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Assemblages of Language, Impact and Research

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Three scholars – of languages and knowledges, of translation and writing, and of higher education – discuss societal impact *as a higher education policy goal and the language ideologies that link with that discussion. We first criticize the problematic notion of* impact *that is common in higher education policy and discuss* language *and* impact *in terms of their assumed predictable, definable, and linear nature. From there, we move on to advocating for a multimodal, multidirectional, locally, and globally relevant impact that is focused on direct engagement, participatory approaches, support for promoting community activities, and introducing more epistemologically just understandings of the relationship between the researcher and the community they work with. Eventually, this requires us academics to be accountable to our environment and to abandon the binaries between researcher–researched, subject–object, and human–non-human.*

Keywords: higher education policy, societal impact, scientific impact, language

1 Introduction to us and the topic

In 1961 Leo Szilard, a Hungarian–American scientist and inventor of the nuclear chain reaction published his book *The voice of the dolphins and other stories*. The book is a collection of six utopian short stories, where he also criticizes the system of scientific funding and competing for grants, envisioning what would happen if such a model was introduced (Szilard, 1961):

> First of all, the best scientists would be removed from their laboratories and kept busy on committees passing on applications for funds. Secondly, the scientific workers in need of funds would concentrate on problems which were considered promising and were certain to lead to publishable results. For a few years there might be a great increase in scientific output; but by going after the obvious, pretty soon science would dry out. Science would

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> become something like a parlor game. Some things would be considered interesting, others not. There would be fashions. Those who followed the fashions would get grants. Those who wouldn't would not, and pretty soon they would learn to follow the fashion, too. (p. 101)

Sixty years after, we think this still summarizes the problems of measuring science and the ways in which this measuring affects the progress of science and its impact.

In this piece, we invite you to think with us about what impact means, how it is related to language and communication practices, and what changes in discourse, policy, and practice are needed to develop impact into a more multimodal, multilayered, and socially just concept and practice (see Appendix). We discuss the concept of impact with special attention to its intertwinedness with language. Instead of viewing some languages as "languages of research" and others as "languages of societal impact", we unpack what *impactful* research could or should be in the first place, and what kinds of language and interaction practices would best support that. We come to this topic with a desire to produce and see impactful work, a hope to illuminate the complexities of assessing this, and our own experiences and expertise as multilingual academics at a Finnish university, as we approach the topic from our individual perspectives. Our experiences reflect the messiness of impact itself:

> Johanna: Impactful teaching and research have been a core goal of my professional doing since I first learned that education is never a neutral space. However, I have lacked spaces for grappling with "impact" and how different understandings of it mis/align with the work I hope to do. During the time I spent in US American institutions as a doctoral researcher and early-career scholar, I came to understand impact almost exclusively as societal and communal impact, typically tied to equity and justice-oriented and community-based scholarship. Coming to Finland and responding to inquiries about the "scientific impact" of my work felt disorienting. Although societal-scientific is by far not the only binary within which impact is commonly understood and negotiated, it is the one that has sparked most learning, conversations, excitements, and headaches in my career.

> Adrienn: As a transnational scholar of translation who teaches research communication for doctoral students with a wide range of cultural and disciplinary backgrounds, I routinely cross the boundaries of languages, cultures, and academic fields as well as of teaching and research. Two years ago, when I developed and piloted a course on popularizing research, I realised that impact is an immensely complex notion not only due to its geopolitical dimension and links to power and agency but also because it is strongly tied to different understandings of language. As the pandemic and recent global trends have been pushing academia to reconsider the relationship between science, communication, and education, I urge future researchers to embrace risk—rather than prestige and competition—by reflecting on their personal values and goals along with their most cherished

roles as (inter/trans)disciplinary and (inter/trans)cultural agents of societal change from a much broader perspective and by adopting a more personal standpoint.

Taina: Having studied higher education policies in Finland since the 1990s, I had learned to think of impact mainly in terms of whether and how research or activities such as evaluation of universities "impacted" the institutions of higher education and the surrounding society. I was very much immersed in the Finnish understanding of "impact" as societal impact as it is understood in the Finnish context: what kinds of societal links and cooperation do higher education institutions have, and how do their (mainly) research activities resonate in the society? Only gradually did I begin to also see teaching as very much an "impactful" activity, or popularisation of research as one way of impacting society. With increasing contacts with colleagues from other contexts (such as Johanna or Adrienn in this paper, or Vaarala et al., 2017) have I started to wonder about the apparent lack of community service type understanding of impact.

2 Impact as higher education policy activity

Societal mission, societal outreach, or the *third mission* (along with the teaching and research missions) has been an important part of the university's existence as an institution (Välimaa, 2019.) Universities have participated in educating first the elites and then the masses; in promoting the identities and economies of newly created nation states in the 19th century; or in training new professional groups and civil servants at times of structural or economic changes in the society (e.g., Jalava, 2012).

Impact has been a systematic higher education policy catchphrase in Western societies since the 1970s, as the university-society relationship changed significantly. The decrease in public funding, economic recessions, and an ideological turn to political conservatism in the 1970s provided the backdrop for demands for higher education accountability, evaluation, and effectiveness (Bornmann, 2013; Laredo, 2007; Montesinos et al., 2008), or in other words, an enterprise-driven understanding of the third mission. In all this, impact is assumed to be positive, and the potential negative effects or larger ethical questions are rarely considered.

The naturalization (Laredo, 2007) of an industry-related third mission has been widely criticized, often by referring to the historical role of teaching- and research-based community impact of universities and to the difficulty of grasping the slippery notion of impact. In the literature on research impact (Bornmann, 2013, p. 219; Muhonen, 2021), 1) causal relationships between research and societal impact are difficult to establish; 2) impact itself emerges as a diverse and multilayered phenomenon, often with indirect and contingent links to research; 3) the cumulative nature of research makes it difficult to pinpoint where the origins of the assumed impact are; and 4) the impact of research may take place on a longer time perspective, making its evaluation difficult.

What further complicates this issue is the artificial divide between basic (or scientific) and applied (or societal) research. We are accustomed to a simplified division of *basic* referring to scientific and *applied* to problem-solving orientation

of research. This conceptualization, which has its origins in OECD's needs for statistical categorization (Godîn, 2003), implies a linear continuum from *basic* to *applied*, and has remained a main science policy category in developed knowledge economies despite ample criticism (see Miettinen & Tuunainen, 2010 for a review of literature). From the perspective of impact, this categorization would imply *basic research* being scientifically and *applied research* societally or economically impactful; as problematic and simplistic a categorization as that of basic and applied research in the first place. However, while this categorization is an artificial construct, it has very material consequences for higher education. In Finland, our main context, funding for higher education is exceedingly allocated on a short-term contract basis, based on numeric and measurable criteria, rather than as constant basic funding for higher education institutions. This, in turn, may have unintended effects on the "quality" or "effectiveness" of higher education (Raatikainen, 2020).

Impact is thus strongly linked to the environment where it is created and the environment it is meant to benefit or influence. This encompasses the scientific environment (especially disciplinary paradigms, schools, and norms), science policy at different levels (evaluation and funding systems), and the society itself. These environments are permeated by ideologies and characterized by intricate and often invisible power relations. In certain contexts, the government, corporations, or elite scientists exercise different forms of direct or indirect censorship, stopping either the message or the messenger (see Martin, 2001). If the goal of science communication is to get new knowledge or ideas accepted by the public or a specific group of audience, it is crucial for scientists to embrace their social responsibility and firmly adhere to "sound" moral and social values in all stages of the research (Rolin, 2021). It has been suggested that collective scientific or intellectual movements (referred to as SIMs) can help increase scientists' social responsibility and thus also trust in research, especially in "advocacy research" (Rolin, 2021, p. 528).

Another important point is that impact can have less tangible forms. Researchers today engage in interactions in transnational, transcultural, and transdisciplinary spaces, where ideas travel across boundaries: researchers influence each other's thinking and work in less concrete ways, which are difficult to measure. It is impossible for researchers to control where and how the new knowledge or idea will be taken up or used and by whom. And in the end, in most cases, impact can be evaluated as positive or negative only in retrospect.

Impact has also been turned into a measure of governance, as an example from the UK shows. The Higher Education Funding Council has introduced metrics for "non-academic impact", prompting researchers, such as those within the Multilingual Manchester group, to question the linearity of these metrics and to promote non-linear and participatory approaches to impact (Matras & Robertson, 2017). Rather than base our understanding of *impact* on what kind of research is used in the society and how, the focus should be on how research is *conducted* in the society. Following Muhonen (2021), we suggest supporting activities that increase research–community interaction to enhance impact, instead of applying questionable means to measuring impact as an afterthought.

3 Language and impact

Current journal-level scientific impact metrics are in many ways biased towards English language publications and thus privilege certain members of the academy while discriminating against others (e.g., Ramírez-Castañeda, 2020; Warren et al., 2020). The journals ranked on the top by metrics like Impact Factor tend to be English language outlets (González-Alcaide et al., 2012), and in many European non-Anglophone countries, researchers publish overwhelmingly in English (Kulczycki et al., 2019). The abstract and citation database Scopus by Elsevier accepts primarily English language publications, which further strengthens the bias towards English language outlets being preferred. Old and established journals that have been published in local languages may have changed their language to English to gain more international visibility (for an example from Finland, see the discussion in Kallio et al., 2021). Ironically, even research on multilingualism is overwhelmingly published in English (Liddicoat, 2016; Piller, 2016), and, as Piller (2016) notes, monolingual Anglo-centric perceptions of multilingualism tend to depict multilingualism as ahistorical, decontextualized "textual products" (p. 25).

English is seen by many as a universal language and often as the "international language of science". This, in itself, is a highly problematic notion which merges the concepts of thinking and encoding thoughts into language and assumes a unified and homogeneous scientific thinking and epistemology (see chapters in Ammon, 2011). On the other hand, local languages have been used for purposes of bringing research to local audiences, linking impact to local populations. This, in itself, is not a new development; for example, Galileo Galilei wrote in Latin, but when he reached out for public support and patronage, he used Italian (Gordin, 2015). In short, the English language is perceived to grant access to a broader scientific discussion and bring higher impact, while national languages are seen to serve the interests of national societies.

Epistemic injustice (Fricker, 2007), the unequitable ways in which different types of knowledges are enabled or recognized or not, is entangled in issues of impact, language, and (science) communication. Researchers who aim to orient their work towards epistemic equity cannot avoid delving into the vast scholarship in this area, some of which traces colonial thought throughout historical and institutional contexts of higher education, also in Finland (e.g., de Sousa Santos, 2015; Koskinen & Rolin, 2019; Walker, 2020 to name just a few).

Scientific and societal impact and their stakeholders have been conceptualized in different ways (for an extensive review, see Bormann, 2013). Adding the role of language, impact can be discussed from four different perspectives:

1) As *scientific impact*, often measured by citations and journal metrics with the argument that in order to have scientific impact, a publication needs to reach as wide an academic audience as possible. This often implies publishing in "international" (often or mostly in English language journals; see for instance Kulcycki et al., 2020 for an analysis of European researchers in SSH fields). The main problem with these metrics is that they are outcome-oriented, i.e., they measure popularity rather than the significance of the individual piece of research (Ravenscroft et al., 2017) and participate in an

accumulative recycling of particular citations, creating epistemic biases (Ennser-Kananen, 2019).

2) As *policy impact,* or the facilitation of knowledge transfer from science to society (Spaapen et al., 2007). This perspective of impact is typically understood as political or instrumental (using research to argue for a particular ideological or pre-defined policy decision) or conceptual (a long-term effect of research on the thinking of political decision-makers) (Weiss, 1988). Language in these situations may be flexibly chosen depending on context and the mode of stakeholder contacts; in nation state contexts, the ideals of democratic participation (see Brossard et al., 2009) often imply the use of national languages. Overton (https://www.overton.io/) is currently the world's largest database of policy document citations (including policy documents, guidelines, think tank publications, and working papers), which can be used in evaluating research, assessing impact, and reviewing policy (Szomszor & Adie, 2022). The database uses non-traditional, alternative metrics (*altmetrics*), measuring socio-economic impact faster and more comprehensively by looking at the whole process of research and collaboration.
3) As *professional impact* to develop products and services (for instance industry, associations, etc.) (Spaapen et al., 2007). Just like in policy impact, the language choice is contextual, depending on the language policies and practices of the "users" of knowledge.
4) As *popular impact*, or public use of scientific research (Spaapen et al., 2007), to make research accessible to the larger public. This has been supported by such arguments as creating a research-positive atmosphere in society; educating the people; and giving back to the taxpayers. This view implies the expertise of researchers and a linear mode of communicating information from experts to the public (Brossard et al., 2009). Selecting a language for this purpose is dependent on the understanding of the language of the different public audiences.

These four types of impact already complicate the concept in helpful ways. We would like to make it even fuzzier.

The above depictions of impact are linear, based on a deficit notion of knowledge (i.e., someone communicating research results to others who are in need of them); based on a trade or business notion (i.e., someone selling knowledge to those who pay e.g., via tax money), and primarily based on textual means (i.e., textual publications to deliver the information to the recipient). Additionally, they maintain the inadequate divide between basic and applied research. They are also nation state centrist in the sense that particularly the political, professional, and public views of impact are often conceptualized as activities promoting the development of the nation state and its citizens; scientific impact, in turn, is envisioned as "international", building on the assumption that higher education and research are "universal". On a closer look, neither of these assumptions holds.

We argue instead that rather than measure the linear impact of research on practice, impact should be understood as engaging academic and non-academic audiences, and to build and promote scientific capital and literacy.

4 Unthinking research, language and impact as bounded and homogeneous

In order to understand our concerns with the notion of impact, we take a closer look at the ways in which language is talked about in discourses around academic publishing as an example from contemporary Finland, our context. We start with language choice in academic publishing because this is what our metrics-based scientific impact often takes off from. The choice of language in which to publish (if it is indeed a choice) is typically presented as an either–or: Finnish or English, Finnish or Swedish, etc. (for a discussion see Kuteeva et al., 2022). This has problematic implications as languages being stable, homogeneous, clearly bounded units. Although we recognize that this may not apply in all cases of academic writing, we suggest it is worth raising and critically considering these issues about multilingualism in discussions on academic publishing and impact.

Language choices in academia, and much of the research on these choices, tend to focus on the end product (publication, presentation) rather than the whole research process. This approach stresses the idea of academic language as monolingual, hegemonic, standardized varieties. However, if we acknowledge the whole research process, a more multilingual academic scene emerges. Understanding research as process (rather than outcome) and impact as something that is an integral part of that process means that we can see multilingual research teams, working with multilingual participants and data, as part of impact. The notion of *translocality* (see Kuteeva et al., 2022, for a discussion of the context in Nordic academia) is helpful in unpacking the binary language assumptions behind "international scientific impact in English" and "national societal impact in local language" in its acknowledgement of the various linguistic resources at play on the individual and institutional level.

Additionally, the view of impact as a part of the research process (rather than as a consequence of research results) also challenges the somewhat artificial divide between "academic" and "popular" language. Academic language as written standardized monolingual forms in publication practices, for instance, is already being challenged (see for instance García's bilingual 2019 article or Kaufhold & Dymond in this issue). But instead of thinking of ways to challenge monolingualism in academic publishing—as interesting as it may be—we would rather need to consider the multilingualism of the research process and the impact (naturally) embedded in it.

In reality, languages are dynamic and highly heterogeneous without any clear boundaries—except the ones humans have defined for particular reasons. Unearthing the historical roots of named languages and using the Spanish empire as a case study, Heller and McElhinny (2017) have shown how the categorization of linguistic or communicative practices into named languages and language families is tied to colonial efforts and governing indigenous populations. Additionally, they provide historical accounts of the role the construction of named languages played in nation-building processes across Europe in the spirit of Enlightenment and Romanticism (Heller & McElhinny, 2017; Kharbach, 2019).

The main point is that identifying something as a language, an object that can be defined and studied, is not and has never been a socio-politically innocent process.

While we have come to understand the power and privilege of written language in many of our professional contexts, we contend that a broader notion of what constitutes academic language is needed. By *academic language*, we do not refer to a linguistic set of features (such as CALP or Cognitive Academic Language Proficiency, see Cummins, 2000), which has been shown to rely on racist underpinnings (Flores & Rosa, 2015; García & Solorza 2021), but rather a broad idea of the communicative practices used by those who work in academic contexts. To us, this includes orality, multimodality, fluidity, and translinguality, all of which are needed and always already part of the communicative processes in which we engage together with our audiences, collaborators, and participants.

In tying back to impact, understanding the political nature of these processes is important for (at least) two reasons. First, in much of the discourse around the impact of academic work, a notion of language is perpetuated that reifies technologies of standardization, homogenization, and de/legitimation of certain linguistic practices and their speakers. For us as language and communication scholars, this is something to challenge. An example is the above-mentioned science metrics that are biased towards English language publications. This ties in with the second reason why looking at language through a socio-politically sensitive lens can be helpful. We argue that idea(l)s of languages as fixed and given units are also commonly applied to the concept of impact itself, which is then seen as predictable, measurable, definable, linear, and assessable. Such an understanding of impact along with the discourses around it cuts it loose from its historical roots (that we have outlined above) as well as its futurity and ignores that impact eludes our historical measurements and prognostic tools. As Muhonen (2021) points out, impact should be supported as ongoing interaction rather than in retrospect. To illustrate, Alemanji (2022), who developed Finland's first antiracism app together with his students, reflects on the process as co-constructing disobedient knowledge and underlines the intertwinedness of antiracist activism with teaching and research, all of which constitute what we understand as impact.

Sakai's (2014) notion of the *regime of translati*on also has implications for the global system of scientific knowledge production in contemporary academia from the perspective of language. The regime of translation refers to a schema, through which translation has conventionally been *represented* as communication between two distinct (national) languages seen as homogeneous entities and as spatially enclosed areas marked by a border. This schema operates co-figuratively and reproduces the dichotomy between English and other languages as well as the spatial division between the West and the Rest (see also Said's (1978) work on the distinctions of East–West or Orient–Occident). The existing global academic structures, institutions, and mechanisms work according to the same principle: they impose unity with the help of the English language, justified by the (seemingly) pragmatic goal of ensuring comprehension (also assuming that people speaking the same language naturally understand each other).

From the perspective of impact, the regime of translation and the resulting privileged status of English sustain the (seemingly spatial) split between global

(= international / English / scientific impact) and local (=national / societal impact). This simplistic binary ignores the translocal experience of several university stakeholders who operate on a range of linguistic resources (see Kuteeva et al., 2022). An equally simplistic and narrow view of translation as meaning transfer between homogeneous (standard) languages disregards language varieties and the social/cultural diversity of its speakers. In the case of English, this diversity is particularly striking if we consider those who speak it as a lingua franca. This implies that it is not worthwhile to talk about the relevance of research along the spatial dimensions of local vs. international and tie it to the concepts of scientific and societal impact. Scientific impact should not be reduced to a quantitatively measurable effect of research but seen as a scientific value/contribution that benefits societies, regardless of place (yet locally relevant). Similarly, and especially taking into account the *wicked problems* of global inequities and ecological concerns, societal impact should not be restricted to a particular (national) community.

5 Policy examples: Research communication and scientific vs. societal impact

In the Nordic countries, there have been some positive developments and initiatives that aim at changing the current discourse on science communication and impact. *The Helsinki Initiative on Multilingualism in Scholarly Communication* (2019) is a response to the language challenges faced by multilingual scholars, and its mission is to promote multilingualism in research evaluation and funding as well as in research publishing. The title contains the phrase *scholarly communication*, but it also considers communication beyond academia ("interacting with heritage, culture, and society"). One of its stated aims is to protect national infrastructures (specified as national journals and book publishers) and support them in publishing locally relevant research (open access). However, it seems that the concepts "national journal", "national publisher", "locally relevant", and "local", are implicitly associated with certain language(s), giving way to the dichotomies discussed above. It is easy to understand that locally relevant research has international relevance for both scientific and non-scientific communities. Also, both the local scientific community (in a particular discipline) and the non-scientific community (including minority communities and people with diverse cultural backgrounds as well as professionals, policymakers, and lay audiences) are often linguistically diverse. Due to the complexity of these concepts and their fluid boundaries, making language choices are challenging, but ideally, the choices are not primarily influenced by external (evaluation) pressures. Authors should have the opportunity to consider their main goals and interests, and the relevance of the message to particular audiences.

In the Finnish context, the fuzzy boundaries between scientific and societal impact are also apparent in two policy documents published by The Committee of Public Information Finland (TJNK), an expert body attached to the Ministry of Education and Culture, which put forward recommendations on science communication (2018) and science education (2021). In the documents, "science communication" is a key term, which seems to encompass both scientific and societal impact. It is defined as "the exchange of information and interaction

regarding the information obtained from research, research results, scientific ways of thinking and methods, and the theoretical basis of scientific disciplines within and *beyond* [emphasis added] scientific communities." (TJNK, 2018, p. 3). Another key term is "science education", which is more closely related to societal impact, and especially reaching out to general audiences of all ages (adults and children alike) with the goal of increasing individuals' and society's "scientific literacy" and "scientific capital". (TJNK, 2021, p. 6). They advocate building "an *operating culture* [emphasis added] that encourages and supports researchers in participating in societal debate", which requires improving the current mechanisms for evaluating the societal impact of research (TJNK, 2018, p. 3). The recommendations acknowledge the multilingual and multimodal nature of communication and recommend multilingual and multisensory events and materials (e.g., through dance, music, or gamification) as well as collaboration between artists and scientists (TJNK, 2021, p. 10). Some examples of such collaboration in Finland are the *Evolution in Action* project (https://www.evolutioninaction.fi), the *Crossing Borders* project (https://croboarts.org/), which was funded by the Academy of Finland, the THEATRE project (https://kotiteatteriprojekti.wordpress.com/in-english/), or the *Experience Workshop Global STEAM Network* (https://www.experienceworkshop.org/?lang=en). The Committee of Public Information Finland awards public information grants (https://tjnk.fi/en/public-information-grants) to support (among others) collaborative projects between scientists and decision-makers at the intersection of science and the arts. It is important to emphasize that art should not be seen solely as a tool helping scientists to create impact but also as capable of making impact itself (one example is the short movie *Let her speak* (https://areena.yle.fi/1-50281446), the screenplay of which was written by Finnish researcher, artist, and activist Saara Särmä.

6 Towards multimodal, multidirectional, locally and globally relevant impact

As we consider the intertwined nature of language and impact, we identify four key points for further consideration.

Firstly, the superiority of written texts in relation to societal impact should be problematized. In certain cases, it may be more effective to directly engage with and influence industry stakeholders, practitioners, policymakers, and general audiences rather than publishing (scholarly or popularized) texts in print or online media as these texts do not necessarily reach the intended audiences. By downplaying or disregarding the importance of direct engagement, academic institutions run the risk that scientists shift their attention towards scientific writing, thus failing to serve the nonscientific public, leaving the terrain to information that lacks scientific evidence. Scheufele (2014) has emphasized the ethical aspect of science communication, arguing that scientists have a key role in democratizing decision-making and shaping public opinion, a point that is echoed by John (2019) and Antiochou (2021), who point to the importance of science

communication during the climate and COVID crises, respectively. This points to the need for scientists to look for new channels and modes of engaging with the public. This also requires different rhetorical strategies and recontextualizing complex scientific information even when remaining within the same named language (i.e., *intralingual* translation). The political nature of science communication can also be linked to the reception of the ideas that are being communicated, including the inherent risk of negative reactions from the public and even hate speech or death threats directed at academics even in a country like Finland, where science is generally respected and freedom of speech relatively high.

Secondly, and related to the above, separation of research and impact needs to be questioned. The idea of research as a linear process has been rightly criticized (see Rose & McKinley, 2017), and we want to extend the criticism to the notion of impact as something taking place linearly after the research has been conducted and published. Rather than envisioning research as an elite, expert activity and the relationship to the public as a linear one, a community approach to research is needed. The approach would include acknowledging the importance of doing research *with* rather than *to* the community, with an aim of creating a more democratic and epistemologically inclusive university (Walker & Boni, 2020). This is a goal for both local and global impact in questions of social and ecological justice, for humans and the non-human environment alike (Pennycook, 2018). Understanding not only the human but also the non-human exposes inequities in a wider frame and helps us explain how nonhuman actors play a role in both marginalization and social justice work (Rose & Walton, 2015).

Thirdly, as we currently understanding impact, it can only be measured in the future, as the (assumed) effects of research, disregarding both where it comes from and who gets acknowledged for the generation of the knowledge. Instead of tracing and measuring assumed impact (in the future), we could promote impactful activities, that is activities involving the community (Muhonen, 2021).

Fourthly, language can be seen as a means to classify impact. The language in which research is conducted or made available is supposed to determine the audience, the stakeholders, the ones affected by it, the ones who are able and willing to engage with it. This is, of course, not always the case, and the reality is more complex. Even an English-language publication is often preceded by processes of thinking, discussing, interacting, and writing, in which other languages, modes, codes, etc. were involved, but all that is rendered invisible. This is a consequence of the intertwinedness of language and impact being used to hierarchize and organize knowledge in ways that are recognized and valued by the academy but not by others, which also creates and maintains hierarchies within the academy, as, for instance, Cushing-Leubner et al. (2021) have demonstrated in their account of researchers grappling with the academy's demands for certain knowledges.

We remain uncertain, and perhaps also divided, about the kinds of policies that promote higher education impact that acknowledge both the (often long-term) uncertainties and complexities of research impact, and the need for societally meaningful and equitable higher education. Impact is not fully/always predictable, and it can take many forms, some of it even harmful for participants, researchers, or communities. This has implications for our stance vis-à-vis impact policies. Simultaneously, to detach scholarly work from impact and limit it to a version of "curiosity-driven" (Raatikainen, 2020) research of autonomous

universities runs the risk of distancing universities and their work from their societal roots and responsibilities.

7 Suggestions for the future: Fuzzy impact, multidirectionality, and epistemic justice

What are our possibilities for refusing academic publishing and impact discourses in their current form? What if we created practices for refusing the academy's measures, metrics, and extractive means, and promoted ones that support research–community activities and engagement?

When it comes to language and pedagogical theory, we have well-established frameworks that recognize the dynamic, heterogeneous, un-bounded nature of linguistic means, such as translanguaging (García & Wei, 2014, Chapter 3)—and also its political nature (Wei, 2021)—or the work that has been done around translingual writing (Canagarajah, 2002/2013). This important and impact(!)ful body of literature has shown that communication happens across and beyond the boundaries linguists have artificially drawn around languages, and that the ideas of monolingualism, standardized languages, and either–or choices reflect harmful ideologies more than language users' realities. What if we had similar frameworks in place to capture the fuzziness of impact and understand it as inherently dynamic, heterogeneous, unbounded, and communicated through translingual, transmodal means.

Such a fuzzy concept of impact, modeled after existing trans-theories in the area of language and communication studies, would also open the doors for breaking with a one-directional notion of impact. Just like communication studies has overfocused on output, on the subjects of producing, uttering, signing, and passivized or erased the listener or recipient, current discourses around impact portray academics as imparting knowledge and information onto an audience that is commonly positioned as outside of the academic realms, be it politicians, media, or community members. In refusing to reduce the question of "How can we impact?" to "How do we talk/write?", we propose a refocusing on the counter-question: "How are we (ready to be) impacted?" Such a question invites critical reflections on the reciprocity of research processes, particularly about how decisions on research topic ("What is worth/in need of being studied?"), process, and dissemination are being made. We suggest that there is room and reason for negotiating such ideas with research participants throughout the whole process.

The implications of asking (no less trying to answer) this question are vast: Do we and can we accept truths other than those that we have scientifically defined and framed? In what ways do we or should we dialogue with the knowers of such truths? What collaboration is enabled by approaches that encourage transmodality and fuzziness, and recognize the value of knowledges that have historically been excluded, delegitimized, or, as de Sousa Santos (2007) says, cut off by the "abyssal line" where knowledgeless lies in the form of "incomprehensible beliefs, idolatry, magic" (p. 52)? In the end, the impact question then becomes an issue of epistemic equity, for which some important

frameworks exist (e.g., Delgardo Bernal, 2001; de Sousa Santos, 2007; Walker, 2020) but which have received little to no attention in contemporary impact debates.

We conclude by making some suggestions for an impact-friendly future:

1) Adopt a self-critical stance towards the reproduction of idealized understandings of language, knowledge, and impact;
2) Push boundaries, unsettle the rigidness of academic genres and practices;
3) Create spaces for honest conversations about the why/how/when/where of impact and its multi-directional and dynamic nature;
4) Deconstruct the academic–non-academic boundary and adopt a multi-directional and epistemically equitable practice of impact.

With our paper, we hope to have opened a door for un-imagining and denormalizing existing binaries and divides that we have inherited and participated in as academics. Could a focus on impact be a good thing? We believe it could and leave the reader with an image that runs counter to much of what contemporary academia is demanding from its members: Imagine academic publishing did not have the status and value it currently holds. Imagine our impact was not only about engaging with communities, dialoguing with policymakers, collaborating with the media and industries, or engaging in activism as an afterthought or as a post-research activity. Rather, the above should be intertwined in the process of doing research. Approaches such as citizens' science (Bücheler & Sieg, 2011) or various participatory approaches have done this already, but the practice needs to be extended to other approaches to doing research. What if we were accountable to our environment, to the assemblages of human and non-human beings, structures, places, discourses, forces, and objects? Not only are other ways of *impacting* often more effective, appropriate, ethical, and realistic, but they also open opportunities to shake traditional binaries (researcher–researched, subject–object, human–non-human, etc.) and see our entanglement and intra-actions in this world (see eg., Barad, 2007; Pennycook, 2018) in much more rich and complex ways.

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Appendix

Who is making the impact?	• Scientists/ scholars/researchers • Artists
Who is the information relevant to? Who are they helping/ influencing?	• Other scientists, the scientific community (**scientific impact**) – Same vs. other discipline(s)? • Policy-makers (**policy impact**) • Professionals in the industry (**professional impact**) (societal, socio-economic impact) • General audiences (**popular impact**) (outreach, popularizing science, science education) o To whom exactly? Educational background/level of scientific and media literacy? Ethnic/cultural background? Age? • Non-humans (the environment, animals)
Where is the information relevant?	• Geographical/cultural/socio-political relevance: o Local vs. international? o One cultural/ethnic community vs. more?
What is the nature of impact?	• Concrete/tangible (e.g., product, job) • Abstract/intangible (e.g., information, knowledge, technology, method)
How is the impact made?	**Through what communication channel?** • Written: scientific journal, popular magazine/newspaper, blog, book, artistic work • Oral: conference, workshop, training • Audiovisual/multimodal: esp. artistic work (e.g., movie, sculpture, music) **In what language(s)?** • During the research process vs. only in the final product? Visibility of different languages and linguistic features? o Monolingual: only in English vs. in other language(s)? o Multilingual? **What is the direction of communication?** • One-way (main focus: to deliver information) • Interactive (main focus: to engage the public) **Collaborating with whom?** • With other scientists – One discipline vs. cross-disciplinary? • With policy-makers • With professionals in the industry • With artists • With non-scientists (interested public, e.g., citizen science)
With the direct/indirect help of whom?	**The role of other people during publishing:** • Editors, peer reviewers • Academic translators, language experts **The role of other people (through formal, informal, non-formal learning):** • Other scientists (e.g., in conferences) • Teachers, supervisors • Librarians, methodology experts • Peers (e.g., self-organized communities of practice)
With what outcome?	**Nature of the outcome:** • positive vs. negative • expected vs. unexpected (planned vs. unplanned) **Time scale:** • immediate, short-term, long-term **Measurability:** • measurable vs. non-measurable. If measurable, How? o Scientific measures (citation metrics: journal-level, e.g., JIF, CiteScore; author-level) o Altmetrics o Socio-economic/policy impact (e.g., Overton database)
In what political context?	**Freedom of speech and research vs. controlled environment**
With what reactions?	• Positive/neutral • Negative (from the state or the public): e.g., hate speech, death threat, imprisonment