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## “Food for thought” on Incentive Systems for Academics & Researchers

- comments on excerpts from Stiglitz *The Price of Inequality*, 2012
- the case of FSSch at NOVA University, Lisbon

João Sàágua, NOVA University, Lisbon  
[jsaagua@unl.pt](mailto:jsaagua@unl.pt)



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**1. An adequate incentive system, can involve money payments, but it should NOT be about money.** One must distinguish between:

- a) Circumstances where monetary incentives “*have the potential to focus minds on a thorny problem and deliver a solution*” (pp. 135-6). Stiglitz gives the example of John Harrison (XVIII century) a very bright mind with no formal education, who solved one of the greatest scientific problems of his time – to figure out a practical and useful method for determining longitude. The money prize was offered by British Parliament, which called it “*a king’s ransom*” (Longitude Act of 1774); and

b) Circumstances where monetary incentives seem to 'buy' what only a sense of *honour* and *duty* can provide: *"Is it conceivable that a surgeon performing heart surgery would exert more care or effort if his pay depended on whether the patient survived the surgery or the heart valve surgery lasts more than five years?"* (p. 136)

c) He concludes then: *"Because financial incentive systems can never be perfectly designed, they often lead to distorted behaviour, **an overemphasis on quantity over quality**"* (p. 136)

d) Incentive pay can give rise to a *"distorting compensation"*: people engaging in behaviours not aligned with the values their institution, even dishonest behaviour, in order to 'grab the money', e.g., bankers taking excessive risk, *or **scientists cheating on data, or stealing data and ideas from colleagues, to 'fabricate' innovation*** (pp. 137-8)



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## **2. In a well-designed incentive system:**

**a) Incentives should be grounded on trust.** That is *"on the assumption, especially for higher-level jobs, that employees will do their best and do not hold back, even in the absence of an incentive pay"* (p. 137)

**b) Incentives should be designed to compensate relative performance.** That is *"performance relative to others in similar position"* (p. 136), performance *"compared to a group of comparable peers"* (p. 139): **one way to spot innovation**

**c) Incentives should foster prudential judgements.** They should be balanced between actual outcomes and *"an evaluation of long-term performance and potential"* (p. 136): **innovative potential**



**d) Incentives should be perceived as recognition towards alignment with the Institution Values and Strategy.** “Individuals can be better motivated by intrinsic rewards – by the satisfaction of doing a job well – than by extrinsic rewards (simply money). To take one example, the scientists whose research and ideas have transformed our lives in the past two hundred years have, for the most part, not been motivated by the pursuit of wealth. This is fortunate, for if they had, they would have become bankers and not scientists. It is the pursuit of truth, the pleasure of using their minds, the sense of achieving from discovery – and the **recognition** of their peers – that matters the most” (p. 139) **innovation should be honoured by the institution more than just paid, and aligned with both institution values and strategic plan**



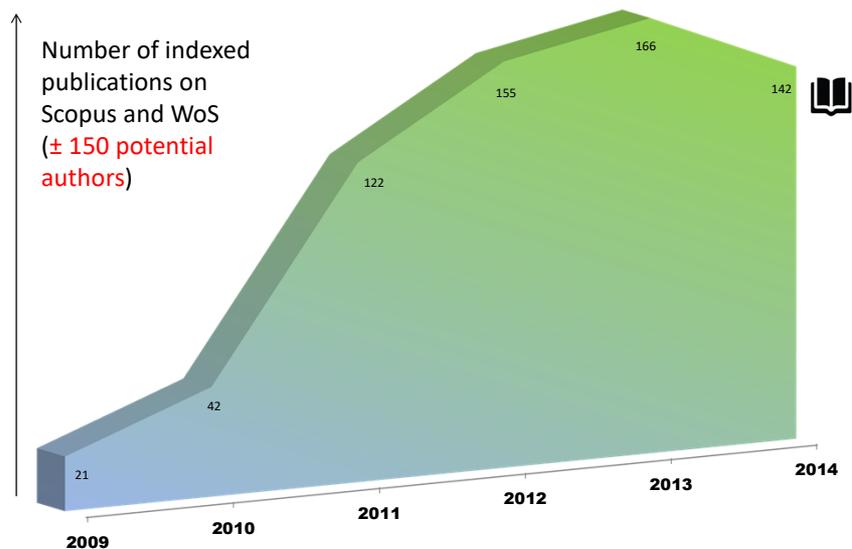
**e) Incentives should foster cooperation.** “Cooperation can be facilitated by the pay that depends on team performance. (...) Individuals work hard to please others in their team – and because they believe it is the right thing to do” (p. 141). Further, “(...) team spirit can spur them” (p. 142) **cooperation has more innovative potential**

**f) Incentives should promote fairness.** “Individuals may decrease effort, if they feel they are being unfairly treated” (p. 141), “perceptions of unfairness affect the behaviour. If individuals believe that their employer is treating them unfairly, they are more likely to shirk the job. [... Hence] the importance of fairness to productivity” (p. 159)



**In 2008, an incentive system for increasing the number of publications in Scopus and WoS was implemented at FSHSc Nova University – *success metrics: 1 paper / year / person (most active ones)***

- a) *Annual money prizes* for the authors who publish more indexed paper each year; the winners are *honoured* in the “FSHSc Day”, an official celebration that takes yearly
- b) *Less teaching load in* year n+1 for all the academics that publish at least one indexed paper in year n (could go up to 50% less), teaching necessities were compensated by temporary *hiring Teaching Assistants suggested by those academics*
- c) *If indexed publications were outputs of funded research projects, a fraction of the overheads of the project would go to their authors in the form of a “researcher personal account”*



### Self-criticism

- Not sufficiently *advertised*, 'pockets' of local unawareness of the system
- No parameter to foster *collaborative research*; even the contrary: co-authors split among them the money prize
- No sufficient stress on *relative performance* (e.g., normalized impact); reason: the initial base line was very low
- Not place for *potential* innovation, e.g., no prize for young researchers
- Limited to publications as indirect indicators of innovation, *not an overall* incentive system to foster increasing of research activity and innovation

### Question

What parameters to consider when one is designing an incentive system to foster research innovation in: a) the area of social sciences and humanities; b) the more laboratorial areas of health sciences and engineering