Exploitation aversion: When financial incentives fail to motivate agents

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ABSTRACT

Studies of the principal-agent relationship find that monetary incentives work in many instances but that they can also backfire. Various mechanisms for this failure have been examined (e.g., intrinsic motivation, image concerns). We posit that an aversion to being exploited, i.e., being used instrumentally for another's benefit, can also cause incentives to fail. Using an experiment we find that compliance is lower for exploitative principals compared to neutral ones despite using the same contracts. To corroborate our results we show that surveyed “exploitation aversion” mediates this effect. Our results have implications for the design and implementation of incentives within organizations.

1. Introduction

Economists routinely advise principals to use financial incentives to motivate their agents. The basic rationale is compelling. If possible, make rewards contingent on agent performance and you should be able to align the interests of the agent with the goals of your organization. There is also empirical evidence that suggests that high-powered incentives that link pay to performance work. One of the most influential of these studies is Lazear (2000) who finds that after the Safelite Glass Corporation switched from using low-powered incentives (hourly wages) to high-powered ones (a piece rate) the average output per worker increased substantially. Embracing experimental methods to better identify the pure causal effects of the incentives (as separated from any sorting), a number of recent studies have confirmed the effectiveness of financial incentives both in the lab (e.g., Anderhub, Gaechter, & Koenigstein, 2002) and the field (e.g., Shearer, 2004). The problem, however, is that financial incentives do not always work as intended, and sometimes they actually appear to backfire. Considering vol-

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vation," the internal drive to work to master a skill or to improve one's self concept (Deci & Ryan, 1985). In this framework,
extrinsic (financial) incentives can reframe an interaction from one in which effort is required based on moral reasoning to
one in which effort becomes a choice (e.g., Titmuss, 1970 or Cardenas, Stranlund, & Willis, 2000) or they can adversely affect
an agent’s sense of autonomy (e.g., Lepper, Greene, & Nisbett, 1973 or Falk & Kosfeld, 2006). Agents concerned with their
public appearance or self image might also react adversely to the implementation of financial incentives (Bénabou & Tirole, 2006).
In the case of volunteers, for example, extrinsic rewards might reduce the pride one takes in serving the public
or tarnish, to some extent, one’s reputation as an altruist (Ariely, Gneezy et al., 2009; Ariely, Bracha et al., 2009; Carpenter &
Myers, 2010). Financial incentives might also provide information to the agent on the principal’s assessment of their ability
or the extent to which the principal trusts the agent to do a good job (Fehr & Rockenbach, 2003). If the principal is providing
financial incentives because she does not think the worker is very talented or trustworthy, the agent might, again, react
poorly.

We conjecture that another reason why financial incentives might backfire is that, through their choice of incentives,
principals may signal selfish intentions that can reduce motivation. The sort of intentions we have in mind for the principal
have a long tradition in the social sciences and the history of economic thought. Specifically, we examine whether choosing
incentives to exploit an agent will cause the agent to reconsider compliance. To be precise, in our experiment we operationalize a very specific notion of exploitation in the workplace, one that works through agent perceptions of a principal's motives to affect motivation. As a result, we focus as much on intentions as outcomes. Like Feinberg (1988), who states exploitation grows upon a “morally unsavory” desire and Buchanan (1985) who refers to it as “merely instrumental” we define exploitation as the utilization of another to achieve one’s own ends. Whether facilitated by status or leverage, whether gains and losses are distributed fairly or unfairly, whether the intentions are malicious or only selfish, exploitation for the purposes of our study involves the instrumental use of agent capabilities by a principal to advance his or her own goals.

To examine the potentially subtle issue of exploitative intentions experimentally, we designed a new experiment with three unique features. First, we formulated an underlying game structure that provided the material conditions necessary for exploitation. In our game, principals could choose contracts that would force agents to expend more effort than is socially optimal. Second, it was in the extrinsic interests of the agents to comply with these potentially exploitative contracts (i.e., they resulted in Nash equilibria). This feature guaranteed that if compliance did not occur, it was for intrinsic reasons. Third, we created two principal treatments to separate neutral and exploitative intent. Rather than comparing a condition in which a human chooses a contract to one in which a randomizing mechanism determines the contract parameters, as is common in the related literature (e.g. Falk & Kosfeld, 2006), it was important that humans chose in both our conditions so that we control for the basic effect of human “agency”. Had we done it the standard way, the treatments would differ in both the accountability of humans versus machines (as managers) making a choice and the ability of the manager to exploit. Specifically, in one case, the neutral one, contracts may satisfy the material conditions for exploitation but agents cannot attribute exploitative intent to the principal. In the second case, the contracts may again be materially exploitive but this time the agents should infer the intention to exploit.

Our results are clear and robust. Like the existing literature, the use of high-powered financial incentives in our experiment backfires sometimes, however, we are able to “adjust the carburetion” to increase or decrease compliance. Principals who choose contracts that exploit agents (i.e., cause them to choose higher than efficient effort levels) see a lower level of compliance only when the exploitative contract choice is accompanied by an exploitative intent. Neutral principals, using the same incentives benefit from higher levels of compliance than those whose own material incentives signal exploitative intent to the agents. The compliance difference is approximately ten percent and it is robust to the inclusion of various demographic controls and different econometric specifications. In addition, we show that a survey instrument designed to measure exploitation aversion mediates the compliance differential across treatments, confirming that agents are rejecting contracts because they perceive them as exploitative.

We proceed by describing the details of our experiment. We then present, in Section 3, an overview of our participants
and their experimental choices. In Section 4 we analyze the determinants of contract compliance and in Section 5 we examine the robustness of our results. We discuss related work in the final section before concluding with a few suggestions for future research.
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