

THE NOTTINGHAM SCHOOL OF ECONOMICS

Fear is the key for freeloaders

Co-Operation and Punishment Under Uncertain Enforcement

By Sergio Sousa

Actions speak louder than words when it comes to tackling the problem of “free-riding” workers, according to new research.

Selfish employees are far more likely to keep taking liberties if they think the threat of punishment is just that – a hollow warning.

But they will abandon their freeloading ways if they genuinely fear having to pay a price for their self-centred behaviour.

The findings emerged from a series of experiments carried out by researchers at the prestigious Nottingham School of Economics.

Economists believe the results prove rules and regulations need to be seen to be enforced if they are to inspire effective teamwork.

Research basis

Almost 100 volunteers took part in the study, which was carried out the School’s Centre for Decision Research and Experimental Economics (CeDEX).

Volunteers were placed in groups of four before each subject was given an identical amount of “money” and asked to decide how to invest it.

They could choose to place their funds in a public account, so earning a limited return for themselves and their fellow group members.

Alternatively, they could put money in a private account, guaranteeing themselves a greater return but earning nothing for their colleagues.

Afterwards each group member was informed of the others’

Key findings

- Punishment needs to be exercised to be feared – the mere threat of it is unlikely to improve behaviour among selfish individuals.
- The threat of punishment can bring about co-operation only if the likelihood of that punishment actually being carried out is perceived as high.
- Willingness to punish selfish colleagues is affected by uncertainty over whether punishment will actually be enforced. Individuals tend to punish less if they are unsure.
- Even so, the more an individual escapes being punished, the more punishment he tends to attract from colleagues subsequently.
- These results could help the business community tackle the problem of “free-riders” – essentially, those who take more than their fair share in a work situation.

choices and invited to “punish” any perceived selfishness by imposing deductions.

The process was repeated over 10 rounds to examine whether subjects modified their behaviour in light of other group members’ responses.

Researchers then conducted similar experiments in which the chance of a punishment actually being carried out was no longer a certainty.

In the first scenario, known as P80, there was an 80 per cent probability of a penalty, while in the second, P20, there was only a 20 per cent chance.

Comments and implications

Study author Sergio Sousa said: "How selfish individuals can be made to co-operate when their behaviour is at odds with collective interest is an important issue.

"It obviously has implications for the workplace, where free-riders – those who take more than their fare share – represent an ongoing problem.

"Crucially, our research shows a sanctions system won't encourage co-operation if those who earn punishment don't expect to receive it.

"Our findings support the theory that punishment needs to be exercised to be feared – otherwise the simple threat of it just doesn't work."

Sousa said "significant" differences emerged between the three tests.

"Public account contributions increased in the P80 scenario, which closely followed the results for the test in which punishment was certain," he said.

"But contributions were noticeably lower in the P20 set-up, starting at around half of volunteers' endowments and decreasing over time.

"This shows the mere threat of punishment isn't effective if enforcement is perceived as weak – the threat is seen as just words rather than a precursor to action."

In the P80 test, with volunteers afraid of the strong likelihood of punishment, public account contributions were raised and sustained "at a high level".

Sousa described the result as "comforting", adding: "It suggests a sanctions system that's less than perfect can still induce co-operative behaviour.

"After all, we should bear in mind that most sanctions systems in modern societies don't have perfect enforcement or even perfect monitoring.

"Our tests show such a system's ability to deter selfishness can work through the perception it creates regarding detection or enforcement.

"This is in line with, for example, evidence that tax compliance

About the NSE

The Nottingham School of Economics is one of the UK's leading teaching and research departments.

It has a world-class reputation for its research on a broad range of subjects, particularly globalisation, experimental economics and time series econometrics.

Its economists have advised organisations including the Treasury, the Bank of England, the World Bank, the Commonwealth Secretariat, the IMF and the Department for Work and Pensions.

The School's standing among the elite economics departments in the UK was reinforced by the 2008 Research Assessment Exercise, which ranked its "research power" among the top three in the country.

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increases when people are threatened with having their records examined more closely.

"In such a case co-operation is promoted not by a threat of more severe punishment but by changing the perceived likelihood of being found out."

Doubts over whether a punishment would actually be inflicted also affected volunteers' willingness to penalise fellow group members.

Selfish subjects were punished less in the P20 and P80 experiments – although those who escaped enforcement continued to attract deductions.

Sousa said: "On the one hand, uncertainty over whether the punishment will be carried out seems to weaken willingness to take action.

"On the other, a history of free-riding going unpunished creates frustration and increases anger towards those who 'got off the hook'."

CeDEX

The Centre for Decision Research and Experimental Economics (CeDEX) was founded in 2000 and is based in the School of Economics at the University of Nottingham.

The Centre's focus is on research into individual and strategic decision-making using a combination of theoretical and experimental methods.

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