Economists have traditionally modelled human behaviour by assuming individuals maximise their personal happiness subject to some form of constraint, budgetary or otherwise. They tended to say relatively little about the effect of relationships between family, friends, neighbours and work colleagues. Such neglect reflected perhaps not an ignorance of the importance of such interactions, but rather an awareness of how difficult it is to model theoretically, and measure empirically, such phenomena.

In our study we model and measure the role of cooperation within a very particular interaction and outcome: workplace absenteeism. In so doing, we shed light of one of the central issues regarding human behaviour. To what extent, if any, do people care about others?

Within our model, workers are assumed to have a tolerance level of sickness determined by wages, sick pay and working hours. The decision to absent depends on a worker’s realised health and their corresponding ‘reservation’ level of sickness – i.e. the level of sickness at which they are indifferent between attending and absenting. This reservation level is related to the employment contract – workers are more likely to attend the higher the wage and the lower level of sick pay and/or contractual hours.

We apply the model to a two-worker framework within which work is interdependent. The absence of one worker imposes a cost on the other worker. We think of this cost possibly in terms of the additional effort that workers have to exert to compensate for the absence of their colleague. We predict that if workers are selfish and do not care about one another, then they will be more or less likely to absent than a worker working in isolation. If, however, they care, then they will unequivocally absent less.

We test our model by comparing the absence rates of workers who actually do work either alone or in pairs. Our data comprise the daily absence records of sixty-four optometrists working in one of the twenty-two practices of a
private ophthalmic optician company in the northeast of Scotland over the period April 2005 – September 2008. The optometrists are professional service providers who examine eyes, prescribe spectacles or contact lenses, give advice on visual problems and detect any ocular disease or abnormality, referring the patient to a medical practitioner if necessary.

In our sample, practices that have one examination room always have one and only one optometrist for eye examinations. We label this examination ‘single-testing’. Other practices have two examination rooms and may accommodate two optometrists for ‘double-testing’. By comparing the absence records between single-testing and double-testing practices, we are able to test whether workers behave competitively or cooperatively.

When an optometrist is absent, the scheduled appointments are cancelled and rescheduled unless a substitute optometrist is found. Optometrists are constrained in the number of eye examinations (i.e. appointments) they can perform during a day by the National Health Service (NHS) Scotland. Therefore, optometrists who are absent one day are not expected to make up all cancellations the next day.

Furthermore, they are unaware a priori whether or not a substitute optometrist will be sent to the practice. Hence, we assume that when making the decision whether to absent, both single and double-testing optometrists face the same expected cost of absence in terms of the eye examinations that they will have to perform once they return to work. Double-testing optometrists are close substitutes in production since in the absence of one optometrist the other optometrist, under the terms of their employment contract, may pick up additional appointments, without extra pay, in order to minimize the cancelling and rescheduling of appointments. The number of working days that optometrists missed over the sample period due to absence account for 1.3 per cent of their total contracted days.

Our empirical analysis suggests that absence is indeed lower when employees work in pairs rather than in isolation, a result that lends support to the cooperative equilibrium outcome in our theoretical model. The estimated effects suggest that moving from single-testing to double-testing reduces the probability of absence by 0.004 percentage points. Whilst small in absolute terms, with an average absence rate of 1.3 per cent, this implies a potential relative fall in the probability of absence of 30 per cent.

Our results shed some light on how people interact in the workplace and the effect of that interaction on their decision to be absent or not. Our study maybe suggests that they do care about each other. They cooperate and in so doing reduce absence relative to selfish, non-cooperative workers. HR policies that foster and promote a collegial environment may be an important tool in reducing absence from the workplace and its consequent loss in productivity. Much (much) more broadly, our study suggests that we should not be entirely pessimistic about the future of the human race.

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Notes:

- This post is based on the authors’ paper Looking after number two? Competition, Cooperation and Workplace Interaction, Journal of Economic Behaviour & Organization, 131, 166-182.
- The post gives the views of its authors, not the position of LSE Business Review or the London School of Economics.
- Before commenting, please read our Comment Policy.
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