Steering effects of research evaluation on SSH early career researchers

Paul Benneworth[1], Julia Olmos Peñuela[2] & Elena Castro-Martínez[3]

[1] p.benneworth@utwente.nl

Department of Business Administration, Western Norway UAS & CHEPS, The Netherlands

[2] julia.olmos@uv.es

Department of Management, Universitat de València, Valencia, Spain

[3] ecastrom@ingenio.upv.es

INGENIO (CSIC-Universitat Politècnica de València), Valencia, Spain

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Introduction and Background

There is an increasing interest in academic and policy communities on the societal impact of research in order to maximise the social benefits created by public investments in science (Muhonen et al., 2019). As part of that, it is becoming increasingly evaluated in an attempt to create the right incentives for scientists to steer academics to deliver this improved efficiency (Sivertsen, 2017). But those evaluation processes have raced ahead of the understandings of the way that research creates impact (Donovan, 2017). Bonaccorsi (2018) points out that this risks making a fairly fundamental epistemic error that fails to capture a diversity of working practices in different scientific disciplines that do not correspond to these common sense evaluation models used in policy and practice, such as in the social sciences and humanities (SSH) (see also Benneworth et al., 2016). This raises a *prima facie* case that societal impact evaluation of research might be producing adverse effects in the academy, that these problems might be being disproportionately borne by SSH: it is this problematic that we address in this paper.

To conceptualise the effects of evaluation and academic steering, we consider evaluation as one of a set of practices that lead to coordination within communities by researchers (Kitcher, 2001). Scientists individually take choices within institutional structures that produce collective judgements about what constitutes 'good science' (Gläser, 2012; Laudan, 1978); i.e., that is, science that makes a contribution to progress and forms the basis for other scientists to do their work. There is a positive feedback between 'good science' and credibility, with 'good science' building individuals' credibility, and that credibility then providing access to the facilities necessary to pursue 'good science' (Latour & Woolgar, 1979). These institutional structures mediate a shared understanding of what that goodness is, and scientists take their own decisions in order to perform 'good research'. There is therefore a cycle of steering in which scientists take decisions, and these are subjected to various kinds of evaluation.

Those evaluations may determine what is accepted as 'good science' by the field (such as in evaluating research proposals or journal articles for publication), providing retrospective steering. At the same time, scientists also take decisions in anticipation of their subsequent judgement by their scientific peers. This can be the ongoing attuning of scientific activities on the basis of interim feedback (such as presenting conference papers, issuing working papers or informal communications). Scientists also prepare their scientific activities, their research questions, and plans, in order that they are eventually judged to be 'good science' in their wider peer communities.

These activities are held together by individuals who perform multiple roles in this system: a scientist reviewing a paper both exercises a judgement over what is 'good science' as well as giving them an insight into the standards they have to achieve to do 'good science'. These activities provide an aggregate steering effect by creating activities that function as enduring coordination mechanisms; and additionally, there is also a career effect. There are scientific epistemic communities that come together in various constellations in organisations such as learned societies, conferences, and standing commissions/groups, and a community subset conducts conversations that exert influence over other communities' members (Becher & Trowler, 2001; Bonaccorsi, 2018). There are also scientific artefacts that play a coordinating role, such as academic journals which, as well as the sifting review role, form a collective memory for the epistemic community.
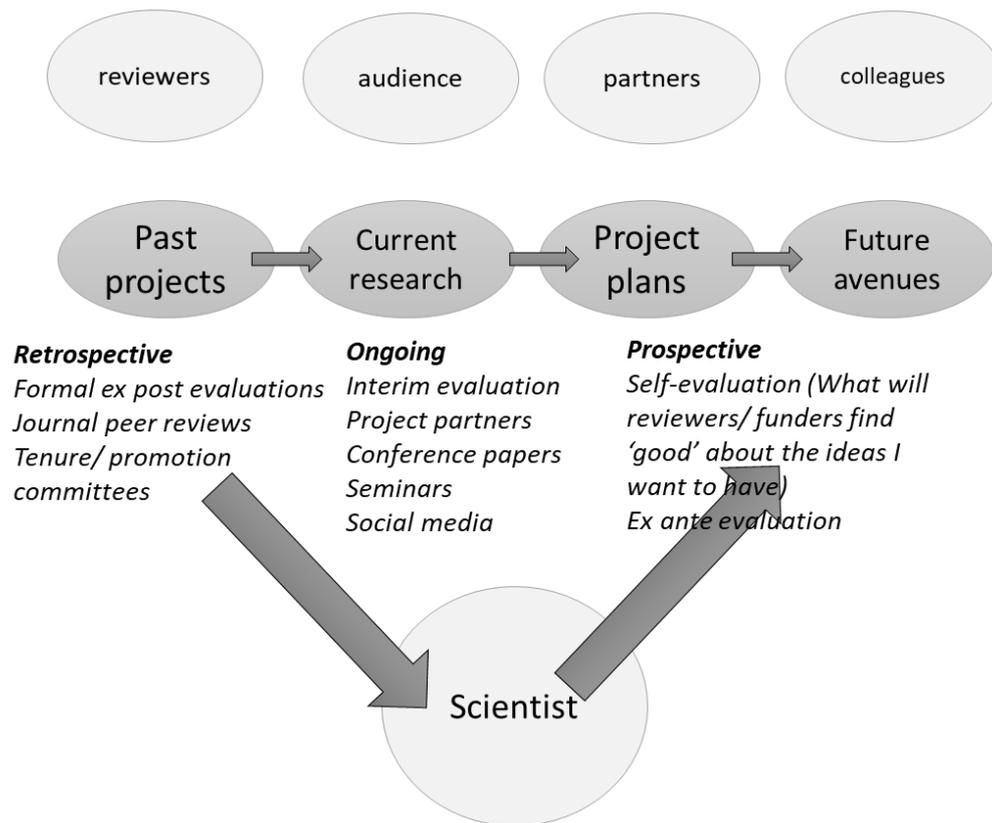
Figure 1. Scientific decision-making and steering in a well-functioning science system (*source: authors' own design after Gläser, 2012*)

The role of an evaluation system here is in providing reliable and authentic signals of the goodness or otherwise of research. Because of the mediation effect within individuals, poor signals can have a damaging steering effect on scientific communities by allocating resources and scientific effort to things that 'good' (in terms of making a contribution or serving as the foundation for future research). We therefore ask the question of what are the effects of the evaluation of societal impact of research on SSH researchers at the early stage of their career.

Methodology

We address this question by reporting findings from a pan-European study of early career researchers (ECR) in the SSH (i.e., researchers whose (anticipated) Ph.D. date is after 2008). A survey instrument was developed to capture data on the importance of impact, motivations, barriers and tensions, as well as providing space for free text answers in which they explained why they had reported those particular values. The survey was distributed on line through the ENRESSH network which in turn also distribute it to SSH ERC. We receive 111 valid surveys from 30 European countries.

Preliminary findings

This paper presents some preliminary descriptive statistics from the survey to understand the effects of impact evaluation processes as respondents took prospective and contemporary research decisions in the hope that that research would be regarded as 'good'. The research had two main findings.

The first finding was that impact is a consideration for SSH ECR: most were aware of the idea of impact, and understood its significance for their own research activities. This awareness was relatively evenly distributed across European countries; whilst previous research criticized eastern European countries for failing to demonstrate 'sophisticated' approaches to impact creation (De Jong & Muhonen, 2019), our results showed that wherever any putative problem lay in impact creation in these countries, it was not with researchers.

Secondly, there were three mismatches in the effects of impact evaluation on SSH ECR. Although researchers tended to feel that creating impact was important for science, they did not feel that they had been successful in creating impacts. Secondly, although the motivation to deliver impact was high, the level of training they had received to deliver that impact was low. Finally, there was very little opposition in principle to creating impact, but there were opportunistic barriers, and critically a shortage of time, necessary to create impact.

This research has implications for the study, the policy and the practice of research evaluation. In conceptual terms, we provide a model for placing evaluation into scientific context, and understanding evaluation more explicitly in terms of the community steering effects rather than the ranking and allocative effects (*cf,* Molas-Gallart, 2015). In policy terms, there is a need to ensure that ECR receive positive steering signals from evaluations at the earliest stages of their career to set them out onto impactful research trajectories, and not reifying societal impact as something extraordinary (*cf*, Sivertsen, 2019). There is also a need for much better training of researchers on the delivery of scientific impact, and supporting them to create that impact, to complement this improved signalling effect, if evaluation is going to help to contribute to maximising the societal impact of scientific research.

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