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Does happiness make workers more productive?

Keywords: Productivity, Happiness, Wellbeing, Experiment

Some firms say they care about the wellbeing of their employees. But are such claims hype, or scientific good sense?

Elevator Pitch

Recently, large companies like Google corporation, have made large investment in workers wellbeing. Evidence shows that better performing companies have happier employees. However, in spite of its relevance, this question has been largely overlooked in the academic literature.

. Finding causal relations is thus crucial for firms to justify expenses to provide a happier work environment for their employees.

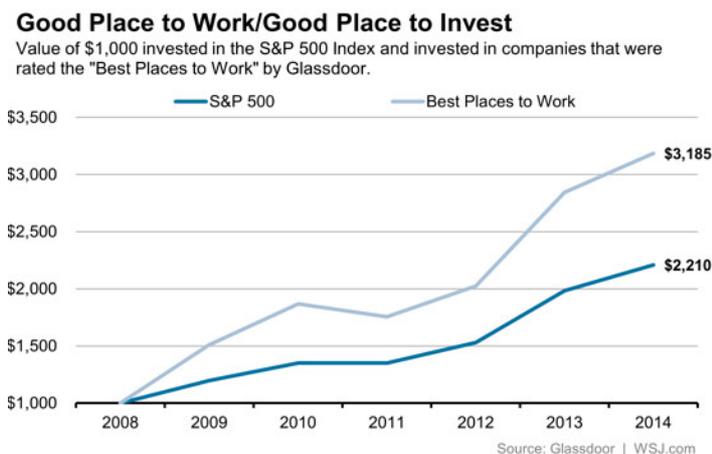


Figure 1 A good places to work might also be a good place to invest. Source: from [1]

Positive effects of happiness on productivity-related behaviour:

- Several studies shows that positive affect induces subjects to change their allocation of time towards more interesting tasks
- It is generally found that positive emotions influences the capacities of choice and innovative content

- Experimental evidence generally show that positive emotion improves memory recall
- All in all, most studies report that positive emotion improves performance

Limitations:

- Experimental Evidence in the past was based on small number and the subjects were not duly incentivized
- Experimental Evidence is based on student subjects, so not particularly representative of the entire population
- Evidence based on real word data does not allow clear-cut judgment about causality
- A minority of studies report small or even negative effect.

Author's main message

The policy of paying attention to employees' wellbeing seems to be validated by the experimental and the real-word evidence. Happiness seems to invigorate individuals and led them to make bigger effort. This results in an increase in their outputs without affecting its quality, hence an increase in people's overall productivity. The effect is present both for a temporary variation of the mood and for a long-term change in the baseline happiness. More analysis is nevertheless needed since the existing evidence is either based on simple correlations or obtained in a quite artificial experimental setting.

Motivation

Academics and managers started to give much more emphasis to workers' psychological wellbeing in the last 30-40 years (some refer to this phenomenon as "affective revolution") has taken place, in which. Recently, large companies have highlighted the importance of their employers' wellbeing in their narratives as, for example, in the two quotes below:

At Google, we know that health, family and wellbeing are an important aspect of Googlers' lives. We have also noticed that employees who are happy ...

demonstrate increased motivation ... [We] ... work to ensure that Google is... an emotionally healthy place to work. Lara Harding, People Programs Manager, Google.

Supporting our people must begin at the most fundamental level – their physical and mental health and well-being. It is only from strong foundations that they can handle ... complex issues.

Matthew Thomas, Manager – Employee Relations, Ernst and Young.

Quotes from the report Healthy People = Healthy Profits Source:

<http://www.dwp.gov.uk/docs/hwwb-healthy-people-healthy-profits.pdf>

But are such claims hype, or scientific good sense?

Discussion of Findings and Limitations

Psychologists have broadly examined the link between subjective wellbeing and productivity-related behaviour using different kind of evidence, both using real and laboratory experimental data. In the latter this has been done by inducing happiness shocks, but usually with a small sample of subjects and in an un-incentivized setting.

[2] show that positive affect induces subjects to change their allocation of time towards more interesting tasks; subjects' performances in the less interesting tasks result basically unchanged. This suggests that happier individuals become better in undertaking repetitive tasks-- though the authors do not discuss exactly why this might be true or how this interacts with performance-related payment.

Furthermore, psychologists have argued that positive emotion influences the capacities of choice and innovative content, improves memory recall and improves performance [3].

The links between productivity and human wellbeing, in particular, have been of interest to many kinds of social scientists. [4] find a significant and sizeable effect of long-term happiness on productivity. They also examine the connections between worker affect and supervisors' ratings of workers. Depending on the affect measure, the authors find mixed results. [5] echoing Isen's results uncovers evidence that happiness provokes greater creativity. [6] points out that there is some evidence that job satisfaction exhibits a small positive correlation with worker productivity. [7],

who define a happy person as someone who frequently experiences positive emotions like joy, satisfaction, contentment, enthusiasm and interest, show that people of this kind are more likely to be successful in their careers by drawing on both longitudinal and experimental studies. [8] in contrast with the rest of the literature, suggest that those individuals in a negative mood put forth a high level of effort.

Economists and management scientists still know relatively little about the causal linkages between these two variables. The link between happiness and productivity might eventually offer microeconomic foundations to the observed correlations between job satisfaction and stock-market performance (like the one presented above, in figure 1). Similarly, [9] show that an increase in the measure of job satisfaction by one within-plant standard deviation increases value-added per hours worked in manufacturing by 6.6% in longitudinal European data. However, these studies are generally based on real world data and simple correlations.

[10] using young Americans' earnings from the Add Health data set, show that even after controlling for sibling fixed-effects and other covariates it is the 'happier' individuals -- where happiness can be measured in different ways -- who go on years later to have higher incomes.

Conceptually, studies that relate to the link between happiness and productivity suggests that firms do not cut wages because likely loss of morale or at the opposite an increase of a piece-rate wage can decrease hours but increase labor intensity.

There is a mostly analytical literature in economics on intrinsic and extrinsic motivation, which is relevant to the analysis of the effect of subjective wellbeing on productivity. Although not directly about affect or happiness, it examines intrinsic motivation -- i.e. motivation based on internal psychological incentive -- as opposed to the extrinsic motivation (incentivized payments) normally considered in economics. A paper by [11] focuses on the interactions between self-deception, malleability of memory, ability, and effort. The authors consider the possibility that self-confidence enhances the motivation to act, so their framework is consistent with the idea that there can be a connection between mood and productivity. They develop an economic model of why people value their self-image, and they use this specifically to justify seemingly irrational practices such as handicapping self-performance or the practising of self-deception through selective memory loss. In

general, such writings reflect an increasing interest among economists in how to reconcile external incentives with intrinsic forces such as self-motivation.

Beside the theoretical papers mentioned in the last paragraph. There is also an experimental economic literature on the nature of motivation. [12] provide contrasting kinds of evidence concerning the relationship between monetary compensation and performance. They show that offering no monetary compensation can be better motivation than offering a small one, although in general increasing the size of monetary compensation raises performance. [12] discuss how to rationalize this finding, and suggest that there is a tension between the concepts of intrinsic and extrinsic motivation developed within psychology. In simple words, intrinsically motivated subjects perform well in the laboratory, but this motivation is crowded out when they are offered a form of extrinsic motivation (monetary compensation). In these terms, [12] can provide a mechanism through which happiness can affect productivity through the impact of mood on intrinsic motivation (by holding constant the level of monetary compensation).

To summarize, the psychology experiments referenced above explore the link between affect and a variety of notions (performance, creativity, etc.) which have a link to productivity. However, they invariably apply to non-incentivized settings (the laboratory subjects' marginal wage rate is zero), focus on laboratory-induced (short-run) shocks and use small sample of subjects. Economists, Managerial Scientists and Sociologist have used real word data, but their analysis is always limited to the difficulty of identifying the causal relationship running from Happiness to Productivity. The economic literature on motivations can provide a theoretical framework to analyse the effect of subjective wellbeing on productivity.

[13], in an series of experiments involving almost 800 subjects in total, aims to innovate on the current literature in several ways: (a) they incentivize the tasks, important given our stated aim of being interested in productivity *within the workplace*, as well as to follow standard practices within experimental economics; (b) they measure productivity directly and in way that allows us to differentiate between different factors which might influence the composition of productivity such as effort, (cognitive) ability and concentration; (c) they differentiate between the short and long-run impact of shocks, and between shocks to positive and negative affect; (d) they differentiate between shocks that are induced within the laboratory and those

induced by nature; and (e) they discuss the links between affect, happiness and productivity and the utility function.

[13] run two main experiments. In the induced-happiness shock experiment (experiment 1), they design a randomized trial. Using a comedy clip, OPS increase the happiness levels of some subjects and compare their performances with a control group who have not been subjected to the comedy clip treatment. Subjects treated with the comedy clip have 12% greater productivity in a paid piece-rate task, consisting in the solution of simple mathematical problems. They alter output but not the per-piece quality of their work. In the real world happiness shock experiment (experiment 2), the effect of major unhappiness shocks -- bereavement and family illness -- are studied. Subjects perform the same task as in experiment 1, and at the end of the experiment a question whether they experienced a bereavement or family illness in the last two years is asked. Subjects that experienced this bad life event, report lower happiness and have a 10% lower productivity than subjects who did not experience the bad life event (figure 3). Therefore, the findings from real-life experiment (experiment 2) match those from the random-assignment (experiment 1)

Particularly through the findings described above, [13] show that the mechanism that links affect to productivity works mainly through effort, and that this avenue is maintained irrespective of how the shock was induced, whether the shock is categorized as short or long-run or works through positive or negative affect.

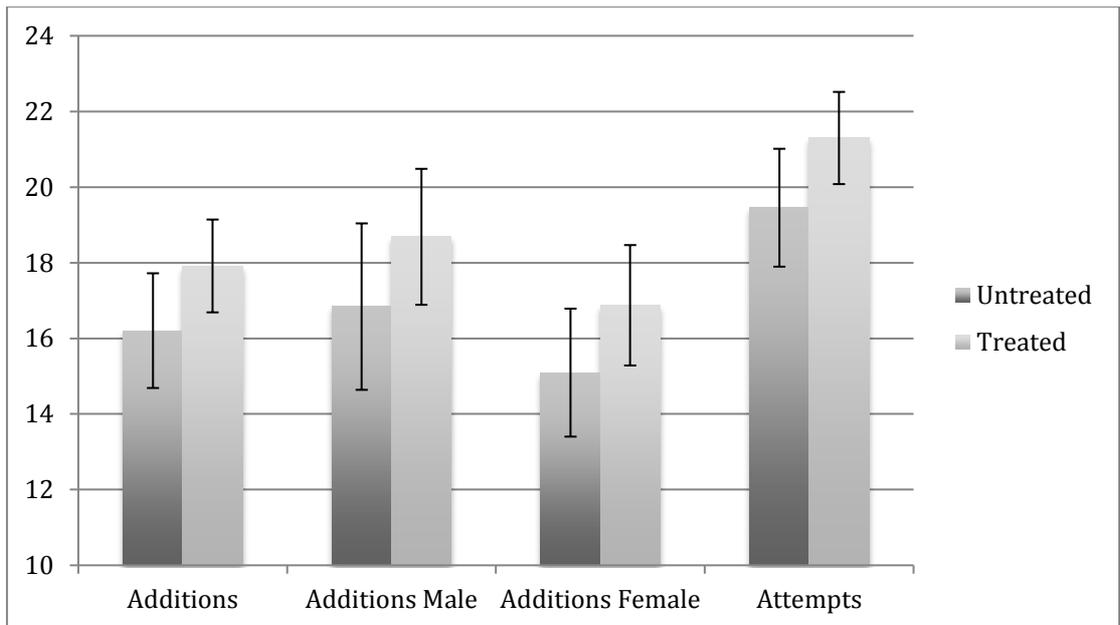


Figure 2 Those exposed to the randomized happiness treatment in the laboratory have higher productivity in Experiment I (source Oswald, Proto and SgROI, 2015) [Here the happiness treatment is a comedy movie clip in the laboratory.]

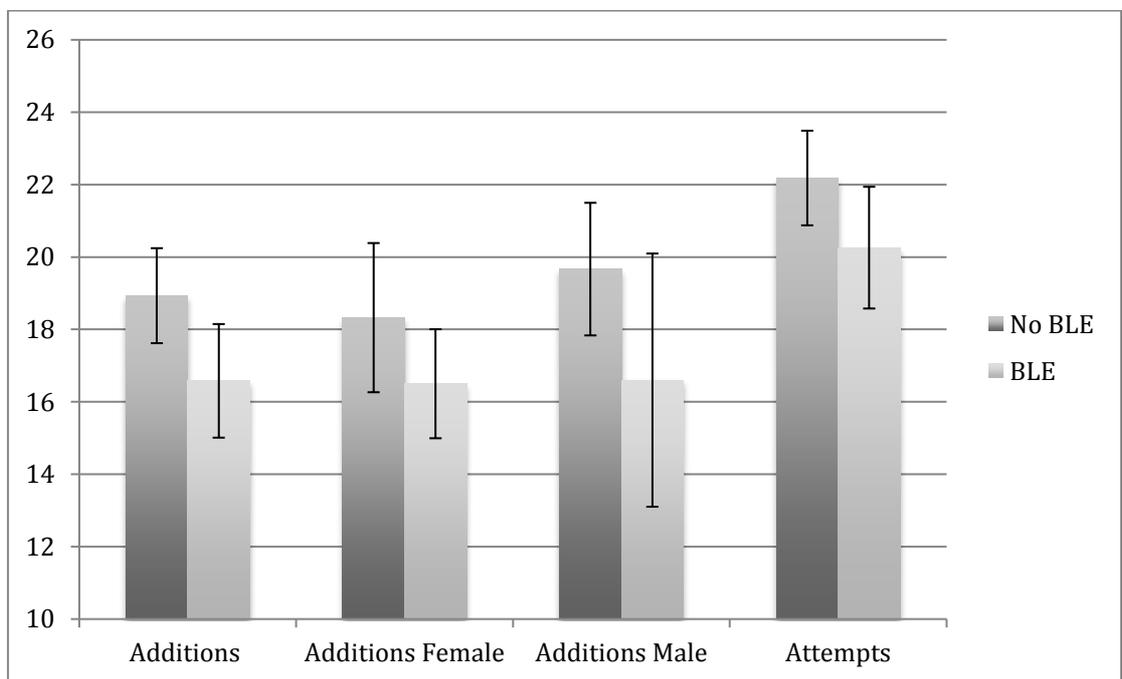


Figure 3 Individuals with a recent Bad Life Event (BLE) have lower productivity in Experiment 2 (source Oswald, Proto and SgROI, 2015) [Here a bad life event is bereavement or family illness.]

Limitations

[13] provide evidence of an effect clearly running from happiness to productivity. However, the experiment is based on a highly stylized task and, as it is usual the case in laboratory experiments, a sample taken from a student population is employed as subjects. A natural follow-up would be to perform a field or a laboratory field experiment with real employees and in a natural working environment.

Furthermore, it must be emphasized that the above-mentioned contributions do not generally take into account the costs of investing in workers' wellbeing. This is a necessary step forward to validate the cost-effectiveness of these wellbeing policies.

Summary and Policy Implications

The broad message from [13] and, more generally, from the above mentioned literature is that emotions have a potentially powerful economic effect, at least in the short-run.

Various implications emerge. First, it appears that economists have to pay more attention to the emotions when they analyze and design policies. So far, in the empirical literature on the economics of well-being, emotional forces have been viewed, as, as a form of dependent variable. Second, closer connections will have to be built between applied psychology and applied economics. Third, if happiness in a workplace carries with it a return in terms of enhanced productivity, there are enormous implications for firms' promotion policies and in the way they structure their internal labor markets. Fourth, the effect running from happiness to productivity can raise the possibility of self-reinforcing spirals -- ones that might even operate at a macroeconomic level. Happiness might lead to greater productivity in an economy, and that might in turn result in greater well-being. These happiness-productivity-happiness spirals would be a fundamental propagation mechanism linking short-run shocks into the longer run, and represent an important avenue for future research.

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Further Readings

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Conflict of Interest

“The IZA World of Labor project is committed to the IZA Guiding Principles of Research Integrity. The author declares to have observed these principles.”