

Happiness & Productivity

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Presentation Strategy

- Given I have 30 minutes I will focus on motivation, intuition and results.
- For those interested in the literature, theory, detail about the experimental methodology and full regressions (including IV regressions) please see the paper.
- Go to **www.warwick.ac.uk/go/dsgroi/papers/** for the latest version.

The Happy Worker

- Are people more effective workers when they are happy?
- The psychology literature doesn't quite answer this question and is divided, and economists have not looked at this before, so this is an open question.
- Our answer: **if people become happier this does not raise their ability but it does mean they put in more effort, so that does make them more productive.**
- Our methods: we ran 2 sorts of laboratory experiment.
 - For short-run happiness shocks we tried to make people happy in the lab and measured the impact on productivity;
 - For long-run happiness shocks we looked at "bad life events" (illness and death in the family) instead.

Comedy, Happiness & Effort

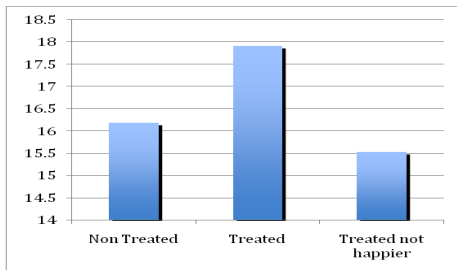
- Mood-induction procedures: the best is supposedly audio-visual, so we used a comedy clip for our key treatment (treatment) and a placebo (basically a screen saver) for our control.
- 276 subjects selected to be "similar" (similar age, background) who had likely been exposed to similar humour before.
- Timeline: clip; productivity task; GMAT-Math style test; questionnaire (including happiness report).
- The productivity task: add up as many numbers as possible (5, 2-digit numbers, like " $24 + 74 + 29 + 48 + 10 = ?$ ") in 10 minutes and paid based on the number they got right (fully incentivized). The GMAT Math-style test was also incentivized.

Comedy, Happiness & Effort

- Results seemed to indicate that it did indeed raise happiness in the short-run (by about 1 point out of 7 on a 7-point scale) between groups (5% significance).
- We can separately look at number of questions attempted, number correct, percentage correct (precision), and the IQ test score.
- **Those who saw the comedy clip answered more questions correctly** (Roughly 10% more and statistically significantly so).
- In particular the effect came entirely through answering more questions - not the % correct and no affect on the GMAT-Math style test.

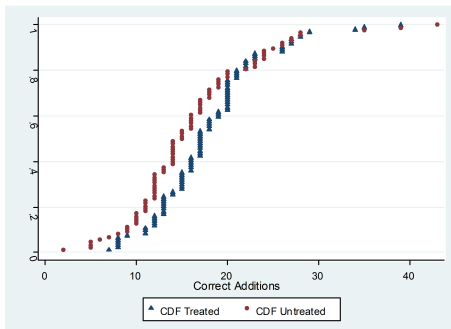
Comedy Boosts Effort!

- Very clear 5% significance between non-treated (placebo) and treated (comedy clip). Effect vanishes when we consider those who professed not to like the comedy clip.



...All Along the Distribution

- We have first order stochastic dominance too:



How Happiness Evolves

- In a variation and robustness check we also considered how happiness changes over the duration of the lab experiment.
- Virtually identical to the comedy clip session, with another 104 subjects we added additional happiness reports at the very start and immediately after the clip.
- Confirmed that happiness did rise (within now, not just between subjects) after the comedy clip and remained in effect by the end of the session.
- Many other variations and checks carried out (no placebo, hidden payment or revealed, etc.).
- All our earlier results confirmed.

Bad Life Events

- In our second lab experiment we asked 179 subjects to first report their happiness (important that this occurs first now for priming reasons)
- Then the productivity task (adding numbers) and GMAT-Math style test.
- At the end of the experiment we asked whether they had suffered bad-life events in their recent (5 year) past including serious illness and death in their close families as well as other demographic questions.

Results

- As we would expect, those with major bad life events were less happy even 5 years later.
- More suprisingly, there was an effect on productivity (statistically significant) even up to 5 years later: **those exposed to a bad life event were around 10% less productive.**
- Once again the effect worked through effort not ability.

Conclusion

- A big experiment (559 subjects total) with highly significant results throughout.
- We find that happiness has a powerful effect on productivity and it seems to work through a change in output rather than the quality of lab subjects' work.
- The effect is found equally in male and female subsamples and in small or large groups.
- Profound policy implications: managers and governments should think about how to raise the happiness of the workforce and factor in the positive impact of happiness-boosting policies on productivity (as part of a serious cost-benefit analysis).