

Preprint:

The Limits of Epistemic Control, the Powers of Actualization, and the Moral Economies of a Fictional Collective

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Abstract: The paper narrates an Austrian research program in the area of transdisciplinary sustainability research, which strongly inscribes itself into the promise that bringing together the knowledge and expertise of various (scientific and extra-scientific) actors provides a chance to get a handle on complex societal problems—such as climate change. Starting from the observation that the majority of funded projects makes use of computer modeling and simulation to bring together the knowledge of scientific and extra-scientific actors, the paper aims to understand computer simulation and modeling as “integration machines.” Inspired by the way they are presented in the projects themselves in a first place, the notion of the integration machine points to the dynamics of attempts to involve a variety of scientific and extra-scientific actors and the epistemic practices held appropriate to do so. Based on the analysis of the ways how computer simulations and models are discursively designed in different arenas of discussion, development and dissemination (e.g., proposals, publications, interviews, focus groups, project meetings), the paper carves out how “integration machines” incorporate imaginations, hopes and promises, and how they translate between a multiplicity of ascribed attributions. Crucially, the paper attends to different “performative” dimensions of integration machines, showing how they include but also exclude certain kinds of knowledge, how they assume a distinct distribution of responsibilities, and how they (re)produce orders, roles, and identities within the relation between science and society.

Keywords: Epistemic control; epistemic democracy; pre-recorded research realities; the powers of actualization; fiction

Introduction

I was told over and over in my life by authority figures: This is not how the world works. And I am so fed up with hearing this because the world just works the way you, your consciousness, can perceive it. Imagination is the most powerful thing we have. (Jarmusch 2009)

In research, ‘epistemic control’ refers to techniques to rationalize, systematize, and routinize the ways in which we know, including the identification of legitimate contributors to knowledge production and dissemination processes, as much as proper forms of knowing, instruments, procedures etc. Epistemic control has often been debated as an issue of ‘having’ and ‘being in,’ or ‘not having’ and ‘losing’ control. The latter is tangible in current debates about the roles and responsibilities of the (social) sciences in the so-called post-truth era, for instance. At the same time, there are also discussions about the need to widen the scope of sources of knowledge and expertise in scientific knowledge production – far beyond what is currently considered to be ‘scientific’. Such calls for ‘loosening’ epistemic control are often related to narratives of a complexification of societal dynamics and the urge to find new ways of dealing with them. This paper will lay out debates revolving around (a contemporary loss of, or the need to loosen) epistemic control. It will then argue that these often seem to come with recommendations about how to deal with epistemic control issues, while not thinking in theoretical terms on the practices of winning, losing, loosening, or sharing epistemic control in the first place. The paper mobilizes control theories to address this gap. Having conceptualized epistemic control, the paper fictionalizes a collective of scientists who – building on this concept of epistemic control – do not necessarily strive for ‘being in’ or ‘having’ epistemic control; who do not give up on the dream of ‘epistemic democracy’¹, however. The essay uses Lorraine Daston’s concept of a ‘moral economy of science’ (1995) for drawing together the hopes, feelings, and beliefs of such a community and their practices of epistemic ‘non-control’, which is not to be confused with ‘irresponsible’ research, as will be stressed.

Debating Epistemic Control and the Dream of Epistemic Democracy

In the last years, the issue of epistemic control has been connected to a variety of debates and concerns: battles for resources between disciplines, the paradoxes characterizing ‘knowledge societies’, the public (mis-)understanding of science and knowledge production processes, the rationalization of scientific knowing, or the complexity of contemporary societal challenges. Within these debates, we can roughly distinguish between two movements.

One can be described as a call for ‘loosening epistemic control’ and striving towards an ‘epistemic democracy’ in which several ways of knowing and experiencing are valued, heard, and taken into consideration (see e.g. Maasen and Peter 2005; Epstein 1996). ‘Transdisciplinary knowledge production’ or ‘extended peer review’ (see e.g. Gibbons and Nowotny 2001; Funtowicz 2001) can be mentioned as institutional answers to such calls. In the search of solutions for societal

¹ Speaking of ‘epistemic democracy’ as a dream evokes an understanding of democracy as an ideal that cannot be reached, or that cannot be reached once and for all. As Dewey puts it, ‘[democracy] is an ideal in the only intelligible sense of an ideal: namely, the tendency and movement of something which exists carried to its final limit, viewed as completed, perfected. Since things do not attain such fulfillment but are in actuality distracted and interfered with, democracy in this sense is not a fact and never will be’ (Dewey 1927, 148). And yet there isn’t anything else to do than put constant effort into the creation of possible realizations of ‘epistemic democracy’ in the sense of staying attentive to the effects our ways of (non-)controlling, organizing, and restricting knowledge production processes show on our communal lives and vice versa.

problems with utmost complexity, such as anthropogenic climate change, transdisciplinarity is invoked as an attempt to systematically include expert knowledge from outside of the science system into scientific knowledge production processes at all stages (see e.g. Thompson-Klein 2004). Felt et al. (2016) have stressed in their empirical study of transdisciplinary research in the field of environmental sustainability that involving a broader variety of actors who might have something to contribute to the understanding and solution of a problem – as is envisaged in transdisciplinary research – is not as trivial as it might seem. This is not necessarily the case because researchers lack ideas about who these actors could be and how to enroll them in knowledge production processes (even though many of the analyzed cases had stayed with a classical linear model of knowledge production in which the researchers were responsible for problem definition and knowledge production, while additional actors were involved towards the end of a project for the dissemination of their results beyond the classical science communities). Rather, one major difficulty that keeps hindering the broader uptake of ideas of opening up knowledge production processes could lie in the fact that current scientific regimes of valuation did not correspond to an epistemic lifestyle that keeps reaching out to the various ways in which our worlds can and could be known outside of the boundaries of the respective disciplines. So, the important question to ask might not be whether researchers should give away epistemic control, but whether they are granted the freedom to do this without being dismissed from their scientific communities and career tracks.

In a less ‘institutional’ version of the ‘dream of epistemic democracy’, Law and Ruppert (2013) welcome and embrace ‘modes of knowing’ that are usually dismissed in research. They point out, ‘there are many ways of knowing and knowing well. And academic styles of doing so might be revitalized by looking behind their current boundaries’ (19). As a facet of this attempt, affect studies and non-representational (or more-than-representational) theories call for paying attention ‘to forces – visceral forces beneath, alongside, or generally other than conscious knowing, vital forces insisting beyond emotion – that can serve to drive us towards movement, towards thought and extension’ (Gregg and Seigworth 2010, 1). This movement can be read as critique of instrumental reason and ‘the textual’ as preferred techniques used to know scientifically.

The second movement of epistemic control is an attempt to regain and fight for control rather than loosening it. Joan Fujimura (1998) is interpreting the issue of epistemic control as a battle for resources between scientific disciplines, by pointing out that these battles were not solely intellectual ones but had stakes reaching far beyond the careers of individual academics. Huutoniemi (2016) presents interdisciplinary quality control as a ‘counter-force’ to disciplinary control and autonomy. ‘Like scholarly critique and response in general, a more critical attitude between disciplines is likely to

improve the reliability of knowledge’, Huutoniemi (2016, 179) stresses. She discusses the topic with an eye on what has been debated as ‘paradoxes of expertise and authority’ (see e.g. Bijker, Bal, and Hendriks 2009) in ‘knowledge societies’ (see e.g. Stehr 2001a). Contemporary ‘knowledge societies’ do not seem to be characterized by a growing pool of certainties we can build on. Several notions have analytically put into focus ‘how we do not and not yet know’ and hint to an increasing concern for what ‘[. . .] lies outside of regular and quantifiable events’ (Gross 2010, 2). The mobilization of knowledge as a ‘resource for action’ (Gross 2010, 51), moreover provokes a tendency of putting knowledge and expertise into question, a disposition to ‘continuous revision’ of what can count as knowledge and expertise, and subsequently an accelerated rhythm of regulation and deregulation. Related to that, Stehr (2001b) diagnoses a ‘fragility of modern societies’. Weingart (2001) describes an increasing coupling of science and politics, which challenges the public image of science as operating on the values of impartiality and objectivity. Related dynamics have been pointed out by Bijker and co-authors as the ‘paradox

of scientific authority': The cases in which scientific advice is asked most urgently are those in which the authority of science is questioned most thoroughly. (Bijker, Bal, and Hendriks 2009, 1)

Against the backdrop of these struggles, social scientists, and specifically scholars of science and technology studies (STS), have put into question their ways of portraying scientific processes of knowledge production (see e.g. Latour 2004; Collins 2009). This is not utterly surprising, as it was one of their key achievements to demystify scientific knowledge production by highlighting the constructed nature of facts, or the contingencies and resistances accompanying highly controlled knowledge production processes. Of course, it might never have been their intention to challenge the trust in science when deconstructing the 'Snow White fairy-tale of scientific objectivity' (Farrell 2011) by 'insisting on the rhetorical nature of truth', or by 'mak[ing] clear that official ideologies about objectivity and scientific methods are particularly bad guides to how scientific knowledge is actually made' (Haraway 1988, 576). As Latour claims, '[t]he question was never to get away from facts but closer to them, not fighting empiricism but, on the contrary, renewing empiricism' (Latour 2004, 234). Some scholars put effort into 'repair work' highlighting that 'constructed' was not to be confused with 'random' and 'unreal' or also 'dishonest', 'fraudulent', or 'unprofessional' (see e.g. Hacking 1999).

In the wake of the so-called post truth era, the control over knowledge production and circulation seems increasingly 'out of hand'. This has effects on the way in which epistemic control is debated these days. It is more or less common sense that the sciences fight a battle for epistemic control against the 'merchants of doubt' as Oreskes and Conway (2010) call them. 'How can researchers respond to organized, sophisticated and persistent attempts to undermine science?' Oreskes and Conway ask. How to react in a situation in which 'merchants of doubt' (such as representatives of the tobacco industry or 'climate skeptics') 'create a whole scientific Potemkin village' (687)? STS scholar Michael Lynch (2017) expresses worries about undesirable uses of STS insights on how to manufacture factual knowledge:

Science studies opened up the cognitive terrain to those concerned to enhance the impact of democratic politics on science, but in doing so, it opened that terrain for all forms of politics, including populism and that of the radical right wing. (597)

Collins, Evans, and Weinel (2017) fear that further attempts at 'democratizing' science would 'invite exactly the skepticism about experts and other elites that now dominate political debate in the US and elsewhere', as Lynch (2017, 596) points out. Fuller (2016), suggests we 'embrace our responsibility for the post-truth world and call forth our vulpine spirit to do something unexpectedly creative with it' (3). The latter is certainly an inspiring call. But what could 'doing something creative' mean in this regard?

The above mentioned scholars often seem to utter their opinions and concerns around the issue of how to deal with problems revolving around epistemic control in a post-truth world. They do not seem to elaborate more extensively on how to theorize epistemic control in the first place though. How does one arrive in a state in which one can 'exercise' epistemic control? What level of epistemic control can be reached? What are the processes of gaining and losing epistemic control? The following part is devoted to providing a possible answer to these questions by performing a thought experiment mobilizing theories of control. In a subsequent effort, the paper fictionalizes the moral economies of a collective of social scientists and their take on epistemic 'non-control' based on these thoughts.

The Society of Epistemic Control – A Thought Experiment

Let's get started with our thought experiment on epistemic control with this image of a rather gloomy stage setting of Henrik Ibsen's play 'An Enemy of the People (En Folkefiende)' as written in 1882, and performed at the Residenztheater in Munich 2019.² The play revolves around questions of how to establish truths, but this should be secondary, we mostly work with the stage setting (see Figure 1). A glass house. No doors for stepping out of it. Not on the front and also not on the back side. Narrow corridors. A few rooms to meet and discuss inside. The glass house is moving slowly. Spinning, rotating about itself, to be more precise. Sometimes to the left and sometimes to the right. Sometimes it stops. Everything that is happening, happens inside of the glass house.

In our thought experiment, the glass house is the 'society of epistemic control': the space in which we know. And while we aim to gain control over what we know and believe, and strive to earn credibility for it, we are learning that we are being controlled by the realities we find (such as registers of trustworthy forms of knowledge and processes in which these can be established). We cannot but disagree with the play's protagonist 'Dr. Stockmann' who desperately claims that the strongest human in the world is whoever stands most alone. In the society of epistemic control, we are dependent on a range of allies to achieve an outcome in which we have stabilized our position in a way, so we can get close to the feeling that we 'have' epistemic control. And we can never seem to rest, because the glasshouse keeps spinning and turning. Whoever strives for epistemic control, needs to invest in 'credibility', and ride up and down the cycle of credit (Latour and Woolgar 1986)³: articles, arguments, data equipment, money, grant, recognition, grant, money, equipment, data, arguments, articles ..., etc. Who strives for sharing epistemic control with who isn't perceived as a legitimate knowledge producer, risks to lose credibility.

The path towards epistemic control seems to be narrowly predefined. Look at the hallway in the image! It is pretty restrictive; claustrophobic even. And like its idol – the society of control⁴ – the society of epistemic control is characterized by 'limitless postponements'. Epistemic control can only be had in the future.

² <https://www.residenztheater.de/inszenierung/ein-volksfeind> accessed on 15 January 2019.

³ The notion of credibility allows the sociologist to relate external factors to internal factors and vice versa. The same notion of credibility can be applied to scientists' investment strategies, to epistemological theories, to the scientific reward system, and to scientific education. Credibility thus allows the sociologist to move without difficulty between these different aspects of social relations in science.' (Latour and Woolgar 1986, 188).

⁴ 'Is it possible to draw analogies between Deleuze's interpretation of Foucault's Societies of Control (Deleuze 1992; Foucault 1977), and our epistemic control societies? '[I]n the societies of control one is never finished with anything – the corporation, the educational system, the armed services being metastable states coexisting in one and the same modulation, like a universal system of deformation.' (Deleuze 1992, 4).



Figure 1. Stage setting: *En Folkefiende* by Henrik Ibsen as performed at the Residenztheater in Munich in 2018.

[. . .] [T]he receipt of reward is just one small portion of a large cycle of credibility investment. [. . .] The essential feature of this cycle is the gain of credibility which enables reinvestment and the further gain of credibility. Consequently, there is no ultimate objective to scientific investment other than the continual redeployment of accumulated resources. (Latour and Woolgar 1986, 197–98)

In the attempt to gain or loosen epistemic control, we find ourselves controlled by a ‘pre-recorded’ future reality (see below); A future reality of historically grown (dis-) trust in distinct forms of knowledge, institutions, and epistemic practices; A future reality that privileges certain actors while excluding others (what Dotson (2014) would call ‘epistemic oppression’), and predefines the conditions of what and how we can know.

The Powers of Actualization

How ‘real’ are these future realities? And what does their realness tell us about possible reconfigurations of research ‘beyond’ control? Is there any escape from our epistemic control society? Searching for answers provided by ‘control’-scholars, such as Foucault (1977) and Burroughs (1978), we cannot develop much hope for acting outside of our society of (epistemic) control. But there might be other ways. Let’s draw on a paradox outlined in a similar way on ‘power’ and ‘control’ by different authors. First, the ‘power’ argument by Latour (1986):

The problem of power may be encapsulated in the following paradox: when you simply have power – in potential – nothing happens and you are powerless; and when you exert power – in actu – others are performing the action and not you. (264)

In ‘the limits of control’ Burroughs (1978) makes a similar argument:

All control systems try to make control as tight as possible, but at the same time, if they succeeded completely, there would be nothing left to control. [. . .] When there is no more opposition, control becomes a meaningless proposition. (Burroughs 1978, 40)

Burroughs identifies time – needed to exercise control – as the ‘basic impasse’ of all control machines. Tying this back to the pre-recorded reality of the cycle of credit, both its power and weakness resides within the fact that it is ‘real’ (in the sense of potentially well-rehearsed and (relatively) stabilized), as much as it needs actualization for its continuous existence.⁵

How to challenge the epistemic control society when being controlled by it? We can borrow from Burroughs who develops the ‘cut-up method’ for his fictional agent to ‘challenge pre-recorded reality’ in a fiction in which ‘there is no time or real “reality”, in which reality – indeed “flesh reality” – itself is represented as a film’ (see Ayers 1993, 228). Analogous to Burroughs’ cut-up technique, we can identify our resistant and transformative agency precisely in the moments in which we are needed to prevent the ‘actual’ from ‘falling from the plane [of immanence] like a fruit’ (Deleuze [1977] 2002, 150; see also footnote 5). The epistemic control society controls us, but also needs us to rearticulate and actualize pre-recorded realities. And in this very moment lies the resistant power.

The following section introduces a fictional collective of researchers – the social scientists of non- control – who are not only aware of the reality of epistemic control societies, but also of the powers of actualization. How they are intending to use it, can be read in the subsequent part.

The Moral Economies of a Fictional Collective

This part fictionalizes on the social scientists of ‘non-control’. It fictionalizes – because it wants to be an ode to the powers of actualization while not denying the strength of what we have come to call ‘pre- recorded realities’ with Burroughs. It fictionalizes even though many of the sources it draws on are stemming from actual social scientists, so that the collective might be more ‘facticious’⁶ than purely ‘fictional’ (whatever that would be). But who knows whether the mobilized actors would want to be considered members of this collective, or have somebody – who does not know them – talking about their mental states. So, fictionalizing is a literary disclaiming technique as much as a philosophical practice. Why choose ‘moral economies’ (Daston 1995) when describing the fictional collective of social scientists of ‘non-control’? Moral economies refer to ‘psychology at the level of whole cultures, or at least subcultures, one that takes roots within and is shaped by quite particular historical circumstances’ (5), to the ‘interior of Merton’s black box’ (7).

⁵ Deleuze ([1977] 2002) writes about the process of actualization in a chapter on ‘the actual and the virtual’: ‘Philosophy is the theory of multiplicities, each of which is composed of actual and virtual elements. [. . .] The plane of immanence includes both the virtual and its actualization, simultaneously, without there, being any assignable limit between the two. The actual is the complement or the product, the object of actualization, which has nothing but the virtual as its subject. Actualization belongs to the virtual. The actualization of the virtual is singularity whereas the actual itself is individuality constituted. The actual falls from the plane like a fruit, whilst the actualization relates it back to the plane as if to that which turns the object back into the subject.’ (148–149).

⁶Facticious: ‘artificial, visibly made up, but made up in such a fashion that it carries with it an irreducible element of reality; in other words, the situation cannot be dismissed as simply fictitious.’(Lezaun, Muniesa, and Vikkelsø 2013, 279).

In contrast to Mertonian norms, moral economies are historically created, modified, destroyed, enforced by culture rather than nature and therefore both mutable and violable; and integral to scientific ways of knowing. (Daston 1995, 7)

Moral economies are bound to the everyday practices of researchers, to the choices they make with regard to research subjects and methods, to the sources they find inspiring and trustworthy, to the standards they apply to research processes. Importantly, moral economies cannot be reduced to strategic choices of researchers. Moral economies enact ‘a psychology that goes beyond the calculus of self-interest, strategically deployed to the ends of disciplines – or career-building.’ (24) Instead, the focus lies more on ‘how intellectual work is saturated with moral, emotional and aesthetic elements’ (24). The work with moral economies bring the collective’s mental states together with micro- practices of their research. It does not exclude emotions and feelings from their everyday epistemic practice, and does not assume that emotions and values are purely individual, outside from or distorting science. ‘They are science’, as Lorraine Daston highlights (6).

No ‘Pre Post-Truth’ Nostalgia

The fictional collective of social scientists of non-control does not share pre-post truth nostalgia. It does not wish to go back in time, in which the authority of science was widely unquestioned, and factual knowledge was more likely to be respected and accepted as such by its audience (if this ever was the case). Not because it wants everyday life to be extra challenging, but because it does not see a point in ‘re-establish[ing] a hierarchy between knowledge and its presumed opposite, non- knowledge, or antiknowledge’, as Marres (2018, 423) brings to the point. ‘No, we don’t want our facts back’, the collective agrees with Marres. This would mean giving up on the dream of epistemic democracy in favor of the authority of science. And while epistemic democracy might be an ideal that can never be reached, the collective strives to continuously learn from and experiment with different ways of knowing, seeing, feeling, and being in the world (see e.g. Law 2016). It acknowledges ‘knowledge democracy [as] a reconstructive project [that] requires transformation of epistemic ideals, including that of facticity’ (Marres 2018, 441).

In the Mood for Experimentation

‘What took us so long?’, the fictional collective of social scientists of non-control asks. ‘Hasn’t all of this been there for a while?’ Along with Haraway and Latour, we will argue that science intervenes in nature and politics, and that this approach provides a much better way of understanding what scientific activity is than do old notions about how science discovers and described reality. (Asdal, Brenna, and Moser 2007, 9) Asdal, Brenna, and Moser (2007, 9) describe ‘the politics of intervention’ as one of the key constructivist STS ‘lessons’. Hacking made a similar point a while ago: With our scientific apparatuses, we create the phenomena we seek to observe, discover, understand and portray (see Hacking 1983, 220ff). For a long time, however, it seemed that we haven’t been up for exploring the potentials these lessons hold for our own ways of performing (collaborative) research. We kept playing describers, observers, interpreters of the reality-making of others, and saw our vocation in the analysis of other scientists’ politics of intervention.

‘Why has critique run out of steam’ (Latour 2004) is, surely, one of the most prominent, but also maybe most abstract examples of calls for investing in the exploration of techniques of (re-) assembling (instead of mostly debunking) realities (and this includes the realities in which we create knowledge). More recently, a number of authors have been re-evaluating experiments as a form of social research, not necessarily the ones of the positivist kind (see e.g. Blackman 2014; Lezaun, Muniesa, and Vikkelsø 2013; Pickering 2002). Pickering (2002) sees the perfect

spokespersons for a turn from the representational idiom to the performative one in three cyberneticians.

While [classical scientists] seek to pin the world down in timeless representations, cybernetics directly thematizes the unpredictable liveliness of the world, and processes of open-ended becoming. While classical science has thus been an epistemological project aimed explicitly at knowledge production, cybernetics is an ontological project, aimed variously at displaying, grasping, controlling, exploiting and exploring the liveliness of the world. (430)

And Pickering also motivates the fictional collective to play with ‘pre-recorded realities’. ‘Like most scholarly authors, I have grown accustomed to think that representation is what we do. [. . .] [B]ut such need not exclusively have to be the case’ (ibid). He adds that ‘[o]ne can, of course, still be interested in epistemology and knowledge production, but my conclusion was that one should see scientific knowledge as constitutively bound up with the dance of human and nonhuman agency, as I romantically labelled it, rather than as a self-contained topic for enquiry in itself.’ (Pickering 2002, 431.)

Lezaun, Muniesa, and Vikkelsø (2013) flirt with experimental practices as carried out by Moreno, Lewin, Bion, Milgram, and Zimbardo in post-world war II. They worked in a way in which they provoked realities, ‘activated the latent energies to everyday life and in doing so reveal reality’ (279). Inspired by ‘the experimental principle of the natural sciences, namely that the degree of realism of any representation is dependent of the sophistication of the apparatus of experimental intervention’, these experimental scholars aimed to ‘generate alternative forms of conviviality’ (280). While critics once dismissed these experiments as ‘imperfect method[s] to re-present social phenomena’ (280), Lezaun et al. highlight their capacity to ‘produce vivid and otherwise unavailable renderings of social reality [. . .] in a particularly demonstrative and explicit form’ (280).

Choosing to keep up the dream of epistemic democracy, and striving for the exploration of collaborative forms of research, the fictional collective of ‘non-control’ gets inspired by scholars who are ‘putting aside the classic repertoire of representational validity’ (290), and experiment with the cutting-up of pre-recorded realities; all of them operating at the interface of the virtual and the actual, the fictional and the factual. This can mean ‘cultivat[ing] a sense of the possible that concerns, but does not owe its existence to the ways in which the actual determines the distribution of what is probable’ (Wilkie, Savransky, and Rosengarten 2017, 7). This can also be ‘going beyond observation and description’ for the performance of ‘imaginary economics’, and ‘adopting a strategy of imitation, magnification, simulation and parody’, in a mode of knowledge creation that ‘is that of an essayist not that of an analyst’ (Cameron 2014, 113). Another such practice has been labelled as ‘fictocriticism’, a ‘hybrid writing technique’ that – according to Kerr and Nettlebeck (1998, 3) – ‘moves between the poles of fiction (“invention”/’speculation’) and criticism (‘deduction’/’explication’), of subjectivity (‘interiority’) and objectivity (‘exteriority’)’. In a touching outcry about disciplinary control, Carl Rhodes (2015) promotes the technique of ‘fictocriticism’ for organization studies as a form of contestation of the conservatism of their own discipline and the destructive effects its continuous reproduction has on the work and life of its scholars:

Our work and the life it involves suffer at the hand of its own conservatism. This spectre that haunts us is a future where ‘succeeding generations can continue to make progress, by keeping the science in social science’ (Donaldson 2005, 1085). This is a science that coaxes and cajoles into hypotheses, argument, evidence, proof and logic in a dispassionate pursuit that classifies, ossifies and putrefies the terror and wonder of the world desperate to render it knowable and predicable. What then are the possibilities for writing in and from the academy in a manner that

might somehow allow the heart's instincts to be followed and the vast possibilities of expression to be explored and enjoyed? (Rhodes 2015, 290)

Inspired by all of these ways of dealing with pre-recorded research realities, the fictional collective of non-control opts for experimental cut-ups. In contrast to the prevalent meaning of experimentation in 'modern science', the experimental cut-up is not a controlled arrangement to verify or falsify hypotheses. The collective leaves aside this historically more recent interpretation of the experiment, but reactivates what Mersch (2015) has framed as the 'original meaning' of the 'experimental' alongside of the verbs 'experire/experiens/experio' (experiencing/trying something out/putting something at stake) as well as 'expetere' (happening/occurring) (see 56). This notion of the experimental is one in which the experiment cannot be possessed by the experimenters, in which the experimenting is about experiencing what is exposed, what does not conform, what cannot be calculated. It is thus an ode to defiance and rebellion.

Inside

'The "we" is not a sum of "I" 's, but a novelty produced by legacies, concessions, withdrawals, resignations, of the "I." The "we" is less a set of "I's" than the set of the sets of its transmissions.' (Serres 1981, 228)

Last, but not least, the fictional collective of non-control includes themselves in the processes of experimentation. It does not assume that it could experiment and play without being played and experimented with. This is different to the account of epistemic control as developed by Caniglia et al. (2017). They have put effort into coming up with a typology of experiments and the sort of epistemic control the researchers 'have' on the interventions and manipulations in their respective form of experimentation (e.g. lab and field experiments, adaptive experiments, real-world experiments, etc.). In doing so, they are reducing control to the type of knowledge researchers can come up with, while not addressing how the researchers themselves and their epistemologies are subject of experimentation.

Not 'being in', or 'having' epistemic control, but 'playing' with it, and also embracing 'being played' with, is not to be equalized with irresponsibility for the research that is pursued and the realities that are brought into being. Rather, it comes with the certainty that whatever 'methods for knowing and handling the world' are deployed, they have their own 'social life' (Law and Ruppert 2013). They 'establish' and 'format relations', but they are also formatted by the nets in which they are actualized. Most definitely, they are 'used opportunistically by social actors in the systematic pursuit of political, economic and cultural advantage.' (239) Manipulating and knowing the world are not rendered mutually exclusive. In this sense, caring for epistemic democracy, and developing and manipulating in the sense of 'plan[ing], schem[ing], trick[ing], contriv[ing], invent[ing]' (229) is not necessarily a contradiction. It is not, because it comes with passion for learning and 'becoming with' who/what is studied, instead of 'keeping the science in social science' (see above).

Discussion

The article takes up the question of potential reconfigurations of collaborative research beyond control, as posed by the editors of this special issue. It reviews two current movements with regard to epistemic control. One is striving towards 'epistemic democracy' (in a more and less institutional manner), the countermovement is arguing for restoring the authority of science in society by setting clear hierarchies between scientific and other forms of knowing. The paper argues that in order to understand what it could mean to go beyond control, the processes of winning/losing/loosening control need to be theorized in the first place. When thinking about

research control in theoretical terms – it seems that we can only gain control when also letting ourselves being controlled in a rather tight corset of ‘pre- recorded realities’ which prescribe – in our case – how knowledge is to be produced. These ‘pre-recorded realities’ have been grasped as the ‘society of epistemic control’ in which the knowledge producer is

enrolled as credibility investor who is everything else but free when it comes to perform (collaborative) research. We thus might have to remain skeptical about the possibility of going ‘beyond control’ when thinking about (collaborative) research in its diverse shapes. However, the paper also identifies moments of resistance, moments that allow for the ‘cut-up’ of prerecorded research realities: the processes of actualization (of the pre-recorded reality). The fictional collective of non-control is betting on the powers in these processes. Instead of developing ‘pre post-truth’ nostalgia, it develops lust for experimentation and playing with pre-recorded research realities; Their experimentation is not focused on fighting back epistemic control, but on giving it away. Despite dystopian narratives about knowledge production and circulation in the post-truth era, the fictional collective of non-control does not give up on the dream of ‘epistemic democracy’, and – with an eye on the effects on communal lives – continuously keeps striving to challenge the epistemic nets of habituality with their often unnecessarily restrictive and rationalized accounts of what can be regarded as valid and valuable forms of knowledge and modes of knowing.

The limits of epistemic control in this fiction refer to both the limits to how we can be controlled by the ‘society of epistemic control’ and the limits to how we can control epistemic processes. Certainly, as compared to many other people and forms of knowing, researchers and their rationalities already find themselves in a privileged position. Instead of putting a lot of effort into actualizing this privilege, the collective of non-control aims to create situations in which new knowledge collaborations can become possible.

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