THE CONTRIBUTION OF SOCIAL SCIENCES AND HUMANITIES TO SOCIAL INNOVATION

It is time for Social Sciences and Humanities (SSH) to shift away from their traditional defensive stance when the issue of impact is addressed. Transformative research undertakings provide an opportunity for this. SSH can address grand challenges through instrumental or more reflexive approaches. They potentially could also raise impact by contributing to social innovations.
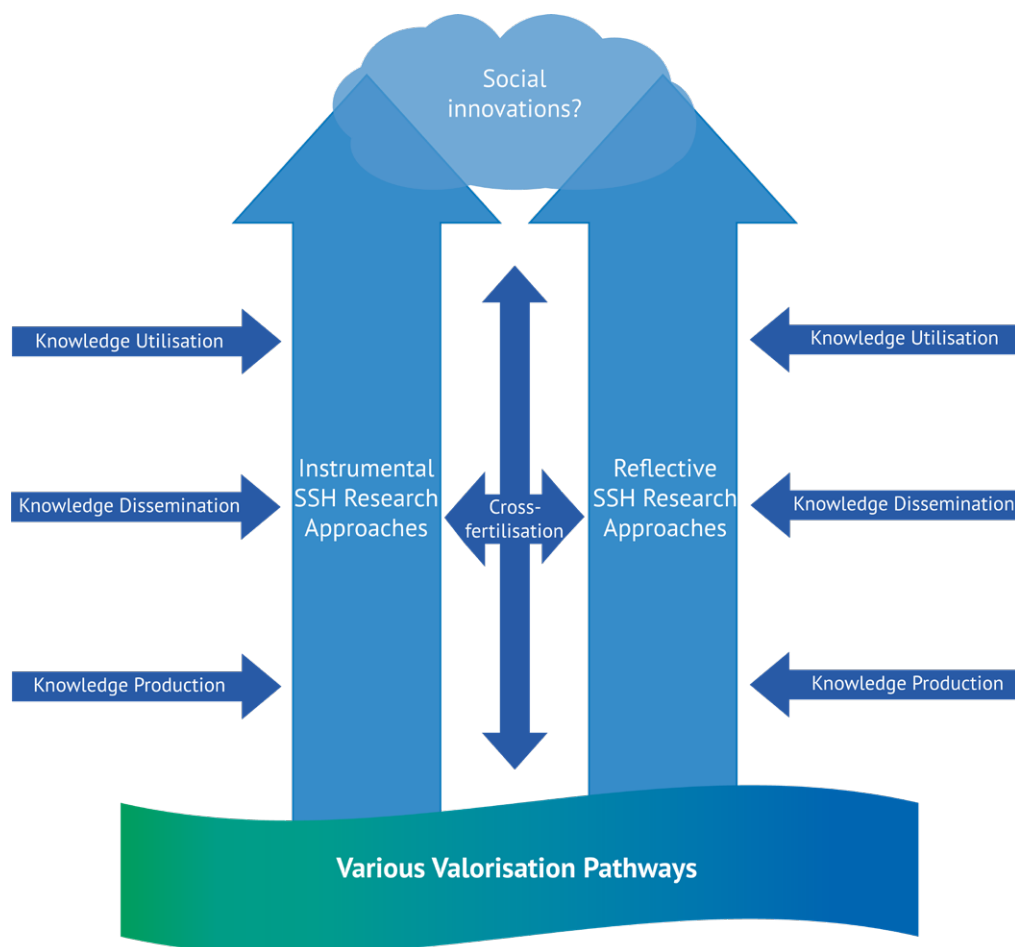
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INTRODUCTION

It is time to re-load the notion of impact of Social Sciences and Humanities (SSH) and to shift away from the traditional pre-dominant defensive stance [1], which SSH researchers often articulate in discussions about the impact of research. Although many arguments remain relevant such as the too narrow impact focus of research on economically relevant technologies and innovations, such a stance leads inevitably to a marginalised position, which is sometimes met with suspicion from policy-makers, but also from fellow colleagues of the so-called 'hard sciences'. Instead of talking about 'integration' of SSH into dominantly technologically-minded projects, it is argued in this short paper to shift the notion to equally valuated research contributions of SSH to inter-disciplinary transformative research undertakings and to bring SSH at eye-level with engineering and natural sciences. This requests the usage of the full potential of SSH research. The often raised – and also often normatively valuated – differentiation between an instrumental understanding of SSH as an auxiliary service within technology-oriented collaborative projects, on one side, and a reflexive understanding of SSH, on the other, is not helpful in this respect and should be overcome because both aspects are important for transformative research. Moreover, it is argued in this short paper that SSH research should engage more in providing evidence and support for smart designs of social innovations, but this would presumably request also a change in the performance accountability system of universities and public research organisations.

THE INSTRUMENTAL AND REFLEXIVE FUNCTIONS OF SSH FOR TRANSFORMATIVE RESEARCH

There is widespread consent at the European level that technological fixes without consideration of human conditions are not sufficient for tackling grand challenges and inducing transformational changes. Especially in pillar 3 of Horizon 2020, the current European Framework Programme for RTD (2014-2020), which deals with some of the grand challenges, SSH is perceived to have an instrumental support and leverage function in favour of a more 'society-ready' technological development, not at least also to avoid waste of resources and idle capacities. In this line of argument, the usage function of SSH lies primarily in the cooperation with technology-oriented disciplines rather than on strengthening genuine SSH topics.

This popular narrative of the instrumental auxiliary function or contribution of SSH to technology-based innovation processes is often framed in the context of inter- and trans-disciplinary challenges. Especially trans-disciplinarity, which features outreach to and inclusion of non-academic stakeholders as well as of non-formalised knowledge, is a competence which is sometimes credulously assigned to SSH researchers because of their perceived proximity to social spheres. This understanding hypothesises that SSH researchers are (at least more) capable and professional in meeting and applying state of the art involvement tools (than their fellows from engineering and natural science). In this understanding, the contribution of SSH to more technological oriented projects and its peculiar value is basically perceived as a project steering and outreach competence, especially if issues of the normal course of life and/or the inclusion of non-academic audiences (e.g. stakeholders, users) are concerned. This understanding

How various SSH valuation pathways can impact transformative research

became a partially shared reality in many Horizon 2020 projects. In certain research fields (such as 'Public Health and Sustainable Development') the use of transdisciplinary tools is daily business. Often social scientists are charged with engagement processes by applying a variety of process tools such as design-thinking or multi-stakeholder workshops.

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It is not surprising that this approach to treat SSH research as an auxiliary resource for technological projects to address grand challenges is often regarded as an improper reduction of SSH. There is truth in this, because the grand challenges are grand since they concern human societies and cultures,

the ways how we humans interact with each other but also with our environment, how we produce and consume, how we construct meaning and judgement to our actions, and how we reproduce our societies and cultures but also how we change them and our behaviour.

Thus, before asking how SSH can mitigate the effort of technological adaptations to social conditions, needs and wants, hence contributing to an innovation race which continuously seems to pick up pace, SSH should also be employed to reflect, frame and analyse the wicked problems before a technological solutionism approach is taken. It could be argued, for instance, that any topic addressed under Horizon 2020 (from 'A' like agriculture to 'Z' like zero-waste) would at least deserve a proper analysis of the political economy underlying these topics.

Instead, technological solutionism promises quick results and profits and is positively connoted with an attractive entrepreneurial 'hooray – let's go for it' image, which has undermined and captured research policy-making since more than 30 years and led to the 'holy duality' of research and innovation. The concept of 'societal readiness levels' is fitting this instrumental auxiliary understanding of SSH to

leverage the social acceptance of technologies. It should absolutely not be denied that SSH can be very helpful in this respect. On the contrary, innovation is a social process with various social implications. Innovation research thus can be a subject of business economics, but also of anthropology, cultural studies, political sciences, sociology, economic geography and so forth.

The important thing here is to understand, that innovation is not only the business of businesses, but also the business of society. And as a business of society it also should become a business of SSH research. In this respect, Bell [2] calls for a reflexive, genuine and broad added value of SSH for transformative research, starting with the 'what if' question, constructing alternative scenarios and by considering also the non-material features of human existence. He furthermore claims that SSH can provide strong contributions to make transformations happen.

SSH AND SOCIAL INNOVATION

Taking up the claim of Bell [2] mentioned above that SSH can provide strong contributions to make transformations happen, the focus in this section is narrowed down to the relationship of SSH research and social innovation as one of several other potential amplifiers of transformation.

The global mapping of social innovations implemented by the project 'Social Innovation: Driving Force of Social Change', which was funded by the European Commission under the 7th European Framework Programme for RTD, clearly showed that institutions from research and education are not among the most frequent partners involved in social innovations [3]. In other words: their role as knowledge providers to social innovations is yet limited, although we find a long tradition of action research, which stimulated social action. This, however, should not be equated with social innovation.

Howaldt [4] refers to an uncompleted eco-system of social innovation with one important pillar missing (i.e. the higher education and research sector) in an ideal quadruple helix composition. The reasons for this are manifold. They include demand-side, supply-side and structural problems.

First, the loose relation of SSH and social innovation is often caused by the very nature of a social innovation, which is usually bottom-up and straightforward in scope and scale. Social innovations are often initiated by practitioners in their own field of work and expertise or are related to a certain concern and prompted by civil society actors (individuals and groups). Financing needs and relational capital needs are usually more pressing, or at least seem so, than knowledge deficits. Moreover, if knowledge deficits are becoming evident, surveys show that they often relate to issues of taxation, marketing, and financing.

Second, another demand-side problem is the financial precariousness of most social innovations. Social services are in general often perceived as low-cost market segments and the cost structure of universities and non-university research organisations hardly fits to the tight budgets of social innovators. Interestingly, while third-party financing through technology transfer enjoys a high reputation, mostly accompanied by competitive market prices, knowledge transfer for social purposes and problems, including social innovations, is widely perceived as an altruistic free of charge exercise.

Third, and connected to the previous point, commercial innovation is recognised as a presumable income source for higher education and non-university research institutions although in reality the income through licensing, for instance, is overall quite low. Nevertheless, such a commercial science-business exchange market is facilitated by institutionalised support structures such as technology transfer centres. As regards social innovations, however, there are neither material nor immaterial professional structures available within most higher education and non-university research organisations for supporting social innovation. Examples like the '6I research model' at the University of Deusto or the Knowledge Transfer Centre for SSH in Austria are still the exception and not the rule.

Fourth, social innovations do not count yet for the performance accountability of universities and non-university research organisations (and their faculty). Thus, they lack promotional quality and significance. One but not the only reason for this it the lack of suitable indicator-based measurement techniques and process models to trace social innovations at higher education institutions and public research organisations. Beyond the field of social entrepreneurship training, there are only few showcases on productive relations between research in universities on one side and social innovations (beyond the realms of the university) on the other. If at all, social innovation is mostly treated within higher education and training as a problem-solving method with a strong practical focus. Neither social innovations initiated by higher education institutions, nor practices and systems how to monitor, measure and promote their way from universities to society are regularly documented and in the focus of attention of university management (systems). If, however, the processes, which underlie the emergence of social innovations within universities and from universities into society would be better understood, then they could also be better captured, steered and counted. In other words: to attain visibility within the performance accountability of universities and non-university research organisations, processes that contribute to social innovations in the field have to become traceable, attributable and accountable. Hence they can be promoted, incentives given and achievements rewarded. The latter includes also rewards for the faculty members, e.g. by including their contributions for social innovations in their own performance reporting.

Fifth, universities and most public research organisations usually also lack the appropriate infrastructure and resources for interaction with society. Especially universities are still confronted with the unfair ivory tower ascription despite their manifold openness and outreach activities (e.g. Children University etc.). Places designed to meet, to exchange, to co-design and prototype social innovations are still scarce within the academic infrastructure.

> **SSH research is regarded as more directly impacting society than other research disciplines.**

Finally (although the list of arguments could be extended), one also has to clearly say that despite the fact that SSH scholarship is often committed to do research for the good of society, the interest of researchers is often not oriented towards producing usable results such as social innovations. The interest is rather to raise awareness and to influence society to create capabilities of self-understanding in different contexts [5, 6]. This understandable position, however, can often not be realised by just publishing papers in scientific journals or by educating students in narrowly defined courses. Adequate alternative outreach formats to really reach out to society are often not employed or even lacking (see also point five above).

CONCLUSION

While the argument of a potentially strong impact of SSH research is widespread among SSH communities, direct impact of SSH research on social innovations remains subject to speculation, as the collection of systematic data is lacking. The mapping exercise about social innovations conducted by the SI-Drive project is a commendable exception, but it does not reveal a strong visible relation between SSH and social innovation. SSH research is regarded as more directly impacting society than other research disciplines, because the social subsystems 'Culture', 'State', and 'Market' are in the focus of most SSH research. Although impact pathways of SSH research on society are logical, they are not necessarily more evident or tangible. Beck and Bonß [7] even claimed that interpretation offers provided by social sciences are practically most successful, when they seemingly vanish without trace in the consciousness of everyday life and policy. Also the instrumental contributions of SSH run danger of disappearing behind technological solutions.

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