

Research Impact as a ‘Boundary Object’ in the Social Sciences and the Humanities

Marc Vanholsbeeck¹ and Karolina Lendák-Kabók²

Université Libre de Bruxelles, Belgium ¹; University of Novi Sad, Serbia²
E-mails: Marc.Vanholsbeeck@ulb.ac.be; karolina.lendak@uns.ac.rs

Abstract

The analysis of the ways early career investigators from 32 countries frame the notion of ‘research impact’ in the Social Sciences and the Humanities (SSH) reveal some obvious commonalities. There is a convergent tendency to describe impact as an object of great concern that operates mostly through communication, while avoiding any absolute definition of the notion. Respondents associate impact to the concept of accountability and share the perception that impact does not currently belong to the dominant academic culture. Differentiations and even divergences in framing appear though in regard to the cognitive or social nature of impact as well as in the extent to which respondents associate the processes of conducting scientific research with or dissociate them from the creation of social impact. As such, five common argumentative frames of impact and six differentiated or divergent ones are brought to light. While commonalities can be related to shared socio-professional circumstances, the observed differentiations and divergences in framing are linked to the diversity of disciplinary, national and institutional contexts within which scholars are trained and conduct their research. Because of the coexistence of commonalities, differentiations, and divergences in early career investigators’ framing of impact, it is argued that research impact in the SSH is best conceptualized as a ‘boundary object’ (Star and Griesemer, 1989). We conclude that attempts to frame impact within a narrower perspective – whether in scholarly discourse or policy making – would finally reduce the diversity of contextualized opportunities for SSH scholars to engage in any valuable creation of impact.

Keywords: *impact, early career researchers, SSH, epistemic communities, ‘boundary object’, research policies*

Accounting for Communalities, Differentiations and Divergences in Early Career Investigators’ Framing of Impact

Early career investigators (ECIs) who are currently still doing or have completed their PhD in the fields of Social Sciences and the Humanities (SSH) in the last eight years represent the first generation of SSH scholars to be exposed to the impact-related provisions that have increasingly been made by funders or policy makers during the last decade.¹ In the framework of the COST ENRESSH action CARES project², an

¹ Richard Watermeyer, ‘From Engagement to Impact? Articulating the Public Value of Academic Research’, *Tertiary Education and Management* 18.2 (2012): 115-30.

² The ‘European Network for Research Evaluation in the Social Sciences and the Humanities’ (ENRESSH) is a COST Action that started in April 2016 and ended in April 2020 (<https://enressh.eu/>). ENRESSH aims to propose clear best practices in the field of SSH research evaluation, based on the comparison and the cross fertilisation of strands of work currently under development in different parts of

international survey has been conducted to understand better how European ECIs perceive and experience the notion of societal impact of SSH research. Elaborating on this survey results, we intend to fill a gap in the literature about ECIs by attempting to investigate how the new generation of SSH scholars frames the notion of ‘research impact’.

On the one hand, we will explore how commonalities in framing of impact are linked to the socio-professional circumstances that most ECIs share. On the other hand, we will interpret differentiations and divergences in framing in the light of the diversity of disciplinary, national and institutional contexts within which ECIs are professionally trained and conduct their research. These contexts structure indeed a diversity of epistemic communities within SSH, which have been defined as ‘network[s] of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy relevant knowledge within that domain or issue-area.’³ Such communities are particularly numerous in SSH since different paradigms are in concurrence – rather than following one another as in Science, Technology, Engineering and Mathematics (STEM)⁴ –, while the generation of knowledge is often dependent to the local context. Even within a single discipline, there are epistemological and linguistic specificities that contribute to the fragmentation.⁵

For these reasons, we will argue that the notion of impact in the SSH should be first and foremost conceptualized as a ‘boundary object’ in the sense given by Susan L. Star and James R. Griesemer.⁶ In a thought-provoking ethnographical study on the coordination mechanism of a scientific work, Star and Griesemer define boundary objects as ‘objects which are both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. [...] They have different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation.’⁷ We will show that similarly to the situations described by the two authors, the notion of ‘research impact’ acquires different meanings in different epistemic communities within SSH while still keeping some structural commonalities among ECIs, beyond the disciplinary specificities as well as beyond various national and institutional contexts.

Europe. In the context of the COST ENRESSH action, the CARES project aimed to develop fair and improved routes for creating societal impact during the first years of the scientific career of SSH researchers.

³ Peter M. Haas, ‘Introduction: Epistemic Communities and International Policy Coordination’, *International organization* 46.1 (1992): 3.

⁴ Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 2012, [1962]).

⁵ Michael Ochsner, Nina Kancewicz-Hoffman, Jon Holm, and Marek Hołowiecki, *Overview of Peer Review Practices in the SSH. ENRESSH Report*, 2020, 100; available at <https://enressh.eu/wp-content/uploads/2017/09/OverviewPeerReviewENRESSH.pdf> [accessed 19 August 2020].

⁶ Susan L. Star, and James R. Griesemer, ‘Institutional Ecology, “Translations” and Boundary Objects: Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology, 1907-39’, *Social Studies of Science* 19.3 (1989): 387-420.

⁷ Star and Griesemer, 393.

Impact in Scholarly Literature and Policy Making

The notion of 'research impact' is arguably one of the current most disputed concepts by scholars of research and innovation as well as policy makers.⁸ While the mention of impact as such in scholarly literature and policy making is of recent date, the notion itself is rooted in older programmatic ideas such as knowledge transfer, 'mode 2 of knowledge production' or co-creation.

A linear conception of the way in which research has an influence on society has long prevailed in academia as well as among policy makers. Mostly linked to the notion of 'knowledge transfer'⁹ and developed in the fields of STEM, health and applied research rather than in the SSH, this approach is based on a strict division of labour. Researchers focus on research and non-scientific stakeholders are responsible for producing the impact, relying on the outputs of the research done and putting (some of) its outcomes on the market.¹⁰ The notion of knowledge transfer often goes hand in hand with the idea that such transfer can be targeted and quantified with some precision, the so-called 'Technology Readiness Level' (TRL) of a particular project being a notable example thereof.¹¹

Linear conceptions dominated national and European research and innovation policies during most of the twentieth century.¹² Nevertheless, since the 1990s scholars have conceptualized less linear approaches towards the circulation of knowledge in society¹³. Some have been favourably welcomed by EU policy makers and integrated to some extent in European research and development policies and programmes, like the seventh Framework Programme (2007-2013), Horizon 2020 (2014-2020) or its successor Horizon Europe (2021-2027). In that respect, the notion of 'mode 2 of knowledge production'¹⁴ was one of the first to emphasize the need to produce knowledge in its context of application, valorising social accountability and reflexivity.

⁸ Thomas König, Helga Nowotny and Klaus Schuch, 'Impact Re-Loaded', *fteval Journal for Research and Technology Policy Evaluation* 48 (2019): 8-9.

⁹ Håkon Finne, Adrian Day, Andrea Piccaluga, André Spithoven, Patricia Walter, and Dorien Wellen, *A Composite Indicator for Knowledge Transfer: Report from the European Commission's Expert Group on Knowledge Transfer Indicators*, 2011; available at https://www.belspo.be/belspo/stat/docs/papers/ERAC%20Report_2011_A%20Composite%20Indicator%20for%20Knowledge%20Transfer.pdf [accessed 19 August 2020].

¹⁰ See, for instance, Nathan Caplan, 'Social Research and National Policy: What Gets Used, by Whom, for What Purposes, and with What Effects?', in *Evaluation studies review annual*, ed. Marcia Guttentag, and Shalom Saar, vol. 1 (Beverly Hills, CA: Sage, 1977), 68-78; David Philips, Joanne Cummings, Debra J. Pepler, Wendy Craig and Shelley Cardinal, 'The Co-Produced Pathway to Impact Describes Knowledge Mobilization Processes', *Journal of Community Engagement and Scholarship* 9.1 (2016); available at <https://digitalcommons.northgeorgia.edu/jces/vol9/iss1/5/> [accessed 6 September 2020].

¹¹ John C. Mankins, *Technology Readiness Levels: NASA White Paper*, 6 April 1995; available at <http://aries.ucsd.edu/ARIES/WDOCS/ARIES07/trl.pdf> [accessed 11 September 2020].

¹² Ruth Lawrence, 'Research Dissemination: Actively Bringing the Research and Policy Worlds Together', *Evidence & Policy* 2.3 (2006): 373-84.

¹³ Sarah Morton, 'Creating Research Impact: "The Roles of Research Users in Interactive Research Mobilisation"', *Evidence & Policy* 11.1 (2015): 35-55.

¹⁴ Michael Gibbons, Camille Limoges, Helga Nowotny, Simon Schwartzman, Peter Scott, and Martin Trow, *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies* (Thousand Oaks, CA: Sage, 1994).

The ‘mode 2’ approach has been prolonged by the triple, quadruple (or ‘mode 3’) and quintuple helix models¹⁵ that respectively add to the ‘knowledge triangle’ of governments, industry and universities, the civil society (quadruple helix) and the natural environment (quintuple helix). ‘Mode 2’ approach has had a consequent impact on EU policy making in research and development, notably because of the involvement of its authors in the governance of science, like the sociologist and philosopher Helga Nowotny who was the President of the European Research Council from 2010 to 2013.

Since the 1990s the traditional notion of knowledge transfer has thus been progressively completed – rather than replaced – by policy makers and scholars’ growing attention to the concept of co-creation. Typically, co-creation brings together researchers and a diversity of social stakeholders, has a purpose, tackles a ‘bigger challenge’, enhances creativity and problem solving and, most importantly, is non-linear in nature.¹⁶ Co-creation related models favour concepts such as interactions between researchers and social stakeholders,¹⁷ mutual engagement between them¹⁸ or knowledge exchange.¹⁹ The uptake of the notion of Open Science by European policy makers on its turn emphasized the importance of opening the production and the dissemination of knowledge to non-academic stakeholders.²⁰

The use of the notion ‘research impact’ as such in policy making in Europe has been firstly introduced in 2014 in the Research Excellence Framework (REF), the United Kingdom national research assessment exercise that replaced the previous Research Assessment Exercise (RAE). In the 2014 REF, impact was defined as an ‘effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’.²¹ From this perspective, it was recognized that a sequence of activities is needed in order to achieve impact, commonly referred to as ‘pathways to impact’.²²

Impact has particularly come to the fore in the context of the preparation of the European Horizon Europe Research and Innovation Framework Programme (2021-

¹⁵ Elias G. Carayannis, and David F.J. Campbell, ‘Triple Helix, Quadruple Helix and Quintuple Helix and How Do Knowledge, Innovation, and Environment Relate To Each Other?’, *International Journal of Social Ecology and Sustainable Development* 1.1 (2010): 41-69.

¹⁶ Alexis Dewaele, Dewi Hannon, Ann Buysse, and Esther De Smet, ‘Guide to Impact Planning’, Ghent University, 2019, 5; available at <https://biblio.ugent.be/publication/8653733/file/8653734> [accessed 19 August 2020].

¹⁷ Jonas Følsgaard Grønvad, Rolf Hvidtfeldt, and David Budtz Pedersen, *Analysing Co-Creation in Theory and in Practice: A Systemic Review of the SSH Impact Literature. Accomplish Report*, 2017; available at https://docs.wixstatic.com/ugd/35d470_1d36ad453b884646899f6196b45cac7e.pdf [accessed 5 September 2020].

¹⁸ Trisha Greenhalgh, and Wieringa Sietse, ‘Is It Time to Drop the “Knowledge Translation” Metaphor? A Critical Literature Review’, *Journal of the Royal Society of Medicine* 104.12 (2011): 501-509.

¹⁹ Michael G. Wilson, John N. Lavis, Robb Travers, and Sean B. Rourke, ‘Community-Based Knowledge Transfer and Exchange: Helping Community-Based Organizations Link Research to Action’, *Implementation Science* 5.33 (2010); available at <https://doi.org/10.1186/1748-5908-5-33> [accessed 6 October 2020].

²⁰ Marc Vanholsbeeck, ‘Entre qualité prescrite et qualité souhaitable. L’ambivalence des chercheurs en communication face à l’évaluation de leurs publications’, *Quaderni. Communication, technologies, pouvoir* 77 (2012): 71-84.

²¹ REF, ‘Excellence Framework 2014: The Results UK: REF2014’, 2014, 6; available at <https://www.ref.ac.uk/2014/pubs/201401> [accessed 8 April 2019].

²² Research Councils UK. ‘Pathways to Impact’, 2014; available at <http://www.rcuk.ac.uk/innovation/impacts/> [accessed 18 April 2019].

2027), notably through the notion of 'mission'. Its author, economist Mariana Mazzucato, was even appointed as Special Advisor for Mission Driven Science and Innovation to the EU Commissioner for Research Carlos Moedas in 2017. Mazzucato highlights the social responsiveness of research and innovation as well as the citizens' and social engagement therein, focusing on specific public purposes.²³

The expected impacts of Horizon Europe as well as the most strategic orientations for the support to research and innovation will be presented in a 'Strategic Plan' at the end of 2020. A preparatory document thereof, named 'Orientations towards the First Strategic Plan Implementing the Research and Innovation Framework Programme Horizon Europe',²⁴ was released during the summer 2019. Its intended purpose is to stimulate the co-design of Horizon Europe through web-based surveys and in-depth debates on the occasion of the first European Research and Innovation Days in September 2019. In this document, 'impact' is mostly framed though as a series of targets to be reached and expected outcomes. The market perspective dominates, impact being framed in a rather linear way which tends to fit in the abovementioned perspective of knowledge transfer rather than true 'co-creation'. Even if concepts such as 'prosperity', 'citizens' well-being' and 'sustainability' are used, the main focus is on "the rate at which business will develop, scale-up and commercialize innovative solutions".²⁵ Furthermore the Commission often refers to 'impact' as something 'to be maximized' in a mostly quantitative way even if the understanding of social – but not so much the cultural and artistic – phenomena is counted in terms such as, for example, the 'understanding of societal – including political, ethical and economic – effects of technological advancements and the impact of drivers of change on jobs, skills, productivity, income, welfare and inequalities'.²⁶

When it comes to scholarly debates on impact, several attempts have been made in the last decade, notably in the SSH, to refine the understanding of the notion and develop methods to map it.²⁷ While several scholars have argued that impact must not be narrowed to research dissemination or economic impact, and should relate more broadly to changes that can be demonstrated, measured or captured,²⁸ others have studied the 'creative interactions' that are constitutive of impact²⁹ and involve researchers and social stakeholders, as well as the indirect and interactive processes

²³ Rainer Kattel, and Mariana Mazzucato, 'Mission-Oriented Innovation Policy and Dynamic Capabilities in the Public Sector', *Industrial and Corporate Change* 27.5 (2018): 787-801.

²⁴ Direction Générale RTD (Commission EU), 'Orientations towards the First Strategic Plan Implementing the Research and Innovation Framework Programme Horizon Europe', 2019; available at https://ec.europa.eu/info/files/orientations-towards-first-strategic-plan-horizon-europe_en [accessed 19 August 2020].

²⁵ DGRTD, 12.

²⁶ DGRTD, 16.

²⁷ David Budtz Pedersen, Jonas Følsgaard Grønvad, and Rolf Hvidtfeldt, 'Methods for Mapping the Impact of Social Sciences and Humanities – A Literature Review', *Research Evaluation* 29.1 (2020): 4-21.

²⁸ Julie E. Bayley, David Phipps, Monica Batac, and Ed Stevens, 'Development of a Framework for Knowledge Mobilization and Impact Competencies', *Evidence & Policy: A Journal of Research, Debate and Practice* 14.4 (2008): 725-38.

²⁹ Jack Spaapen, and Leonie van Drooge, 'Introducing "Productive Interactions" in Social Impact Assessment', *Research Evaluation* 20.3 (2011): 211-18.

through which changes are effected by stakeholders as a result of the research.³⁰ In the context of the COST ENRESSH action, a typology of the diverse and iterative pathways to impact has been developed with the aim of understanding the characteristics of the contexts that tend to stimulate such pathways and foster research dissemination and co-creation, as well as researchers' reaction to societal change and proactive drive of societal change.³¹

Obviously, the definitions of impact in the scholarly and policy making discourses do not systematically converge. Expectations of policy makers and conceptual efforts of scholars may sometimes be at odds with one another. It has even been argued that 'this represents a form of irreconcilable stand-off, where conceptualization is held back by a lack of empirical and policy interest in more complex frameworks while current policy practices provide little opportunity to develop richer understandings of impact.'³²

Furthermore, it has been noted that scholarly definitions of impact tend sometimes to adopt a rather defensive tone: 'For all their commendable efforts, these definitions cannot remove the impression that the initial need to come up with a definition is driven by political motives. As a result, the use of the term "impact" has often acquired a defensive tone. The political motives spring largely from increasing demands for accountability; and the defensiveness can be detected in the way "impact" is set up to prove the relevance to society.'³³ Indeed, accountability has become one key component of the new public management of universities. As such it has been criticized in scholarly literature about the managerialization of higher education notably because it would contribute to an 'audit society' into which 'accountability is conflated with elaborate policing mechanisms for subjecting individual performance to the gaze of external experts, and where every aspect of work must be ranked and assessed against bureaucratic benchmarks and economic targets.'³⁴

Theoretical Framing: Impact as an Argumentative and Psycho-Social Frame

In this article we will consider the concept of frame both in its argumentative meaning and its psycho-social acceptance. According to the French specialist of argumentation Philippe Breton, framing consists in presenting the reality from a certain perspective, by reinforcing some aspects and devaluing others, in order to give more legitimacy to the opinion to be defended. Breton further elaborates that the argument of framing operates through descriptions, definitions, dissociations, and associations within the discursive performance.³⁵

³⁰ Jordi Molas-Gallart, 'Research Evaluation and the Assessment of Public Value', *Arts and Humanities in Higher Education* 14.1 (2015): 111-26.

³¹ Reetta Muhonen, Paul Bennenworth, and Julia Olmos-Peñuela, 'From Productive Interactions to Impact Pathways: Understanding the Key Dimensions in Developing SSH Research Societal Impact', *Research Evaluation* 29.1 (2020): 34-47.

³² Muhonen et al., 35.

³³ König et al., 8.

³⁴ Cris Shore, 'Audit Culture and Illiberal Governance: Universities and the Politics of Accountability', *Anthropological Theory* 8.3 (2008): 278-98.

³⁵ Philippe Breton, *L'Argumentation dans la communication* (Paris: La Découverte, 2013), 44-6.

From this point of view, we will investigate how ECIs define and describe impact, and examine the notions they associate with and dissociate from impact. 'Impact' is a concept about which researchers and policy makers argue for and against, and for which, as noted above, there is no convergent definition in scholarly and policy discourses. Because of the existing ground for disagreement and even conflicting approaches, impact is first and foremost an object of argumentation, about which a diversity of opinions may be expressed, rather than a stabilized concept.

In its psycho-social acceptance, framing relates to less conscious psycho-social frameworks and mental schemes that allow people from the same sociocultural group to maintain a shared interpretation of reality.³⁶ As such, the notion of frame relates to what Bourdieu called a 'habitus', i.e. a system of internalized patterns that engenders all the thoughts, perceptions, and actions characteristic of a culture instilled during socialization through formal and informal learning, explicitly or implicitly.³⁷ For the person who communicates a message, the framing process is only partially conscious.³⁸ Each culture possesses indeed a 'repertoire of symbols and world-views that its members can use as a tool-kit to attribute meaning to the various events and issues with which they are confronted. When authors frame a message, they connect a topic to notions that are part of this "common ground" within a given culture, such as values, archetypes and shared narratives.'³⁹

Therefore, we will also investigate the shared socio-professional circumstances within which ECIs are professionally socialized and conduct their research, considering them as explanatory factors for the communalities in their argumentative framing of impact. Furthermore, we will consider the diversity of epistemic communities and related world-views within the SSH – which are in turn structured by a diversity of disciplinary, national and institutional contexts – as a possible explanation for the found differentiations and divergences in ECIs' argumentative frames.

Methodology

As a part of the CARES project, a questionnaire was disseminated between December 2018 and January 2019 in European universities and research centres using a snowball sampling method. One hundred and eleven questionnaires (in English) were filled in by

³⁶ Frederic C. Bartlett, *Remembering: A Study in Experimental and Social Psychology* (Cambridge: Cambridge University Press, 1932); Erving Goffman, *Frame Analysis: An Essay on the Organization of Experience* (New York: Harper and Row, 1974).

³⁷ Pierre Bourdieu, *Esquisse d'une théorie de la pratique. Précédé de trois études d'ethnologie Kabyle* (Paris: Le Seuil, 2018 [1972]).

³⁸ Baldwin Van Gorp, 'The Constructionist Approach to Framing: Bringing Culture Back in', *Journal of Communication* 57 (2007): 60-78.

³⁹ Baldwin Van Gorp, and Tom Vercruyse, 'Frames and Counter-Frames Giving Meaning to Dementia: A Framing Analysis of Media Content', *Social Science & Medicine* 74.8 (2012): 1275. On this constructionist approach towards communication, see also: William A. Gamson, and Andre Modigliani, 'Media Discourse and Public Opinion on Nuclear Power: A Constructionist Approach', *American Journal of Sociology* 95 (1989): 1-37; Ann Swidler, 'Culture in Action: Symbols and Strategies', *American Sociological Review* 51.2 (1986): 273-86.

ECIs active in 31 European countries and South Africa. The respondents had completed their PhD maximum eight years before or were still working on it.⁴⁰

The COST ENRESSH CARES questionnaire was made of 14 open-ended and 14 closed-ended questions. On the one hand, it surveyed the respondents' demographic and professional status. On the other hand, it investigated ECIs' orientation towards the principles of impact as well as their individual experience of SSH research impact and the potential problems met in the creation thereof. The CARES questionnaire did not include any *ex/ante* definition of impact, so that no bias was induced *ex ante* in the answers provided by the respondents. The introduction made it clear though that the focus is on the impact of research on society, and not on its scientific or technological effects.

For the purpose of this article, answers provided to the open questions of the CARES questionnaire were systematically recoded and split into the following analysis categories: attitude towards impact (1), definition of impact (2), types of impact (3), types of pathways to impact (4), epistemic context (in which the research is conducted) (5), policy context (in which the research is conducted) (6), impact-related requirements for the PhD programmes respondents were enrolled in (7), local context (other than epistemic or policy related) (8), university support (9), other types of context (10) and extra-academic experience of impact (11). ECIs' elements of answer that related to categories (1), (2), (3) and (4) as well as their closed answers to questions about the perceived importance of impact in general and the perceived importance of impact for one's research in particular have been used to infer eleven types of framing, based on ECIs' definitions and descriptions of impact, as well as the notions they associate with and dissociate from impact.

We have taken into account all the analysis categories above as well as ECIs' answers to closed questions about gender, current professional status and type of contract to identify the socio-professional explanatory factors to the commonalities in the framing of impact. Furthermore, ECIs' answers that were split into categories (5), (6), (7), (8), (9), (10) and (11), as well as their answers to closed questions about country, discipline and field of study have been used to identify the disciplinary, national and institutional contexts which structure the diversity of epistemic communities in SSH and constitute explanatory factors for the differentiations and divergences in argumentative framing.

Findings

This section will first enumerate eleven argumentative frames – five common, two differentiated and four divergent ones – that emerge from the definitions and descriptions of impact, as well as from the associations with and dissociations from the notion of impact, inferred from the analysis of the answers provided to the CARES questionnaire. In the second part of the section, we will explore the socio-professional

⁴⁰ The countries that responded to the questionnaires are: The Basque Country, Bosnia and Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, The Czech Republic, Denmark, Estonia, Finland, France, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, Norway, Poland, Portugal, Serbia, Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, The United Kingdom, Ukraine. Because of the snowball sample method used, the number of respondents varied a lot from one country to the other, from 1 respondent (Ukraine) to 13 respondents (Croatia).

as well as the disciplinary, national and institutional features that explain the commonalities, differences and divergences in argumentative framing among ECIs.

Common Frames

While no single definition of impact emerges from the answers to the questionnaire, five commonly shared argumentative frames can be inferred from its analysis: the Concernment frame, the Relativity frame, the Communication frame, the Counter-Culture frame and the Accountability frame. These frames are not indicative of any explicit differentiation or divergence among the respondents.

The Concernment Frame

For most respondents, impact is a major concern. Ninety percent of the respondents consider that 'creating a wider impact in society' is important or very important 'for (publicly funded/ academic) research in general'. Furthermore 78% of the respondents are concerned by the creation of 'impact in society [...] for the research that [they] are doing'.

I feel that creating societal impact with research is of paramount importance: this way the research can, for its own part, help to bring new perspectives to the serious problems facing our society today. (Female, Sociology, Finland)

As such, impact creation is described as based in most cases on a (strong) personal motivation.

As a student, I begin my career as a researcher hoping to generate a positive impact on society. I suppose it is a normal motivation in young people who decide to dedicate themselves to research. (Male, Management Studies, Spain)

It is also associated by several respondents with the notion of researchers' responsibility in regard to the effect of their research on society.

Impact means the actual power to change the world around us. It is a real power and as such it requires wisdom and to abide by various ethical principles. I believe that we should highlight that having an impact should be connected with taking the responsibility and facing the consequences. (Male, Philosophy, Poland)

The Relativity Frame

For most of the respondents, 'research impact' cannot be defined in absolute terms. On the contrary the various kinds of impact that may be produced – such as: good or bad, conceptual or more instrumental, direct and short-term or indirect and long-term, not for profit or commercial, individual or collective – are often perceived as relating to a particular disciplinary context or even research project.

I guess that depending on the field, on the topic, there are different types of impact that research may generate. The most known or at least recognized are economic impact; however, impact may also be associated with social, cultural, ethical or environmental issues (through promoting awareness about the consequences of human acts). (Female ECI in Science and Technology Studies, Spain)

Impact is also framed as relating to the values of the researchers, or the values that permeate the context in which the research is conducted and funded. As such, it can be deemed as unpredictable.

Research can create any kind of impact imaginable; it just depends who is cooperating with whom and what the expectations of research are. The use depends on the funder, stakeholder etc. [Providing examples of impact] is completely context specific. Since impact is not something that exists in any definable form it depends on what the person who makes a value judgement wants. (Male ECI in Science and Technology Studies, South Africa)

The Communication Frame

For most respondents, pathways to impact imply one form or another of communication tools, among which the following were mentioned: public speaking contests such as ‘My thesis in 180 seconds’, blogs, social media, presence in the media, Open Access books for a broader audience, popular publications, policy briefs, exhibitions, lectures, conferences, public events such as the ‘European researchers’ night’, seminars to present results.

It has to be noted that for some respondents the communication of knowledge consists foremost in making the information accessible.

In an ideal world, research results should be accessible to all and as such should have an impact in society; not necessarily by applying all research results but at least by making them accessible, so that everyone can be able to make their own choices. (Female, Innovation Studies, Sweden)

For others, the production of impact implies a more willingly targeted dissemination towards a chosen audience as well as a need to make the information attractive for non-academics. Among the identified targets, beside policy makers, citizens, social and economic stakeholders, some respondents identify their academic peers. Advocating for impact within academia appears then as a ‘necessary first stage [...] to get one’s own house in order before taking on the world.’ (Female, Musicology, Norway).

The ‘Counter-Culture’ Frame

Many respondents dissociate impact from the currently prevailing culture in academia, which according to them favours the production of strictly academic outputs, published in international top journals – according to the so-called ‘publish and perish’ mindset –, and does not care about non-academic stakeholders.

It may be extremely complicated to create at the same time strong academic output and strong societal impact, as they require engagement in two different ways and with different stakeholder groups. (Female, History, Montenegro)

[...] some research lines to create societal impact do not follow trending topics in journals. [...] Useful research I could do will not follow the standardized requirements to be published in high impact journals. For example, qualitative research is harder to be published, or using regional samples instead of international samples. (Male, Management, Spain)

I often face dilemmas about publishing, [hesitating between two options:] to publish in a journal or other publication that does not count as a 'top quality' academic journal and therefore also is not taken into account in potential promotions, but has actual impact and reaches the audience that I would like to engage with; or to publish in a 'high-impact' journal, which may involve toning down some of my arguments and making them more palatable to the readership of these journals, so as to have this work counted by my university, while not making the kind of impact or reaching the audience that I would like to. (Female, Sociology, Slovenia)

This even leads some ECIs to consider their academic peers in a binary way, distinguishing between the new 'entrepreneurial' and 'engaged' generation of SSH researchers, doing 'public-oriented research', and the elderly one doing 'extra complicated things in isolation' (Male, Economics, Spain).

The biggest [tension between impact and other aims of research] appears in peer review. Just try getting an impactful academic book/article on medieval studies past the gatekeepers who think all of this impact malarkey is nonsense. [...] Where are the oldies, the professors, the grisly gatekeepers? It's great that younger researchers are leading the way in this, but we don't rule the world yet – and by the time we'll do things will have changed again and we will probably be considered old and outdated by the yoof⁴¹... What I mean is: if the 'sideways' impact doesn't include the Old Guard, then basically younger researchers who spend time on impact are going to be squeezed out of the system by the navel-gazers who think only they have the magic formula to do Proper Research and therefore employ only people who think similarly. (Female, Music, Norway)

In most cases, respondents do not link impact to the notion of 'career incentives within academia'.

In the field of English in the UK at present, the greatest reward for researchers is the publication of a monograph. This does not require a researcher to undertake impactful research, and therefore there is a tension between doing something that would advance your career (writing a book on your own) and advancing impactful research. (Female, English Literature, UK)

As a post-doctoral researcher, I am supposed to focus on scientific writing, for the sake of the career development – at least this is how I see it. Doing much other stuff may look suspicious in your CV. (Female, Sociology, Finland)

⁴¹ Non-standard spelling of youth.

The Accountability Frame

Many respondents associate the notion of impact with the idea that researchers are accountable to society, since public funding allows them to conduct their research. Far from rejecting the notion as being imposed by policy makers on the research community, there is a convergence of views among ECIs to regard impact as something important to be given back to society.

You work from tax payers' money. Of course, it is important to conduct research that has a wider impact in the society. (Female, Sociology, Hungary)

Differentiated frames

While there is a certain level of convergence amongst ECIs with regard to the five abovementioned argumentative frames, data shows that respondents tend to describe impact as rather cognitive – the Cognition frame – or social in nature (the Social Change frame). For several respondents though, the cognitive and social descriptions of impact are not exclusive.

The Cognition Frame

Only a few respondents describe impact as being exclusively cognitive in nature.

My primary interest is in generating new knowledge on societal issues, not creating societal impact as such. (Female, Sociology, Finland)

For several ECIs impact is described as a primarily cognitive phenomenon, but one that leads to taking a critical stance. They insist that SSH research has the potential not only to help to understand society, but also to make people individually and collectively think differently about the social world – broadening their perspectives, awareness, culture and knowledge, beyond political discourses and common sense –, and act accordingly.

Well, I am still in the process of producing data. I hope that it will have impact in terms of critical reflection around power relations within gender studies. But the extent to which it will have wider impact depends on what my analysis shows. (Female, Organizational Studies, Denmark and Finland)

As such, according to some, SSH scholars should ‘take part in the public discussion [...] because of their extensive knowledge’ (Female ECI, Sociology, Finland), and even repair the public sphere ‘which has been generally deintellectualized in the last few decades’ (Male, Cultural anthropology, Croatia).

I think it is impossible to completely divorce the Humanities from society, as they are constantly in a process of dynamic correlation. [...] I see the Humanities and Social Sciences as a constant reflection and an analysis of society, a process of gaining new insights into who we are and how we function, and this process is crucial for our society's self-reflection. We could call this impact, but I would rather see it as inherent conversation between two fields, especially since reflective and analytical thinking

(=research) is a necessary element for societies self-reflection and self-understanding. (Female, Cultural and literary studies, Slovenia)

The Social Change Frame

Several respondents describe the impact of SSH research as social change, with descriptions of impact ranging from the provision of useful knowledge to the empowerment of minorities and citizens.

Indeed, SSH research can bring knowledge-based solutions to social problems and these solutions once implemented bring social change.

Research can have an added value in developing newer technologies and modern knowledge in matters of wider social interest, promoting mental health in everyday life in the field of psychology. [...] In my field a worthwhile research impact would be creating newer and more modern workshops and trainings for developing positive thinking, social skills and emotion regulation strategies. (Female, Psychology, Serbia)

Some of this knowledge could even be directly useful for changing social behaviours and policies, through the provision of relevant evidence.

I believe good research should be able to help create and develop knowledge that can enhance people's understanding of the world and influence their mind and behaviours. [...] The research impacts that make the effort 'worthwhile' include much more nuanced knowledge of a field that could greatly enhance people's understanding of it and maybe also enable them to act differently as well. (Female, Anthropology of education, Denmark)

Societal transformation induced by SSH research can happen in a rather top-down way by fostering evidence-based policies and providing a 'deeper comprehension of societal phenomena leading to sounder planning of societal steering' (Male, Innovation Studies, Norway), or informing the decisions of socio-economic leaders.

In my field (Legal Studies) it is very important to create wider impact in society and to try to make influence on public opinion – the final goal is to try to influence the legislator to amend / draft the legislation in a proper manner. (Female, Law, Croatia)

It can also work through adequate interactions between the researchers and the external stakeholders and policy makers.

I have been doing research on public policy for about ten years. In my previous projects, I did not have any chance to actually meet any policy makers, and all the recommendations I made in the papers may end up with nothing. But this is the first project I feel I would contribute to real policy making, which makes me feel justified as a public policy researcher and motivates me greatly [...]. My current project involves meeting and interviewing the ones who work at Science Foundation Ireland and may change their way of working resulting from our research findings. (Female, Science and Technology Studies, Ireland)

Some respondents mention the possibility of a more bottom-up way of social impact through the empowerment of 'marginalized people'. Conducting research on

such categories of people may give them a voice, or even, in the words of one respondent, assure the ‘political representation of ethnic minorities’ (Male, Political Sciences, Belgium).

I think that researchers can help with their knowledge the subjected social groups change their situation if the cooperation is not based on the hierarchical, one-directional communication from those who know to those deemed to be uneducated. Researchers should collaborate with marginalized and oppressed groups supporting their efforts and struggles and providing them with necessary theoretical and practical knowledge and skills rather than educating them in a pedagogical way. (Male, Cultural Studies, Poland)

More generally, SSH research can empower citizens – and students – providing them with the information they need in democracy.

Before writing my thesis, I was a journalist. My goals are and have always been to acquire knowledge about different social phenomena and to communicate it to the larger public. Information is power. (Female, Belgium, Information and Communication Studies).

Divergent frames

Data also shows more radically divergent ways with regard to how respondents associate the production of impact with or dissociate it from the process of conducting research. The material allows us to make the distinction between the four following, mutually exclusive, argumentative frames: impact perceived by respondents as being in contradiction with research (Impact vs. Research frame); impact and research as separate but complementary activities (Impact *of* research frame); impact as an integral/core part of the research activity (Research *for* impact frame); impact embedded in the research process (Virtuous circle frame).

The Impact vs. Research Frame

According to the first of the mutually exclusive frames we have identified, impact may be described as being in contradiction with research.

If it is understood in a narrow functionalist sense, I think it [impact creation] is a problem for my academic freedom. I also ultimately think that too much focus on impact can undermine the university. (Female, Organization studies, Denmark / Finland)

Such general conception of a contradiction between impact and research is rare though. More often respondents rather perceive a tension between impact and fundamental, curiosity driven and/or theoretical research.

Through creating impact, research can improve society. However, creating impact should not be the primal task of the science. The task of the research is to explore truth rather than create impact. [...] As argued above, it is good if the research I’m doing can produce a wider impact on the society. However, the imperative to make societal impact at any cost would mean the end of research. (Male, Philosophy, Slovenia)

The Impact *of* Research frame

According to a second exclusive frame, impact is described as an activity that is separate but complementary – to varying degrees – to research (= Impact *of* research).

We are all part of a community and, in a broader sense, live in the same world. No human activity, including research, may be thought as independent from this very fact. On the other hand, research may have, and indeed has, its own rights and goals. Social impact represents an added value but has not to be assumed as a unit of measurement to assess research quality. (Male, Musicology, Italy)

The Research *for* Impact frame

A third frame consists in presenting impact as an integral/core part of the research activity (Research *for* impact).

[Creating impact is very important] because for me it has no sense of building theories just for the pure intellectual pleasure or satisfaction of building theories. To my mind doing research is participating in the exploration of unsolved problems in order to make the society progress, so it should necessarily have societal impact. (Female, Innovation Studies, Sweden)

Every research should have to have a practical implication and advantage in the society. Developing just theories is without a real justifiable aim if there is no use of it in everyday life. (Female, Psychology, Serbia)

The Virtuous Circle Frame

Finally, the fourth divergent type of frame we have identified underlines the virtuous circle in which research and impact have to be regarded, impact being described as embedded in the research process.

However, since this process [of getting application of basic research] is long, applied research is also relevant in many ways, first to gain legitimacy towards society and second, because sometimes it informs basic research. For example, in management research, the feedback obtained from organizations can be important to advance basic research. (Female, Management, Spain)

From this perspective, a few ECIs describe the pathway to impact as a true co-creation of research between scholars and society.

Currently, at my institute, we work with the old fish canneries that have been totally forgotten in the local cultural memory. On the one hand, by collecting individual stories and co-creating a larger collective story on fish canneries we are enabling the local population to recognize their history as worthwhile; on the other hand, we are enabling us (researchers) and society as a whole to reflect on the seismic shifts that happened in recent history in work conditions and gender relations. This reflection and understanding of the past are crucial for the understanding of our present; without this reflection there is no social change. (Female, Cultural and Literary Studies, Slovenia)

This may not apply to everyone equally, but certainly for most of my research I need to engage with community members, members of the public and other individuals, so my research outputs are of intrinsic interest to those people and the research findings may help them in some way. The impact then helps to foster trust between researcher and participant, which supports future research collaborations. So, I see it as an ongoing, symbiotic relationship, at least that's how it has been for most of my work. (Male, Linguistics, UK)

Explanatory Factors for the Commonalities, Differentiations and Divergences in Framing

It is beyond the scope and ambition of this article to correlate in any systematic way each of the above-mentioned eleven argumentative frames to particular socio-professional circumstances, specific disciplinary, national and institutional environments or epistemic communities. Our data allows us though to relate the observed coexistence of convergent, differentiated and divergent argumentative framings among respondents to the psycho-social frameworks that are structured by those circumstances, environments and communities.

Commonalities in the Framing of Impact as the Manifestation of a Generational Shift

As previously mentioned, several respondents share the perception of a generational shift with the older generation of academics who occupy the dominant positions in the academic job market. Those elder peers endorse the dominant ideology, valorising theoretical knowledge, and would not integrate societal impact in their definition of research excellence.

Dominant and influential representatives in my discipline prefer to retain the *status quo* in terms of keeping the separation between art and society in their research, and try to keep the elitist approach in the discipline of art history. By observing the artwork out of the socio-political context and by missing to stress the relations between the artistic work and the social situation in which it was created, they discourage contemporary approaches. These approaches would deconstruct the old inherited traditional kind of knowledge and research methods by establishing links between art and society and critically approach not only to the art but also to the discipline itself. In most cases the aim of the research is achieving one's own success and establishing its own position in the scientific community; social transformation and public benefit is not in focus because it does not bring a visible and measurable benefit for the researcher. Unfortunately, instead of cooperation and collegiality, in my scientific community competition among colleagues dominates. (Female, Art History, Croatia)

Yes [there is tension for career development originating from doing research that creates impact], for those who think that it is not research but activism. When being a young researcher, it can have an impact on your career since you are at the 'mercy' of those people who are generally hierarchically superior. If they think that what you do is not 'science', they will not give you grants. (Female, Sociology, Belgium)

Such perception of a generational shift contributes to the fostering of a shared habitus and common psycho-social framework among ECIs in the SSH, which explains – at least in part – the commonalities in their framing of impact. Bourdieu's analysis of

the university showed indeed that academia is a place where social agents struggle for status, control and for being able to define the most valued forms of capital, beyond its distribution within society. In the French sociologist's words, the academic field is nothing else than a 'site of permanent rivalry for the truth of the social world and of the academic world itself' within which academics occupy a 'determined position [...] defined by a certain number of properties, an education and training, qualifications and status, with all their concomitant forms of solidarity or membership.'⁴² Furthermore, the notion of research excellence is a social construction that relates not only to merit, but also to the status of the institute, the theoretical orientations of the research, the scholar's professional network and gender.⁴³ As such, the notion of excellence is strongly linked to the reproduction of inequalities in Academia, and a critical challenge in the struggle for socio-professional status.⁴⁴

Several respondents with temporary contracts also mention that the professional instability experienced by most ECIs, combined with geographical mobility, heavy workloads and in some cases a sentiment of lacking legitimacy, constitute additional and commonly shared socio-professional challenges that prevent them from engaging in impact creation.

I already suffer from stress and mental health problems as a result of my extreme workload and persistent insecurity and pressures of constantly having to move around with my family and throw my life into disarray to pursue my dream of being an academic. Just adding more tasks to my workload is going to push me into an impossible situation that I simply cannot manage and result either in illness or having to leave the academy. In order for more time to be devoted to impact activities, then something else will have to be released from my workload. [...] Early career researchers are simply trying to survive and avoid being plunged into poverty through unemployment every time our short-term contracts and research funds run out. If impact is a way to secure better work and employment conditions, then I am all for it. (Female, Geography, Sweden)

Differentiations and Divergences in Framing as a Consequence of the Diversity of Epistemic Communities within SSH

Beyond these shared socio-professional features, through secondary socialization ECIs will be trained and conduct their research within specific epistemic communities, structured by a diversity of disciplinary, national and institutional contexts.

As far as the disciplinary context is regarded, a general perception emerges from the questionnaire that SSH impact as a whole diverges from impact from STEM or medical science. In one respondent's words, 'Wittgenstein's impact is very different from Einstein's' (Female, Information Science, Ireland). It is obvious though that ECIs

⁴² Pierre Bourdieu, *Homo Academicus*, trans. Peter Collier (Stanford, CA: Stanford University Press, 1988): xiii

⁴³ Mohammadreza Hojat, Joseph Gonnella. and Addreane Caellegh, 'Impartial Judgment by the "Gatekeepers" of Science: Fallibility and Accountability in the Peer Review Process', *Advances in Health Sciences Education* 8.1 (2003): 75-96; Peter A. Lawrence, 'The Politics of Publication. Authors, Reviewers and Editor Must Act to Protect the Quality of Research', *Nature* 422 (2003): 259-61.

⁴⁴ Marieke Van den Brink, and Yvonne Benschop, 'Gender Practices in the Construction of Academic Excellence: Sheep with Five Legs', *Organization* 19.4 (2012): 507-24.

consider that, depending on the disciplinary context, constraints and opportunities vary a lot within SSH disciplinary fields when the researcher is to produce impact. In particular, disciplines such as management studies, policy studies or applied psychology are perceived as being more innately disposed to affect society:

A lot of SSH research deals directly with research subjects and creates opportunities for impact (or should I say achieving social change) that would be immoral to miss. In SSH research there are also plenty of chances to exploit research subjects for data, and impact can be a way of giving back and achieving balance. However, some other SSH areas may not have such direct opportunities for impact. (Female, Social Studies of Science and Technology, UK)

Generally speaking, several respondents associate the ‘Cognition’ argumentative framing of impact with the Humanities, while Social Sciences would be more concerned with the ‘Social Change’ frame and a genuine desire to influence society in a positive way. In the words of one respondent:

I think that doing Social Studies research should be least in part be motivated by a genuine desire to influence in society and do world a little better place. (Female, Sociology, Finland).

Beyond the discipline, the choice of the very research topic and the extent to which it has, in the words of one respondent (Female, Criminology, Portugal), ‘real world consequences’ also play a vital role.

And while part of my research (pop music, often implying a Gender Studies perspective) has high potential for impact, for the other part (medieval manuscript studies) it is much harder to generate interest. That said, one of the reasons I moved towards pop music [studies] was to increase the impact of my work. (...) Basically, being a medievalist means doing lots of things, but it is not the most impactful of research areas (especially for those of us not in history – the historians have it much easier than the rest of us). So that was part of my reason for pursuing research into other areas after my PhD. (Female, Music, Norway)

At a national level, the framing of impact by ECIs is influenced by the existence of policies that take impact into consideration for funding or evaluating research. Such policies were only mentioned by respondents to the CARES questionnaire in regard to the Finnish and Irish contexts (for funding) or the UK contexts (for evaluation).

It is the first time that the institution where I work cares about impact. The main reason is that ‘impact’ measures are included as part of the majority of the funding calls and part of the REF system in UK. The Faculty has an ‘Impact and Knowledge Exchange Office’ to help researchers to have successful impact of their research. (Female, Economy, UK)

For some ECIs such policies provide a boost for their engagement in the production of impact. Other respondents think that, on the contrary, the integration of impact into the evaluation process may lead to constraining the possibilities to create impact rather than stimulating its whole diversity.

The REF framework drives all research activity at UK institutions, so doing research that’s useful for society is only valued if it fits the REF, i.e. is linked to a particular

output, or you can write a convincing narrative that fits the REF template. Anything outside that framework is not recognized or supported. (Male, Linguistics, UK)

The situation also varies a lot from one institution to the other. In a few cases publishing impact driven research constitutes a contract renewal clause and for negotiating pay rises, impact being regarded as an integral part of regular work. Nevertheless, the majority of respondents revealed a total lack of consideration to impact and no support to impact-related activities. Furthermore, it appears that although impact is symbolically valorised within some institutions, it is not really taken into account.

My university symbolically values and supports research that creates societal impact, but in practice, only the so-called 'high quality' research published in English in internationally highly ranked academic journals counts. This kind of research rarely reaches broader audiences than the academics reading the journal. So, there is a significant mismatch here. (Female, Sociology, Estonia)

Consequently, respondents complain about the lack of adequate training possibilities. Several even mention the ENRESSH training schools, through which ENRESSH members provided training in matters such as societal impact or bibliographical databases, as the only opportunity they have ever had to get impact-related skills. However, some institutions provide a diversity of support: media training, specific grants (for impact), support from supervisor or from other colleagues, availability of experts, popularization and impact-related workshops or even public-speaking contests.

Informal training most probably also plays a role in constituting particular psycho-social frameworks within SSH and orienting the ways ECIs frame the notion of impact. In this regard, respondents mention relevant experience in activism, volunteering work, research projects outside academia (NGO-s, international developmental organizations), work in associations or in the media, experience in consulting or in community organizations.

Concluding Remarks: Impact as a 'Boundary Object'

When comparing the identified argumentative frames to the approaches to impact in policy making and scholarly discourse, it is obvious that they do not strictly match. The heterogeneity of the eleven frames cannot be narrowed down to any enclosed definition or description of impact. For example, we can easily track elements of the linear as well as the non-linear conceptions of impact in ECIs' framings of the notion. While ECIs associate impact with accountability – which they do not frame as a bureaucratic managerialist constraint in itself – and are mostly concerned with impact creation, it does not imply that they all believe that SSH research has to induce societal, and even less so economic changes.

In our analysis, we identified five common frames that have not been contested by any respondent and associated the six others with disciplinary diversity as well as with the various national and institutional contexts within which ECIs conduct their research. The coexistence of such frames makes Star and Griesemer's concept of

‘boundary object’ the perfect tool to define our own frames which are ‘plastic enough’ to adapt to the diversity of epistemic communities while keeping enough commonalities to remain recognizable and be ‘a means of translation’ across them.

In regard to research and innovation policies, Samuel Moore has recently demonstrated that Open Access constitutes a ‘boundary object’ too, since its ‘definition is generally consistent across communities, although some insist on a specific, permission-free approach to OA licensing, while others specifically discourage the use of liberal licensing with strict limits to reuse. However, it is the motivations for and routes to OA that differ substantially between communities [...]’⁴⁵ Moore’s conclusion is that the notion of Open Access is not really suitable as a policy object and should not be generalized, but rather regarded a community-led enterprise. Hence, a consequence of conceptualizing impact as a ‘boundary object’ is that its definition should neither be taken for granted, nor restricted to any single conceptualization – or any ‘one size fits all’ approach – in policy making or in scholarly literature. Each epistemic community, structured by a certain disciplinary, national and institutional context, should rather engage in a bottom up discussion about which framings of impact, if any, are the more relevant for them. Although disciplinary associations are only a proxy of epistemic communities within SSH, we believe that they too should come (more) to the fore in any discussion related to the impact of SSH. Furthermore, due to the existing epistemological and linguistic diversity within SSH disciplines, the various options for impact creation should be discussed at project level – PhD project level included – together with all the stakeholders, both academic and non-academic, involved.

Conceptualizing impact as a ‘boundary object’ does not mean that the production of impact should not be strongly encouraged within each and every SSH epistemic community. The diversity of framings of impact may even constitute an asset for those communities in providing the current societal challenges with proper solutions, adapted to each challenge, from climate change to fighting pandemics, to mention only a few of the issues Europe is facing at the moment. It may stimulate a desirable diversity of the provided solutions, at an epistemic, cognitive, and ethical level, as well as a unique openness to critical evaluation. Indeed, we believe that what Edenhofer and Kowarsch wrote about social scientists also applies for humanists whose role is notably to ‘facilitate more constructive discussions among stakeholders about highly value-laden policy issues like climate change’ and ‘constantly embed divergent values and principles [...] in different future scenarios and policy pathways’, as well as critically evaluate the ‘various practical implications of these alternative policy pathways’.⁴⁶

Finally, conceptualizing impact as a ‘boundary object’ does not imply that, for the new generation of scholars to engage wholeheartedly in the production of social impact – something several respondents seem more eager to do than their elder peers –, more coordinated efforts are not needed at disciplinary, national and institutional level. Training in impact production should be reinforced – or even initiated – in the different fields of SSH, fostering the translation of the notion of impact beyond the frontiers of epistemic communities. Furthermore, it is only through a better coordination between

⁴⁵ Samuel A. Moore, ‘A Genealogy of Open Access: Negotiations between Openness and Access to Research’, *Revue française des sciences de l’information et de la communication* [online] 11 (2017); available at <https://journals.openedition.org/rfsic/3220> [accessed 5 September 2020].

⁴⁶ Ottmar Edenhofer, and Martin Kowarsch, ‘Pascal’s Wager Reframed: Toward Trustworthy Climate Policy Assessments for Risk Societies’, in *Why Trust Science?* ed. Naomi Oreskes (Princeton: Princeton University Press, 2019), 198-99.

academics, policy makers and social stakeholders that the right socio-professional context – notably with regard to research evaluation and academic careers – will be put in place and provide the best possible environment for social impact from SSH research to flourish.

Acknowledgement: This article is based on work from COST Action 15137 European Network for Research Evaluation in the SSH (ENRESSH) and supported by COST (European Cooperation in Science and Technology). The authors would hereby like to thank to the late Professor Paul Benneworth for initiating the CARES research within the COST network ENRESSH Action and encouraging them in the early steps of this research project.

Bibliography

1. Bartlett, Frederic C. *Remembering: A Study in Experimental and Social Psychology*. Cambridge: Cambridge University Press, 1932.
2. Bayley, Julie E., David Phipps, Monica Batac, and Ed Stevens. 'Development of a Framework for Knowledge Mobilisation and Impact Competencies'. *Evidence & Policy: A Journal of Research, Debate and Practice* 14.4 (2008): 725-38.
3. Bourdieu, Pierre. *Homo Academicus*. Translated by Peter Collier. Stanford: Stanford University Press, 1988.
4. Bourdieu, Pierre. *Esquisse d'une théorie de la pratique. Précédé de trois études d'ethnologie kabyle*. Paris: Le Seuil, 2018 [1972].
5. Breton, Philippe. *L'Argumentation dans la communication*. Paris: La Découverte, 2013.
6. Caplan, Nathan. 'Social Research and National Policy: What Gets Used, by Whom, for What Purposes, and with What Effects?'. In *Evaluation Studies Review Annual*. Edited by Marcia Guttentag, and Shalom Saar. Volume 1. Beverly Hills, CA: Sage, 1977. 68-78.
7. Carayannis Elias G., and David F.J. Campbell. 'Triple Helix, Quadruple Helix and Quintuple Helix and How Do Knowledge, Innovation, and Environment Relate to Each Other?'. *International Journal of Social Ecology and Sustainable Development* 1.1 (2010): 41-69.
8. Dewaele, Alexis, Dewi Hannon, Ann Buysse, and Esther De Smet. 'Guide to Impact Planning'. Ghent University, 2019. Available at <https://biblio.ugent.be/publication/8653733/file/8653734>. Accessed 19 August 2020.
9. Direction Générale RTD (Commission EU). 'Orientations towards the First Strategic Plan Implementing the Research and Innovation Framework Programme Horizon Europe', 2019. Available at https://ec.europa.eu/info/files/orientations-towards-first-strategic-plan-horizon-europe_en. Accessed 19 August 2020.
10. Edenhofer, Ottmar, and Martin Kowarsch. 'Pascal's Wager Reframed. Toward Trustworthy Climate Policy Assessments for Risk Societies'. In *Why Trust Science?* Edited by Naomi Oreskes. Princeton: Princeton University Press, 2019. 191-201.
11. Finne, Håkon, Adrian Day, Andrea Piccaluga, André Spithoven, Patricia Walter, and Dorien Wellen. 'A Composite Indicator for Knowledge Transfer. Report from the European Commission's Expert Group on Knowledge Transfer Indicators'. 2011.
12. Gamson, William A., and Andre Modigliani. 'Media Discourse and Public Opinion on Nuclear Power: A Constructionist Approach'. *American Journal of Sociology* 95 (1989): 1-37.
13. Gibbons, Michael, Camille Limoges, Helga Nowotny, Simon Schwartzman, Peter Scott, and Martin Trow. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. Thousand Oaks, CA: Sage, 1994.

14. Goffman, Erving. *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper and Row, 1974.
15. Greenhalgh, Trisha, and Wieringa Sietse. 'Is It Time to Drop The "Knowledge Translation" Metaphor? A Critical Literature Review'. *Journal of the Royal Society of Medicine* 104.12 (2011): 501-509.
16. Grønvad, Jonas Følsgaard, Rolf Hvidtfeldt, and David Budtz Pedersen. 'Analysing Co-Creation in Theory and in Practice: A Systemic Review of the SSH Impact Literature. Accomplish Report'. 2017. Available at https://docs.wixstatic.com/ugd/35d470_1d36ad453b884646899f6196b45cac7e.pdf. Accessed 5 September 2020.
17. Haas, Peter. M. 'Introduction: Epistemic Communities and International Policy Coordination'. *International organization* 46.1 (1992): 1-35.
18. Hojat, Mohammadreza, Joseph Gonnella, and Addreane Caellegh. 'Impartial Judgment by the "Gatekeepers" of Science: Fallibility and Accountability in the Peer Review Process.' *Advances in Health Sciences Education* 8.1 (2003): 75-96.
19. Kattel, Rainer, and Mariana Mazzucato. 'Mission-Oriented Innovation Policy and Dynamic Capabilities in the Public Sector'. *Industrial and Corporate Change* 27.5 (2018): 787-801.
20. König, Thomas, Helga Nowotny, and Klaus Schuch. 'Impact Re-Loaded.' *fteval Journal for Research and Technology Policy Evaluation* 48 (2019): 8-9.
21. Kuhn, Thomas S. *The Structure of Scientific Revolutions*. Fourth Edition. Chicago: University of Chicago Press, 2012 [1962].
22. Lawrence, Ruth. 'Research Dissemination: Actively Bringing the Research and Policy Worlds Together'. *Evidence & Policy* 2.3 (2006): 373-84.
23. Lawrence, Peter. A. 'The Politics of Publication. Authors, Reviewers and Editor Must Act to Protect the Quality of Research'. *Nature* 422 (2003): 259-61
24. Mankins, John C. 'Technology Readiness Levels. NASA White Paper'. 6 April 1995. Available at <http://aries.ucsd.edu/ARIES/WDOCS/ARIES07/trl.pdf>. Accessed 11 September 2020.
25. Molas-Gallart, Jordi. 'Research Evaluation and the Assessment of Public Value'. *Arts and Humanities in Higher Education* 14.1 (2015): 111-26.
26. Moore, Samuel A. 'A Genealogy of Open Access: Negotiations between Openness and Access to Research'. *Revue française des sciences de l'information et de la communication* [online] 11 (2017). Available at <https://journals.openedition.org/rfsic/3220>. Accessed 5 September 2020.
27. Morton, Sarah. 'Creating Research Impact: "The Roles of Research Users in Interactive Research Mobilisation"'. *Evidence & Policy* 11.1 (2015): 35-55.
28. Muhonen, Reetta, Paul Benneworth, and Julia Olmos-Peñuela. 'From Productive Interactions to Impact Pathways: Understanding the Key Dimensions in Developing SSH Research Societal Impact'. *Research Evaluation* 29.1 (2020): 34-47.
29. Ochsner, Michael, Nina Kancewicz-Hoffman, Jon Holm, and Marek Hołowiecki. 'Overview of Peer Review Practices in the SSH. ENRESSH Report'. 2020. Available at <https://enressh.eu/wp-content/uploads/2017/09/OverviewPeerReviewENRESSH.pdf>. Accessed 19 August 2020.
30. Pedersen, David Budtz, Jonas Følsgaard Grønvad, and Rolf Hvidtfeldt. 'Methods for Mapping the Impact of Social Sciences and Humanities – A Literature Review'. *Re-search Evaluation* 29.1 (2020): 4-21.
31. Philips, David, Joanne Cummings, Debra J. Pepler, Wendy Craig, and Shelley Cardinal. 'The Co-Produced Pathway to Impact Describes Knowledge Mobilization Processes'. *Journal of Community Engagement and Scholarship* 9.1 (2016). Available at <https://digitalcommons.northgeorgia.edu/jces/vol9/iss1/5/>. Accessed 6 September 2020.
32. REF. 'Excellence Framework 2014: The Results UK: REF2014', 2014. Available at <https://www.ref.ac.uk/2014/pubs/201401>. Accessed 8 April 2019.

33. Research Councils UK. 'Pathways to Impact', 2014. Available at <http://www.rcuk.ac.uk/innovation/impacts/>. Accessed 18 April 2019
34. Shore, Cris. 'Audit Culture and Illiberal Governance: Universities and the Politics of Accountability'. *Anthropological Theory* 8.3 (2008): 278-98.
35. Spaapen, Jack, and Leonie van Drooge. 'Introducing "Productive Interactions" in Social Impact Assessment'. *Research Evaluation* 20.3 (2011): 211-18.
36. Star, Susan L., and James R. Griesemer. 'Institutional Ecology, "Translations" and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39'. *Social Studies of Science* 19.3 (1989): 387-420.
37. Swidler, Ann. 'Culture in Action: Symbols and Strategies'. *American Sociological Review* 51.2 (1986): 273-86.
38. Van den Brink, Marieke, and Yvonne Benschop. 'Gender Practices in the Construction of Academic Excellence: Sheep with Five Legs.' *Organization* 19.4 (2012): 507-24.
39. Van Gorp, Baldwin. 'The constructionist approach to framing: bringing culture back in'. *Journal of Communication* 57 (2007): 60-78.
40. Vanholsbeeck, Marc. 'Entre qualité prescrite et qualité souhaitable. L'ambivalence des chercheurs en communication face à l'évaluation de leurs publications'. *Quaderni. Communication, technologies, pouvoir* 77 (2012): 71-84.
41. Watermeyer, Richard. 'From Engagement to Impact? Articulating the Public Value of Academic Research'. *Tertiary Education and Management* 18.2 (2012): 115-30.
42. Wilson, Michael G., John N. Lavis, Robb Travers, and Sean B. Rourke. 'Community-Based Knowledge Transfer and Exchange: Helping Community-Based Organizations Link Research to Action'. *Implementation Science* 5.33 (2010). Available at <https://doi.org/10.1186/1748-5908-5-33>. Accessed 6 October 2020.

Impactul cercetării științifice ca subiect-limită în Științele Sociale și Științele Umaniste

Rezumat

Analiza modului în care tineri cercetători din 32 de țări, aflați la început de carieră, conceptualizează noțiunea de impact al cercetării științifice din Științele Sociale și Științele Umaniste (SSH) prezintă câteva trăsături comune. Există o tendință convergentă de a descrie impactul ca un subiect de o mare importanță ce operează prin intermediul comunicării. Persoanele intervievate asociază impactul cu conceptul de responsabilitate și sunt de acord că impactul nu aparține în prezent culturii academice dominante. Diferențe și chiar divergențe conceptuale apar în legătură cu natura impactului (cognitivă sau socială) și în legătură cu măsura în care respondenții asociază sau disociază impactul de procesul de cercetare științifică. Astfel, articolul aduce în prim-plan cinci paradigme argumentative comune și șase diferențiate sau divergente în ceea ce privește argumentarea. În timp ce elementele comune pot fi legate de circumstanțe socio-profesionale, diferențierile și divergențele observate în conceptualizarea impactului se leagă de diversitatea disciplinară și aceea a contextelor naționale și instituționale în care cercetătorii sunt educați și își desfășoară activitatea de cercetare. Din cauza coexistenței acestor trăsături comune, dar și a diferențierilor și divergențelor în modul în care tinerii cercetători privesc noțiunea de impact, articolul argumentează că impactul cercetării din domeniile Științelor Sociale și al celor umaniste se poate conceptualiza cel mai bine prin

noțiunea lui Star și Griesemer de „obiect-limită” (1989). Concluzia noastră este că încercarea de a privi impactul dintr-o perspectivă îngustă – fie a discursului academic sau a domeniului academic sau a domeniului politic – ar reduce în final posibilitățile de implicare a cercetătorilor din Științele Sociale și Științele Umaniste în crearea unui impact semnificativ.