 1999) in the second experiment, since it allows us to control for subjects' rejection of incentives based on the anticipated inequality increase. We measure ability when we allow our subjects to practice the task, although we choose different framings in order not to influence their subsequent choices.

## **5 Results**

TBA.

## **6 Why Could Incentives Backfire?**

While individuals have been shown to respond positively to most types of incentives, financial incentives have sometimes been discovered to have negative effects on intrinsic motivation and performance (Deci and Ryan, 1985; for recent reviews, see also Rebitzer and Taylor, 2011, and Bowles and Polanía-Reyes, 2012). While crowding out has been observed for a wide range of settings, more often than not a certain degree of prosocial behavior is involved, and recent research suggests a prosocial setting is necessary for crowding out to occur (Hossain and Li, 2014). This renders social enterprises a potential victim to motivation crowd-out. In this section we outline several by-products of incentives that may lead to violations of our theoretical predictions, especially in experiments involving real employees. Below, we focus on incentives' power to alter the relationship between manager and employees, on the potential of generating within-firm inequality, and the reduction in signaling value of prosocial behavior.

### **6.1 Do Incentives Change the Agent's Relationship with the Principal?**

Incentives can backfire if agents interpret their signals in a different way than envisioned by the principals. For instance, instead of suggesting a task is desirable, incentives may signal a task is unpleasant, and the stronger the incentives, the more the agent perceives them as 'bad news' (Bénabou and Tirole, 2003). In our setup for experiments I and II, the incentivized task is the same as non-incentivized task, simply representing a different framing for the same activity. Therefore, we believe the task unpleasantness signal should not be a driver of our results, though we note that asking a highly socially motivated agent to exert effort to generate revenue may still

generate a level of dissatisfaction. This effect is likely to be captured by the identity component of the agent's utility function. Additionally, incentives have the potential to change the nature of the relationship between principal and agent. For instance, incentives may be regarded as a form of control that breaks the trust between principal and agent, affecting both selection and effort levels (Falk and Kosfeld, 2006; Sliwka, 2007). Incentives may also change the perceived nature of the employment relationship: once incentives are introduced, the agent may no longer recognize the social component of the transaction, shifting to a market frame (Heyman and Ariely, 2004). In our multitasking case with an economic and a social task, these theories have the following implications: i) if implicit trust is broken, socially motivated agents will join non-profits rather than social-enterprises; those that do join social enterprises exert little effort in either dimension, and ii) if the transaction frame shifts, agents (especially those with higher levels of social motivation) are again less likely to select into social enterprises; if they do, they exert little effort in the social dimension, focusing on generating revenue. While these considerations are important, they are less likely to be manifest in our first experiment using students, although they may affect the results in our second and third experiments.

## **6.2 Do Incentives Generate Inequality?**

One concern with the introduction of incentives for agents who are heterogeneous (in terms of ability) is the potential for generating income differences (Eriksson and Villeval, 2008). These have the potential for violating the relatively strong norm of equality within social enterprises (Kreps, 1997) and inequality-averse agents may reject incentives in anticipation of higher inequality (Fehr and Schmidt, 1999). In our experiment with students, subjects are not grouped into fictitious enterprises, are fully informed their payoff depends solely on their own performance, and receive no information on other subjects' payoffs. This suggests that the inequality by-product of introducing incentives cannot play a role in our first experiment. This should also be the case in our second experiment, although it is possible that since our subjects are real-life employees of social enterprises, they may have already been socialized into an environment where incentives are frowned upon in light of the inequality they generate (Besley and Ghatak, 2016b). Anecdotal evidence also suggests that social entrepreneurs themselves have equality concerns – potentially explaining the lack of incentive schemes in social enterprises. Our theoretical framework suggests their own fairness and inequality concerns may lead to large efficiency losses, whereas employees' social preferences may render them responsive to incentives in a desirable manner.

## **6.3 Do Incentives Lower the Signal of Prosocial Behavior?**

Apart from altering the nature of the relationship between agent and principal, incentives may also affect the external perception of the agent's behavior (above and beyond the principal's perception). As Bénabou and Tirole (2006) and Ellingsen and Johannson (2008) suggest, an

employee may exert effort on a social task in order to signal his prosocial behavior (or raise his esteem in the eyes of others). In the absence of incentives, effort is a direct proxy for prosocial behavior; with incentives, however, external observers cannot distinguish between an intrinsic preference for social behavior or a response to financial incentives. Thus, incentives dilute the prosocial signal value of effort, leading to a reduction of effort. This eviction effect has also been confirmed experimentally by Ariely et al. (2009), where visibility of effort on a prosocial task reduced the effort expended. In our setup for experiments I and II, since the tasks are undertaken privately, this effect should not be a major concern; in experiment III it is possible to modify aspects of the work environment in order to obtain a random variation in visibility.

## **7 Conclusions**

This series of experiments contributes to the literature in several ways. First and foremost, we provide experimental evidence in a multitasking setting where agents are heterogeneous in the social motivation. We are thus able to document the interplay between financial incentives and the extensive margin of employee selection into firm types (for-profits, non-profits, and social enterprises), and the intensive margin of effort provision conditional on selection. As our focus is on social enterprises that must balance economic and social objectives, it is not just total effort that matters, but rather its allocation. Since agents high in social motivation select into social enterprises, they exert a large effort on the social task, disregarding the revenue generation goal in the absence of incentives. With mild financial incentives, we expect them to provide both higher total effort, but also a more balanced effort allocation, in line with the objectives of the social enterprise. This constitutes a particular multitasking problem, where incentives actually allow an effort allocation closer to the optimum to occur. Our theoretical framework suggests that social enterprises could indeed effectively employ financial incentives.

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