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Getting more work for nothing? Symbolic awards and worker performance

IZA Discussion Papers, No. 5040

Provided in Cooperation with:
IZA – Institute of Labor Economics

Suggested Citation: Kosfeld, Michael; Neckermann, Susanne (2010) : Getting more work for nothing? Symbolic awards and worker performance, IZA Discussion Papers, No. 5040, Institute for the Study of Labor (IZA), Bonn

This Version is available at:
https://hdl.handle.net/10419/36977

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DISCUSSION PAPER SERIES

IZA DP No. 5040

Getting More Work for Nothing? Symbolic Awards and Worker Performance

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June 2010

Forschungsinstitut
zur Zukunft der Arbeit
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IZA Discussion Paper No. 5040
June 2010

ABSTRACT

Getting More Work for Nothing? Symbolic Awards and Worker Performance

We study the impact of status and social recognition on worker performance in a field experiment. In collaboration with an international non-governmental organization we hired students to work on a database project. Students in the award treatment were offered a congratulatory card from the organization honoring the best performance. The award was purely symbolic in order to ensure that any behavioral effect is driven by non-material benefits. Our results show that students in the award treatment outperform students in the control treatment by about 12 percent on average. Our results provide strong evidence for the motivating power of status and social recognition in labor relations with major implications for theory and applications.

JEL Classification: C93, M52

Keywords: award, non-monetary incentives, status, social recognition, field experiment

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1 Introduction

Awards are abundant in social and economic life. Examples run from sports, the arts, culture, politics, academia through to the corporate domain (Frey, 2005). Typical examples of awards in the corporate sector are "Employee of the Month" at McDonald's, the "Bravo Award" at IBM, or the "Spotlight" employee recognition program of the software company Intuit. While all these awards differ in several aspects, they share a number of important common features. Firstly, they are visible: everyone in the particular environment knows that the award exists and that winners are typically honored in a public ceremony. Secondly, they create a competitive environment by setting up a tournament with ex-post winners and losers. Thirdly, they are based on broad and vague criteria that typically make them contractually unenforceable.[1] Finally, they yield a number of material and non-material benefits.

When the award comes with a monetary prize it generates a direct material benefit. Awards may also offer indirect material benefits for the future if the award improves the career perspectives of the winner in the organization or if it generates a positive signal to the environment, which leads to later financial advantage. Probably most people would also agree that awards yield non-material benefits. These benefits come in the form of social recognition from the award-giving institution from peers and colleagues, or from an external audience. This recognition is related to the status of the winner of an award within a group (e.g., the department, the overall workforce, or society). A further source may be the winner's improved self-esteem, either with regard to the particular achievement or with regard to general ability.

How important are these non-material benefits of awards? Do they create any incentive themselves to win the award, or are they just enjoyable but irrelevant social facets of an achievement that is driven by pure material aspects? The answer to this question is difficult. Almost always awards include material and non-material benefits in parallel, making it essentially impossible to disentangle the different aspects of these incentives in the field. Nevertheless, the answer to this question is important. Firstly, from a practical viewpoint the role of social recognition vis-à-vis monetary incentives is clearly of great relevance and has major implications for optimal reward policies. Secondly, the answer is also of interest to economic theory. In the light of the increasing number of theories and predictions based on status and social recognition (e.g., Dubey and Geanakoplos 2005; Ellingsen and Johannesson 2007; Frey 2007; Moldovanu

[1] An exception are sales awards which are based on very precise criteria, the amount of sales achieved. Conversely, it is not possible to sue, for example, the Royal Swedish Academy of Sciences for giving the Nobel prize to the wrong person.

et al. 2007; Auriol and Renault 2008; Besley and Ghatak 2008; Ederer and Patacconi 2008; Dur 2009), it is essential to investigate empirically how important the pure status dimension of awards and employee recognition actually is.

Very few empirical studies have analyzed the role of status and social recognition in economic contexts (Ball et al. 2001; Markham et al. 2002; Ariely et al. 2009). To date, no evidence exists that awards increase performance in the workplace due to status and social recognition alone. The aim of this paper is to fill this gap. We present the results from a field experiment we implemented to test whether purely symbolic awards that contain no material benefit increase worker performance. In our study, we collaborated with an international non-governmental organization to hire students to work on a database project for a fixed wage. We randomly assigned students to one of two treatments (award, control). In the award treatment, students were promised an award for the best performance. The award was purely symbolic consisting of a personalized congratulatory card that was signed by the president and the managing director of the organization. In the control treatment, students worked under exactly the same conditions except that they were not offered an award.

Our results show that the symbolic award significantly increases performance by about 12 percent on average. The award increases not only the average performance but also the variance of performance. Both observations are in line with the theoretical prediction we derive from a model with pure social status preferences. Quantile regressions suggest that the award has a particularly strong effect on individuals who are more likely to win the award. Finally, we show that the increase in performance has no negative influence on quality. This latter finding is of particular importance for practitioners, as it shows that awards can be effective instruments that have no quantity-quality trade-off.

The paper is organized as follows. The next section presents a simple framework to analyze the effect of symbolic awards on employee performance. The model is based on Moldovanu et al. (2007) who study contests for pure status. Section 3 and 4 provide details about the background and set-up of our field experiment. Section 5 presents the results. Finally, Section 6 concludes.

2 Symbolic awards and work effort

If individuals do not care about social recognition and status, theory predicts that purely symbolic awards will have zero motivational effect. The reason is that, by definition, symbolic awards yield no material benefit. Thus, if effort is costly, they will not affect the effort decision of workers behaving optimally.

If social recognition is important to the worker, the situation is different. To fix ideas, consider the following simple framework. Suppose the total workforce consists of n workers. Workers differ in their ability, which is drawn independently from the interval $[0, 1]$ according to some distribution function F. Let a_i denote the ability of worker i and e_i the effort of worker i. Worker i's cost of effort is given by $c_i(e_i) = e_i/a_i$.

Workers choose effort simultaneously. Before doing so, the employer can decide to offer an award. The award goes to the m workers who exert the highest effort, where $m \leq n$. The award is purely symbolic, i.e., of no material value. However, workers care about social recognition and their relative standing within the group. We make the following assumptions regarding the utility workers derive from winning and not winning the award. Firstly, the utility of winning the award decreases in the number of workers who win the award. Secondly, the total utility of all workers from winning and not winning the award is zero. Both assumptions are intuitive. Individuals gain higher social recognition if they win an award that only a few win in comparison to an award that is won by many. Further: the increase in social recognition of those who win the award goes in parallel to a decrease in social recognition for those that do not win the award. Since the award is purely symbolic and social recognition is derived from social standing, the sum of utility over all workers is zero.

Formally let us assume that workers are ranked according to the effort exerted with 1 being the worker who exerts the lowest effort, 2 being the worker who exerts the second-lowest effort, and so on, up to n, which is the worker who exerts the highest effort. Giving an award to the top m workers is equivalent to partitioning the set of workers into two categories: category $C_0 = \{1, \ldots, n-m\}$ of workers who do not win the award and category $C_1 = \{n-m+1, \ldots, n\}$ of workers who do win the award. In terms of social recognition, workers in C_1 are ranked higher than workers in C_0. Following Moldovanu et al. (2007) we assume that a worker's utility ν_i from being in any of these categories is equal to the number of workers below him in the ranking minus the number of workers above him. Precisely,

$$\nu_i = \begin{cases} n-m & \text{if } i \in C_1, \\ -m & \text{if } i \in C_0. \end{cases}$$

It can easily be checked that these specifications meet the two assumptions above. If the employer does not offer an award, all workers are in the same category and the utility from social recognition is zero for each worker. The timing is as follows: first, the employer decides whether to offer an award or not; then, workers are privately informed about their ability and simultaneously choose their effort according to this information; finally, the top m workers get

their award in the case where an award was offered; otherwise, no worker gets an award. We assume that workers maximize their expected utility minus their expected cost of effort. We thus obtain the following equilibrium prediction.

Proposition 1 *Suppose workers care about social recognition. Then offering a symbolic award increases both the total expected effort and the variance of effort.*

Proof: The result follows from Theorem 1 in Moldovanu et al. (2007). In equilibrium, each worker chooses his effort such that his rank based on effort is identical to his rank based on ability. If the employer does not offer an award, workers exert no effort. Hence, the total expected effort is zero. However, if the employer offers an award, the total expected effort is equal to:

$$nmE(n-m,n) > 0,$$

where $E(n-m,n)$ is the expected value of the $(n-m)$th order statistic out of n independent variables that are independently distributed according to the distribution function F. Similarly, the variance of effort is zero for the case that no award is offered, but is positive if the employer offers an award. □

Proposition 1 corroborates the intuition that symbolic awards increase work effort if workers care about social recognition. Together with the expected effort, the variance of effort increases. This is because workers exert different effort levels in equilibrium according to their different abilities. If workers are also motivated by other aspects of the work relation — e.g., they reciprocate to a high fixed wage (Fehr and Gächter, 2000) — expected effort and variance of effort are likely to be non-zero even without an award. However, in this case Proposition 1 also holds as long as the benefit from these motives is additive.

We now come to the field experiment that we set up in order to test the incentive effect of symbolic awards.

3 Background of the study

The field experiment was conducted in collaboration with the Swiss office of an international non-governmental organization headquartered in New York.[2] During 2006, the organization

[2]The main objective of the organization is to help communities in developing countries create their own schools and health centers, and to provide food security, literacy trainings, and banking facilities.

began asking a small number of Swiss communities for financial support in addition to raising funds from private individuals and corporations. Due to the highly federal nature of the Swiss political system, individual communities in Switzerland have their own financial budgets to finance private and public projects. As the initial appeals for funding were quite successful, the organization decided to send appeals to all of the (about 1600) German speaking Swiss communities. For this mailing, it was planned to set up a database which included the names and addresses of the communities as well as the names of the current community president and community administrator in order to personalize the appeals. Additionally, contact information such as the phone number and the e-mail address of the community office were to be included. The situation presented a unique opportunity to run a field experiment.

In collaboration with the organization, we hired students from different schools and universities in Zurich via job announcements on various university bulletin boards. The announcement did not reveal the identity of the employer nor did it say that the job was part of an experiment. It only described a one-time data entry job of two hours for which CHF 45 (about $37) would be earned. The wage reflected a typical hourly wage rate for student jobs in Zurich. We did not reveal the identity of the employer to avoid selection bias with regard to particularly socially-minded students. Interested students could sign up online and were then contacted by our recruiters who randomly assigned them to workgroups of up to twelve students.

4 Experimental set-up

The experiment took place in Zurich during a three week period in spring 2008. Participants were randomly assigned to one of 16 workgroups with an average group size of 9.4 subjects.[3] Sessions were run consecutively, employing one workgroup at a time in a large room equipped with workstations with internet connection.[4] Upon arrival, students were asked to take a seat in front of one of the workstations. The workstations were arranged in a U-shape and sufficient space between them was allowed to ensure that students felt unobserved while working. In particular, it was possible for students to surf the internet and check emails during the sessions without

[3]Minimal (maximal) group size was 7 (12). We checked whether group size has an effect on performance. This is not the case in any of the treatments.

[4]Because the Swiss division of the organization is small and has no office space, the room was provided free of charge by the University of Zurich. Students were informed of this when the organization and the task were explained. Since the University of Zurich has cooperated with other organizations previously (e.g., blood donation), nobody questioned this.

this being noticed by anyone in the room. Students were informed about the organization and about their task according to a fixed protocol by the same person for all groups. At no time were students notified that they were participating in a field experiment.

Students' task was to search the internet for contact information of Swiss communities and enter this information into the organization's database. The database could be accessed online with an individual password that was handed out to each student at the beginning of the session. Online, each student was presented with a set of 60 communities to work on. To create a sufficient number of communities for all subjects, most of the 1600 Swiss communities were included in more than one set. These sets were generated to ensure an equal level of difficulty across sets. The difficulty of finding information about a community mostly depends on the size of the community, as web presence and detail of online information typically increase with the number of inhabitants in a community. Therefore, communities were sorted by size into different categories and each student received the same number of communities from each category. We told students that the names of the president and the administrator were sometimes hard to find but vital for the organization, as personalized letters were more likely to result in a donation.[5]

Additionally in the award treatment, the managing director of the organization told the students that they would like to reward the two people who put in most effort with an award and that the database software would indicate these names at the end of the session.[6] The managing director also explained that she would personally come to congratulate and thank the winners. Students were shown the award, which was a congratulatory card signed by the organization (see Appendix), to ensure that everybody understood that the award had no material value.[7] In line with most company award systems, the exact criteria according to which award winners would be determined were specifically left vague. The database software was designed such that it assigned points for each edited community, which depended on the number and difficulty of

[5]To ensure equal preconditions, all students were informed that they could find basic information (e.g., the address of the community) via the web portal *www.ch.ch* and that they had to look for the names of the president and administrator and — if not already available on *www.ch.ch* — also the phone number and e-mail address using the homepage of the respective community.

[6]To guarantee comparability with the control sessions, the wording was specifically chosen such that no one got the impression that performance was being closely monitored during the session.

[7]The signaling value of the award was basically zero. First, the organization itself has no jobs to offer which was made clear during the introduction. Second, it seems implausible that the award entails any positive signal for the labor market, since it comes from a one-time, 2-hour job announced on bulletin boards. If anything, we believe that employers would conclude that students are pretty desperate if they mention the award in their CV and that students know this.

fields to be completed (see details below).

After all questions had been clarified, students started to work independently. While a research assistant was present throughout each session to help students in case of questions, students were left alone to work for 2 hours. About 5 minutes before the end of a session, students were asked to fill out a short questionnaire that was presented as feedback to the organization on how it handled the employment process and the organization of the task. The questionnaire included questions about previous database experience, ability to touch type, perceived difficulty of the task, and previous level of engagement in volunteer work. In the award treatment, the managing director of the organization then presented the awards. Finally, students were paid in cash.

In total, 150 students participated in the award and in the control treatment; 83 students participated in the award treatment (9 sessions) and 67 students participated in the control treatment (7 sessions). To separate the effect of the mere presence of the managing director in the award treatment we also conducted an additional award treatment where the award was not introduced by the managing director but by the same person who was also present in the control treatment. 34 subjects participated in this treatment (4 sessions).

We use two output measures to analyze students' performance in this field experiment: the number of communities that a subject worked on per minute and the number of points per minute that a subject achieved. The first measure reflects the main goal of the task, namely to enter the information of as many communities as possible into the database. The second measure takes into account that items differ in their importance to the organization and require different levels of time and effort. In particular, the names of the community president and administrator are hard to find online but are very valuable to the organization. To generate a performance measure that takes this aspect into account, the organization has developed a rating scheme prior to the experiment. Specifically, it attributed different numbers of points to each of the fields to be entered. The performance measure is constructed by adding up the points for all fields that a subject worked on during the job. In total, subjects could earn 20 points for each community: 1 point each for entering the zip code and the name of community or city, 2 points each for entering the address or P.O. Box, the telephone number, and the e-mail address of the community office, 3 points for finding the correct term with which the community office is to be addressed (e.g., community office or city bureau), 4 points for the name of the community president and 5 points for the name of the community administrator. Overall, our two performance measures reflect the two dimensions of the task: the quantity of work done and

the quality in terms of whether subjects prioritize their work in line with the stated objectives of the organization.

Before we present our results, let us summarize the main behavioral hypotheses. Since the award was purely symbolic and subjects knew this, standard theory predicts that performance is the same across treatments. In fact, since subjects were paid a fixed wage and effort was costly (searching the internet requires time and concentration, in addition opportunity costs are non-zero as subjects could use the internet for their own purposes), theory predicts basically zero or little output.[8] On the other hand, if subjects care about social recognition from the employer and from the other subjects, the symbolic award is expected to increase both the average performance and the variance of performance (cf. Proposition 1).

5 Results

Because sessions differed in length, we analyze students' performance in terms of productivity, i.e, output per minute of work time.[9] Work time should represent the actual length of a session and is calculated as the span of time between the first opening of a community data screen and the last saving of an entry in any given session.

Table 1 summarizes average productivity in the award and in the control treatments. The table clearly shows that performance in the control treatment is far greater than zero. The average productivity of 0.226 communities per minute translates into roughly 27 communities during the entire session. Thus, subjects work on almost half of the communities, even without any explicit monetary incentive to do so. This observation is in line with previous evidence on gift-exchange and reciprocity, underlining that a high fixed wage may induce strong implicit incentives for reciprocating with high effort.

Most importantly, Table 1 shows that students in the award treatment are, on average, more productive than students in the control treatment. This finding can neither be explained by

[8] If subjects perceive the fixed wage as a gift, social-preference models based on reciprocity predict that average output is strictly positive. Yet, also in this case no difference across treatments is expected. The reason is that the same fixed wage is paid in all treatments and that the award is of no material value. Hence, the perceived kindness (as modeled, e.g., by Dufwenberg and Kirchsteiger, 2004 and Falk and Fischbacher, 2006) is the same across treatments.

[9] The differences in session lengths are caused by the fact that students sometimes took longer to enter the room, to take their seats and to ask questions. While session lengths are not statistically significantly different between the award and the control treatment, individual sessions differ by up to 10 minutes. Using productivity rather than total output corrects for this difference.

Table 1: Average productivity in both treatments

Treatment	Session	Average number of communities per minute	Average number of points per minute
Control	1	0.216	3.944
	2	0.237	4.412
	3	0.219	3.992
	4	0.222	4.365
	5	0.204	3.967
	6	0.273	4.781
	7	0.222	4.064
	Ø	0.226	4.188
Award	8	0.253	4.479
	9	0.232	4.393
	10	0.249	4.698
	11	0.287	5.261
	12	0.232	4.184
	13	0.233	4.233
	14	0.300	4.452
	15	0.256	4.895
	16	0.256	4.594
	Ø	0.253	4.567

Note: Productivity measures refer to the average output per minute of actual work time in each session.

models of reciprocity nor by standard theory but confirms the theoretical prediction based on social recognition. A simple comparison of average performance reveals that performance in the award sessions is about 12 percent higher in terms of the number of communities entered (0.253 vs. 0.226) and about 9 percent higher in terms of the number of points achieved (4.572 vs. 4.196) than in the control sessions. A one-sided non-parametric analysis confirms that the difference is statistically significant (Mann-Whitney test, $p = 0.02$, $p = 0.04$).

To provide a precise estimate of the effect of the award on performance, we run OLS regressions of performance on the treatment dummy with and without further controls. Controls include skill in touch typing, previous work experience with databases, and perceived difficulty

of the task. The first two variables are dummy variables. The last variable is a measure on a 7-point Likert-scale, where we asked subjects whether they agreed with the statement that the task required full concentration. The results of the regressions are presented in Table 2. Models 1 and 3, which do not include controls, confirm that, independently of the productivity measure, performance is significantly higher in the award treatment than in the control treatment. Adding controls corroborates this result and provides an estimate of the award's effect on performance which is 13.8 percent in terms of communities per minute (Model 2) and 11.8 percent in terms of points per minute (Model 4). Of the control variables, only perceived task difficulty is significant at the 10-percent level and in only one model and has the expected negative sign. None of the other variables we elicited in the questionnaire has a statistically significant effect on performance or on the award coefficient. For example, subjects' pro-social motivation, as measured by the frequency with which they engage in volunteer work together with the frequency and amount of their donations to charity, has no influence on students' performance and on how they react to the award. We also find no gender effects.

Table 2: Effect of the award on performance

	Communities per minute		Points per minute	
	(1)	(2)	(3)	(4)
Award	0.027**	0.036***	0.378**	0.510***
	(0.010)	(0.010)	(0.153)	(0.164)
Touch typing		0.015		0.269
		(0.012)		(0.193)
Database		0.025		0.460
		(0.017)		(0.319)
Task difficulty		−0.010*		−0.134
		(0.005)		(0.078)
Constant	0.226***	0.261***	4.188***	4.560***
	(0.007)	(0.026)	(0.101)	(0.440)
N	150	138	150	138

Note: OLS regression with performance as the dependent variable. Robust standard errors clustered on the session level in parentheses. ***, **, * indicate significance at the 1-, 5-, and 10-percent level. As not all subjects answered all questions in the questionnaire, the number of observations declines slightly when controls are included.

Figure 1 illustrates the positive effect of the award showing the kernel density estimates of the performance distributions in the award and in the control treatments for both of our measures. The figure nicely shows that distributions are shifted to the right and that the variance of performance increases also. The increase in variance is in line with the theoretical prediction of Proposition 1. An F-test confirms that the difference in the variance is significant (communities: $p = 0.001$, points: $p = 0.049$).

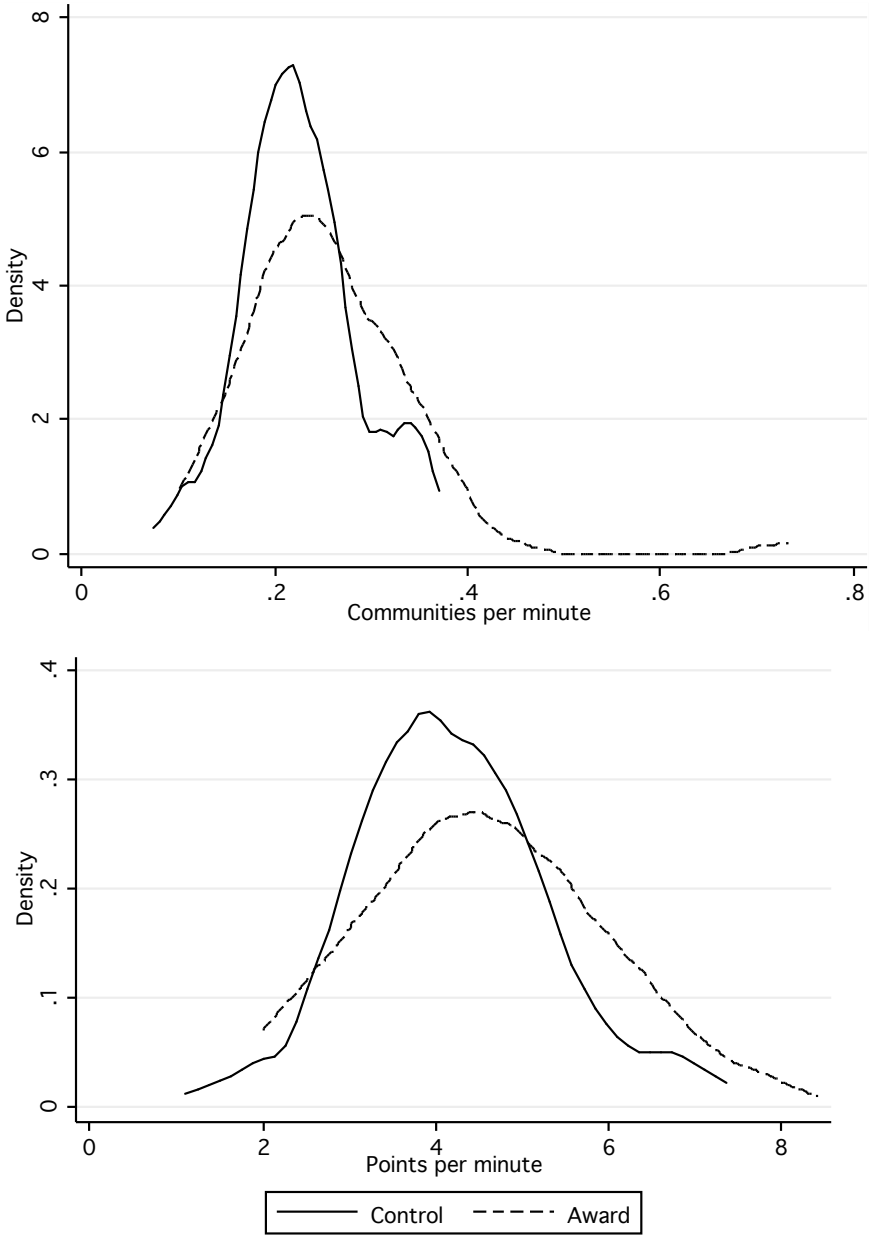

Figure 1: Kernel density estimates of performance in the two treatments (upper panel: communities per minute, lower panel: points per minute)

It is plausible that the award may have different effects on individuals depending on their relative likelihood of actually winning the award. Students who are particularly motivated or are more able in this task may show a stronger reaction than students whose underlying motivation or ability is low. To test this, we conducted a quantile regression of performance on the treatment dummy plus a constant. The results are reported in Table 3. The data show that the award has a significantly positive effect at the 1- and the 5-percent level but only for the upper quartile of the distribution. In addition, it has a significant effect at the 10-percent level for the median but only in terms of number of points. The lower quartile of the distribution increases as well, but the effect is never statistically significant. This suggests that the award does indeed have a particularly strong effect on individuals who are better than average, since these are more likely to actually win the award.

Table 3: Quantiles of performance in both treatments

	Communities per minute			Points per minute		
	Control	Award	Diff (%)	Control	Award	Diff (%)
Average	0.226	0.253	9.0	4.188	4.567	11.9
SD	0.059	0.090	52.5	1.093	1.381	26.3
75th	0.256	0.302	17.8***	4.851	5.470	11.3**
Median	0.222	0.237	6.6	4.090	4.570	10.5*
25th	0.188	0.200	6.4	3.347	3.623	7.6

Note: The table reports the quantiles of the performance distribution, estimated based on a quantile regression of performance on the treatment dummy plus a constant. ***, **, * indicate significance at the 1-, 5-, and 10-percent level.

Importantly, the increase in performance comes at no cost to quality. We verified ex post the information each student entered into the database. Looking at the share of items that were entered correctly for any given community, we find that on average 88 percent and 87 percent of the items were entered correctly in the control and in the award treatment respectively. Both quality levels are remarkably high and are not statistically different from each other (Mann-Whitney test, $p = 0.31$, two-sided). The same holds for other possible quality measures, for example, the absolute number of mistakes or the absolute number of communities entered correctly. Hence, the increase in quantity does not come at the expense of quality. On the other hand the announcement of the award does not lead to an increase in quality either. However, there was, of course, little room for an increase, as quality levels are already pretty high in the control treatment. Further, it could be that students prioritize their work differently in the

award and control treatments. In particular, students might be more eager to search for the names of the community president and administrator — information that is very important for the organization. This might also explain the higher average number of points in the award sessions as these fields earned relatively more points. We do not find this to be the case. There is no statistically significant difference across treatments with respect to the relative number of subjects completing these fields. Therefore, the observed productivity increase in the award treatment is a real quantity effect without any bearing on work priority or work quality.

In the award treatment, the managing director of the organization introduced and handed over the award. While a strong commitment from the management is typical for most awards in the corporate domain, a potential concern might be that the pure presence of the managing director at the beginning of the session might have created a Hawthorne effect that is driving our results.[10] To rule this out, we conducted an additional award treatment, in which the managing director was not present at the beginning of the session and the award was introduced by the person that also ran the control treatment. If the award effect was a mere Hawthorne effect, we should see a difference between the award treatment where the managing director was present and the treatment where she was absent. This is not the case. When the award is introduced by someone other than the managing director, average productivity equals 0.246 and 4.662 based on the number of communities and the number of points respectively. Comparing this to the data in Table 1, we see that productivity in terms of number of communities is slightly lower (0.246 vs. 0.253) but productivity in terms of points is slightly higher (4.662 vs. 4.567) if the manager was absent compared to if she was present in the award treatment. None of these differences is statistically significant (Mann-Whitney test, $p = 0.70$ and $p = 0.86$ respectively). Thus, we can conclude that the positive impact of the award on productivity is not driven by a Hawthorne effect based on the mere presence of the managing director of the organization.

Overall, the size of the effect of a symbolic award in our field experiment is substantial. Recent evidence from gift-exchange experiments in the field report output elasticities with respect to wage increases between 0.16 and 0.38 (Fehr et al., 2008). The observed increase in performance in our study of about 12 percent is thus equivalent to the effect of a hypothetical wage increase of 32 to 75 percent. This strong effect relative to monetary rewards is consistent with the idea that symbolic rewards play a much more important role in actual labor relations

[10]The term "Hawthorne effect" refers to a famous series of experiments at the Hawthorne plant of Western Electric in the mid 1920s (Mayo 1933; Roethlisberger and Dickson 1939). It symbolizes the idea that increased attention by management alone can increase worker productivity. See Levitt and List (2009) for a recent assessment.

than has been suggested by economic theory or by laboratory experiments. In line with this idea, Dur (2009) argues that the observed disparity between the impact of monetary gifts in the lab and in the field is due to the fact that money is the dominant medium of exchange in the lab, while employers in the field can use other, symbolic, rewards as well. As it turns out, these symbolic rewards may indeed be sometimes better for signaling kind intentions and for motivating employees to work hard (Kube et al. 2008).

6 Conclusion

The contribution of this paper is to show that status and social recognition alone can be strong motivators for agents to increase their effort in the presence of awards. Our findings thus corroborate recent arguments emphasizing the important role of symbolic rewards in labor relations that sometimes even outperform purely monetary incentives (Ellingsen and Johannesson 2007). The main message of our paper is that social recognition matters (positively as well as negatively) and that principals are well advised to take this into account. The message is *not*, however, that monetary incentives, which often come together with awards, are unimportant. Quite the contrary, we believe that it is likely that social status and monetary aspects reinforce each other and that optimal incentives are based on the combination of social as well as monetary elements (cf. Auriol and Renault 2008).

In this field experiment we collaborated with a non-governmental organization as the award-giving institution. Although we do not find a consequential effect of students' pro-social motivation in our data, it might be that this might limit the extent to which we can generalize our results to other domains. However, the fact that the award comes from a NGO was not an accident but indeed highlights a basic condition for awards being a good motivator. The social recognition from an award crucially depends on the reputation and the image of the institution offering the award as well as on the individual achievement yielding the award. In this sense, it may actually be true that awards are better instruments in some domains than in others, and that the power of symbolic awards is affected by the reputation and the culture of the organization as well as by the objective individuals are expected to achieve. However, awards are clearly not limited to NGOs, as the large number of awards in the corporate sector reveal and as recent firm data on the effect of tournaments "without prizes" also documents (Dur et al. 2009; Blanes i Vidal and Nossol 2009).

Finally, we believe that our results are also important for theory. At the latest beginning with Postlewaite (1998), there has been a debate in economics as to whether it is appropriate to

model status as an explicit argument in the utility function or whether an individual's pursuit of status and social recognition is more implicit and instrumental in achieving other explicit goals (and hence should also be modeled in that way). The finding that purely symbolic awards, which affect nothing but social standing and recognition of an individual, influence behavior can be seen as strong evidence in support of the direct approach (e.g. Moldovanu et al. 2007; Auriol and Renault 2008; Besley and Ghatak 2008), and limits the concern that by following this approach these models adjust utility functions in an arbitrary manner.

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Appendix: The Award

THE HUNGER PROJECT

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