

METAMORPHOSES AND PERFORMATIVITY. TRANSFORMATIVE R&I POLICIES AND THE NORM(ALIS)ING EFFECT OF SOCIETAL IMPACT

LISE MOAWAD AND CORNELIA SCHENDZIELORZ

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ABSTRACT

In 2014, UK higher education institutions implemented a new system for assessing the quality of research, the Research Excellence Framework (REF) and took the opportunity to introduce "impact beyond academia" as a 'new' assessment criterion. Transformation and innovation-oriented R&I policy are roughly similar in Norway and the Netherlands regarding underlying ideas as well as timing. In occasion of this convergence this article tackles the discursive and performative construction of "societal impact" as a metamorphic constantly changing, transforming, and evolving criterion. Using data from policy documents from the UK, the Netherlands, and Norway from 2014 until now, the comparative semantic analysis draws on theories of speech acts and performativity to reveal the dual effect (normalising and norming) of the discursive device by R&I policymakers. The resulting typology, based on four criteria (terminology, positive and negative valences, *oikonomia* of knowledge and policy slogan), sets the ground for the exploration of further dimensions of societal impact evaluation challenges.

"In nova fert animus mutatas dicere
formas / Corpora."

Ovid, *Metamorphoses* (I, 1-2)

INTRODUCTION

In 2014, UK higher education institutions implemented a new system for assessing the quality of research, the Research Excellence Framework (REF), thus replacing the previous Research Assessment Exercise (RAE) and establishing the "impact beyond academia" as a 'new' assessment criterion. The very same year, the Dutch government issued a report on research policy, calling for "maximum impact" for Dutch science (2025 – Vision for Science, Choices for the future). Still in 2014, the

Norwegian Ministry of Education and Research edited a long-term plan for research and higher education 2015–2024, aiming among others to "tackle major social challenges" (NMER 2014). A few years later however, discourses took on a different shade of meaning. In the REF2021, impact case studies were worth 25% of the overall profile (an increase from 20% in 2014), where public engagement (reach of impact) and impact on teaching (significance of impact) are also given consideration in the UK assessment system. For its part, the Dutch government encouraged the dialogue between science and society "by targeted communication and outreach activities" (NWO - Dutch Research Council). Finally, the Norwegian government claimed in 2018 that "knowledge development is driven by more than goals and targets" (NMER 2018).

In all three quoted examples, the formulation and quantification of new objectives confirm that innovation and valorisation policies have an increasing influence on academic practice worldwide (Dance 2013). Moreover, financial R&I instruments are connected with higher demand for regulatory policy instruments (Dinges et al. 2020). Among them are discursive strategies, and above all concepts, which make it possible both to set the rules of the game and to adapt, if the situation requires it. They contain an internal tension (but not an opposition) and are in this sense as fascinating as they are difficult to define. 'Societal impact' is one perfect example of this dynamic tension.

In this article, we tackle this very changing nature of the impact definition from a linguistic perspective by examining the performative dimension of societal impact as a scientific concept: To what extent are the semantic instabilities around this notion an obvious sign of the changing priorities of political stakeholders, between pressing societal challenges and economic development? Using data from multiple data sources from the UK, the Netherlands, and Norway from 2014 until now, the comparative Critical Discourse Analysis (CDA) draws on theories of speech acts and performativity to reveal the dual effect (normalising and norming) of the discursive strategy of 'impact' by R&I policymakers. The resulting typology is based on four criteria: terminology, positive and negative valences, *oikonomia*¹ of knowledge and policy slogan. It sets the ground for the exploration of further dimensions of societal impact evaluation chal-

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Following the works of Michel Foucault (Foucault 1975) and Giorgio Agamben (Agamben 2011), we decided to prefer the Greek word οἰκονομία (*oikonomia*) over the contemporary word 'economy'. From the original meaning of the word ("management of a household or family, husbandry, thrift", quoted from Liddell & Scott 1940), we thus emphasise its practice-oriented dimension and can define it as 'a form of arrangement and disposition of the knowledge system (actors, technologies, forms)'.

allenges related to the specific transformation and innovation-oriented R&I policies.

BACKGROUND: EVALUATION CRITERION AND INNOVATION POLICIES

Evaluation in science, and especially the analytical distinction between value - the basic categorisation of persons, objects and practices as valuable or worthless - and values - the normative value systems through which actions can be evaluated as right or wrong -, is already object of a subfield of its own in sociology (Lamont 2012; Krüger & Reinhart 2016). Whether one speaks of the rise of the evaluative state (Neave 1988) or the audit society (Power 1999), the observation is the same for many scholars: audit procedures are redefining accountability, transparency, and good governance in all aspects of society, including the higher education field (Shore & Wright 2015), and research assessment shapes the environment it seeks to control - namely institutional behaviours and organisational cultures (Crawford 2020). The (e)valuation criterion of societal impact, which has been used in the REF since 2014, is a striking example of this regulatory culture. This question is intrinsically tied to the way transformative R&I policies are framed and frame themselves. Considering concepts such as 'innovation for growth', 'national innovation systems' or 'transformative innovation policy' - the latter drawing particular attention to the direction of innovation, i.e., to the social and political choices embedded in technology (see Weber & Rochracher 2012; Schot & Steinmueller 2018; Diercks et al. 2019) - imply that looking for the societal impact might mean establishing an indicator for the innovative power of scientific research for society in procedural terms.

The aim of this paper is not to present a comprehensive review of the existing research on, and practices employed in the assessment of societal impact (see e.g., Bornmann 2013), but rather to point out some typical cases of power dispositives for framing it and thus producing, in deed and word, a "new" world of things (Berger & Luckmann 1966). Whether we talk about incentive policies that encourage societal impact via binding tools such as amendments or legislation (de Jong et al. 2015) or look at procedures, processes and roles through the prism of the Foucauldian apparatus (Wróblewska 2018), this control manifests itself in several ways and levels, both practical (e.g., what evaluation systems do to research, see Hessels & Smit 2021) and rhetorical (Hesselmann & Schendzielorz 2021). The following contribution represents a straight continuation of this shift towards more attention devoted to language and language practices in STS, while investigating the articulation of the different R&I policy discourses around this pattern of 'societal impact' (Foucault 1966) and their political (and therefore productive and serviceable) effectiveness. We then hereafter propose a linguistic analysis as close as possible to the text - an approach rarely taken to this extreme in this field.

THEORY: SPEECH ACTS AND PERFORMATIVE LANGUAGE

The theory of speech acts - acts done in the process of speaking - and their political effects (staging, ordering reality, producing a vision of the world) is based on the idea that language functions as a form of social action that not only has propositional content but is an action on its own through "performative utterance" (Austin 1962; Searle 1969). Moreover, as the speakers' linguistic effectiveness depends on their social authority (Bourdieu 1994), words can be considered to be political in themselves. As ideological vectors and epistemic labels (Foucault 1966), they participate in the production of credible authority by performing legitimacy (Butler 1997); and the instruments in action, far from being neutral auxiliaries, contribute to discursive formatting. The policy documents we will analyse are therefore, in form and substance, nothing more than the realisations (passive and active) of this power. Since words are not only a call for action, but also elicit emotions, this dimension also has to be included in the establishment of analysis criteria (see the Data and Methods section), in particular that of valence (Frijda & Mesquita 1998).

The question of the link between performativity (of political discourse) and productivity/efficiency (of knowledge-producing bodies) is thus at the centre of our reflection. If we believe that the way 'impact' is defined determines how it is assessed (Donavan 2011), the analysis of political practices around the definition and imposition of societal impact as an evaluation criterion may provide some elements of an answer.

The working hypothesis and its corollaries that we put forward and intend to discuss in this article therefore fall within this dual theoretical framework:

H: Through the definition of 'societal impact', R&I policymakers perform an indicator for the innovative power of science research for society.

C1: This definition in procedural terms normalises the assessment devices and processes.

C2: This definition in procedural terms norms the assessment devices and processes.

Drawing on Foucault (Foucault 1978), we hereby make the distinction between discursive and non-discursive practices of *normalization* ("What is normal?"), in which assessment devices and procedures are aligned with the currently perceived common ground of research assessment, and practices of *normation* ("What is the norm?"), in which standards are established that function as norms in the sense that they set benchmarks against which assessment devices are measured in the future.

CASE SELECTION AND SAMPLING

The starting point for the analysis was the RAE and the REF, from which the criterion of impact was established as an evaluation criterion in the European research area. As the development, structure and proceedings of the REF has been widely and abundantly studied (a. o. Watermeyer 2014, Watermeyer & Chubb 2019, Wróblewska 2018, Smith et al. 2020), the question arises to what extent the dynamics of the concept "societal impact", formulated in connection with the two above-mentioned British evaluation systems, result in repercussions and effects in other European research systems. We therefore favour

to continue and expand (Wróblewska 2019) the comparative analysis to examine those conceptual and institutional variations and cope with national path-dependencies. Indeed, discourses of funding and innovation agencies vary first and foremost across nations because of language practices. In order to ensure the congruence of the linguistic discourse analysis, we hence selected countries in which English is dominant as lingua franca in research as well as in research policy, assessment and funding. Other endogenous factors deserve to be taken into account, beginning with national cultural scripts (Wierzbicka 1994), i.e., common beliefs (Shepsle 2010), common expectations (Hall & Soskice 2001), or particular elements of national and ideological repertoires (Lieberman 2002). To overcome these challenges, we choose a small-N comparison (Mahoney 2003; Skocpol and Somers 1980) with only three cases under observation: the UK, the Netherlands and Norway, as all three are among the top countries on the European Innovation Scoreboard and with a strong English-speaking research culture. On the one hand, the resulting qualitative analysis will more clearly reveal the historical and political contingencies of the macro-social units studied; on the other hand, the extension of the concept of ‘societal impact’ will be limited, and the cross-linguistic issues will be more easily traceable.

First of all, the UK is picked as an influential case (Seawright & Gerling 2008), as it has an established and influential performance assessment system that permeates all other European national practices: the country has a long history of performance enhancing instruments (RAE in 1986, REF from 2014 onwards), and the RAE/REF experience has been considered by other EU countries as a success “*in delivering the long-standing science policy goals of government*” (de Boer et al. 2015). Secondly, the Dutch science policy governance system is typical of a desire to strengthen its overall competitiveness in terms of World Economic Forum scores (NIFU 2016). “*It places much emphasis on the commercialisation of public research*” (OECD 2014) and emphasises inclusive deliberation and collaboration (Molen et al. 2019). Finally, Norway is a typical case of a still very national innovation policy based on trust and a close relationship between the government and the higher education institutions. The country has a strong tradition of investing in resource-based sectors, regarded as relevant for societal challenges (OECD 2017).

DATA AND METHODS

Empirically, several types of material will be collected and put into perspective to test the hypotheses formulated above. Based on policy documents (government action plans, institutional websites of funding agencies, joint statements by relevant intermediaries)², we develop a systematic synopsis of the range of meanings of this criterion – including linguistic and etymological inscriptions, dispersion of occurrences in the discourse (or collocations, see Halliday 1966) as well as associated horizons of interpretation. The degree of precision of the analysis of the texts varies according to the nature of the documents analysed. Documents such as the public statements of various actors, whether governments, funding agencies or individual politicians were worked through in detail to try to understand the nuances of language precisely. Others, such as evaluation reports commissioned by governments from external agencies, were read and treated more broadly to see which themes are

highlighted in the public communication of science policies. Finally, a last group of documents (mainly institutional websites) has undergone several successive analyses in order to understand how central the determination of ‘impact’ is for self-presentation and what specific *weltanschauung* is being conveyed. This descriptive investigation sets the ground for a following in-depth analysis through four one-to-one semi-structured expert interviews serving to explore further dimensions of societal impact evaluation challenges related to the specific transformation-oriented R&I policies in UK, Norway, and Netherlands, and helping to fill the interpretive gaps of a political language whose rough edges have been smoothed out. The interviewees are there to help pose the problem, they consolidate the hypotheses, but the following analysis is not primarily based on their answers.

For this purpose, a methodology that explores the relationships between (non-linguistic) social practices and linguistic practices (such as CDA) may be the most insightful (Fairclough 1989). Indeed, unlike other methods, it places particular emphasis on social pressing issues and, in so doing, makes language much less abstract by giving words meanings dependent on the social, economic, and political context in which they are uttered (MacGregor 2010). As this dimension has fairly rarely been the focus of the previous analyses of this concept and its uses, we assumed that such a method was more likely to carry out comparisons of processes, procedures and measures and concrete policy implementation. Using CDA tools, we were then able to combine a qualitative structuring content analysis with a discourse analysis of selected passages (Stamann et al. 2016), where particular attention was attached to the connotative meanings of the notion of ‘impact’, as it covers all the indirect, peripheral, subjective, cultural, implicit, and other contextual meanings that can be generated by elements of discourse (Trask 2007). After a close-reading analysis of the documents, we coded them according to a set of predefined and ex ante validated criteria, mainly: **terminology** (how concepts are labelled and designated), **positive and negative valences** (the affective quality of the situation, namely the intrinsic “good”-ness or “bad”-ness of the words), **oikonomia of knowledge** (in the etymological sense of the term, as a household management practice), **policy slogan** (regimes of repetition, participation and engagement). These are supplemented with case-specific special features as needed. Ultimately, the observations are summarised in a concluding synopsis.

CASE STUDY 1: UNITED KINGDOM

ETYMOLOGY AND TERMINOLOGY (UK)

Returning to the etymology of *impact*, the Oxford English Dictionary traces the word back to the Latin *impactum*, the perfect passive participle of the verb *impingere*, which means “*to dash against, throw on, thrust at, fasten upon*” (Lewis & Short 1879). It refers both literally to “*the act of impinging*”, namely “*the striking of one body against another; collision*” (chiefly in Dynamics, in reference to momentum), and figuratively to “*the effective action of one thing or person upon another; the effect of such*

action; influence; impression”, particularly in the time-honoured phrase “to make an impact (on)”. The sense of “strike forcefully against something” is first recorded 1916, and the figurative sense of “have a forceful effect on” can only be traced from 1935 (Online Etymology Dictionary).

In the field of science and innovation policy, the political actors who instigate the idea of impact assessment and negotiate the concrete meaning of the notion as well as the way it would be assessed are various and numerous in the British context (Wróblewska 2018). Consultations between them resulted in a comprehensive definition of ‘impact’ understood as (but without being limited to)

“an effect on, change or benefit to: the activity, attitude, awareness, behaviour, capacity, opportunity, performance, policy, practice, process or understanding; of an audience, beneficiary, community, constituency, organization or individuals; in any geographic location whether locally, regionally, nationally, or internationally. Impact includes the reduction or prevention of harm, risk, cost or other negative effects” (REF 2011).

This definition remains in place for REF2021 (REF 2020).

THE USE OF HISTORY AND LAW IN THE INJUNCTION TO CHANGE (UK)

The rhetorical and conceptual framework in which this new terminology is embedded and developed is the ‘reform’ one. The injunction to change is formulated via rhetorical strategies whose procedural significance can be of great interest. For instance, in the RAND report, the conjunction *because* is used in the same anaphoric way as the *visa* formulas in the preambles of legal texts (conjunction *whereas*, gerund clauses): *“Because of the diverse nature of impacts”, “Because of the imperfections of both quantitative and qualitative measures”*... It thus seems to open the statement of a text which, on the model of a legal document, serves as a basis for the decision-making power and the decision-making act (RAND 2010).

The political vocabulary also borrows from the humanities, especially history, to convince and persuade. The rhetorical motif of ‘reform’ is mainly a facility of language, where change is described in terms of rupture/continuity, a dichotomy that is certainly traditional in political science (e.g., Collier/Collier 1991; Birkland 1998) but still effective when it comes to discursive strategies. The double narrative *“Building on Success”/“Learning from Experience”* (Stern Report 2015) is supported by the review of the REF Report (Technopolis 2018) commissioned in 2016 by the British Department of Business, Energy and Industrial Strategy (BEIS), which emphasises on the one hand the REF’s place in a global history (*“probably the oldest [performance-based research funding system]”*), and on the other hand its role as an icebreaker and its knock-on effect (*“The REF2014 is arguably the first major discontinuity in the development of the REF [RAE]”; “this was seen as a completely new idea”*). The word impact thus retains a double argumentative force: it both arouses support, via an inscription in the past, and desire, via a rhetoric of progress.

POSITIVE AND NEGATIVE VALENCES (UK)

In the UK policy documents analysed for this paper, impact is presented positively in all its meanings (Bornmann 2013): societal products

or outputs (new products and services with added value), societal use (societal references), societal benefits (changes in society). The official political discourse is that of a *‘success story’* (Stern Report 2015). Even if its percentage is lower than that of excellence in the REF calculation system, it becomes the default evaluation criterion, to the extent that ‘non-impact’ (outputs that are not exploitable, references that are not productive) is counterintuitively justified in the same terms as impact. However, the Stern Report does not so much deploy a coercive discourse as an inclusive narrative about the participation of policymakers in the creation of favourable conditions for the production and dissemination of knowledge. This euphemisation of the discourse, via verbs such as *contribute*, is thus merely a rhetorical strategy that changes the valence of the description (i.e., the intrinsic affective quality of the situation) from bad (*forces) to good (*helps).

As we can see, *impact* contributes to the establishment of a consensus, the status of which as a social referent can lead to resistance or delegitimisation (*“I’m now some kind of civil servant charged with delivering the government’s priorities”* wrote one academic quoted by *The Guardian*, 13.10.2009) or full and complete adherence, or even a bidding war, thus becoming a scholarly distinction (Watermeyer & Chubb 2019). For policymakers, this normalisation is accompanied by the diffusion of an idealised and polished vision of research as the hegemonic norm: goal-oriented, linear, devoid of obstacles, depersonalised and always excellent.

OIKONOMIA OF KNOWLEDGE (UK)

The RAE was introduced in 1986 at a time when Margaret Thatcher wanted to *“get better value for money through greater efficiency”* (Leader’s speech, Brighton 1984). A few years later, the discourse accompanying the creation of the REF remains largely influenced by the conventional economy: one of the main motivations to build a new framework for assessing research quality in the UK has been to *“produce robust UK-wide indicators of research excellence for all disciplines which can be used to benchmark quality against international standards and to drive the Council’s funding for research”* (HEFCE 2007). Another HEFCE report makes this threat to cut funds explicit: *“The economic landscape in 2009 was very different to what we had experienced over the previous 10 years...The period of growth in public funding enjoyed by HE over the past decade is over and unlikely to return for some time”* (HEFCE, 2010).

Incidentally, the Economic and Social Research Council’s definition also encompasses economic performance and competitiveness: *“economic and societal impact, which is the demonstrable contribution that excellent social and economic research has on society and the economy, and its benefits to individuals, organisations or nations”* (UKRI 2021). Finally, as a last illustration of this semantic obsession, we may note the emphasis on directly quantifiable financial impacts from research via the use of a synecdoche which the Russell Group universities boasts in a 2012 paper: *“our definition of ‘economic impact’ includes social impacts”*. Economics (and not just any economics, but the one that marginalises heterodox discourses, see Stockhammer et al. 2021) thus ‘represents’ the social, understood as political representation: it embodies it, it acts on its behalf; and in both cases, if it makes the other (i.e., the social) present, it is on the condition that it replaces it.

POLICY SLOGAN, MAGICAL FORMULA (UK)

The academic literature on the REF tells the myth of an evaluation criterion created almost *ex nihilo* (Kogan & Hanney 2000; Bandola-Gill & Smith 2021). Such self-narratives are often reconstructed in retrospect. However, the increasing number of occurrences of the term 'impact' in successive HEFCE annual reports and accounts clearly reveals the inflation of the formula: from seven occurrences in the 2004-2005 report, for example, to 19 (report 2008-2009), then to 36 (report 2010-2011) and 34 (report 2014-2015), reaching its peak in 2016 (43 occurrences in the 2015-2016 report) before deflating back to 27 (report 2017-2018). Even if the use of the term goes beyond the sole notion of "societal impact", there is a diffusion by capillarity of the uses of this term which ends up being applied to other contexts. It is thus obvious that while the term was already well established in political discourse in 2014, its use has exploded in the first phase of its life, i.e., the momentum of its problematisation (Wróblewska 2021).

CASE STUDY 2: NETHERLANDS

TERMINOLOGY (NL)

In the Netherlands, there is a real specificity in the national definition and understanding of what societal impact is. In most of the policy documents analysed, the term 'valorisation' (in Dutch 'valorisatie') is preferred to 'societal impact', which is borrowed from English and has more violent connotations, as one of the interviewees explains: "there was a shitty disaster movie from the 2000s where asteroids hit the earth, and I think it was called Impact or something like that. So I always think of that so I don't use the term" (Interviewee 2). Overall, the term 'impact' appears to be a linguistic import that has spread beyond British borders without being a pure linguistic translation ("I don't think it was that easy that the Dutch simply adopted the English term. I think there's more ...", Interviewee 2).

There are many different definitions of 'valorisation' in circulation, nearly one for each policy agent (Ministry of Education, Ministry of Economy, NWO, VSNU, KNAW). The different aspects are reflected in the definition proposed by the Dutch government in 2009 (quoted by Drooge & Jong 2015):

"the process of creating value from knowledge by making knowledge suitable and/or available for economic and/or societal use and translating that knowledge into competitive products, services, processes and entrepreneurial activity."

Since 2014, the question may have arisen of introducing a new term, although some experts advise against this (Jong 2015): such a definitional shift would take time, both in the upstream design and in the negotiations it would entail.

POSITIVE AND NEGATIVE VALENCES (NL)

Official policy documents make good use of those many terms, especially in their English-language communications. The Dutch Research

Agenda also encourages the dissemination of knowledge for a "positive and structural contribution to the global society of tomorrow", the idea being "to build bridges today in order to jointly address the scientific and societal challenges of tomorrow" (Dutch Research Agenda 2019-2022). The government encourages the co-construction and circulation of knowledge, and open science that is beneficial to society as well as future-oriented. However, it calls for everyone to be vigilant: technological innovation must be accompanied, because "it cannot be assumed that this impact will necessarily be positive, for which reason it is essential that science and society maintain an ongoing dialogue" (2025 - Vision for Science, Choices for the future). It is noteworthy that, contrary to the predominantly positive connotation, the concept of 'impact' is not associated solely with a positive phenomenon.

OIKONOMIA OF KNOWLEDGE (NL)

From the outset, the Dutch government has emphasised the monetisability of public research - making the commercialisation of research the main issue, as evidenced by an OECD report commissioned by the Dutch government (OECD 2014). The report 2025 - Vision for Science, Choices for the future, published in 2014, defines valorisation as the "use of knowledge to gain some economic advantage, but also its use with a view to solving societal issues or contributing to the public debate". Vocabularies are clearly economy- and business-oriented: "Given our culture of cooperation, the Netherlands is extremely adept at finding new combinations and opportunities for cross-pollination" (Vision for Science 2014). The prepositional phrase (beginning with 'given') acknowledges the existence of such a culture by definitively assigning a characteristic (the cooperative tendency) to the entire Dutch population - an assignment of identity reinforced by the use of the metonymy 'the Netherlands'. The business buzzword 'cross-pollination' serves as a discursive marker to ideologically frame the political thought pattern at work here: knowledge is first and foremost an economic good, which must be treated as such. The impact argument thus becomes a bargaining chip, as explained by one of the interviewees:

"I never understood what it means exactly, where it comes from. But what I think it meant for policymakers was how does your academic knowledge help companies make money. It was often used as a kind of a code word for the commercial potential of research." (Interviewee 2).

POLICY SLOGAN, SUPERLATIVE BUZZWORDS (NL)

As we can see, the Dutch science policy seems to aim at developing closer relations between science, society, and the private sector, all "with maximum impact" (2025 - Vision for Science, Choices for the future). The stakes appear to be high for the Dutch government, when one observes the co-occurrences of the concept 'impact' in this very report on research policy: "increase the impact of science", "maximum impact", "the greatest possible impact", "huge potential impact" etc. The accumulation of strong adjectives, even superlatives, indicates the importance that is given, at least on paper, to this dimension. The use of vocabulary with religious connotations ("particular attention should be devoted to the circulation of knowledge and skills") also reinforces the impression of a mission assigned to political stakeholders. Impact or valorisation is distinguished by

its incantatory dimension, and the broadening of the extension of these concepts contributes to maintaining the vagueness around them, to the point of making them excessively ductile, or even empty, as one of the interviewees points out:

"It's an interesting question how these buzzwords develop. So there are complex discursive processes at play through which certain terms become popular. And often, it's about precisely the fact that they are quite malleable that you can sort of interpret them in different ways. It makes them, you know, useful and practical" (Interviewee 2).

CASE STUDY 3: NORWAY

TERMINOLOGY (NO)

For many Norwegian researchers, their first encounter with the term was via European science and innovation policy: *"the idea that you should document the potential impact of your research came to them first from the EU system"* (Interviewee 4). In Norway, the English term 'societal impact' is used, but it is not the only one. The lexical variations mobilised by Norwegian policy stakeholders depend in particular on the disciplinary field, as reported by Wróblewska (2019), who cites the terms 'samfunnsbidrag' (societal contribution) for the humanities, 'samfunns effekter' (societal effects) for the applied sciences or 'samfunnsbetydning' (societal significance). There is a literal translation of the term (Norwegian: 'virkninger' or 'effekter'), but it seems to be little used in 2014. Instead, a foreign terminology from the British REF is preferred, which has two advantages, according to some interviewees:

"And then we looked to the British REF for inspiration and we decided to use [...] the REF definition of societal impact because we thought it was quite open to all types of impact. So it would be possible to use it for different disciplines. And also we found it an advantage that it was already known to the research community. So it would be known to the peers that we invite. We always use international peers" (Interviewee 4).

Overall, the Norwegian definition of impact seems to be much more permeable to supranational discussions on defining major social issues than elsewhere, as evidenced by the mention of the Paris Agreement and the UN 2030 Agenda in the long-term plan for research and higher education 2019-2028.

POSITIVE AND NEGATIVE VALENCES (NO)

Yet, the societal component of research appears from the outset in all the Norwegian policy documents we have been able to consult, albeit in different terms. Solving the "major challenges to society" is one of the three main objectives of the government's long-term plan for research and higher education published in 2014, alongside strengthening competitiveness and innovation capacity and developing high-quality research groups. However, the official political discourse goes beyond the goal-oriented dimension of research, returning to the narrative motif of the researcher-discoverer: "in many cases, it is curiosity-driven re-

search that has led to the most extraordinary results" (Long-term plan 2019-2028). The universe drawn discursively in these policy documents is desirable: in the sentence "[this research] generate[s] knowledge that can give people better, richer lives" (Long term plan 2019-2028), the use of plurivalent qualifying adjectives (good, rich) in degree 1 (comparative) makes it possible to provoke incorporation (Maingueneau 1999) in readers or listeners, i.e., to make them adhere to the universe of meaning proposed to them. The vocabulary is sometimes so meliorative in policy documents that some Norwegian researchers (Sivertsen/Meijer 2019) point to the gap between the government's expectations of research ('extraordinary impact') and the actual results that researchers think they can prove and communicate ('normal impact').

OIKONOMIA OF KNOWLEDGE (NO)

The Norwegian government makes immediate use of the lexical field of the market economy: *"value creation", "quality of the workforce and the services delivered", "new solutions and products", "adaptability and increased productivity"* (Long-term plan 2015-2024). This ideological marking is confirmed by one of the interviewees:

"About the specific idea that investments in research should provide societal returns: I think it's very much a part of the whole period of globalization and economic growth that we have" (Interviewee 4).

If Norway brands itself as a *"knowledge nation"* according to the government's official website, it is because this knowledge and expertise are above all considered to be among their *"most important competitive factors"* (Long-term plan 2015-2024). The ambition is clear: the government announces its goal *"to make Norway one of the most innovative countries in Europe. Like other high-cost countries, Norway's competitive approach must incorporate knowledge as a basis for innovation and higher productivity"* (Long-term plan 2019-2028). Here again, the excessive use of degree 1 (comparative) and 2 (superlative) adjectives is typical of a political discourse that aims to convince as much as to persuade.

Presented as a public good, knowledge is very similar to traditional goods and services. Behind the apparent obviousness of fixed concepts and broad categorisations, it is a peculiar conception of the world that is imposed, via verbs expressing a normative modality (*"Norway's competitive approach must incorporate knowledge as a basis for innovation and higher productivity"*) or fixed rhetorical expressions (*"It is therefore important to facilitate renewal and restructuring"* - the author underlines). What is noticeable is that the language of the above-mentioned government action plans is often coercive, in particular when we consider its intentional aim on the receiver, namely its conative function (Jakobson 1960; Austin 1962): this aspect is particularly highlighted in both policy documents, best illustrated by the following performing statement from the Long-term plan 2019-2028: *"It is the Government's ambition to make Norway one of the most innovative countries in Europe"*.

A SECTORAL APPROACH TO INNOVATION AND ITS IMPACT (NO)

Most interesting in this case study is the sectoral approach of Norwegian innovation policy, which influences the definition given to societal

impact. The OECD Review of Norway's Innovation Policy highlights this specific institutional configuration combined with a consensus-oriented policy-making style, a principle particularly strong in Norway (OECD 2017). The Norwegian Ministry for Education and Research has by far the largest budget and coordinates policy efforts, along with the Ministry of Trade, Industries and Fisheries and the Ministry for Health and Care Services. Between them, these three ministries account for more than 75% of government allocations for R&D. This sharing of tasks reflects the strategic advantages of Norway around strong industrial clusters and natural resources (climate, energy, medicine, biotech), with a focus on "global challenges such as climate change, security and preparedness, disease and epidemics, safe access to energy, water and food" (Long-term plan 2015-2024). Interviewee 4 also reports on this sectorisation of research and innovation policy: "So we also respond to policy signals from all ministries: when they give money to research, they also have their own priorities" (Interviewee 4).

The study of the occurrences of the term 'impact' in the two Long-term plans also illustrates this reduction of the concept's intention. Its economic and sectoral dimension are emphasised: "significant impact on economic growth, welfare, employment and sustainable development", "impact [...] for production of goods and services in the Norwegian private and public sectors" (Long-term plan 2015-2024), "impact on the environment and climate", "global and local impacts" (Long-term plan 2019-2028), etc.

POLICY SLOGAN, FUZZY WORD (NO)

Despite the clear neoliberal orientation of the Norwegian government's definition of 'impact', the evidence of the 'knowledge commission - knowledge production - return on investment' chain underlying the economic definition of the word is questioned by the academic community. Interviewee 4 underlines this: "It's not a linear relationship, you know, the much criticised linear model that someone is doing research somewhere and then you get some results and then finally something is happening in society" (Interviewee 4). As an illustration of this difficulty in framing the term 'impact', the Research Council of Norway refers to the double meaning of this word, which concerns both the "potential outcomes and impacts of the proposed research and innovation" and the communication and exploitation part (2021). Putting dissimilar elements - what in stylistics is called zeugme (one concrete, one abstract), on the same functional level, reflects the multiplicity of social and political uses that can be made of 'impact'.

SYNOPSIS: FLOATING DISCOURSES AND HOW TO HANDLE IT

Many scholars have already established the vagueness of the concept 'impact' (Watermeyer 2014; Samuel & Derrick 2015; Jong 2015; Wróblewska 2018). But to what extent can we go as far as qualifying 'impact' as an 'empty signifier' or at least 'floating discourse' (Laclau & Mouffe 1985)? These questions about the choice of words are far from being nit-picking discussions, contrary to what interviewees outside of

academia might or would like to believe: "we get a bit too linguistic or semantic, right now..." (Interviewee 1). Indeed, we have seen how a "not very theoretically informed" term (Interviewee 2) can cause confusion and even irritation among receiving parties. What is the point, then, of policymakers having such a diffuse concept?

INTERCHANGEABILITY AND INCREMENTALITY

As we have seen, this instability is partly a step in the process of implementing new research evaluation criteria. Definitions evolve through time; they are works in progress. Indeed, there has been a gradual refinement of definitions in the three countries between 2014 and today.

As a performance management tool, the notion of 'impact' is both a calculative device that acts as a material 'inscription' of a managerial construction of reality (Latour 1987) and a 'ritual of verification' (Power 1999) that represents an 'empty certificate of comfort' for politicians. In this context, semantic instability is not considered as a problem per se: political stakeholders just have a more everyday and utilitarian use of it: "If I read documents of the [Dutch] Ministry of Education, for example, they will use valorisation and societal impact, like in the same sentence. They will use it interchangeably" (Interviewee 3).

TRANSDISCIPLINARITY AND INTERNATIONALISM

The issue of lingua franca in science is a recurrent one. In this particular case, my analysis shows that the fact that a foreign terminology is taken up, as is the case in Norway, can represent two practical interests of policy implementation for the Norwegian political stakeholders: a theoretical one (the term is sufficiently vague for its extension to be encompassing and its field of application to be broad, i.e. transdisciplinary), and a practical one (as the term is already known to the academic community, it will not need to be renegotiated, an element that is all the more necessary since the Norwegian research assessment system makes use of international peers to a certain extent). But if the term 'impact' appears to be a linguistic import that has spread beyond British borders, its connotations may be prohibitive for some academic communities, so that a vernacular word might be preferred, as it is the case in the Dutch system.

RATIONALISATION AND ASSIMILATION

This instability is also part of a political strategy. 'Impact' may be an empty signifier that can be debated, but it also has the power to integrate and overcome any criticism, as its connotations can be extended endlessly. In this sense, one could even speak of a neutralisation (in the sense of annihilation) of critical or heterodox discourses, as previously mentioned for the UK case, via an economisation of social components of innovation policies.

In practice, the concept of 'impact' and the related discourses have a unifying force for the community. For example, in Norway, the argument of the benefits of innovation, more than that of impact, is mobilised by the government to justify the principles and methods of rationalisation of the exercise of power. Overall, the inclusive narrative of the co-construction of assessment systems and formats, as developed in the policy

documents of the three countries, is indirectly coercive (see Stern report 2015 for UK), in particular by euphemising injunctions and using rhetorical devices that cannot be countered. In this way, positive valences are evoked by events and situations that cannot fail to win adherence, both collective ("*global challenges*" e.g., in Norwegian policy documents, "*future-oriented*" policies in Dutch ones) or individual (for "*better and richer lives*" in Norwegian political plans).

Noteworthy is to keep in mind that a performative speech of the political stakeholder is above all made possible by the quality of the speaker (his political function, in this case Ministers or high institutional representatives of Higher Education), the recognition of the performativity of the speech by the assembly and the submission to subsequent events, in particular the respect of the commitments made. This makes it all the more understandable that the Norwegian government, for example, is interested in the long-term framework of the Paris Agreement and the UN Agenda.

CONCLUSION AND OUTLOOK

Both normative and exploratory, this analysis should contribute to the understanding of what is at stake, i.e., performed in the definition of 'societal impact' (that is, beyond academia) from the policy side. The examination of the three cases (the UK, the Netherlands, Norway) demonstrates that societal impact may be considered as a boundary-object (Star & Griesemer 1989). Its interpretative flexibility is the concrete manifestation of changing political priorities concerning research and innovation: by being the subject of definitional bargaining, 'impact' becomes both a rallying and a structuring point for political interests. This article detects and corroborates the double performative effect of bringing to the fore one definition of societal impact rather than another: a normalising effect (through inscription in the past and rhetoric of progress or cross-country linguistic transfers) and a norming effect (through juridification of language, critic assimilation or learning knowledge management techniques).

Nonetheless, it also needs to be asked whether policy makers can simply be characterised as oblivious public servants of economic welfare states economics. The question and pursuit of the usefulness and benefits of science is neither a new nor a specifically neoliberal concern. The struggle for a balance between freedom of research and its limits as well as between truth and utility is an age-old and presumably inconclusive debate (Wilholt 2012; Kaldewey 2013), which finds its respective provisional pacification in more or less equal coexistence of basic and applied research, depending on the epoch and research system. Although assessment systems are also tailored to exploit scientific knowledge production for the national economy, the fact that they stick to innovation discourses at least maintains a narrative that science is essential to society, valuing it positively as a resource and thus enhancing its value. From this perspective, it could even be argued that this rhetoric practices promoting impact are self-motivations and self-persuasions addressing politicians, lay-citizens as well as scientists, which could also open inter- and transdisciplinary research spaces and interrelations enabling not only the exploitation of knowledge for economic purposes but also for the common good. Considering this, the desire for societal impact seems only reasonable as it is in line with the requirement that publicly funded science also justifies itself to society and the general public.

Besides, several things remain to be considered: first of all, we must keep in mind the definitively situated aspect of any performative action. No situation of enunciation can be considered as performative in itself. The research funding system and the weight that traditional political institutions have in it determine the room for manoeuvre of political stakeholders in defining terms. Secondly, there are limitations related to the object of study. Interestingly, this discursive and performative construction of a R&I policy is perhaps even more metamorphic because of the very objects that are studied, namely social transformations and the new rationales and new demands of R&I policymakers related to them. Indeed, such transformations require quick reactivity and high responsiveness from policymakers (Esaiaasson & Wlezien 2017) and large resonance from the academic world to reinforce the purpose of political expectations, their accountability, and their accomplishment (Doberneck et al. 2010). Finally, we need to be aware of the bias of comparing native and non-native speakers in their choice of defining vocabulary (Hudson, Detmer & Brown 1995), at the risk of succumbing to conceptual and terminological ethnocentrism. Indeed, comparison of languages relies crucially on the concepts that can be coded with similar effort in all languages - so cross-linguistic regularities should not be forced, overrated, or minimised. Knowing moreover that genuine intuitions about semantic references vary not only across, but also within language cultures, this paper, as a simple conceptual contribution, will have to be complemented by further analyses of this aspect - via, for instance, a broader set of stakeholders' interviews or a broader set of analysed countries.

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AUTHORS

LISE MOAWAD

Humboldt-Universität zu Berlin

Unter den Linden 6

10117 Berlin

E: lise.moawad@hu-berlin.de

ORCID: 0000-0001-8853-4688

CORNELIA SCHENDZIELORZ

Humboldt-Universität zu Berlin

Unter den Linden 6

10117 Berlin

E: schendzc@hu-berlin.de

ORCID: 0000-0002-4604-5736

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