

Aleksandra Kołtun

# **Can Knowledge be (a) Performative?**

## **Performativity in the Studies of Science**

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# CONTENTS

Acknowledgements .....	7
Introduction .....	9
The work of performance and performativity: a general overview .....	15
The performative turn: main sources and inspirations .....	17
Theatre and performance studies .....	19
From philosophy of language to gender studies .....	23
Knowledge in “the postmodern condition” .....	28
“The world is being challenged forth to perform – or else” .....	29
Performativity and performance: a conceptual outline .....	33
Shifting boundaries: saying, acting, meaning .....	35
Temporality: uniqueness and repeatability .....	40
Producing effects: power and liminality .....	45
Recapitulation: knowledge in the performative turn .....	51
Performativity of science and knowledge .....	55
Science and technology studies: from representing to intervening .....	57
Postconstructivism and performativity of science and knowledge .....	60
Actor-network theory: facts construction .....	62
Andrew Pickering: the performative idiom and mangle of practice .....	69
Karen Barad: performativity as intra-activity .....	74
Joseph Rouse: science as a world-transforming activity .....	77
Science and technology studies and social sciences .....	82
Abandoning the dualisms: ‘flattened’, posthumanist sociology .....	83
Łukasz Afeltowicz and Krzysztof Pietrowicz: social machines .....	86
John Law: performativity of the method .....	88
Economics’ performativity .....	92
The turn to things .....	93
Transitions: towards knowledge performativity .....	95

Knowledge as (a) performative .....	101
Knowledge as (a) performative: a conceptual outline .....	103
Knowledge and the world: mutual embeddedness and enaction .....	108
Knowledge and knowing: bringing product and process together .....	111
Shift to the big picture: science, ethics, effectiveness .....	118
Liminal spaces of knowledge production .....	121
Knowledge as (a) performative within humanities and social sciences .....	122
Performance and performativity in social research .....	123
Non-representational theory .....	127
Ewa Domańska: affirmative humanities .....	130
Concluding remarks .....	133
Bibliography .....	139
Subject Index .....	151
Reference Index .....	155

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# INTRODUCTION

Although the notions of performance and performativity entered humanities and social sciences more than half a century ago, only recently have they gained tremendous attention and popularity among scholars and researchers alike. By all means, this reintroduction of the two notions into academic inquiry has been very powerful, especially when we take into account that they have also transformed the landscape of contemporary economics, society, and culture. As Jon McKenzie aptly put it: we are shifting into “the age of global performance” (see McKenzie 2001).

The basic premise of the study presented in this book is that we are currently witnessing a certain performativity-oriented reconfiguration of reflection upon scientific knowledge production. Since the middle of the 20<sup>th</sup> century, philosophical inquiry into science and knowledge has been marked by at least two seminal shifts: firstly, the downfall of domination of the theory-centered accounts which define knowledge in terms of representations, and secondly, the advancement of some more practice-wise approaches, which, however, have already met some substantial criticism.

I argue that this landscape can be refined by one more perspective, not aspiring to replace the former ones, but serving as a certain model that complements them while bringing our attention to those aspects of knowledge production that up till now have remained secondary or even neglected. Therefore, I put forward a concept of ‘knowledge as (a) performative’. The rationale behind this proposition is to highlight the intrinsically transformative facet of knowledge production, especially with regard to its profoundly processual character and a twofold, mutual embeddedness of knowledge and reality, in which ‘the world’ is both a point of departure and an effect of knowledge processes. As a result, introducing the concept of knowledge as (a) performative entails a number of shifts in both language of description and issues at stake, concerning, above all, the character and spaces of knowledge production,

questions of broadly understood effectiveness, a link to power and ethics, as well as a more general problem of delineating the role of science in today's world.

Not surprisingly, a range of already available conceptions take into account broadly understood performative aspect of science and knowledge. They have been elaborated mainly within Science and Technology Studies (STS), especially in their postconstructivist versions represented by intellectuals such as Andrew Pickering, Karen Barad, Joseph Rouse, together with the renowned actor-network theory of, among others, Bruno Latour, John Law, Annemarie Mol and Michel Callon. With this I do not want to claim that all these authors explicitly rely upon notions of performance or performativity, nor that they would situate their own work within the so-called performative turn. However, as will become clear, the assumptions made by STS representatives constitute a very particular, undoubtedly performative vision of science and knowledge. Their work is profoundly constructivist, and at the same time materialistic, with a focus on the processes of creating the scientific objects and facts as well as grounding them in a properly reconfigured sector of reality. Altogether, postconstructivist studies of science and knowledge distance themselves from the traditional, positivist conceptions of science and knowledge in several important ways, which can be summarised as a shift in areas of interest: from theories and brilliant individuals, epistemology-centered questions, and the issue of settling clear boundaries between science and non-science, towards collective and situated micro-practices, more ontology-wise questions at stake, and the objective of undermining the long-established dualisms together with a belief in some kind of a privileging epistemic foundation of science.

Hence, the concept of knowledge as (a) performative heavily relies upon postconstructivist science and technology studies. However, it also owes to various ideas that, having originated in the fields that are seemingly distant from STS, like performance studies, aesthetics, philosophy of language, literary theory or gender studies, do provide some valuable insights into how performance and performativity work. Especially, they allow me to examine the transformative nature of performatives and the conditions of their success, to relate them to the issues of power and the possibility of resistance and change, but also to theorise upon the liminal spaces of performing and meaning-making, or attempt at exploring the way that performatives' reconnect the seemingly opposite

features, like that of uniqueness and repeatability. All in all, bringing these diverse strands of thinking – from science and technology studies as well as some broader humanist traditions – in a certain dialogue establishes a reasonable conceptual basis from which I derive the notion of knowledge as (a) performative.

However, before going any further I should make a couple of reservations. By no means do I intend to provide a full picture of what is currently occurring under the performative turn; inclusively, I do not believe that an exhaustive reconstruction of the performative accounts of – solely – science and knowledge is in my capacity. My focus is rather on selected ideas than a systematic reconstruction, let alone a critical review. At the same time, the proposition I put forward should not be understood as any kind of a complete turnover of what we have known and believed so far. Rather, I wish to provide an incentive for a simple, yet surprisingly productive conceptual shift.

For I am convinced that exploring the performative aspect of knowledge production is not only a matter of taking full advantage of what the performative turn has to offer, but also that it may serve as a yet another tool of debating some of the still widespread visions of knowledge and science. In spite of numerous heated philosophical discussions, as of today, the commonly held image appears to be governed by a simplified, input-output notion of utility and a depreciation of any forms of knowledge that do not observe the seemingly objectivist and rational idiom of ‘hard’ science. I argue that the concept of performativity can pose a challenge to such thinking for two reasons: firstly, thanks to its specific transformational, effectivity-oriented feature which allows accounting for much more than ready-to-go solutions or technological advancements; and secondly, for its link to an STS undermining of the traditional, taken-for-granted ideal of natural sciences. Consequently, the concept of knowledge as (a) performative welcomes the idea that knowledge, regardless of its origins as a laboratory or humanistic inquiry, is intrinsically capable of producing powerful effects and re-creating the world itself. At the same time, I hold no claim to determining a singular unified standpoint on how (any) sciences do or should work. Rather, I merely hope to show that making a conceptual leap towards a performativity-wise vision of knowledge enables us to, first of all, fully acknowledge of the fact that social sciences and humanities can and do

shape our realities as much as the natural sciences, and, second of all, to escape the narrowing, and often oversimplified, input-output assessment of the scientific outcomes.

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The structure of the book is tripartite.

The first part, entitled “The work of performance and performativity: a general overview”, provides an introductory selection of ideas and conceptions on how these two notions are understood in diverse contexts and under various conditions. It is supposed to serve as a certain background for the problems that will eventually play an important part in presenting the concept of knowledge as (a) performative. The opening section is built around the most renowned and influential conceptions and authors that have contributed to developing what is today called the performative turn. Attention is paid to, on the one hand, theatre and performance studies, represented by, among others, Erika Fischer-Lichte and Richard Schechner, and on the other hand, traditions stemming from philosophy of language (particularly with the works of John L. Austin and Jacques Derrida) and gender studies. This landscape is yet complemented with a brief account of Jean F. Lyotard’s seminal work – “The Postmodern Condition...”, which marks a shift towards the understanding performativity in terms of economic effectiveness. The last passages of this chapter are devoted to a conception created by Jon McKenzie, who creates a framework for analysing various expressions of performance in diverse areas of contemporary culture, economy, technology and science, and eventually applies it to current changes in the field of science and knowledge. Next, the second chapter in this part of the book is a brief recapitulation of some of the most substantial issues emerging across various disciplines and conceptions. These include, first of all, a tendency to shift the traditionally accepted boundaries and oppositions, especially when it comes to relations between language, action and meaning-making, secondly, an attempt to account for both repeatability and singularity, embeddedness and uniqueness, and thirdly, questions pertaining to performative productivity and exercising power. In the end I also provide a quick summary of the remarks towards contemporary science and knowledge production that will have appeared throughout the argument in this part of the book.

The second part of the book traces the notions of performance and performativity specifically in the field of postconstructivist science and technology studies. It begins with a summary of selected insights from the actor-network theory, with a special focus on showing how laboratories allow constructing objects of research, their seemingly objective results, and realities that are apt for their operation. Then I provide an overview of Andrew Pickering's discernment between representative and performative idiom of science, together with his conception of the mangle of practice. Next, I present "agential realism" by Karen Barad with her posthumanist and radically anti-essentialist version of performativity. The subsequent chapter is devoted to ideas elaborated by Joseph Rouse, starting with his normative concept of practices, including the proposition of cultural studies of science, and concluding with the vision of scientific research as niche construction. The ideas delineated in this part of the book, although departing from laboratory studies, are often employed to analyse social sciences, including some Latourian anti-dualist insights, the concept of social machines (by Łukasz Afeltowicz and Krzysztof Pietrowicz), performativity of social sciences methods (by John Law) and performativity of economics (here represented mainly by Michel Callon and Dwight McKenzie); conceptions which I bring forward in the final section of this part of the book.

In the third part I arrive at the principal objective of the whole study – I delineate the concept of knowledge as (a) performative. Building on the ideas expounded in both previous parts, I explain the origins of the notion and examine its most substantial aspects, such as the mutual embeddedness and enactment of knowledge and the world, the nature of outcomes of knowledge as (a) performative and its profoundly processual character, diverse problems of knowledge contextualisation and portability together with the issues concerning the connection to academia and an ethical import that knowledge as (a) performative inevitably entails, and, finally, the liminal spaces of its production. The second chapter in this part of the book is an attempt to show that the shift towards understanding knowledge in terms of performativity is already taking place within humanities and social sciences. Namely, I present some participatory qualitative methodologies adopting performance as a their certain *modus operandi*, the non-representational theory which focuses on profoundly practical, processual side of reality, and Ewa Domańska's

conception of affirmative humanities as ‘means’ of reinforcing communities and opening possible futures. In the very end I provide some concluding remarks for the whole book.

Throughout the book I pursue an interdisciplinary, mosaic-like way of exploration of the transformations to the contemporary reflection upon science and knowledge. At all times, I try to observe the words of Jonathan Culler: “rather than try to restrict or simplify the performative’s domain, by choosing one strand of reflection as the correct one, we ought to accentuate and pursue the differences between them – so as to increase our chances of grasping the different levels and modes in which events occur. This is a project requiring the cooperation – albeit the inevitably contentious cooperation – of philosophy and literary theory and the possibility of reconnecting with the domain of performance theory in theatre studies and the social sciences, so that in the «carnavalesque echolalia of what might be described as extraordinarily productive cross-purposes», of which Parker and Sedgwick speak, we might indeed come both to enjoy the carnivalesque and to find these cross purposes productive” (Culler 2007: 165).

Hence, the conceptions I bring forward in the book are selected on a twofold basis. Firstly, they reflect the most recognised and discussed ideas from a broad field of performance- and performativity-oriented conceptions. What is important here is that no matter if they explicitly take up issues of knowledge production or delve into seemingly distant questions of aesthetic experience, speech acts or gender, they all do share some common lines of interest, which I hope to make apparent in the course of the argument. However, what is most important, and this is the second principle underlying the theoretical framework proposed here, these ideas and conceptions allow me to delineate the concept of knowledge as (a) performative not as a simple summary of the main hints from science and technology studies, but encompassing a much wider area of transformations that are currently taking place within humanities and social sciences.

**THE WORK  
OF PERFORMANCE  
AND PERFORMATIVITY:  
A GENERAL OVERVIEW**





## The performative turn: main sources and inspirations

To begin with, it is worth noting that the enormous popularity of applying the notion of ‘turn’ in contemporary reconstructions of scientific change itself marks a substantial shift in our thinking about sciences. The Kuhnian logic of paradigms and revolutionary ‘gestalt switches’ has been abandoned for the sake of recognising the coexistence of numerous local and often overlapping perspectives. In a book describing cultural turns of the 20<sup>th</sup> and the 21<sup>st</sup> century, Doris Bachmann-Medick states that: “One can talk about a *turn* only when a new research focus «flips» from the plane of research objects in new types of research areas to the plane of categories of analysis and conceptualisation, hence, only when it ceases to solely point at new *objects* of cognition and becomes an *instrument* and a *means* of cognition” (Bachmann-Medick 2012a: 31, original emphasis). A ‘turn’ consists in a certain conceptual transformation – terms that have previously served for description become operational. As Bachmann-Medick notices, they often gain a metaphorical status. Hence, a turn encourages overriding the methodological rules and fosters creation of both new interdisciplinary fields of inquiry and analytical perspectives. As any turn is embedded in existing conceptions and ideas, what lies at its foundations is the acceptance of pluralism and openness to further modifications.

Accordingly, several theorists highlight the fact that the performative turn is no revolution; it should not be perceived in terms of “a clear-cut epochal shift, nor a complete intellectual revolution, not a coherent, self-conscious endorsement of a unique doctrine” (Muniesa 2014: 7). Rather, it resembles a “U-turn” in which neither temporal nor spatial framework can be definitely settled, especially if we take into account that social sciences generally tend to recur to old concepts and ideas (Muniesa 2014: 7-8)<sup>1</sup>. In other words, the performative turn should be, in the first place, understood in terms of modification and extension of the notions of performance and performativity. Developed for years within, above all, theatre studies, cultural studies and philosophy of language, notions of performance and performativity have gained grounds in several other disciplines and contexts. Eventually, apart

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1 See also Anna Burzyńska’s analyses of relations between the performative turn, poststructuralism and postmodernity (Burzyńska 2013), and Anna Zeidler-Janiszewska’s claim of “migrations of concepts” inside and between disciplines (Zeidler-Janiszewska 2007: 34-35).

from contributing to launching new objects and methods of research, they achieved a status of useful analytic categories for theorising and empirical inquiry (see Bachmann-Medick 2012a: 48-49; Burzyńska 2013: 241; Carlson 2004; Culler 2007; Domańska 2007: 48-49; Horanyi 2014; Kosiński 2014: 28-29; McKenzie 2001: 3-26; Schechner 2006; Wachowski 2011: 13-111).

Out of this great abundance of conceptions and ideas, particularly two large bodies of thought are crucial to this book<sup>2</sup>. On the one hand, these are performance and theatre studies, which tend to examine performances as a specific type of action reaching far beyond theatrical stages. On the other hand, the notion of performativity can be traced as far back as to the works of John L. Austin, with some serious reformulations made by, among others, Jacques Derrida, then Judith Butler's gender studies as well as Jean F. Lyotard's analysis of knowledge transformations. Notably, the first strand of thought is mostly focused on exploring the nature of performance, while treating 'performativity' as a valuable, yet somewhat secondary concept (e.g. a feature of performance). Then, the latter corpus

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- 2 It is worth noticing, however, that some of the earliest conceptions associated with the performative turn can be situated in the fields of anthropology and cultural studies, encompassing a concept of the rites of passage of Arnold van Gennep (1960), analyses of social drama by Victor Turner (1974), the notion of culture as performance by Milton Singer (1972), and the dramaturgical metaphor for analysing interactions by Erving Goffman (1956). These authors are commonly believed to be one of the first to introduce a more action-oriented, processual vision of cultures and societies and thus to significantly broaden the field of cultural studies, anthropology and sociology by introduction of the four major themes: process, play, poetics, and power (see Bell 2008: 133), previously somewhat neglected for the sake of investigating artefacts and structures. Their works convincingly showed that performances were common in our everyday life, not restricted to forms of purely artistic expression. Elisabeth Bell aptly illustrates what stands behind the famous Singer's metaphor of "culture as performance": "Performances are *constitutive* of culture, not something added to culture; performances are *epistemic*, the way cultural members «know» and enact the possibilities in their worlds; and performances are critical lenses for looking at and reshaping cultural forms" (Bell 2008: 116; original emphasis). Also, various intellectuals trace the roots of the performative turn back to the earliest happenings, environment, body and video art, Jackson Pollock's action painting, as well as Dada movement, surrealists and futurists, and finally, The Theatre of Cruelty of Antonin Artaud and The Epic Theatre of Bertold Brecht (see Wachowski 2011: 15; Berleant 2004; Davies 2011: 200-218; Dziamski 1985: 16-59; Fischer-Lichte 2003: 230-235). In general, the novelty of these artistic practices consisted in employing, to a larger extent than ever before, action-oriented forms of engaging audiences and expression. These greatly contributed to undermining the image of an art piece as an autonomous script waiting for the adequate interpretation of the author's intentions.

of works deals with performativity and performatives as a central point of interest, with ‘performances’ often meaning no more than a doing or an act of realisation. Therefore, the very many authors that have employed either of these notions do not necessarily speak of the same thing, making the landscape of the performative turn extremely tenuous and conflicting. Jonathan Loxley makes a point when he says that “This doubled history of the term is sometimes the source of problems, though, since neither of these two usages has yet managed to displace or entirely accommodate itself to the other. Their relation is instead best described as *asymptotic*: an ever-closer proximity without a final, resolving convergence” (Loxley 2006: 140; original emphasis).

The following passages provide a brief outline of the emergence and subsequent reformulations of the performative turn.

## Theatre and performance studies

Erika Fischer-Lichte, an acclaimed intellectual working in the field of aesthetics and theatre studies, relates the appearance of the performative turn to the avant-garde theatre practices of artists such as The Fluxus, Milena Abramovic, Joseph Beuys, Guillermo Gomez-Pena, Hermann Nitsch, and many others. In an article entitled “Performance Art and Ritual: Bodies in Performance” (2003) she explores the specific features and conditions of the “untitled event” carried out by John Cage and six other performers in 1952. According to Fischer-Lichte’s account, the “untitled event” took almost no preparations or rehearsals, instead each performer had a general sense of what they would be doing (e.g. playing piano and other instruments, reading a text, dancing, running a slides projection, pouring water from one bucket to another...) and how much time they would have. The location was simply a college dining hall, whereas the audience was gathered from participants of a summer school, staff members and other nearby residents. The spectators were given white cups of unknown purpose. At the end, regardless of what they made of the cups (for instance, some used them as ashtrays), they had coffee served into them. In the course of performance there was no logical relation nor even coherence between the actions, themselves overlapping in time and carried out in various places around the room, however, rarely in its central, previously emptied space. The spectators could see each other observing the performers. Moreover, the need to

handle the cup at the beginning and at the end of performance encouraged action, without forcing anything specific. There was no centre for the actions, which intermingled and overlapped.

Fischer-Lichte concludes that “untitled event” led to a “discovery of performativity” in art. She highlights that all its actions were realized in a performative mode: “The performative function was foregrounded, either by radically reducing the referential function (for instance, in the unrelatedness of the actions, which could not be connected into a story (...); or by the refusal to give the «untitled» event a title), or by emphatically stressing the performative function (for instance, (...) by the emphasis put on the fact that it was an «untitled event»)” (Fischer-Lichte 2003: 230; original emphasis). Consequently, the performative mode of performance resulted in opening of the space of meaning creation and perception, not only for the artists, but also for the spectators. There was no need to search for some outer references or fictions in order to embrace the meaning of the occurrences. Moreover, the texts and artefacts, from which artistic actions usually departed, lost their importance, thus undermining the borders between various disciplines of art. Altogether, the performative mode, in Fischer-Lichte’s view, allowed to “liberate” audience and the artists from a traditional mode of participating and understanding performances (Fischer-Lichte 2003: 230-231). The specific integration of actions, spectators and artists, processes of meaning creation and perception, various disciplines of art and everyday life – they all have come to be recognised as characteristic of contemporary performance art.

A slightly different focus can be found in the works of authors related to performance studies, which, in spite of a relatively short time of institutionalisation<sup>3</sup>, have established several fundamental problems pertaining to how performances work. In general, the intellectuals from this field share an inclination for looking into the concept of performance in a great variety of everyday, mundane contexts (see Carlson 2004; Schechner 2006). For instance, in his seminal work entitled “Performance Theory”, Richard Schechner (2004) envisages the notion of performance as an all-encompassing continuum: from “great” to “everyday” performance, including ritual, play, games, sports, theatre, and many more. Importantly, Schechner also makes an important

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3 The first department of performance studies was started in 1980 at New York University.

discernment pertaining to the analytical usage of the notion of performance. Something “is” a performance for its historical and social context, convention, usage, and tradition. Yet, in his opinion, all kinds of action can be analysed “as” performance and this strategy does not require reference to any specific cultural circumstances (Schechner 2006: 39-40, 49). He declares: “any event, action, item or behaviour may be examined «as» performance. Approaching phenomena as performance has certain advantages. One can consider things as provisional, in-process, existing and changing over time, in rehearsal, as it were” (Schechner 1998: 361). Thus, he reveals how one can employ the term ‘performance’ as an analytical tool, without running the risk of misusing it.

Another fundamental topic developed in performance studies concerns the nature of performance, commonly regarded as “an *essentially contested concept*, meaning that its very existence is bound up in disagreement about what it is, and that the disagreement over its essence is itself part of that essence” (Strine, Long, Hopkins 1990: 183; original emphasis). Notably, both Schechner and Marvin Carlson, another distinguished scholar from the field, underline performances’ somewhat contradictory character. They situate the origins of a performance outside an individual, thus acknowledging of its repeatability, yet at the same time welcome its embodied, contextualised uniqueness. Carlson defines performance as a realisation of “a culturally coded pattern of behaviour” (Carlson 2007: 4); Schechner calls it a “twice-behaved behavior” or “restored behavior” (Schechner 2006: 34-36). Also, they point to the fact that a performance requires an audience, that is, people “in the know” who are capable of decoding it (Schechner 2006: 35) as well as find it suitable or useful for fulfilling their own needs. Jacek Wachowski captures this complex nature of performance by defining it as an action that complies with a set of structural and functional conditions. He explains: “[performances] are able to fulfil various needs – which indicate their pragmatic dimension – such as that they are destined to entertain, create something beautiful, establish or transform identities, build or maintain communities, heal, teach, convince, persuade, encounter with what is sacred and demonic (...), they need to be reflected in action which is somatic, which disturbs some state of balance and is directed to an audience, which is delimited and iterable. The structural and functional conditions are necessary and sufficient at the same time. This means that for a performance to come into existence they need to be coupled” (Wachowski 2011: 297).

To finish with, it is worth noticing that some of the earliest tendencies marking the emergence of the performative turn in fact entailed a strong distinction between text and performance. As Bachmann-Medick describes, the performative turn could be perceived in terms of an opposition to a widespread metaphor of “culture as text” and the linguistic turn (Bachmann-Medick 2012a, 2012b; see also: Domańska 2007; Walker 2003). The text-oriented approaches were accused of adopting an oppressive, ethno- and logo-centric attitude, and consequently, excluding anything and anyone that would not fit the framework (the embodied and the affective, sound and speech, The Other...). In consequence, many authors opposed performance to text, highlighting its focus on action, process, and the future, instead of delimited, permanent essences. “«Performance» deals with actions more than text: with habits of the body more than structures of symbols, with illocutionary rather than propositional force, with the social construction of reality rather than its representation” (Schieffelin 1998: 195; after Thrift 2008: 125).

Nevertheless, these tendencies were soon replaced by the principle of avoiding any dichotomizations: not only of text and performance, but in general all binary, oppressive oppositions. For example, an American anthropologist and researcher, Dwight Conquergood, proposes that we treat performance as both a mode of investigation and a mode of representation. He conceives of performance in terms of resistance to textual authority and colonial hegemony of the West over other, less ‘propositional’ cultures (Conquergood 1992). However, he also warns against replacing one hierarchical dichotomy with another; the aim is to decenter the text without discarding it (Conquergood 1991). A similar approach is represented by Marvin Carlson, who differentiates between four types of text-performance relation (as fulfilment, illustration, translation and supplement), concluding that the last strategy is most promising. “Supplement” challenges the assumptions and oppositions upheld within the rest of the examined approaches, and, eventually denies supremacy to either text or performance. Thus, it provides a fruitful perspective for understanding their dynamics: it accounts for the reasons why a play can deliver a wealth of experiences both in study and on stage, while at the same time it embraces the fact that any performance on stage does not convey all the possible meanings of a play (Carlson 2003: 84-85).

## From philosophy of language to gender studies

The second aforementioned large body of thought which shapes the performative turn can be roughly considered as originating from the works of John L. Austin. Arguably, he is one of the most powerful figures of contemporary social sciences and humanities, especially if we take into account the usual areas of interest of the mid-20<sup>th</sup> century philosophy of language<sup>4</sup>, and all the fields of study that have departed from his works.

Austin's renowned distinction between constatives and performatives, that is, sentences which describe something and can be either true or false, and sentences which actually do what they say (e.g. "I now pronounce you husband and wife") and should be assessed as felicitous or infelicitous (Austin 1975), indicates that language does not only describe the world, but also creates it (see Culler 2007: 145). In search of a clear-cut contrast between the two types of statements, he formulates the "felicity conditions"<sup>5</sup>: if a performative does not meet all of them, then it fails in one or another manner. For instance, breaching the condition of conformity between subject's intention and their verbal action (e.g. when making a promise with no intention of fulfilling it) makes a performative hollow, which means that it is infelicitous yet in a way accomplished (Austin 1975: 16). Initially, Austin also rejects all citational utterances, like literary fictions: he calls them non-serious and "parasitic" (Austin 1975: 21-22). On the whole, the felicity conditions entail that performatives are doubly dependent: upon speaker's intentions and conventions.

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4 Austin showed great interest in investigating everyday uses of language. His point of departure was an observation that purely logical and structural approaches to language were flawed with a "descriptive fallacy", namely, an assumption that language was essentially constative. He contributed to the so-called ordinary language philosophy which shifted the hitherto usual focus of inquiry from fixed, logical structures to some more contingent and imperfect language uses.

5 According to Austin, the felicity conditions for performatives are as following: "(A.1) There must exist an accepted conventional procedure having a certain conventional effect, that procedure to include the uttering of certain words by certain persons in certain circumstances, and further, (A.2) the particular persons and circumstances in a given case must be appropriate for the invocation of the particular procedure invoked. (B.1) The procedure must be executed by all participants both correctly and (B.2) completely. (γ. 1) (...) a person participating in and so invoking the procedure must in fact have those thoughts or feelings, and the participants must intend so to conduct themselves, and further (γ.2) must actually so conduct themselves subsequently" (Austin 1975: 14-15).

This eventually leads Austin to admitting that there can be no inherent, structural feature of a performative that would allow distinguishing it from other types of utterances.

Recognising the need to take into account much more than a mere verbal utterance, Austin introduces a concept of speech act, characterised by three dimensions: locution, illocution and perlocution (Austin 1975: 94-108). The first determines saying something at all, the second – saying it with a specific force (e.g. making a promise, persuading or warning against something), and the third – the consequences of the how and what was said (e.g. being obliged to do something, making someone believe us or run away from the danger). Thus, the very notion of a speech act is supposed to call the attention to both propositional and contextual aspects of any language statement. Austin concludes that they all can have a performative character. He declares that: “Once we realize that what we have to study is not the sentence but the issuing of a utterance in a speech-situation, there can hardly be any longer a possibility of not seeing that stating is performing an act” (Austin 1975: 139). In sum, as Culler notices, Austin begins with performatives as particular utterances, but eventually concludes that they are an indispensable aspects of language use (Culler 2007).

Jacques Derrida is one the intellectuals that has provided most fundamental modifications to Austin’s conception, also significantly influencing areas such as literary and theatre studies. Starting with some critical remarks towards Austin’s focus on ‘original’, serious, and non-fictional language statements<sup>6</sup>, Derrida argues that a certain kind of repeatability is indispensable for a sign to operate: “Could a performative utterance succeed if its formulation did not repeat a «coded» or iterable utterance, or in other words, if the formula I pronounce in order to open a meeting, launch a ship or a marriage were not identifiable as conforming with an iterable model, if it were not then identifiable in some way as a «citation»?” (Derrida 1988: 18). In fact, iterability is the reason why language is operational: it enables to apply a sign in various contexts and under distinct circumstances, while maintaining its intelligibility. At the same time, Derrida shows that any performative – by its nature

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6 Derrida uncovers Austin’s implicit acceptance for a host of binary oppositions (such as serious vs non-serious, felicitous vs infelicitous, saying vs doing), and argues that he eventually succumbs to the – strongly criticised – Metaphysics of Presence (see for example: Burzyńska 2001: 61-64).



– runs a risk of failure. Thus, he accepts the exact feature that Austin has attempted to overcome in numerous attempts at formulating conditions of performatives' success. Finally, iterability is also the very condition of conveying a meaning in the absence of the author of a sign. What follows is that the subject's intentions are, at best, secondary to producing a successful speech act (Derrida 1988: 18). Otherwise, any utterance would be somewhat anchored to one adequate interpretation, which Derrida cannot accept<sup>7</sup>.

Furthermore, Derrida provides some very interesting elaborations on the work of performatives and possibility of introducing change (Derrida 2002; see also: Loxley 2006: 101-105). Reading through The American Declaration of Independence, he notices a peculiarity: the Declaration is legitimised by "the People", yet at the same time, "the People" are being constituted in the Declaration. This strange occurrence goes as follows: the People are supposed to act as an authority behind the Declaration. In order to have such power at hand, they should be already established as a certain entity capable of appointing representatives to sign the document. However, that is not the case, as the People did not exist before the Declaration: "They do not exist as an entity, the entity does not exist before this declaration, not as such. If it [i.e. the «people»] gives birth to itself, as free and independent subject, as possible signer, this can hold only in the act of signature. The signature invents the signer" (Derrida 2002b: 49). The Declaration relies upon the existing felicity conditions and, simultaneously, intends to create them<sup>8</sup>. Hence, Derrida calls attention to the fact that any institution, norm or convention has to be established at some point, and in that moment this split between the previous and 'purely' conventional, and the innovative must take place. This split can also be seen, as Loxley

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7 This is not to say that intentions and signs are somewhat opposite, nor that Derrida rules the intentions out from his conception of language. For a summary of this issue see Loxley 2006: 89-90.

8 Loxley summarizes: "the invocation of an already existing «People» as a prior source of validity for the declarations of its representatives both underpins *and* conceals the peculiar invention of such an entity, the event of its taking place. In fact, it underpins it *because* it conceals it. This is a «confusion» because it implies a speech act that fails to conform to proper felicity conditions, and indeed seems to violate any appeal to the consistency of a single speech situation; it is «indispensable» because no felicitous declaration could take place without it. Without both these moments, the declaration could not possibly be valid; with them, impossibly, it is" (Loxley 2006: 103; original emphasis).

reasonably points out, in terms of intermingling (and impurity) of two types of legitimacy: one that is based in illocutionary force of the existing felicity conditions, and the other obtained by not-observing them. Derrida calls this specific kind of performativity “originary” and notes that it “does not conform to pre-existing conventions, unlike all the performatives analysed by the theoreticians of speech acts, but whose force of rupture produces the institution or the constitution, the law itself, which is to say also the meaning that appears to, that ought to, or that appears to have to guarantee it in return” (Derrida 1994: 30-31). Therefore, Derrida elaborates on the possibility and conditions of change within the very system of conventions and norms that allow successful communication and action.

Consequently, with the introduction of notions of iterability and originary performatives Austin’s initial ideas shift towards even less rigid, non-dualist ontologies. On the one hand, Derrida undermines the relation of performatives with conventions and speaker’s intentions, and proposes a specific interplay of the previous and future possible uses of a sign or a utterance. On the other hand, he envisages the felicity conditions as at the same time exerting constraint and welcoming innovation. With these modifications, performatives become entangled in a complex matrix of power, discourse and social change.

Selected concepts of Austin and Derrida have been adopted by Judith Butler in her account of gender performativity. Issues concerning relations between sex, gender and identity have long remained an object of some heated debates among feminists and queer theorists. However, it was only with Butler’s work that a radical reframing of the field has become possible. Generally, Butler rejects the hitherto accepted premises of stability or naturality of these categories, while aiming to show that they are processual, historically contingent and culturally constructed. In order to achieve this, she draws upon a host of theories and ideas, among which Austin’s performatives and Derrida’s concept of iterability occupy a central place, together with the Foucauldian vision of power, works of feminist intellectuals (especially Monique Wittig), and selected ideas from psychoanalysis. She explains her position in the following words: “I begin with the Foucauldian premise that power works in part through discourse and it works in part to produce and destabilise subjects. But then, when one starts to think carefully about how discourse might be said to produce a subject, it’s clear that one’s already talking about a certain figure or trope of production. It is at this point that it’s

useful to turn to the notion of performativity, and performative speech acts in particular – understood as those speech acts that bring into being that which they name. This is the moment in which discourse becomes productive in a fairly specific way. So what I'm trying to do is think about the performativity as that aspect of discourse that has the capacity to produce what it names. Then I take a further step, through the Derridean rewriting of Austin, and suggest that this production actually always happens through a certain kind of repetition and recitation. So if you want the ontology of this, I guess performativity is the vehicle through which ontological effects are established. Performativity is the discursive mode by which ontological effects are installed” (interview with J. Butler; Osborne 2013: 112). It is fairly clear, then, that Butler takes the assumptions made by Derrida in a far more nondeterministic direction: she fully acknowledges of the fact that language is a means of creation, then, in consequence, she links it to the issues of power and normativity, while at the same time she looks into how subjects, their identities and even bodies are constructed and negotiated by means of performative acts of the discourse.

In other words, Butler aims at applying the concept of performativity to social processes with a lot of attention to the problems of identity creation, scope of agency as well as relations between individuals, social norms and social change. According to her, “gender is constructed through relations of power and, specifically, normative constraints that not only produce but also regulate various bodily beings” (Butler 1993a: IX). The notion of performativity plays a central role here: it is through performative repetition of discursive, sexed acts that an identity and a subject can be temporally constituted. At the same time, the concept itself is reformulated as a certain process of exercising norms with the result of constructing ephemeral identities.

Importantly, Butler situates the difference between performances and performativity exactly in how the norms are exerted upon individuals. She believes that the theatrical origins of performances entail humanism and essentialism, both of which she rejects. Thus, she declares that “performance as bounded «act» is distinguished from performativity insofar as the latter consists in a reiteration of norms which precede, constrain, and exceed the performer and in that *sense cannot be taken as the fabrication of the performer's «will» or «choice»*; further, what is «performed» works to conceal, if not to disavow, what remains opaque, unconscious, unperformable. The reduction of performativity to performance would

be a mistake” (Butler 1993a: 24; original emphasis). Gender is then not a stable identity, freely chosen out of a range of available possibilities by individuals. Quite the contrary, each of these elements is problematised: there is no preceding subject, there is no fixed effect, there is no freedom or randomness. Gender and subjects are constantly fabricated and maintained by means of repeating the norms that are, on the one hand, obligatory and oppressive, on the other, that are a source of resistance, subversion, and destabilisation (see Butler 1993b).

## Knowledge in “the postmodern condition”

Finally, no outline of the performative turn can do without an incredibly powerful work by Jean-Francois Lyotard – “The Postmodern Condition: A Report on Knowledge” (1984). His work explicitly draws upon the Austinian conception of performatives, however, thanks to some extensive references to the works of Ludwig Wittgenstein on language games and a rich overview of contemporary social, cultural, and economic transformations, he takes it in a yet different – than Derrida or Butler – direction.

“A Report on Knowledge” is based on a conviction that the “grand narratives” (such as Marxism or Enlightenment) no longer provide a credible legitimation for the social order, nor a single mode of discourse. Instead, we have to deal with a great variety of local language games producing their own, mutually incommensurable rules. At the same time, Lyotard notices a growing impact of economic discourse with its focus on input-output relation. He argues that knowledge is undergoing the process of commodification: it is becoming a product that needs to be crafted and consumed, can be sold and re-used, and therefore, create some added value. “Knowledge in the form of an informational commodity indispensable to productive power is already, and will continue to be, a major – perhaps *the* major – stake in the worldwide competition for power” (Lyotard 1984: 5; original emphasis).

As a result, the hitherto truth/false assessment of knowledge and science yields to a different language game: that of performativity (see Lyotard 1984: 46, 52). Lyotard explains: “The production of proof, which is in principle only part of an argumentation process designed to win agreement from the addressees of scientific messages, thus falls under the control of another language game, in which the goal is no longer truth, but performativity – that is, the best possible input/output equation. The State and/or company must abandon the idealist and humanist

narratives of legitimation in order to justify the new goal: in the discourse of today's financial backers of research, the only credible goal is power. Scientists, technicians, and instruments are purchased not to find truth, but to augment power" (Lyotard 1984: 46)<sup>9</sup>.

Therefore, performativity operates here as a language game that relies upon economic efficiency and has a specific capability of extending itself over vast areas of society. Hence, Lyotard not only reveals its dominating, expansive force, but also emphasises the connection with power and the capitalist mode of production. At the same time, he locates the possibility of resistance in the very nature of any language game: its openness to change and variegate. He sketches two outlooks for the future. On the one hand, the undergoing changes can further serve as means of control and exclusion, thus restricting knowledge production within economic market and the order of performativity. On the other, we can open data bases and memory banks, and provide equal access to information and improve decision-making. This would eventually alleviate the effects of performativity principle and constitute "politics that would respect both the desire for justice and the desire for the unknown" (Lyotard 1984: 67). Altogether, Lyotard's reformulation of the notion of performativity relates it to issues of knowledge production, power, and economically defined effectiveness.

## **"The world is being challenged forth to perform – or else"<sup>10</sup>**

With this point we have covered some of the most recognised conceptions that are believed to have shaped the performative turn. By way of a summary, let me present the approach of Jon McKenzie who explores how three, seemingly distinct, paradigms of performance (cultural, organisational and techno-performance) reinforce each other, continually expanding their influence and modifying social structures, cultural

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9 Lyotard finds his understanding of performativity close to one of Austin. According to him, the input/output ratio, characteristic of knowledge performativity, can be compared to (supposedly) Austinian grasp of the term, that is, performatives as realising "an optimal performance" (Lyotard 1984: 88, footnote no. 30).

10 McKenzie 2001: 158.

norms, values and our manners of thinking and acting<sup>11</sup>. According to McKenzie, they all appeared in the USA after the Second World War, and so far have undergone some profound transformations which, in the wake of Internet, global capitalism and knowledge societies, have led to their rapid expansion and reinforcement worldwide. In other words, both as a concept and a phenomenon, ‘performance’ is not new. Yet, within the last decades it has been radically and powerfully expanded and rearticulated in its both forms.

Each performance paradigm can be characterised by posing a certain “challenge”: they contest the norms, push the limits, induce change in discourses and practices, thus, they also provide criteria to create and evaluate performances. Hence, cultural paradigm of performance, developed and examined mainly within performance studies, aims at transforming the social structures; its challenge is then one of efficacy. Organizational performance is designed to constantly maximise the output while minimising input, all this in the name of efficiency. Importantly, this challenge applies to both humans and technologies; its most telling manifestation are ubiquitous ‘performance surveys’. Finally, the techno-performance rests upon technical efficacy, that is, the objective of obtaining and measuring the behaviour of technologies in comparison to their design. As McKenzie notices, the proof that a device works or that a scientific hypothesis is adequate ‘is in its performance’. Effectiveness, however, consists in much more than a mere technical capacity; it also includes factors such as quality of the service, compliance with the regulatory norms and social impact upon larger community. And since these factors often prove contradictory in practice, the strategy of technological performance is of “satisficing”. It consists in meeting the mitigated, but feasible requirements, rather than delivering optimization in each and every expected field.

Altogether, the challenges posed by three performance paradigms can be summarised as follows: “while cultural researchers theorize the efficacy of performance in terms of social justice, and organizational experts scan the efficiency of performance in term of bureaucratic economy, (...) engineers and technicians measure the effectiveness of [technological – A.K.] performances in terms of

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11 McKenzie extensively refers to the works of, among others, Lyotard and Butler, also Foucault, Gilles Deleuze and Felix Guattari, Herbert Marcuse and Martin Heidegger.

executability, the technical «carrying-out» of prescribed tasks, successful or not” (McKenzie 2001: 97). Eventually, the three challenges become increasingly intermingled and similar in their inclination towards contesting the norms and redefining limits.

At the same time, the very paradigms of performance resist any precise demarcation. Rather, they all “share an affinity for generalization” (McKenzie 2001: 133) and become interconnected in terms of their characteristic discourses and practices. For instance, notions specific for cultural performance have been applied in business management, while a strong focus on decision-making, characteristic of the techno-performance, in fact reflects its organisational aspects. In McKenzie’s view, the three performances “when taken together, form an immense performance site, one that potentially encompasses the spheres of human labor and leisure activities and the behaviors of all industrially and electronically produced technologies” (McKenzie 2001: 12). What is most important here is that McKenzie brings together diverse, hitherto fairly separated intuitions concerning the work of performance and its effects.

Accordingly, McKenzie proposes a general theory of performance in which the performance paradigms form one level in a, *en masse*, tripartite, heterogeneous structure. The most abstract layer is a “performance stratum of power and knowledge”, which consists of several more concrete “building blocks”: discursive performatives and embodied performances. So, these blocks compose the ‘bottom’ layer, being the most specific articulations of how the current knowledge/power acts; they are “forms of expression [discursive performatives – A.K.] and content [embodied performances – A.K.], and as such, they are the statements and visibilities that compose the age of global performance. (...) As distributions of language and light, they are the emergent forms through which things are said and seen” (McKenzie 2001: 176). Discursive performatives and embodied performances presuppose each other, and, at the same time, they make up the three paradigms which McKenzie locates in the middle of the whole structure. Finally, what binds all these levels and elements together, are “normative relations of force”, that is, the performative power of maintaining order through constant repetition of norms (McKenzie 2001: 177). All in all, the whole structure – consisting in the knowledge/power stratum,

the three paradigms of performance, and the building blocks of embodied performances and discursive performatives – is extremely tenuous, unsettled, and diversified.

McKenzie anticipates that “performance will be to the twentieth and twenty-first centuries what discipline was to the eighteenth and nineteenth: an onto-historical formation of power and knowledge” (McKenzie 2001: 176). He considers performance and discipline as two distinct regimes of evaluation, each having their own criteria, norms and deviations. Thus he characterises them by accounting for a number of differences (McKenzie 2001: 179-190). First of all, performance stratum of knowledge/power abandons thinking in terms of stable, delimited essences. Its subjects are hybrid and constructed; McKenzie mentions for example “transgendered bodies, digital avatars, the Human Genome Project”. Similarly the objects of knowledge – they need to be produced and maintained by means of various sociotechnical systems and networks. Both “*do not perform as much as they are performed*” (McKenzie 2001: 179; original emphasis). Therefore, knowledge in performance stratum is one of simulation, rather than representation. Second of all, we live in times of increasing political volatility. The ‘traditional’ discipline, according to McKenzie, relies upon colonialism and the nation states, while the performance stratum is installed against, on the one hand, globalised media and corporations, and on the other, dispersed language games that promote diversity and remain fairly invisible, at least in comparison to the institutions that so far have exerted power. Also, another crucial context for performance stratum of power and knowledge is the rise of informational capitalism and late modernity. Again, these socio-economic forms are not entirely specific for the changes that McKenzie is trying to grasp, but they significantly contribute to further dispersion of labour, capital, and power. Third of all, the performative power does not operate upon modes of repression, rather, upon excess: the constant willingness to push the limits. It becomes discontinuous and dispersed across large networks, including digital spaces. Finally, the very educational processes differ. In the times of Foucauldian discipline knowledge goes by the book: it is linear, closed, and logocentric, whereas the contemporary stratum of knowledge/power is open-ended, digitized, and constantly reformulated. In a very simple sense, it becomes a life-long project and, to a growing extent, it evolves in virtual spaces which foster geographical dispersion, democratisation, and constant reproduction of contents.



Altogether, McKenzie's general theory of performance fully recognises its ubiquity in contemporary world. With a clear aim of avoiding any binary oppositions, he manages to take account of both embodiment and discourses, power and knowledge, transgression and resistance, change and status quo. It seems that his envisioning of the enormous performance site that guides the world of today embraces its essential incoherence, complexity and instability, while at the same time successfully integrates distinct ideas and phenomena around an emerging formation of knowledge/power. "Perform – or else" expresses the triple challenge of cultural, organizational and techno-performance, in fact saying: "be socially normalized", "be fired, redeployed, institutionally marginalized", "you're outmoded, undereducated, in other words, you're a dummy!" (McKenzie 2001: 9, 7, 12). However, paradoxically, it is also a challenge that the performative power/knowledge poses to itself: "be operational (...) or disappear" (McKenzie 2001: 14).

## **Performativity and performance: a conceptual outline**

What follows from the conceptions delineated above is that performance and performativity are tightly associated to some of the most complex issues of contemporary social sciences and humanities. Before going any further, let me summarise some of the crucial points made by the presented authors and this way follow through various modifications that have shaped current understanding of the two terms.

A performance can largely be considered a specific type of action. Its nature is somewhat double, and, for sure, extremely tenuous, for it brings together repeatability and uniqueness. In other words, performance is embedded in all the previous, already undertaken actions of the same kind, yet, at the same time, it is a singular, embodied act. Moreover, performance entails a particular relation with audience. As Fischer-Lichte claims, it relies upon a specific "performative mode", which sets aside any stable, pre-set meanings or scripts and unfolds in a process of mutual meaning making and interpreting. Again, this does not mean that it comes to life in a vacuum, since the audience always has to be in a way capable of staying engaged and of decoding the mutually created senses. Fairly often, it is highlighted that performances should achieve some effect upon the audience: challenge their

worldviews and ways of acting, affect emotional states, provide unique experience. There is, however, little agreement when it comes to the durability of such effect; the question if they ought to last once the performance ends is open to discussion.

Then, the concept of a performative has been coined by Austin as a type of utterance that does what it states provided that it complies with some pre-set conventions and rules. Derrida underlines its iterative nature as well as reformulates the relation to conventions, which eventually appears much more interactive and flexible than what Austin suggests. As a result, performatives start to be considered as part of discourse, enmeshed in complex issues of exercising power, resistance and transgression. This is where Butler takes up performatives and manages to compile several features of their work: capacity of bridging the gap between the discursive (e.g. heterosexual norms) and the non-discursive (e.g. bodies), iterability (namely, a requirement that a performative refers to some settled convention, but eventually each remains unique and singular), and the possibility of exerting the norms as well as subverting them. Moreover, Butler develops upon yet another aspect of the analysis of performatives: she claims that there is nothing fixed or natural about either part of the performative process, be it the conventional background or its effects (subjects, bodies, identities, etc.).

Then, Lyotard redefines performativity in terms of economic effectiveness and applies it to diagnosing the contemporary knowledge production. Ultimately, McKenzie takes advantage of discourses and practices specific for performance and performativity, accounting for the fact that they are elusive yet ubiquitous, inherently normative but also endowed with the power to transform; altogether, embedded in the existing conditions, but future-oriented. The most important thing is that these features do not reify his concept of performative knowledge; rather, they encourage to pose even more questions and doubt any fixed assumptions we are likely to accept about it.

In order to take a yet more detailed account of what the concepts of performance and performativity bring forward to the contemporary social sciences and humanities, in the following passages I provide a certain recapitulation of three topics: firstly, the underlying tendency to shift traditionally conceived boundaries, especially when it comes to the language use, meaning-making and broadly understood action, secondly, issues pertaining to the complex temporality of performance and performativity, namely, their simultaneous uniqueness and

repeatability, thirdly, questions of productivity and exercising power. I believe that these issues call for some more detailed attention, especially that they will prove extremely valuable to the concept of knowledge as (a) performative.

## Shifting boundaries: saying, acting, meaning

The tendency towards challenging the usually taken-for-granted boundaries and oppositions can be traced in most of the presented conceptions. And although it certainly is a more general characteristic of the contemporary humanities and social sciences, it still calls for a closer inspection, especially with regard to how various conceptions of performativity and performance invite openness, relationality, and anti-essentialism towards analysing the space of language use, action, and meaning-making.

Arguably, Austin is one of the greatest contributors to the opening of the field of non-dualistic approaches thinking about language and the reality (Burzyńska 2013: 247; see also Bińczyk 2007)<sup>12</sup>. However, these are some further reformulations of his original ideas undertaken with the poststructuralist lenses, that are mostly interesting here. As Anna Burzyńska points out, Derrida and other poststructuralists (like Roland Barthes, Paul Ricoeur, Michel Foucault, just to mention the most renowned names) have greatly contributed to four crises (Burzyńska 2001: 97-98). The first she calls “a crisis of *mimesis*”, that is, the downfall of representational conceptions of language and text, leading to understanding literature and literary critique as an object of autcreation and autopresentation rather than mere perception. Secondly, there is “a crisis of subject”, understood twofold: in terms of the Cartesian *ego cogito* and the literary author-owner of text, as well as in terms of holding intentions a primary source of meaning and adequate interpretation. Thirdly, “a crisis of a sign” undercuts the semiological distinction between *signifié* and *signifiant*, and finally, “a crisis of hermeneutics” results from the former three, and leads to a reformulation of interpretation as incessant, creative, and previous to the sign. Altogether, the four crises stem from a more general movement towards deconstructing

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12 Interestingly, Culler and Derrida have convincingly shown that Austin eventually reintroduces the dichotomies and premises that he has denied at the beginning (see Burzyńska 2001: 61-64; Burzyńska 2013: 352-353; Culler 1981).

the taken-for-granted binary oppositions, such as text vs speech, mind vs body, object vs subject, etc., characteristic of what Derrida calls the *Metaphysics of Presence*.

With this poststructuralist background, in his theory of interpretation Stanley Fish adopts two assumptions: that constatives are merely a specific type of performatives, and that performatives always face the risk of failure. Consequently, he argues that, with these two on mind, “the formal core of language disappears entirely and is replaced by a world of utterances vulnerable to the sea change of every circumstance, the world, in short, of rhetorical (situated) man” (Fish 1989: 489). The context in which a speech act is uttered is perceived as natural; by no means can an utterance appear in an abstract, independent space. Fish explains: “A sentence is never not in a context. We are never not in a situation. (...) Moreover, if the meaning of a sentence is a function of its illocutionary force (the way it is taken), and if illocutionary force varies with circumstances, then illocutionary force is not a property of sentences, but of situations. That is, while a sentence will always have an illocutionary force (because otherwise it would not have a meaning), the illocutionary force it has will not always be the same” (Fish 1978: 637-638). Thus, communication relies upon context identification, which means that, on the one hand, there can be no adequate, singular meaning of an utterance, and on the other, that its meaning is not free-floating or optional. The constraints are settled within a specific, existing set of social relations in which the taken premises, expectations and presumptions play the crucial role (Fish 1980). Therefore, the landscape of possibilities is not inherently tied to some fixed structure of language, whereas meanings are neither objectively given, nor subjectively constructed<sup>13</sup>. Altogether, Fish embraces the twofold character of the conditions of meaning-making: as steady and lasting, while at the same time historical and fluctuating.

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13 The horizon of what is plausible and accepted is negotiated within the so-called interpretive communities, which Fish describes as “not so much a group of individuals who shared a point of view, but a point of view or way of organizing experience that shared individuals in the sense that its assumed distinctions, categories of understanding, and stipulations of relevance and irrelevance were the content of the consciousness of community members who were therefore no longer individuals, but, insofar as they were embedded in the community’s enterprise, community property. It followed that such community constituted interpreters would, in their

Clearly, the theory developed by Fish entails a step towards anti-essentialism and anti-foundationalism. Eve Kosofsky Sedgwick accepts similar premises, however, employs them in order to highlight an intuitive, non-propositional mode of conveying meaning, and, consequently, to unfold that the separation of the linguistic and the a-linguistic is highly permeable and changeable. Relying upon the implications of Derrida's concept of iterability as well as queer theory, she analyses performatives through spatiality rather than a more common temporality. In other words, if the understanding of performativity represented by Derrida or Butler builds upon a certain play between past and future uses of signs, norms, etc., then Kosofsky Sedgwick situates her own line of thinking within spatial metaphors. For instance, "I dare you" does not involve only the first and the second person. It also calls for a third party – a witness who by their sole presence in the same space sanctions the act of daring. This course of events silently implies a consensus between all persons engaged. Consequently, in the event of witness' opposition, e.g. their saying "Don't accept the dare", the whole social, political, and interlocutory space of encounter between "I", "you", and "they" changes (Kosofsky Sedgwick 2003: 69-70)<sup>14</sup>.

Kosofsky Sedgwick also explores the spatial metaphor with regard to Austin's 'classical' example of a performative – a marriage oath. She claims that a subject and their seemingly natural first-person way of speaking are made possible thanks to a particular spatial arrangement which engages state authorities, the church, others present as "witnesses", and the invoking a heterosexual matrix of norms. She explains: "The subject of «I do» is an «I» only insofar as he or she assents in becoming part of a sanctioned, cross-gender «we» so constituted in the presence of a «they»; and the I «does,» or has agency in the matter, only by ritually

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turn, constitute, more or less in agreement, the same text, although the sameness would not be attributable to the self-identity of the text, but to the communal nature of the interpretive act" (Fish 1989: 141).

14 Such language uses – the 'negative' performatives, like disavowal, renunciation, deprecation, repudiation, etc. – Kosofsky Sedgwick calls "periperformatives". Periperformatives are close to Austin's "explicit performatives" (Austin 1962: 61; Kosofsky Sedgwick 2003: 4), but cannot count as identical to them: "though not themselves performatives, they are about performatives, and, more properly, that they cluster around performatives" (Kosofsky Sedgwick 2003: 68; original emphasis). They are only loosely tied to conventional norms, while their efficacy depends on a simultaneous connection with and difference from the explicit performatives (Kosofsky Sedgwick 2003: 5, 70).

mystifying its overidentification with the powers (for which no pronoun obtains) of state and frequently of church” (Kosofsky Sedgwick 2003: 71). Consequently, the heterosexual component keeps the non-heterosexual from actually becoming a subject in such situation.

Finally, Erika Fischer-Lichte provides some very interesting insights into how meanings are created, conveyed and interpreted in spaces of norms suspension, of the ‘betwixt-and-between’. She can be regarded as somewhat reintegrating, on the one hand, analyses specific for theatre and performance studies, and on the other, the insights of authors primarily inspired with the works of Austin and Derrida. Fischer-Lichte argues that performances are essentially semiotic and performative in that they consist of an interplay of meanings and action (Fischer-Lichte 2008a: 81). The two dimensions intermingle and cannot be separated at any time. Accordingly, the course of performance relies upon a very specific relation that is established between performers and audience. It belongs to no one in particular, neither part can fully control it<sup>15</sup>. This in turn leads to dissolving the taken-for-granted dichotomies, such as subject vs object, activity vs passivity, art vs social reality, presence vs representation, the performative vs the semiotic. She explains it in the following words: “Since such pairs of dichotomous concepts serve not only as tools for the description and cognition of the world but also as regulators for our actions and behavior, their destabilization not only upsets our perception of the world, ourselves, and others but also shatters the rules and norms that guide our behavior. (...) By letting opposite or only different frames collide, by thus allowing different, even completely opposite values and claims to stand side by side so that they are all valid while at the same time they annul each other, performances create liminal situations. They transport the spectators between all these rules, norms, orders – sometimes they even transfer them into a crisis” (Fischer-Lichte 2008a: 80).

As a result, the liminal state of experiencing performance allows reframing the processes of meaning creation and perception. It unveils in audience’s clinging between two orders: the order of presence and the order of representation. The former is one of objects and performers

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15 As Anna Kawalec highlights, the autoreferentiality of artistic performance, namely, its existence as both matter and the content, is probably the key feature which allows to distinguish them from, for instance, theatrical productions (see Kawalec 2010).

appearing as they are, without the act of attributing some outer meaning. In the order of presence objects are perceived “in their particular phenomenality – the iron bed as an iron bed or the toilet bowl as a toilet bowl”, while the actors reveal themselves in their “bodily being-in-the-world” (Fischer-Lichte 2008a: 77). Differently, the act of perceiving based upon recognition of some symbolic order belongs to the order of representation: “When the cloth on the floor is identified by the spectator as the Union Jack, it is perceived as a symbol of the United Kingdom” (Fischer-Lichte 2008a: 77). In order to grasp a performance’s meaning, the spectators constantly transfer themselves between the two orders.

In sum, the conceptions presented in this chapter, although in many respects divergent, provide a sound basis for reformulating some of the traditionally accepted assumptions towards the nature of language use, action, and meaning-making. They all share an inclination towards abandoning the binary oppositions of various kinds and, thus, allow adopting a more open, integrating conceptual framework. It becomes clear that language consists of much more than propositions or mimetic representations. For instance, apart from drawing attention to the creative, transformational aspects of language use, Fish proves the indispensability of the context for conveying meaning and, eventually, for any speech act to succeed. As Culler summarises: “Meaning is context-bound, but context is boundless” (Culler 2009: 91); it appears that a utterance is always open to further description and there can be no pre-set determination of what should be included within the context.

Then, Kosofsky Sedgwick departs from a startling observance: “That language itself can be producing of reality is a primary ground of anti-essentialist inquiry” (Kosofsky Sedgwick 2003: 5). She manages to shift the focus of language analyses from its links to conventions, and temporality, towards intermingling with spatialities. She highlights how exercising authority in certain places and conditions leads to enacting subjects, their identities, and non-linguistic states. This leads her to introducing a specific type of utterances, the ‘neighbours’ to explicit performatives: the periperformatives. Importantly, their felicity depends on how the space (including the silenced assumptions and agreements) between speakers, witnesses and those endowed with authority is negotiated, on what it allows and what it excludes.

Finally, Fischer-Lichte explores the consequences of a specific performative-semiotic mode of performance, established in the bodily co-presence of performers and the audience. She notices that such relationship liberates both sides from traditionally prevailing discourses and norms, and transfers them out of their comfort zones into liminal spaces of meaning-making and interpreting. Accordingly, the fact that performance simultaneously operates upon materiality and meaning-making allows to regard it as enacting “a non-dualist aesthetics” (Burzyńska 2013: 406).

## **Temporality: uniqueness and repeatability**

When exploring the work of performance and performativity, one inevitably comes across the issues pertaining to their broadly understood temporality. Even in the course of above analyses it has come to be clear that both of them rely upon a complex intermingling of orientation towards future and embeddedness. Performances and performatives, on the one hand, have the power of producing change, on the other, they work against a background of diverse existing social, cultural, and language norms. Below I present an outline of how this tenuous combination has been approached by various authors. Again, particularly Derrida’s conception of iterability has proven productive in this field.

Austin’s argument for grounding performatives’ success in their compliance with conventions, rather than with one’s inner state of mind, has inspired a whole field of inquiry into the nature of repeatability. Derrida elaborates upon Austin’s ideas on a basis of this seemingly simple observation: that if a performative is to be felicitous, then it needs to conform to some pre-set procedures or norms. He explains: “A standard act depends as much upon the possibility of being repeated, and thus potentially of being mimed, feigned, cited, played, simulated, parasited, etc., as the latter possibility depends upon the possibility said to be opposed to it. And both of them «depend» upon the structure of iterability which, once again, undermines the simplicity of the oppositions and alternative distinctions” (Derrida 1988: 91-92). Again, Derrida undermines the traditionally taken-for-granted dualisms and, thus, he welcomes the possibility that any utterance is at the same time unique and repeated. In fact, he regards this feature as the very condition of communication in general: iterability is what enables a sign to be employed in various contexts and under distinct circumstances while maintaining its intelligibility. Loxley explains that: “the very iterability that allows a mark



to be repeated – that allows one letter «a» to be a repetition of another letter «a», for example – also introduces an irreducible difference into the structure of the mark. (...) If a mark is iterable, it must be capable of occurring again, elsewhere, some other time: iterability allows the sameness of the mark only on the condition of this structural, internal difference. A mark, in other words, is therefore never quite identical with itself, never quite unified or entire of itself. This difference has to be understood as original, as constitutive of the mark, and operative in any mark that we might want to think of as the original one, as the first of its kind” (Loxley 2006: 78)<sup>16</sup>. Importantly, iterability allows situating a performative’s success (and failure) primarily within the structure of language, not merely in relation to social institutions: in the first place it depends on all the past uses of a utterance, on all previous accomplishments of a performative.

Next, Butler shifts attention to the more openly anti-essentialist aspect of iterability. Let me first recount her definition of gender: “Gender ought not to be construed as a stable identity or locus of agency from which various acts follow; rather, gender is an identity tenuously constituted in time, instituted in an exterior space through a *stylized repetition of acts*. The effect of gender is produced through the stylization of the body and, hence, must be understood as the mundane way in which bodily gestures, movements, and styles of various kinds constitute the illusion of an abiding gendered self. (...) Significantly, if gender is instituted through acts which are internally discontinuous, then the *appearance of substance* is precisely that, a constructed identity, a performative accomplishment which the mundane social audience, including the actors themselves, come to believe and to perform in the mode of belief” (Butler 1999: 179; original emphasis). What follows is that it is no longer a subject that achieves an effect by means of a proper verbal utterance. Rather, it is the discourse that produces certain results by enacting mechanisms of normativity (Butler 1993b: 18). Accordingly, gender performativity points to an incessant, never-ending reiteration of acts: “performativity

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16 Derrida’s concept of iterability is inextricably bound to the notion of “*différance*”, which indicates that there is no fixed background or prior basis, no beginning and no end to the processes of differentiating and, thus, meaning-making (Burzyńska 2013: 77). Signs become significant only in chains of differences, by constantly referring to each other (Burzyńska 2001: 462-463). Therefore, they cannot be present as such, there is no inherent nature to them, and finally, they cannot exist as singular and independent. For more, see: Derrida 1982: 3-27.

related to the way in which a signifier, rather than simply naming something that already exists, works to generate that which it apparently names” (Ahmed 2004: 92).

Altogether, the temporal dimension remains crucial for understanding Butler’s ontological positions. In her conception, performativity is oriented towards future, yet builds upon the past; “it generates effects in the constitution or materialisation of that which is «not yet». But, on the other hand, performativity depends upon the sedimentation of the past; it reiterates what has already been said, and its power and authority depend upon how it recalls that which has already been brought into existence” (Ahmed 2004: 92-93). Consequently, any seemingly fixed, natural being is only a temporarily stabilised product of a reiterated doing, of a continuous repetition of culturally coerced rules and norms<sup>17</sup>. It turns out that the very reason we perceive people’s identities and bodies as substances is that this constant repetition of norms eventually reifies itself and thus conceals its own contingency. Consequently, “Ontology is, thus, not a foundation, but a normative injunction that operates insidiously by installing itself into political discourse as its necessary ground” (Butler 1999: 189).

Reflections upon temporality of theatre and artistic performances also revolve around the possibility of reconciling their singularity and repeatability. To begin with, it has to be noted that some of the most prominent authors from the field regard uniqueness as a fundamental feature of performance. Fischer-Lichte highlights that it comes into being by the bodily co-presence of actors and spectators, by their encounter and interaction: “Whatever the actors do elicits a response from the spectators, which impacts on the entire performance. In this sense, performances are generated and determined by a self-referential and ever-changing feedback loop. Hence, performance remains unpredictable and spontaneous to a certain degree” (Fischer-Lichte 2008b: 38). Her concept

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17 Butler’s approach to sex and gender has some serious implications for the analyses of how bodies are constructed. She investigates them extensively, yet, for the sake of conciseness, let me only bring forward the following excerpt from Jill Jagger, an author of a book devoted entirely to Butler’s work. “Matter becomes a question of materialization; the materialization of the body becomes a question of the performativity of gender; the performativity of gender becomes a matter of the citation of the regulatory norms of sex. It is through these regulatory norms that the body is materialized as sexed and gendered, though these are articulated with other regulatory norms which materialize the body as «raced», classed, aged, etc.” For more, see Jagger 2008: 57; Butler 1993a: 7).

of an autopoietic feedback loop underlines the mutuality and interchangeability of the relation between performers and audience. In consequence, Fischer-Lichte takes notice of performance's eventness, namely, its live, nonrecurring, "here and now" character. In her view, a performance exhausts itself in its permanent becoming and passing, a quality she calls "the presentness of performance" (Fischer-Lichte 2008b: 93-101). Furthermore, according to Peggy Phelan, the fact that performances operate as embodied, relational events makes them resistant to the dominating, capitalist modes of production. She says: "To attempt to write about the undocumentable event of performance is to invoke the rules of the written document and thereby alter the event itself. (...) Performance honors the idea that a limited number of people in a specific time/space frame can have an experience of value which leaves no visible trace afterward. Writing about it necessarily cancels the «tracelessness» inaugurated within this performative promise. Performance's independence from mass reproduction, technologically, economically, and linguistically, is its greatest strength" (Phelan 2005: 148-149). Thus, Phelan advocates that recording a performance surrenders it to the capitalist power of multiple circulation and reproduction, resulting in denial of its very nature<sup>18</sup>.

Nevertheless, the ideas presented by Fischer-Lichte and Phelan should not be perceived as incompatible with the Derridean notion of iterability. Mieke Bal notices that performances cannot operate as perfectly 'one-off' events, as if they were created by active agents with some demi-urgic powers. Criticising this inclination towards immediacy, directness in time, place and agency as "illusory", she highlights that such understanding of performance leaves aside complex issues of temporality. Consequently, she claims that performances can be understood only in the context of intertextuality and cultural memory (Bal 2002: 181-182). Upholding the assumption of non-referentiality of performance, Bal argues that the audience's interpretations are not free-floating, but embedded in the work of memory. Even the moments of uniqueness are perceived as such only against complex historicity. Hence, performance cannot be direct, unmediated; it does entail some role of memory

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18 Phillip Auslander has strongly opposed to this exclusion of performances' reproduction and broadcasting. He believes that, thanks to new technologies, we can reproduce all the characteristics of a performance, without undermining its uniqueness. For more, see Auslander 1999.

and intentionality<sup>19</sup>. Additionally, two of the ‘founding fathers’ of performance studies adopt similar positions; ones that can be considered as largely consonant with the works of Derrida. As already described, Carlson (2004) and Schechner (2004, 2006) explicitly recognise performance’s simultaneous repeatability and uniqueness. They regard the origins of performance fairly unimportant, both in terms of its historical emergence and the authorship. What matters is the constant, dynamic repetition that invites further interpretations and change. And since performance is something external to the performer and needs to be learnt, then there can be no single author to it. Instead, it is collectively maintained and reproduced.

Altogether, what follows from the passages above is that both performances and performatives are founded upon a specific blend of two modes of operation. On the one hand, they are certainly oriented towards future and thus come to being as singular, unique events. On the other, they rest on all past realisations as well as existing rules, conventions, even ways of perception, and thus can be perceived as embedded and repeatable. The two aspects cannot be clearly separated for the act of repetition entails a difference: its result is not a replica, but a certain movement within a chain of interrelations.

Accordingly, the notion of iterability grasps this tension and density particularly well, and has become one of the key concepts in the dictionaries of both performance and performativity theorists. In its most fundamental dimension, it allows to take account of the way that intelligibility of a sign or utterance is held across various contexts and time. Consequently, performance is defined as, on the one hand, a one-off event stemming from a transient, particular relationship between audience and artists, and on the other, as requiring some kind of foundation, one that at least entails a potential for mutual understanding. Moreover, as Wachowski explains, performances are iterable due to their embodiment and relational nature, so, there simply cannot be two identical performances (Wachowski 2011: 287-297). Then, for Butler, iterability seems to be a point of departure for drawing attention to a deeply

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19 Accordingly, Bal provides a fairly convincing integration of the two concepts. She describes performance as planned, relying on memorisation and requiring artistic skills, whereas performative as spontaneous, impromptu, and taking place as a one-off event (see Bal: 2001, 2002). Again, performance requires performativity at least in a minimal degree; memory acts here as a certain mediator between them for it “operates on a mixture of temporalities” (Bal 2001: 14).

processual, rather than merely productive, aspect of performativity. She highlights that the performative effects – subjects, identities, gender, etc. – are only temporally stabilised and cannot be anticipated in advance. Interestingly, Culler points to the fact that Derrida's iterability reconciles, to some extent, the ways that Austin and Butler conceive of performatives. Austinian utterances, if successful, do enact what they say and it is an individual act (however, embedded in conventions), while Butler's performatives do not deliver any finished, stable outcomes; their nature is one of endless repetition. And, what Derrida supposedly achieves is exactly bridging this gap between individual events and repetition (see Culler 2007).

### **Producing effects: power and liminality**

The third much discussed aspect of performance and performativity pertains to its broadly understood productivity. From the onset, both performances and performatives were supposed to produce some effects: either related to the audience (the way that feel, act, think), or in the very reality (by actually doing what is said). Reflection upon how to achieve and evaluate this 'successfulness' has been undertaken by numerous authors with regard to a host of objects and phenomena, like language uses, artistic practice, processes of constitution of gender and subjectivity, or the capitalist mode of production. Inevitably, there arise new questions to be addressed, e.g. of exercising power and authority, possibility of resistance and transgression against the existing order, or liminal spaces of norms suspension.

Before we embark on these more specific topics, let me provide a brief overview of the outcomes of performance and performatives. Jacek Wachowski proposes that we look into three types of performative effects: material, affective, and cognitive. He relates the first type to Austin's understanding of performatives as specific utterances that bring to life what they name. In other words, if successful, performatives create certain non-linguistic states which are fairly easily to detect and evaluate. Then, according to Wachowski, affective effects consist in generating some change to one's emotional condition, while the cognitive effects influence our attitudes and ways of thinking. The two types introduced by Wachowski are then far more dependent on the audience's preparation and reaction than on complying with some external conventional rules. At the same time, they remain much less determinable than what Austin supposedly holds. Indeed, Wachowski highlights that such

reformulation of Austin's initial ideas allows overcoming a widespread assumption that if there is no material, durable effect, then an action cannot count as a performative (Wachowski 2011: 116-131).

Regarding the issues of power relations, several authors draw attention to the fact that the Austinian performatives from the very onset rely upon a matrix of control and authority. For instance, Eve Kosofsky Sedgwick and Andrew Parker argue that complying with felicity conditions actually entails something much more than merely observing the norms. They argue that the performative force of marriage is enacted not by the Austinian "I do", but by the ways that this utterance reiterates the whole ceremony: "[it] cites and so reproduces the entire genre of performance" (Worthen 2003: 9)<sup>20</sup>. Next, Culler also notices that the way Austin conceives of felicity conditions actually restricts performativity to formal situations; ones in which authorised people issue a utterance in accordance with some clear rules of behaviour (see Culler 2007: 152). Accordingly, such people act as 'actors' representing conventionalised powers, not the transparent 'selves'. Thus, it could also be said that performatives have the ability of endowing individuals with authority.

Now, it becomes clear that performatives can serve as means of exercising authority and maintaining the social order. Nevertheless, it is with Derrida's iterability that signs and utterances are capable of breaking from any context, thus opening new possibilities and modifying the norms and conventions. As a result, the creative, transformational aspect of language use comes to the fore, enabling to take account of both performatives' possibilities: maintaining or resisting the status quo.

In order to unfold the complex landscape of mutual connections between performativity and power, it is worth revising, once again, Butler's conception. First and foremost, she finds the two absolutely inseparable, defining performativity as "power of discourse to produce effects through reiteration" (Butler 1993a: 20). In other words, performativity, as founded upon iterability, consists in "a regularized and constrained repetition of norms" (Butler 1993a: 95). For instance, the strength of the insult "queer!" does not come from an individual authority of the speaker. It hurts because it recalls the previous uses of this utterance,

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20 Accordingly, Parker and Kosofsky Sedgwick show how the ceremony, in its very performativity, starts to resemble of a theatrical play (see Parker, Kosofsky Sedgwick 1995; Worthen 2003).

and thus, it reconnects all the abusers across time and space. By realising the norm, it reproduces the history of excluding (Butler 1993b, 1997). Consequently, in Butler's view, power operates not by referring to some pre-set, fixed elements that, put together, give a predictable effect. Quite the contrary, she highlights its generative and auto-referential aspect: it does produce effects and at the same time it conceals its own work. Gender appears so natural exactly because the heterosexual normative matrix is being reproduced over and over again in the acts of norms reiteration. At the same time, repetition never comes to a definitive end and each time it brings difference to the previous acts, thus leaving some space for resistance and change. The very nature of iterability entails the potential of subversion, not only because it reveals its own historicity (and thus, artificiality), but also because it assumes a possibility of failure and, thus, threatens the coherence of repetitions. "The task is not whether to repeat, but how to repeat or, indeed, to repeat and, through a radical proliferation of gender, to *displace* the very gender norms that enable the repetition itself" (Butler 1999: 189; original emphasis). Moreover, Butler situates the power of transgression in what Austin considers parasitic uses of language, such as jokes, parodies, citations and other "non-serious" utterances. For instance, drag performances manifest contingency and contextuality of all gender norms: "drag fully subverts the distinction between inner and outer psychic space and effectively mocks both the expressive model of gender and the notion of a true gender identity" (Butler 1999: 174). At the same time, Butler emphasises that such attempts are not subversive by their nature, and so they may well lead to reinforcing the hegemonic oppositions instead of undermining them (Butler 1999: 176-177). All in all, such misappropriations are the effect of regular language usage – just like it establishes the 'normal', it also produces the 'abnormal'. Therefore, there is always a potential for creating different futures<sup>21</sup>.

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21 Butler herself intends to create a politically significant theory – she believes that her approach to gender exposes its performative and citational character. As Gregson and Rose argue: "her radical antifoundationalism provides a crucial critical tool for denaturalising social categories and for destabilising dominant forms of social reproduction" (Gregson, Rose 2000: 438). At the same time, Butler has been accused of placing too much emphasis on discourse while underestimating the material, economic, racial, and political conditions of identities construction. Some theorists also doubt if there truly is any chance of resistance to the oppressive norms in the situation of a radical absence of any subject or clear locus of agency. See, for example, Barad 2007; Foster 2003; Mol 2002; Yarbrow-Bejarano 1995.

Questions of power have been also examined in detail by McKenzie in his general theory of performance. Referring extensively to the works of Herbert Marcuse on performance principle<sup>22</sup>, Lyotard's formulation of performativity as postmodern condition of knowledge<sup>23</sup>, and Butler's idea of gender performativity<sup>24</sup>, McKenzie analyses various facets of how performative power operates. All the authors mentioned theorise performance not as a mode of transformation, but, in the first place, as a mode of exercising norms. Only Butler allows the possibility of resistance, however, as described above, in a fairly restricted sense.

Eventually, McKenzie formulates a host of important conclusions. First of all, in his view, the performative power acts on individual and structural level, or in other words, its influences are both of micro and macro character. Secondly, it is closely tied to a broadly understood principle of productivity, especially with regard to the three challenges of effectiveness, efficacy, and efficiency. Thirdly, performative power can be understood as both discursive and embodied; the two aspects are inseparable and mutually reinforcing. Finally, it operates as a mode of domination, but at the same time leaves some room for resistance and transgression. In sum, as McKenzie says: "At the crack of millennia, performativity guides innumerable processes, ranging from the intricacies of class, race, gender, and sexual identification to the large-scale installations of technologies, organisations, and cultures. «Perform – or else» is a challenge made in the USA and now restoring itself worldwide through innumerable circuits" (McKenzie 2001: 171). In other words, performative power is overwhelming. However, at the same time, McKenzie proposes a specific strategy of resistance to performative power/knowledge: if the world is "stratified" with performatives and performances, then "destratification" is resistant, erosive (McKenzie

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- 22 McKenzie recalls Marcuse's diagnosis of the post-war society as succumbed to "the performance principle", that is, the rule of competitive economic performance. Importantly, people not only tolerate this oppressive force, but also are able to take pleasure from it; the principle is then of both social and psychological nature (McKenzie 2001: 159-172).
- 23 Lyotard's formulation of performativity is particularly interesting to McKenzie for its focus on the capability of dominating over other language games, or rather, of becoming the very mode of legitimisation, while at the same time operating in varied local and temporally situated conditions (McKenzie 2001: 162-172).
- 24 McKenzie builds upon Butler's attempt to bring together the discursive and embodied aspects of performativity as well as her conceptualisation of normativity and transgression (McKenzie 2001: 166-172).



2001: 193-204). Again, the possibility of resistance is enabled in the very core of performance stratum of knowledge and power: in its structural cracks and inconsistencies.

The conceptions delineated above present arguments for treating performativity as, on the one hand, serving to impose order and exercise norms, and on the other hand, as entailing the possibility of resistance. Consequently, there arises a question of how transgression can be achieved. The notion of liminality seems very helpful here, since it addresses the situations in which the elsewhere obligatory norms are suspended, thus enabling new rules. The concept has emerged in the field of social anthropology and cultural studies. Arnold van Gennep's (1960) defined "liminal" as a phase of a rite of passage in which one becomes separated from any established social identity. Building upon his works, Victor Turner (1974) has introduced the term "liminoid". His objective is to adopt the term to the characteristics of advanced societies in which labour and leisure are separated. Nowadays the diversity of modes of liminality is far larger than in agrarian societies, examined by van Gennep, but their connections with structural functions become weaker and more vague, resulting in less feedback between liminal actions and the social organisation. Consequently, "liminoid" only resembles the "liminal", since it is not that closely connected to the underlying symbolic structures. At the same time, Turner draws attention to the primarily creative potential of the liminal phase; he links it to the possibility of subverting social structures, recombining what is existing into something new (Turner 1974; see also McKenzie 2001: 93). Finally, McKenzie introduces the notion of "liminautic" as characteristic of postmodern societies, marked by further disintegration of work and play together with the rise of digital spaces. "Limen remains sites of passage and transformation, but these sites are now themselves in passage, their transformations becoming networked over many different borders: geopolitical, societal, institutional, paradigmatic, generational... At the turn of the twenty-first century, the citationality of discourses and practices is passing across the electronic threshold, a digital limen. (...) Liminal and liminoid genres are becoming cyberspatial, flighty, liminautic" (McKenzie 2001: 94). Consequently, McKenzie significantly reworks the notion of liminality. On the one hand, he upholds its ability to suspend the existing norms and reveal the oppositions that we live by on

a daily basis. On the other, he throws it as such into the space of constant movement, ambiguity, and uncertainty, as if it was supposed to integrate in ‘the spirit of our times’.

Interestingly, McKenzie notices that the concept of liminality has been applied so extensively, that it has evolved into something alike to a norm. “The concept has not simply been applied to performances; it has also helped us to construct objects of inquiry by guiding the selection of activities to be studied, their formal analysis, and their political evaluation” (McKenzie 2001: 50). In other words, liminal spaces have become both an object of study and a mode of defining the whole field of inquiry. Moreover, performance theorists and researchers started to account for effectiveness of their own work in terms of liminality.

Altogether, it should be clear that thinking about performativity today calls for a rather complex conceptual framework which acknowledges of its inevitable engagement in power relations. These can be analysed from three intermingling standpoints: in terms of reproducing the norms, resistance, or transgression. As Austin treats the problem of performatives’ dependence on conventions as fairly unproblematic, a shift to this more variegated picture is made possible as a result of introducing the notion of iterability. It welcomes problematising the seeming givenness of norms and authorities, significantly broadening the space in which performatives take place: “the meaning of the performance depends on the citation not of the text but of (...) the interplay among a specific text, individual performers and «the materiality and historical density of performance» (...), and the web of performance practices that constitute the performance as a meaningful citation” (Worthen 2003: 92). Moreover, iterability allows for a more flexible and dynamic interplay of past and future language uses, whose effects can be multiple and fairly difficult to determine. All in all, as Soyini Madison and Judith Hamera explain, “we may understand performativity as citationality, but we may also understand performativity as an intervention upon citationality and of resisting citationality. Just as performativity is an internalized repetition of hegemonic «stylized acts» inherited by the status quo, it can also be an internalized repetition of subversive «stylized acts» inherited by contested identities” (Madison, Hamera 2006: xviii-xix). Eventually, the possibility of transgression and change is theorised in close connection to the state of liminality. It can be largely understood as “a mode of activity whose spatial, temporal, and symbolic «in between-ness» allows for social norms to be suspended, challenged, played with, and

perhaps even transformed” (McKenzie 2001: 50). Importantly, many authors highlight that liminal states and spaces undermine the traditional boundaries and lead to dissolution of the dichotomous oppositions. For instance, this is exactly where Fischer-Lichte hints when she argues that performance spectators are placed in a state of liminality: they experience it not in the mode of either-or, but in that of an as-well. I dare say that liminal spaces are exactly where norms can be parodied and different futures are welcome.

## **Recapitulation: knowledge in the performative turn**

Before finishing this part of the book, let me briefly recount the lines of thought on performance and performativity that specifically raise questions of science and knowledge. Although the authors presented above may seem distinct, their conceptions have contributed not only to introducing new objects of research and methodologies, but also to the very reflection upon science and knowledge.

The new areas of interest that are believed to coincide with the performative turn include all that is mundane and “non-serious” (e.g. rituals, festivals, systems of games, play, sports, etc.; everyday uses of language; ‘ordinary’ activities). In fact, Dwight Conquergood believes that the popularity of the notions of performance and performativity anticipates a major shift towards appreciation of the bodily, the practical and the processual modes in knowledge production (Conquergood 2002). Julia Walker also notices that the turn to performance has re-opened reflection upon material and bodily conditions of human existence. These expand both beyond the traditional text-centered scientific analyses, and the rationalising logic of capitalism. As a result, the new areas of interest introduce a political aspect into the scientific enterprise (Walker 2003).

Consequently, new methodologies enable investigating the tacit, processual dimension of reality. They are founded upon the principles of engagement and empathy, with a focus on rather micro than structural aspects. Such methodologies also share a common aim of inducing a change, and, thus, they revolve around questions of authenticity and justification rather than truth. As already mentioned, questions of power,

normativity and ethics become central to all methodological choices. In sum, as Norman Denzin and Yvonne Lincoln write, the performative turn “reshaped entirely the debates around «appropriate» scientific discourse, the technical and rhetorical conventions of scientific writing, and the meaning of research itself” (Denzin, Lincoln 2003: 7).

Finally, the performative turn strongly coincides, if not supports, a serious reconfiguration of how we envision knowledge and science today. As this transformation will be presented in detail in the following part of the book, let me only briefly point to those aspects that have appeared in the above passages.

Firstly, we are witnessing a shift from propositional and descriptive models of language which stem from a belief in stable, reference-based system of meanings and representations, towards more multifarious, practical, embodied, and presentational modes of language use and knowing. This transition is very much highlighted by Fischer-Lichte in her analyses of the processes of meaning-making in artistic performance. She shows that with “the performative mode” there is no need to employ any outer systems of reference. Rather, the meaning is produced in a unique interaction between the artists and the audience who transfer themselves into the liminal state of neither “the order of representation”, nor “the order of presence”. Therefore, meaning making remains elusive, embodied and mutually engaging. Moreover, Fischer-Lichte finds this transformation extremely influential to contemporary knowledge. She declares that “the performances created by individual artists over the last thirty years (...) seek to secure and accelerate the passage of Western culture from the state of a prevalingly material culture to a new performative culture. This passage is also to be understood as a passage from the given order of knowledge, the given sign-concept, as well as semiotic processes, towards a new, yet undefined order of knowledge. The performance, thus, operates as a signature of a time of transition” (Fischer-Lichte 2003: 249). In a similar vein, Dwight Conquergood calls us to abandon the traditional, taken-for-granted oppositions. He claims that performance studies should put into question any dichotomous orders of knowledge that presume differences like that between “thinking and doing, interpreting and making, conceptualizing and creating”. He states that: “The division of labor between theory and practice, abstraction and embodiment, is an arbitrary and rigged choice and, like all binarisms, it is booby-trapped” (Conquergood 2002: 153).

Secondly, the epistemological distance between the researcher and the researched together with the academic ‘ivory towers’ are being superseded by much more open, interdisciplinary, and even interventionist attitudes together with the growing attention to all ‘audiences’<sup>25</sup>: beginning with local communities, through more ‘macro’ stakeholders, like the state, business or industry, finishing with those ‘othered’. These tendencies have been convincingly exemplified by various authors, to start with Lyotard’s examination of how science and knowledge become increasingly intermingled with interests traditionally perceived as external to academic life and inquiry. In the light of McKenzie’s work, we can see that this landscape has to be broadened by other ‘laypeople’, especially those hitherto marginalised. Furthermore, the intention to discursively re-present the various ‘othered’ means that the flux between science and the other areas of social life does not need to entail a surrender to the capitalist regime; rather, it can promote values such as plurality, inclusion, equality. All in all, Conquergood argues that our focus needs to be placed on what makes knowledge spontaneous, tacit, and workable on a daily basis, not something purely rational or delimited within the walls of an academia. He situates this shift in a larger context of bringing back what the Western culture excluded, namely, all that is embodied, non-propositional, intuitive<sup>26</sup>.

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25 Hans Diebner has developed a particularly interesting conception that takes advantage of the growing cross-border space between science and cybernetic arts. As a result of intermingling of these two fields, there emerges the so-called performative science: “a specific method of investigating complex systems that lack repeatability but also as a general scientific methodological program enriching «classical» fields of research” (Diebner 2006: 21). Diebner claims that performative science facilitates addressing problems that emerge in the course of analysis of complex, dynamic, and unstable systems, whose qualities cannot be fully conveyed within semiotic, reference-based systems (see Diebner, Hinterwaldner 2006: 20). And such systems, as Diebner notices, abound in the contemporary world. Moreover, he explains that “scientific practices have two complementary components. On the one hand it is a kind of text-based knowledge that is implemented intentionally (...). On the other hand there are those aspects of performances that cannot be grasped or determined by words: they can be embraced by performativity” (Diebner 2006: 21). In Diebner’s view, the shift towards performative science is made possible by applying a range of methods from humanities and arts (especially media installations) which foster embodied participation, interaction and feedback (for examples of such realisations, carried out by Diebner himself, see Diebner 2008; Diebner, Hinterwaldner 2006).

26 Clearly, numerous conceptions from the performative turn have some strong post-colonial connotations. In fact, both are often associated with ‘The Cultural Turn’ (see for example Bachmann-Medick 2012a).

Conquergood recapitulates this transition as going from “knowing that,” and “knowing about”, to “knowing how,” and “knowing who” (see Conquergood 2002: 146).

Thirdly, the criteria of quality assessment change from truth-false distinction towards variously understood effectivity. In the first place, this applies to language statements under the Austinian notion of ‘felicity conditions’. Next, Lyotard ties the original concept of performativity with economically understood effectiveness and the world competition for power in order to show the postmodern transformations in the field of knowledge and science. We also have Wachowski’s input towards broadening a variety of performative effects: from a mere change in physical or material layer, towards encompassing all that is mental and affective as well. Noticeably, McKenzie draws upon Lyotard’s insights, but reading them through the ideas of Butler and Foucault, he puts them in a much larger and more complex picture in which the performative knowledge/power package can be effective in terms of either maintaining the status quo or transgressing it. In other words, again, the notion of performativity does not inherently surrender to the capitalist or any dominating rules of discourse. It does operate upon repeating them as existing norms or conventions, but, thanks to the inevitable uniqueness and singularity of each repetition, it also entails a possibility of change and transgression. Altogether, with the performative turn in picture, science and knowledge cease to operate as rational, objective, value-free accounts of the reality, and become enmeshed in complex, material-discursive networks of power.

**PERFORMATIVITY  
OF SCIENCE  
AND KNOWLEDGE**





## Science and technology studies: from representing to intervening

Science and technology studies, further referred to as STS, are currently one of the most influential and diverse fields of inquiry into scientific practices. Many authors trace their roots as far as to Thomas S. Kuhn's "The Structure of Scientific Revolutions" (1962) which seriously undermined the traditional vision of science based upon belief in progress, objectivity and human rationality. The more recent STS antecedents include a wide range of intellectuals, out of whom representatives of pragmatism and neo-pragmatism play a crucial role, largely for their orientation towards analysing practices and a discretion of essentialism, representationalism and correspondence realism<sup>27</sup>.

STS conceptions bring a profound shift in how science is conceptualised and investigated. Their focus is placed on science as activity in which cognitive, material and social dimensions successfully intermingle so as to obtain an allegedly objective knowledge and effective solutions. Logical and formal analyses are abandoned for the sake of micro-sociological inquiry into what scientists actually do. The most renowned empirical studies have been conducted in laboratories from various highly esteemed disciplines (e.g. plant protein research, molecular biology and high-energy physics, particle physics, neuroendocrinology<sup>28</sup>), applying ethnography-based methodologies. Their objective is to reconstruct the day-to-day, mundane activities undertaken by collectives consisting of scientists and non-humans (mainly technical devices) alike.

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27 Bruno Latour, one of the most well-known STS intellectuals, is considered a representative of the so-called French pragmatism, alongside Luc Boltansky and Laurence Thévenot (see Baert, Carreira da Silva 2010; for the links between Latour's ideas and traditional pragmatism see: Salinas 2014). Other authors that have influenced the presented STS conceptions include Foucault, Deleuze and Guattari, Heidegger, Wittgenstein as well as Algirdas J. Greimas, Michel Serres, Friedrich Nietzsche, and ethnomethodologists such as Michael Lynch and Harold Garfinkel (for a more comprehensive overview of the antecedents of the so-called practice turn in philosophy of science see: Soler et al. 2014: 7-11). Thus, STS shares some background with ideas presented in the first part of this book, however, reinventing them specifically towards analyses of science and knowledge.

28 For more, see consecutively: Knorr Cetina 1981, 1999; Pickering 1995; Latour, Woolgar 1986.

The STS research reveals that the boundaries between what was hitherto believed ‘internal’ (methodologies and in general the so-called content of science) and ‘external’ (such as social, cultural, economic influences) are elusive and permeable. As Olga Amsterdamska emphasises: “some of the old distinctions lost their relevance (e.g., between the context of discovery and the context of justification, external and internal factors or social and cognitive activities); and nothing uniquely scientific was happening in the laboratories” (Amsterdamska 2008: 205). By and large, laboratory studies can be considered as sharing a conviction that “a body of practices widely regarded by outsiders as well organised, logical, and coherent, in fact consists of a disordered array of observations with which scientists struggle to produce order. (...) Despite participants’ well-ordered reconstructions and rationalisations, actual scientific practice entails the confrontation and negotiation of utter confusion” (Latour, Woolgar 1986: 36).

Much of STS research revolves around two themes: one of facts fabrication and the other of transition from representing to intervening (see Knorr Cetina 1981; Hacking 1983, 1991, 1992; Latour 1983, 1999; Latour, Woolgar 1986). The theoretical framework entails a focus on situated, temporal, material-discursive practices in which various elements are recognised and interconnected in order to achieve a stabilised result appearing as a fixed object or an objective fact. What makes this strategy possible is a special arrangement of laboratories: firstly, they allow to repeat various procedures and test ideas for several times under distinct conditions; secondly, they provide instruments which stabilise and decontextualize the investigated fragments of nature, thus enabling to intervene into them; thirdly, they encourage production of artificial phenomena, which do not have their counterparts in the outside world, in order to see how they work; finally, they are connected to industry and they foster the processes of embedding the laboratory products outside its walls (see Bińczyk 2012: 155-161)<sup>29</sup>. From such standpoint, a laboratory

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29 As Knorr Cetina recounts: “natural objects are smashed into fragments, made to evaporate into gases, dissolved in acids, reduced to extractions, mixed up with countless substances, shaken, heated and frozen, reconstituted, and rebred into workable agents. In short, they are fashioned as working materials subject to almost any imaginable intrusion and usurpation, never more than a stage in a transition from one material state to another. The transitions effected during experimentation are not intended to imitate similar transitions in nature. Rather, they are intended to generate or explore a particular effect. There is no assumption that the transitory

is considered “a specific space in which possibly isolated, closed arrangements are intentionally created, allowing to reduce the complexity of phenomena. Nature is brought here to a scale in which it can be manipulated by humans” (Bińczyk 2012: 155). The material side of laboratory setting is of crucial importance: not only does it extend the cognitive abilities of scientists, but also is regarded as actively interfering within the course of research<sup>30</sup>.

Karin Knorr Cetina emphasizes that in laboratories there is no truth, nature or theory. Namely, they do not guide the research in an independent, decisive way, as it was traditionally believed. Rather, they are negotiated in the course of action, operating on par with other, often fairly contingent, elements of investigation. Ian Hacking notices that: “to experiment is to create, produce, refine and stabilize phenomena. If phenomena were plentiful in nature, autumn blackberries there just for the picking, it would be remarkable if experiments didn’t work. But phenomena are hard to produce in any stable way” (Hacking 1991: 155). Theory is held true not necessarily as a directly tied to the world, but as being useful for producing phenomena or instruments in laboratory. Hacking concludes that “our preserved theories and the world fit together so snugly less because we have found out how the world is than because we have tailored each to the other” (Hacking 1992: 31). The work of researchers involves chains of decisions and negotiations leading to carving a ‘fact’ or an ‘object’ from reality. Scientists seem to act like tinkerers, oriented towards future achievements and having to pave their way through various, often unpredicted situations occurring throughout the course of research (Knorr Cetina 1981). Certainly, they no longer

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object states obtained in the laboratory and the manipulations which generate these objects correspond to or are supposed to correspond to natural events” (Knorr Cetina 1992: 127).

30 Laboratory studies are considered to share some tenets with broadly understood enactivism and distributed cognition conceptions. As Shaun Gallagher explains, “The enactive view of human cognition starts with the idea that we are action oriented. Our ability to make sense of the world comes from an active and pragmatic engagement with the world, along with our capacities to interact with other people” (Gallagher 2013: 209). Accordingly, enactivism can be defined as a broad and diversified body of research and theories in cognitive studies which generally share a conviction that cognition develops in dynamic interactions between an organism and its environment (and not merely as passive, unilateral, informational activity of a human mind). In yet other words, cognition can be analysed as embodied, embedded, enacted, and extended. See also: Stewart, Gapenne, Di Paolo 2014; Varela, Thompson, Rosch 1991.

appear as individual geniuses endowed with unique mental abilities and reliable methodologies<sup>31</sup>. In sum, the experimental work is rather about making things work rather than discovering the truth; it consists of intervening rather than representing the world<sup>32</sup>.

## **Postconstructivism and performativity of science and knowledge**

STS interventionist vision of scientific practice foregrounds a further interest into what can be labelled as performativity of science and knowledge. This conceptual shift is particularly visible within the so-called postconstructivism, a fairly recent and diverse set of approaches represented by authors such as Karen Barad, Michel Callon, Bruno Latour, John Law, Andrew Pickering, and Joseph Rouse, all presented in the next sections of this book.

Postconstructivism rejects representationism, both in its traditional realistic versions and in the less obvious constructivist variant. As it was shown above, the impression that scientific knowledge is objective and adequately describes the world is a result of successful erasing of all alternative decisions that were available in the course of research (see Bińczyk 2013a: 328; Knorr Cetina 1981; Latour, Woolgar 1986). If a scientific product is regarded as a temporal stabilisation of various elements, then it cannot be judged in terms of correspondence to reality<sup>33</sup>. Bińczyk highlights that an a-representationalist stance of postcon-

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31 This does not mean that what counts for a scientific fact is a messy collection of randomly chosen elements. On the contrary, it takes a lot of effort, trials and errors, and often unanticipated decisions to achieve success. The most usual product of scientific practice – a text – is the pinnacle of these endeavours, itself being a field of negotiation and selections aiming to erase the contingency of research process.

32 Hacking argues that this applies also to non-laboratory settings. He gives an example of statistical classifications which create specific groups of people who “would not have existed, as a *kind of people*, until they had been so classified, organised and taxed” (Hacking 2007: 288; original emphasis). Such transition is made possible thanks to the work of “engines of discovery”, like counting, quantifying, correlating, together with the mechanisms of bureaucracy, normalisation, and resistance.

33 Nevertheless, postconstructivism accepts the fact that modeling plays an important role in scientific activity. Modeling is treated here as means of creating simulations of selected fragments of nature, and, as a result, a strategy enabling to manipulate phenomena (see Bińczyk 2013a: 322-323). The practices of modeling are reconstructed in terms of translations (Latour) or chains of representations (Pickering), underlining their profound engagement within reality.

structivism is largely foregrounded in the thesis of indeterminacy of laboratory practices (Bińczyk 2012: 62). Additionally, Rouse points that, in fact, also social constructivism assumes representationism: the divergence from the way that correspondence realism adopts it lies solely in the social, constructed origin of representation. Yet in a different manner, postconstructivism holds that focusing on discursive and institutional aspects of scientific practices is equally misplaced as delimiting oneself to purely logical and formal analyses. Rather, it draws attention to the work of ‘collectives’ comprising of human and non-human actors alike. Barad expresses this thesis in the following words: “for as surely as social factors play a role in scientific knowledge construction (they are not the sole determinant – things don’t just come out any way we’d like them to), there is a sense in which «the world kicks back»” (Barad 2007: 214-215). Accordingly, postconstructivism can be characterised as adopting a critical attitude towards two fundamental traditions of reflection upon science and knowledge: correspondence realism and social constructivism (see Hacking 1999; Latour, Woolgar 1986; Rouse 1996, 2002b; Wehling 2006). At the same time, it preserves some realist intuitions. Bińczyk calls them “trivialised realism” and explains that it merely assumes that “human cognition (and activity) is taking place in a certain environment” (Bińczyk 2013a: 322). For instance, John Law declares that: “the metaphysics that I have been exploring are also realist, but only in the primitive or originary sense. They assume general flux of out-there-ness but nothing more” (Law 2004: 140).

Altogether, postconstructivism originates from the assumptions expounded in the above section of the book, however, with a strong sense of anti-essentialism and a-representationalism, integrated with posthumanist positions and the acceptance of weak versions of realism. As Bińczyk points, “the originality of the views herein presented is predicated on the attempts to model laboratory practices as *simultaneously*: 1) situated materially, guaranteeing effectiveness; 2) empirically underdetermined (which implies rejecting the bold epistemological claims of representationism); 3) institutionalised according to standards and criteria that are historically contingent (which, in turn, implies dismissing the fundamental assumptions of essentialism)” (Bińczyk 2013a: 321; original emphasis). As a result, knowledge is considered as a transitory result of several stabilisations of discursive, social, cultural and material factors. It cannot be predicted nor scrutinized beforehand. This way of thinking is characterised as “dynamic” and “deflationary”, described

by Joseph Rouse in the following words: “there are many appropriate ascriptions of «knowing» within the multifarious practices of assessing, attributing, relying upon, or contesting understanding and justification, but there is no *nature* of knowledge underlying these ascriptions” (Rouse 2002a: 179; original emphasis; after Wehling 2006: 86). Thus, granting knowledge is “more like a characterization of the situation knowers find themselves within rather than a description of something they acquire, possess, perform, or exchange” (Rouse 1996: 133; after Wehling 2006: 87).

Accordingly, the concept of performativity of science and knowledge is related to the thesis of material-discursive production of scientific facts through transformations of heterogeneous elements and the world in which these products are relevant and functional. Wehling states that: “if one tries to pick out one feature that (almost) all of the different references to performativity have in common, then the best candidate might be its non- or anti-essentialist impetus: performativity is not concerned with substantial things but rather with the (temporal) effects of «doings» and «performances», of repeated actions of some sort” (Wehling 2006: 91).

In the following chapters I provide an outline of the selected post-constructivist conceptions which, although not always explicitly employing the concept of performativity, entail a performative vision of science and knowledge.

## **Actor-network theory: facts construction**

Actor-network theory (ANT), originally developed by Michel Callon, Bruno Latour, and John Law, is currently one of the most widespread and recognized strands of thinking within STS. Law defines ANT as “a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located” (Law 2007: 2)<sup>34</sup>. What distinguishes it from many other STS approaches is a specific conceptual framework with a strong focus

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34 The very term ‘theory’ may not be the most appropriate part of ‘ANT’, especially bearing in mind the numerous inconsistencies and divergences between authors labelled under it. Law proposes to call it “material semiotics” instead; this notion “better catches the openness, uncertainty, revisability and diversity of the most interesting work” (Law 2007: 2).

on processes and relations, as well as an explicit rejection of any form of essentialism, including the traditionally adopted dualisms (e.g. subject/object, nature/society, human/non-human, etc.)<sup>35</sup>. ANT shifts attention from essences and products to, in general, all movement and transition. The focal point of interest are the processes of constructing networks, which embrace discursive, material, social, natural dimensions, and eventually appear as stable, fixed entities<sup>36</sup>.

Latour claims that to define a thing one needs to look not for an essence but the associations into which an element enters (see Latour 1999: 161). Thus, ANT proposes to replace the term ‘agent’ with ‘actant’ in order to underline that it operates as a set of relations of human and non-human kind alike. Such position allows avoiding both traditional, objectifying essentialism, and the plight of purely social construction. As Graham Harman states, “if Latour’s actants are not just illusions generated by human power plays, they are also not objective rock-hard substances. An object is not a substance, but a *performance*” (Harman 2009: 44; original emphasis).

Actants are brought together by means of translations which not only link various elements, but at the same time modify them. The concept of translation immediately hints at the fact that it is not a fully transparent, neutral operation. Rather, it should be regarded as a movement and transformation<sup>37</sup>. As Law says, translation is possible only by means of

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35 For example, in Latour’s view, the division between “Nature” and “Society” is intrinsically related to “The Modern Constitution”. Thus, it certainly is not natural, and, as Latour argues, not even operational. The border between the two requires constant upholding by “the work of purification”, that is, situating each being on one side of the division. Yet, it is never fully impermeable. It does not prevent the growth of socio-technic-natural hybrids (and this is exactly why “we have never been modern”), which, in the wake of contemporary technological advancements, have begun to breed without control. The task of ANT is then to show the artificiality and redundancy of traditionally adopted dualisms as well as to replace them with symmetrical treatment of both humans and non-humans (see Latour 1993).

36 If a network is stable and extensive enough, while its history and materiality are successfully erased, then it can turn into the so-called black box – something that we take for granted, as entirely obvious (see Latour 1999: 183-185). The better a black box, the more effort it takes to deconstruct it so that its origins and contingency become apparent.

37 In his analyses of the process of developing a strategy for increasing scallops population in France, Callon describes four “moments of translation” (Callon 1986). They are initiated by a group of scientists with a hypothetical idea on how to rise the scallops’ numbers. So, in the beginning, a “problematization” takes place. It consists in formulating the problem (growth of scallops population in St. Brieuc Bay),

a certain betrayal – carving the agents, shifting the interests of all sides, and eventually making them common (see Law 2007: 5). Each translation transforms the previously constituted network, therefore no translation is a once-for-all cut; it rather operates as a continual open-ended movement, especially when new actants enter the picture, the initiated problems and interests are renegotiated.

How does this theoretical apparatus work in the field of science and knowledge? I will address this question referring to one of the most influential and renowned ANT pieces, including real-time laboratory studies, reconstructions of historic discoveries (mainly of the work of Louis Pasteur) and an inquiry into the practices of field work in an Amazonian forest.

In “The Laboratory Life. The Construction of Scientific Facts” Bruno Latour and Steve Woolgar recount a process of fabricating a scientific object (the thyrotropin-releasing hormone - TRH) in a laboratory setting (the famous Salk Institute) into a universally accepted, Nobel-prize winning discovery. They argue that the phenomena and facts obtained in a laboratory could not exist without them. To be more precise, they would not exist without, first of all, the material elements of a lab, as scientists are here solely a part of the network consisting of apparatuses, instruments, materials, etc.; and secondly, without the ability to expand the laboratory conditions outside it. It is because the work consists of translating the interests of the actants in such a way that they create a large and stable network, or simply – cooperate. This way the universality of science seems to be a matter of building steady and thick networks, while objectivity depends on how many reliable sources and allies have been mobilised.

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as well as presenting the actants that are supposed to be engaged in the process (fishermen, scientists, scallops) with their identities and interconnections. This is when obligatory passage points are proposed (in this case as the need to conduct research into a specific method of breeding scallops), and a possible outline of alliances and connections between actants is sketched. Next, particular interests and aims are negotiated in order to delineate actants within their proposed roles and create a network (the moment of “interessement”), and these roles are defined and interconnected (“enrolment”). In the phase of mobilisation scientists make sure that the spokesperson for each group of actants would represent them well and be recognised by the others. Eventually, all actants are brought together in the form of (temporarily) successful alliances and connections.



The focal point of ANT is the interest in the ways that non-human factors, from lab's architectural design to devices and to the materials that flow around (chemicals, money, animals, documents of all kinds, etc.), substantially influence everyday scientific work. Latour and Woolgar explicitly claim that machines not only facilitate scrutinizing objects of research, but most of all, they allow to construct them.

Especially the so-called inscription devices prove indispensable in laboratory practice<sup>38</sup>. First of all, they convert material substances into figures and diagrams, making them transferable and comparable (Latour, Woolgar 1986: 51). Law defines an inscription device as “a set of arrangements for labelling, naming and counting (...), *converting relations from non-tracelike to trace-like form*. It is a set of practices for shifting material modalities” (Law 2004: 29; original emphasis). Moreover, Latour shows that the work of inscription devices should be regarded in terms of “a reversal of the actors' strengths” (Latour 1983: 147). He illustrates this claim with an example of Pasteur ‘discovering’ the bacillus of anthrax. The moment of transferring the microbes from a messy, complex environment of a barn to sterile laboratory conditions making them visible and manipulable, changed the landscape of power entirely: “«outside» animals, farmers and veterinarians were *weaker* than the invisible anthrax bacillus; inside Pasteur's lab, man becomes stronger than the bacillus, and as a corollary, the scientist in his lab gets the edge over the local, devoted, experienced veterinarian” (Latour 1983: 147; original emphasis). Eventually, the diagrams obtained through inscription devices allow to see more than it is possible in the field. This is what happens in the Amazonian forest: imprints are comparable and reveal patterns, while the soil under the podologists' feet simply remains hidden (see Latour 1999: 24-79).

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38 Latour explains their role for laboratories in the following words: “To understand the reason why people pay so much for laboratories which are actually ordinary places, one just has to consider these places as nice technological devices to invert the hierarchy of forces. Thanks to a chain of displacements – both of the laboratory and of the objects – the scale of what people want to talk about is modified so as to reach this best of all possible scales: the inscription on a flat surface written in simple forms and letters. Then everything they have to talk about is not only visible, but also readable, and can be easily pointed at by a few people who by doing this dominate” (Latour 1983: 164).

Second of all, the inscription devices actually help to conceal all the material reconfigurings and translations that accompany the process of obtaining and analysing data, beginning with a live rat and ending with a flat imprint. They usually act as perfect black boxes, constituting one of the most stable and uncontroversial connections within scientific practice: “the material processes (...) are either forgotten or taken for granted as being merely technical matters” (Latour, Woolgar 1986: 63). Eventually, an inversion takes place: from a mere temporal stabilisation in laboratory conditions, an object evolves into a seemingly independent entity, the very point of departure for research. Latour and Woolgar describe that “at the onset of stabilisation, the object was the virtual image of the statement; subsequently, the statement becomes the mirror image of the reality «out there»” (Latour, Woolgar 1986: 177).

All in all, inscription devices can be seen as primary instruments of performativity of scientific practices. Latour and Woolgar themselves state that: “it is not simply that phenomena *depend on* certain material instrumentation; rather, the phenomena *are thoroughly constituted by* the material setting of the laboratory. The *a r t i f i c i a l* reality, which participants describe in terms of an objective entity, has in fact been constructed by the use of inscription devices” (Latour, Woolgar 1986: 64; original emphasis). The ‘realness’ of such reality and the statements about it is endowed thanks to firstly, their successful construction by means of various material instruments, samples, designs, etc., and secondly, making them appear as separate them from the very process.

Nevertheless, the work of laboratory devices is not the only factor that contributes to effective construction of facts and objects. The world itself has to be prepared so that the network is properly embedded and has a chance to operate. Firstly, it is indispensable to convince a larger community that a problem is situated within their field of interests, and then, that a resulting fact or object exists independently from the researcher and laboratory, and thus, will continue to affect these interests. The process again can be described as a chain of translation, in the case of Pasteur, “having designated the micro-organism as the living and pertinent cause, he can now reformulate farmers’ interests in a new way: if you wish to solve *your* anthrax problem you have to pass through *my* laboratory first” (Latour 1983: 146; original emphasis). Such alliances – between a researcher, other scientists, the virus, veterinaries,

farmers, public officers, etc. – used to be established in public demonstrative experiments, today replaced by more institutionalised means, e.g. peer-reviewed papers and conferences.

Secondly, the laboratory itself has to be extended. On the one hand, it is about building ‘proto-laboratories’ in settings which require field work. This is exactly what happens in an Amazonian forest which, at the arrival of scientists, is turned into a mapped set of territories with marked trees and codified samples of soil. This transformation is again possible thanks to non-humans: international codes, standardised measures and several technical devices. All in all, the ‘natural’ field has to be ready to be translated into diagrams and inscriptions. On the other hand, the process of transforming the world can be seen as laboratorising it in order to prepare it for a fact or an object to operate: “since scientific facts are made inside laboratories, in order to make them circulate you need to build costly networks inside which they can maintain their fragile efficacy. *If this means transforming the society into a vast laboratory, then do it.*” (Latour 1983: 166; original emphasis). Precisely, a vaccine without a whole package of recommendations concerning hygiene and organisational aspects of animal breeding would not work. This again shows that the reality does not verify a statement produced in the laboratory.

The double relationship between the world and scientific practices is described by Latour in terms of chains of reference. With this notion he aims to bridge the traditional gap between the words and the world. Rather, things are ‘packed into discourse’ by a series of small steps, “each of which plays the role of sign for the previous one and of thing for the succeeding one” (Latour 1999: 56). The steps entails, quite obviously, the work of inscription devices. For instance, a pedocomparator allows to put soil samples so that their colours become comparable, eventually resulting in a visible pattern, itself translated into a diagram. Thus, a chain of reference is neither arbitrary, nor once-and-for-all fixed relation. It acts as a circuit which allows tracing the consecutive steps from and to each side of the world-language axe. As a result, the work of chains of reference also applies to the entry conditions, that is, the ‘proto-laboratories’. Latour states that “our involvement with the things we speak about is at once much *more intimate* and much *less direct* than that of the traditional picture: we are allowed to say new, original things when we enter a well-articulated settings like good laboratories. Articulation between propositions goes much deeper than

speech. We speak *because* the propositions of the world are themselves articulated, not the other way round. More exactly, *we are allowed to speak interestingly by what we allow to speak interestingly*” (Latour 1999: 144; original emphasis). Thus, the discursive dimension of scientific practices is extremely significant in any moment of experimentation, and it is deeply interrelated with non-human factors. Together, they provide a basis for grasping “how language slowly becomes capable of transporting things themselves *without deformation through transformations*” (Latour 1999: 96; original emphasis).

Finally, the very result of scientific practice – a fact – should be understood as both fabricated and real. In other words, it could not emerge as a seemingly independent object without a lengthy and complex process of laboratory construction. At the same time, once successfully constructed, it actually is real – it has been made visible, influential, available (see Bińczyk 2013a: 329). Latour explains that “the lactic acid ferment is wholly independent of any human construction” as well as “it has no independent existence outside the work done by Pasteur” (Latour 1990: 139). Such a stance also has an important implication for what we conceive of an experiment. Latour claims that experiments are no zero-sum games in which we merely combine the existing elements. Experiments recombine the existing networks and actants and thus result in something added and new.

In sum, although the studies presented here do not employ the notion of performativity in a straightforward manner, ANT can be considered as providing some fundamental insights into how knowledge and the world are being mutually co-produced through scientific practice. Latour declares, “what I am doing is simply refusing to grant existence to the object while knowledge itself would be floating around without being grounded anywhere. Knowledge is not the voiceover of a nature film on the Discovery channel. (...) Knowledge is added to the world; it does not suck things into representations or, alternatively, disappear in the object it knows. It is added to the landscape” (Latour 2008: 102). Latour and other ANT representatives argue for the significance of three aspects that specifically make scientific knowledge successful: the work of inscription devices and other non-human factors, the constant translations of scales, forces, and actants themselves, and the dissolution of the inside/outside boundary of laboratory. From the standpoint of ANT, the constructivist character of scientific practices can be seen as threefold: it pertains to processes, to their result (a fact, an object) and

the world itself. The process consists of, first recognising and carving particular actants, then negotiating their identities and interests, mobilizing them, and finally creating temporarily stabilised, heterogeneous networks. 'A fact' is at the same time real and fabricated, while science – the more connected to the 'outer' world it is, the better (Latour 1999: 18). Thus, what is most important for a scientific result to appear as objective and accurate, is that it has to be embedded in the world which itself requires various transformations that make it a proper setting for 'a fact' to operate. The world does not reveal itself as a static, passive entity. Rather, it is *performed* through chains of translations, together with all the other networked processes.

### **Andrew Pickering: the performative idiom and mangle of practice**

Andrew Pickering explicitly employs the concept of performativity in his analyses of science and laboratory practices. In fact, the way he conceives of contemporary scientific knowledge production relies upon a distinction between representational and performative idiom (see Pickering 1994, 1995). He regards them as two modes of operation and thinking about sciences which allow embracing the transformations undergoing both in actual practices and within philosophical reflection about them.

The representational idiom seems close to traditional, neo-positivist visions of science, in which it is considered primarily as "an activity that seeks to represent nature, to produce knowledge that maps, mirrors, or corresponds to how the world really is" (Pickering 1995: 5). The only type of agency in this field is that of scientists envisioned as rational, individual subjects disposing of reliable theories and methods. It supports a belief that it is possible to draw a fairly clear separation between science and non-science, and also makes disciplinary distinctions fairly hard to overcome (see Pickering 1994). However, the correspondence premise that underlies the representative idiom inevitably leads to a problem of adequacy of representations. According to Pickering, the plight is unescapable, and it also affects the understanding of basic epistemological concepts, such as objectivity, realism and incommensurability.

On the contrary, the performative idiom is founded upon some more practice-oriented, posthumanist approaches. Here Pickering compares science to a “field of powers, capacities and performances, situated in machinic captures of material agency” (Pickering 1995: 7). Performative science is thus intrinsically antidisciplinary: a synthesis of various approaches becomes possible as there is no underlying human / non-human distinction. Pickering argues that a transition from representational to performative idiom is also one of shifting focus from epistemology to ontology. Namely, the performative idiom draws attention to the processes of mutual constitution and entanglement of material and discursive elements, while leaving questions strictly pertaining to cognition and methodologies behind (Pickering 1994: 415). Pickering concludes: “My basic image of science is a performative one, in which the performances – the doings – of human and material agency come to the fore. Scientists are human agents in a field of material agency which they struggle to capture in machines. Further, human and material agency are reciprocally and emergently intertwined in this struggle. Their contours emerge in the temporality of practice and are definitional of and sustain one another. (...) The upshot of this process is, on occasion, the reconfiguration and extension of scientific culture – the construction and interactive stabilization of new machines and the disciplined human performances and relations that accompany them” (Pickering 1995: 21).

Pickering’s empirical works, including the renowned investigations of particle physics (Pickering 1984, 1995), can be considered as consistent with the performative idiom of science. Again, central to his analyses are questions of materiality and temporality. In his view, scientific practice consists of the so-called dialectic of resistance and accommodation (Pickering 1995). In the course of research scientists usually encounter some obstacles in reaching their aims: data is incomprehensive, phenomena are different from what is anticipated, instruments break down. Highlighting that such situations usually take place in the context of interactions between humans and non-humans, Pickering calls them resistances and defines as “the failure to achieve an intended capture of agency in practice” (Pickering 1995: 22). In order to solve the problem and carry on with the investigation, researchers need to create an “accommodation”, suitable for each certain condition. Pickering defines it as “an active human strategy of response to resistance, which can include revisions to goals and intentions as well as to the material

form of the machine in question and to the human frame of gestures and social relations that surround it” (Pickering 1995: 22). Thus, the course of research can never be predicted in advance; an accommodation may well consist in developing a new machine which gives rise to new questions and problems<sup>39</sup>. For instance, in his description of the development of a bubble chamber in particle physics, Pickering demonstrates how the principal investigator, Donald Glaser, struggles with various types of materials that are supposed to allow the detection of the particles, how failures give him more sense of how the chamber might work and lead to reworking of his plans and actions (with the final objective always at sight), and finally, how an educational background in cosmic physics influences his reluctance towards building large devices and thus entering the ‘Big Science’ (see Pickering 1993, 1995).

What is most important, the notion of dialectic of resistance and accommodation allows Pickering to conceive of the world as full of agency; agency entangled and re-enacted by humans and non-humans alike. In the case of bubble chamber, it is clear that Glaser is the main actor in the field, however, not ever knowing what his efforts would result in. Namely, he is never in full control of the course of the experiment. The situation is largely shaped by the material agency of the chamber, itself not given, but emerging in the real time of Glaser’s practice. Also, the goals and plans undertaken by Glaser are subject to constant changes; if one solution does not work, then he tries another one. Thus, human and material agency evolve together, as mutually constitutive and fundamentally interrelated; none appears as such or in a vacuum<sup>40</sup>.

Progress in laboratory research can be understood in terms of, firstly, tuning of various elements of discursive, social and material kind, and secondly, reaching their temporal, interactive stabilization. It is worth emphasising that Pickering’s understanding of scientific performativity

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39 As a consequence, Pickering insists that STS researchers focus on real-time observations from the field: “after the fact, scientists often offer persuasive technical accounts of why the machinic field of science has developed in specific ways. But (...) for the purposes of real-time accounting, the substance of such retrospective accounts is one aspect of what needs to be analysed” (Pickering 1995: 15).

40 Interestingly, Pickering’s notion of agency has been criticised for dangerously resembling of inertia instead of the supposed activity. Yves Gingras notices that: „since things «just happened» (as Pickering writes so many times in his book), agency was in fact a kind of inertia that just *resists* action, instead of acting by itself” (Gingras 1999: 312; original emphasis; for more, see Gingras 1997).

includes a representational aspect, namely, it accounts of both machinic performances and a conceptual layer of investigation (Pickering 1995: 182). The latter, in his view, consists of “an interpretive account” of how the involved apparatuses of observation and measurement work, as well as “a phenomenal account” of the aspects of the material world under consideration (Pickering 1995: 81-98).

Altogether, Pickering states that a successful production of knowledge is the effect of a passage through the mangle of practice. Resistances are exact moments when scientists should get a sense of going in wrong direction. This interweaving of human and non-human is possible thanks to machines, which constitute a balance point, or a limen between the two worlds (Pickering 1995: 7) and provide a foundation for knowledge that is at the same time situated and objective (Pickering 1995: 15). Obviously, Pickering’s ‘objectivity’ does not result from adopting a detached position of discovering the independent facts; rather, it should be considered in terms of repeated efforts and engagement in responding to constantly arising difficulties, and eventually reaching a mangled, stabilised effect<sup>41</sup>.

Pickering considers his conception as a useful framework for analysing a range of non-laboratory phenomena and processes, including some strictly conceptual practices<sup>42</sup>. In a piece entitled “Constructing Quaternions: On the Analysis of Conceptual Practice” he and Adam Stephanides (1992) describe the construction of a mathematical system of quaternions by Sir William Rowan Hamilton. They point that practice – be it experimental or conceptual – “should be seen as a process of modeling, of the creative extension of existing cultural elements” (Pickering, Stephanides 1992: 140; original emphasis). The focus is thus placed on its open-endedness: it can be developed in various directions and there is actually nothing intrinsic about it that could

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41 Pickering declares that: „Passage through the mangle effectively defines a rather severe criterion of objectivity. This should be clear from the centrality of resistance to my analysis. The successful captures, framings, and interactive stabilizations that characterize the objective contents and products of science are hard to come by; their achievement is difficult and uncertain. Most of the time scientists are submerged in a nonobjective mess. It is not, therefore, the case that «anything goes» in science in any sceptical sense. A mangle-ish analysis of objectivity thus means something; it is by no means idle” (Pickering 1995: 195-196).

42 Also Andrea Woody provides an elaborate example of a theory creation in terms of practices; she examines the processes of establishing and entrenching chemistry’s periodic law in the 19<sup>th</sup> century (Woody 2014).



unequivocally determine its development. With such stance, one has to address the question of how a closure to the conceptual practice is reached, or in other words, why this and not the other way of acting is chosen. Here Pickering and Stephanides point to the fact that the process of developing a model does not take place in isolation, but it “aims at producing *associations* in which a plurality of projected elements hang together in some way” (Pickering, Stephanides 1992: 140; original emphasis). Again, the notion of a goal-oriented dialectic of resistance and accommodation enters the picture: “encounters with resistance set in train a process of *accommodation*, in which the openness of modeling is further exploited in trial-and-error revisions and substitutions of models, modeling sequences, and so on, aimed at proceeding further toward the intended association” (Pickering, Stephanides 1992: 141; original emphasis). The success is achieved by reaching a working association, resulting from a number of trials and errors made in specific temporal and material conditions.

Pickering and Stephanides break the process of modeling into three operations: bridging, transcription, and filling. Bridging and filling are understood “as *free moves* in the modeling process, moves in which actors exercise choice and discretion”, whereas transcription “is a *forced move*, in which agency is surrendered” (Pickering, Stephanides 1992: 142; original emphasis). All three operations obviously intermingle, resulting in a process that is at the same time a matter of choice and force. And this exactly is the point in which the authors address a pressing question of how resistances arise in conditions which do not entail directly the material world nor the other people. Pickering and Stephanides claim that: “The constitutive intertwining of free and forced moves gives modeling a double, active-passive, character, entailing a degree of surrender of agency despite the free moves – choices – that are endemic to it” (Pickering, Stephanides 1992: 159). This agency is called disciplinary; yet, it plays a similar role to the material agency in laboratory settings: it guides the activities interwoven in subsequent resistances and accommodations.

In sum, Pickering calls his conception “pragmatic realism”, highlighting that “that the mangle offers us a realistic appreciation of scientific knowledge inasmuch as it demonstrates the nontriviality of the construction of representational chains terminating in captures and framings of material agency” (Pickering 1995: 31-32). It is supposed to, on the one hand, maintain the relation between knowledge and the world

(understood, however, more in terms of coherence than correspondence), on the other, to take into account scientific representation not as isolated, but dependent upon the work of devices (see also Pickering 1989). He argues for its applicability both in the field of laboratory studies and analyses of conceptual work; moreover, he discusses how such approach allows to reformulate such fundamental epistemological concept as objectivity, relativism and historicism. Hence, Pickering's understanding of performativity heavily relies upon his focus on temporal emergence and stabilising of human and non-human agencies. Eventually, it is worth emphasising that, differently to ANT and Karen Barad's conception that is presented below, Pickering refuses to grant non-humans with intentionality (see Pickering 1993: 565). He highlights their role and influence during the course of research and for the emergence of human agency, making them somewhat co-decisive, but not responsible for what results from the whole process.

### **Karen Barad: performativity as intra-activity**

The link between performativity and agency is also a focal point of interest for Karen Barad. To a far larger extent than the previous authors, she explicitly relies upon a number of interdisciplinary perspectives, such as feminist studies of science as well as conceptions of power by Michel Foucault and Judith Butler<sup>43</sup>. However, it is Niels Bohr's quantum physics that provides Barad with a conceptual and methodological framework; she believes that "Bohr can be understood as proposing a protoperformative account of scientific practice" (Barad 2003: 813, ref. 17). Starting with a strong disapproval of any kind of representationalism, Barad adopts a strategy of "diffractive reading" of science studies through the abovementioned concepts. This allows her to recognise that: "What often appears as separate entities (and separate sets of concerns) with sharp edges does not actually entail a relation of absolute exteriority at all. Like the diffraction patterns illuminating the indefinite nature of boundaries – displaying shadows in «light» regions and bright spots

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43 For instance, Barad situates her own interest into the concept of performativity as departing from the following framework: "If performativity is linked not only to the formation of the subject but also to the production of the matter of bodies, as Butler's account of «materialization» and Haraway's notion of «materialized refiguration»" suggest, then it is all the more important that we understand the nature of this production. Foucault's analytic of power links discursive practices to the materiality of the body" (Barad 2003: 808).

in «dark» regions – the relation of the social and the scientific is a relation of «exteriority within». This is not a static relationality but a doing – the enactment of boundaries – that always entails constitutive exclusions and therefore requisite questions of accountability” (Barad 2003: 803). In consequence, her stance entails reformulation of several notions, including discursive practices, materialisation, agency, causality, and, above all, performativity.

The extensity of Barad’s conception, which she calls “agential realism”, is reflected in the way she defines it: as “an epistemological-ontological-ethical framework that provides an understanding of the role of human *and* nonhuman, material *and* discursive, and natural *and* cultural factors in scientific and other social-material practices, thereby moving such considerations beyond the well-worn debates that pit constructivism against realism, agency against structure, and idealism against materialism” (Barad 2007: 26; original emphasis). Hence, Barad proposes an understanding of performativity without reifying categories: one which reconfigures the way of thinking about the world and the agency. She explains that performative approaches focus on practices of representing, the productive effects of these practices and conditions of their efficacy (Barad 2007: 28). From her perspective there are no fixed entities that exist independently to both human and non-human activity<sup>44</sup>. On the contrary, several times she declares interest in “*practices embodied as specific material configurations of the world* (i.e., discursive practices/(con)figurations rather than «words») *and specific material phenomena* (i.e., relations rather than «things»)” (Barad 2003: 814; original emphasis).

Most importantly, Barad binds her conception of performativity tightly with an explicitly posthumanist perspective: “I offer an elaboration of performativity – a materialist, naturalist, and posthumanist elaboration – that allows matter its due as an active participant in the world’s becoming, in its ongoing «intra-activity». It is vitally important that we understand how matter matters” (Barad 2003: 803). Thus, she highlights the mutual constitution of subjects and objects, phenomena,

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44 Barad renounces the presumption that there exist any independent entities at all. Contrarily, these are “phenomena” that serve as “the ontological primitive”, and still have no things behind, no causes. “A phenomenon is a dynamic relationality that is locally determinate in its matter and meaning as mutually determined (within a particular phenomenon) through specific causal intra-actions”, Barad says (2003: 820).

and the world. Her claim is that what we perceive as stable and independent entities, is in fact a temporarily enacted effect of the so-called intra-action, only relationally distinct from other enactions, not existing as separate individual elements. “The notion of *intra-action* (in contrast to the usual «interaction», which presumes the prior existence of independent entities/relata) represents a profound conceptual shift. It is through specific agential intra-actions that the boundaries and properties of the «components» of phenomena become determinate and that particular embodied concepts become meaningful” (Barad 2003: 815; original emphasis). Furthermore, as there is no world already ‘out there’, it is ‘performed’ or ‘becomes’ in the moment where *intra-action* occurs: “the world *is* intra-activity in its differential mattering” (Barad 2003: 817; original emphasis).

The same applies to scientific activity. Barad emphasizes that scientists do not exercise full control over what happens in the course of research. The apparatuses, which could appear as fixed, stable entities, are “constituted through particular practices that are perpetually open to rearrangements, rearticulations, and other reworkings” (Barad 1998: 102). The scientists themselves have to fit into this performatively intra-acted setting; their agency is constituted thanks to participating in bringing forward data and phenomena. In sum, “a performative understanding of scientific practices, for example, takes account of the fact that knowing does not come from standing at a distance and representing but rather from a *direct material entanglement with the world*. Importantly, what is at issue is precisely the nature of these enactments” (Barad 2007: 49; original emphasis). This way, knowing is an open-ended practice consisting of constant performing of the world, phenomena, researchers, and instruments.

Consequently, Barad understands agency in terms of relations and processes. The moments when phenomena are distinguished and performed are called “agential cuts”; through them phenomena are temporarily brought to life from an otherwise entangled and indistinguishable “background”. The exact location in which a cut takes place depends on the configuration of apparatus. As Joseph Rouse aptly puts it: “A defining feature of a phenomenon is that the intra-action between an «object» and its surroundings leaves discernible marks on these surroundings so as to constitute them as measuring apparatus” (Rouse 2004: 149; original emphasis). Precisely, neither objects, nor apparatus exist apart from intra-actions.

At the same time, Barad points to the fact that every agential cut inherently comprises of constituting and excluding of what has not entered an intra-action. Therefore, in a very simple sense we are not only responsible for the knowledge we seek but also for what exists. Barad explains that “knowing is a direct material engagement, a cutting together-apart, where cuts do violence but also open up and rework the agential conditions of possibility” (interview with K. Barad; Dolphijn, van der Tuin 2012: 52). In other words, knowing inevitably necessitates issues of power and ethical choices: „Realism, then, is not about representations of an independent reality, but about the real consequences, interventions, creative possibilities, and responsibilities of intra-acting within and as part of the world” (Barad 2007: 37). Essentially then, scientific – discursive and material – practices are about normative repeatability, as Rouse aptly puts it, a phenomenon “is not just a larger, more complex object in the world, but a meaningful configuration of the world” (see Rouse 2004: 7; original emphasis).

Altogether, performativity serves here to expound the process of temporal becoming of how discourse comes to matter and how matter comes to matter in an ongoing, mutual co-production. Conceiving of performativity in terms of iterative intra-activity, Barad highlights its indeterminacy, openness and circularity of material-discursive practices of enacting humans, things, phenomena, and the world. This way she takes up on Foucault’s and Derrida’s legacy, and distances herself from what she regards a fallacy of Butler’s thought – too much focus on citationality at the expense of processes of materialisation (Barad 2003: 828). Nothing can be taken for granted, including ‘humans’ and ‘non-humans’ whose agency is also a question of acting and becoming. Consequently, Barad’s agential realism poses a radical challenge to any seemingly natural and obvious boundaries or fixed entities. Literally, there is nothing to rely upon: no pre-existing points of departure, nor stabilised end-products; whatever we grasp is only a temporary effect of current intra-activity, an incessant “iterative intraactivity of the world in its becoming” (Barad 2003: 823).

## **Joseph Rouse: science as a world-transforming activity**

Even though Joseph Rouse is one of those intellectuals who do not explicitly take up on the notion of performativity, his approach provides an influential and very comprehensive vision of sciences that are intrinsically constructivist and practically engaged within the world. He openly

draws upon a host of conceptions, ranging from language studies to philosophical naturalism, and reintegrates them under the label of “cultural studies of science”<sup>45</sup>. His works cover some of the most recognised, yet fairly ambiguous areas of STS, such as a definition of the notion of practices, an attempt at integrating discursive and material practices, as well as a baseline for renouncing the traditional dualisms. Moreover, he provides some powerful metaphors of laboratories as microworlds and science as niche construction, both indicating the intrinsically interventionist character of scientific practice.

To begin with, Rouse criticizes some of the widespread understandings of practices, in which they are reduced to publicly accessible performances or granted solely to individuals endowed with agency and intentions, or finally, in which they serve to encompass the background understanding or the competence behind the rules<sup>46</sup>. Rouse argues that such stances, based on a dualism between nature and normativity lack attention to the material surrounding of practices and have difficulty with grasping embodiment and the role of language. Thus, he proposes to understand “a practice through the *shared normative accountability of its constituent performances*” (Rouse 2002a: 19; original emphasis). What matters is reproduction not of the same sequence of events,

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45 Specifically, he relies upon various concepts of discursive practices (especially by Donald Davidson or Robert Brandom), Hubert Dreyfus’ account of the bodily aspects of practices and their context-dependency, Thomas Wartenburg’s conception of power as mediated by “social alignments” and Arthur Fine’s Natural Ontological Attitude.

46 Rouse extensively refers to a debated work of Stephen Turner who also criticises the traditional account of practices as social regularities (Turner 1994). Turner refers to a double understanding of the notion of practices and denounces both of them. On the one hand, if practices are to explain continuities between activities of social groups then they need to be conceived as objectively identifiable regularities which exist in some “psychological reality”. On the other hand, if practices equal with practical competences, then they must have some causal efficacy. Both assessments – one of identifying the psychological reality and the other based on a causal relation – are, according to Turner, inaccessible through observation of human activities. Hence, he proposes to replace the notion of practice with individual habits, acquired in the process of habituation. Rouse finds this argumentation implausible; especially with regard to the assumption that accountability of practices requires a definite community whose members agree and obey to definite norms and values. Rouse claims that various performances can be held accountable mutually, without referring to any regularities behind them, neither common norms, nor values.

but of a significant pattern which makes various performances integrated within a specific practice by their mutual interaction (Rouse 1996: 161-183; see also Rouse 1999, 2001, 2007).

Such a stance renders the attempts to establish any stable meanings, norms, rules or presuppositions unnecessary<sup>47</sup>. Moreover, Rouse argues it allows abandoning of the internal/external dualism as well as society/nature division: “When I talk about performances of a practice, I am not referring to something ethereal but to ongoing patterns of causal intra-action within partially shared circumstances. Understanding the performances of other participants in practices cannot be separated from understanding the circumstances in which those performances take place. (...) A principal point of the practice idiom is to incorporate an agent’s performances and the circumstances in which it occurs as part of a single complex phenomenon” (Rouse 2007: 7). Moreover, in Rouse’s view, normativity of practices has an important temporal aspect: it should be considered as “a mutual interactive accountability toward a future” (Rouse 2007: 6). Therefore, practices themselves are considered dynamic and context-bound: “these patterns [of activity – A.K.] exist only through being continually reproduced. Their coherence and continuity thus depend both on coordination among multiple participants and things and on the maintenance of that coordination over time. (...) Furthermore, practices are intrinsically open to multiple interpretations (...), even synchronically” (Rouse 1996: 26). And finally, normative approach to practices results in challenging any reifying stances towards language, knowledge, and power.

Consequently, Rouse proposes that we consider scientific practices as “complicated, temporally extended patterns of mutual accountability among practitioners’ performances and their circumstances” (Rouse 2002a: 185)<sup>48</sup>. This way, he argues, it is possible to encompass both action and its setting: if scientific knowledge is located within practices, then it

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47 For an overview of practice theories, including those based upon the notion of “shared understanding”, see Reckwitz 2002; Schatzky 2001.

48 Rouse strongly disapproves of two commonly accepted aspects of the concept of scientific practice: a division between practice and theory, which he ascribes to the representatives of experimentalist studies of science (Rouse mentions, among others, Hacking, Knorr Cetina, Latour, and Pickering; a similar concern regarding the work of “new experimentalists” is expressed by Andrea Woody, see Woody 2014: 124), and the fact that practices are often considered as accounts of the individual or collective doings of scientists, specifically distinctive from their material settings (Rouse 2002: 162-166).

is never fully present or possessed; rather, it can be identified as evolving in time and situated within patterns of ongoing engagement with the world. These patterns are sustained through establishment and enforcement of norms, and so they entail issues of power. Moreover, scientific practices involve the tension between intelligibility and incoherence. They need to become significant, yet at the same time situate one's work within the field of what the others are doing.

Rouse argues that, in fact, the question of truth is replaced by the question of significance, which applies to all levels of scientific activity: from fundamental issues to mundane pieces of work; from publishing strategies to settling further directions of research. Asking for significance rather than truth allows noticing that any assessments of science are multidimensional and extend far beyond the traditional epistemological questions. Furthermore, the participants of practices include humans and non-humans, both temporarily constituted in the course of activity. In Rouse's view, there is no objective content that could determine the boundaries of community. The focus is placed on the ongoing interaction with the world in which objects and settings are enacted, while doings become intelligible. Practices remain spatiotemporally open, encompassing simultaneously material and discursive aspects (for Rouse's full account of scientific practices see Rouse 1996: 134-135).

Altogether, Rouse understands science as "ongoing ways of dealing with the world practically and discursively" (Rouse 2002a: 160). He underlines that scientific practice is not based on some fixed reference (or content), nor established consensus, nor a definite community. The sense and significance of what scientists are doing is constantly reworked in response to past situations and anticipated developments. "In order to understand how scientific knowledge is situated within practices, we need to take account of how practices are connected to one another, for knowledge will be established only through these interconnections. Scientific knowing is not located in some privileged type of practice, whether it be experimental manipulation, theoretical modeling, or reasoning from evidence but in the ways these practices and others become intelligible together" (Rouse 1996: 156). The intelligibility is achieved in the so-called epistemic alignments, thanks to which work is being pushed forward and the future directions are planned. Accordingly, Rouse claims that knowledge is not merely a system of propositions or cognitive states. Contrarily,



it is a situation in the world – never fully determinable and made intelligible in the course of practice which itself consists of constant interacting with(in) the world (see Rouse 1996: 187).

If scientific research is considered as practical activity which reconstructs and redescribes the world, then laboratories are specific spaces in which theoretical models meet experimental microworlds. Models are defined by Rouse as simulacra, rather than any kind of representation. The latter assumes a semantic content that mediates between a cognising subject and the reality, whereas models as simulacra are constituted within practices (Rouse 2001: 203). Microworlds then are “local reconstructions of the world to enable more effective manipulation and control and more careful and revealing surveillance of outcomes” (Rouse 1996: 128). Together, models and microworlds provide a basis for articulating the world so that it becomes conceptually intelligible.

Additionally, Rouse notices that models and microworlds need to be accommodated to the conditions outside a laboratory, namely the surrounding world has to be reconstructed to resemble the laboratory in important respects. Scientific practices are thus world-transforming; they “re-arrange things so that novel aspects of the world show themselves, and familiar features are manifest in new ways and new guises. They develop and pass on new behaviors and skills (including new patterns of talk), which also require changes in prior patterns of talk, perception, and action to accommodate these novel possibilities” (Rouse 2014: 286).

Eventually, Rouse employs the metaphor of scientific research as niche construction, drawing upon a biological term referring to evolutionary transformations of the environment. Again, he calls attention to some substantial aspects of how scientific practices work. Firstly, science is about engaging the world as such, not merely its representation. The world is however not a stable object; in the course of research it also undergoes constant reconfigurations and is articulated within the practices. Secondly, the transformations include the ways in which we understand the world, the possibilities we have within it, and the modes in which we talk about it. Thirdly, the conceptual aspect is highlighted where Rouse claims that it is not only a flow of ideas, but a whole interconnection of material, discursive and social interactions with the environment. As a result, a conceptual change is not intra-linguistic; it involves transformations of the world (Rouse 2014: 287). Scientific

practices “reconfigure the world we live in as a normative space, a field of meaningful and significant possibilities for living a life and understanding ourselves and the world” (Rouse 2014: 286).

In sum, Rouse’s cultural studies of science adopt an anti-essentialist position in that they refuse to grant science with any epistemically privileged position in contemporary world, at the same time appreciating the heterogeneity of sciences across history, disciplines, and cultural settings. He insists on the local, material and discursive character of scientific practice, paying a lot of attention to their mutual transformations in constant interacting within and together with the world. Constant traffic across the boundaries, traditionally believed to divide scientific communities from the rest of the culture, is at the very centre of interest. Science should be understood as “an open-ended evolutionary process of extension and reconfiguration of a complex space, a process through which humans transform their environment, and are themselves transformed, in unpredictable ways” (Soler et al. 2014: 37). Consequently, cultural studies of sciences entail strong reflexive sense of their own cultural and political engagement, embracing epistemic and political criticism. Rouse explicitly states that: “our work might variously articulate and reinforce dominant epistemic alignments, contribute to or extend oppositional discourses, or shift the field to envision new possibilities. A modest and self-critical attentiveness to our own partiality and situatedness, and accountability for what we say and do, are the political responsibility incurred by our own contingent positionings within the cultures of science” (Rouse 2001: 206).

## **Science and technology studies and social sciences**

Not surprisingly, the conceptual framework of STS, which largely originated from the analyses of natural sciences laboratories, has quickly become a point of reference for social sciences themselves. Obviously, some authors openly refused to apply their ideas within social inquiry. For instance, Knorr Cetina and Hacking argued that social sciences simply differ too much to take them into account along with experimental

sciences<sup>49</sup>. However, the postconstructivist approaches, like the ones described above, refuse to accept any inherent or pre-established distinction between social and natural sciences; more, they aim to embrace a much wider area than solely the work of ‘social’ laboratories. As of today, empirical studies inspired with ANT, Karen Barad’s conception or Pickering’s mangle of practice abound. Yet, what is even more interesting is a certain STS meta-perspective of what social sciences are (and should be) and how they (ought to) operate.

This chapter starts with an overview of Latour’s and Pickering’s ideas on sociology. Next, I turn to a conception of social machines, elaborated by Polish researchers – Łukasz Afeltowicz and Krzysztof Pietrowicz – with the aim of rethinking sociology through a conceptual and practical apparatus of natural sciences, as seen from the STS standpoint. Then I present John Law’s account of performativity of the methods of social research, and finally, sketch some ANT-inspired insights concerning performativity of the economics.

## **Abandoning the dualisms: ‘flattened’, posthumanist sociology**

In light of the above, one of the most important STS recommendations for social sciences is renunciation of the underlying dualisms, especially those entailing distinctions between micro and macro, nature and culture, human and non-human.

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49 Knorr Cetina claims that laboratories in social sciences and psychology aim to achieve maximum objectivity by keeping a detached, disengaged attitude, and so adequately depict the observed phenomena. Thus, they are based upon the so-called “technologies of representation”, which stand on “a principle of non-intervention” (Knorr Cetina 1992: 124-125). Conversely, the ‘techno-scientific’ laboratories work on the basis of manipulation and, in general, aim to grant control over what is researched; they function as “an enhanced environment which improves upon the natural order” (Knorr Cetina 1992: 116, 126-127). In a similar vein, Hacking argues that social sciences lack a close collaboration between three figures: a dogmatic (who does speculative work), an empiricist (who takes care of experimental work) and a person responsible for calculation (Hacking 1991: 149). Moreover, social sciences laboratories do not interfere with their objects of study; rather, are of observational and classificatory character (see Hacking 1992). And these are two features that, in Hacking’s view, make laboratories in natural sciences so successful: the interdependence of researchers adopting different roles and centrality of “«apparatus used in isolation to interfere»” (Hacking 1992: 33).

ANT representatives argue that a common sociological micro-macro distinction is only a relational effect, or rather, a black box which in fact offers no explanatory powers (see Callon, Latour 1981). Latour also undermines the nature/society opposition and formulates the following set of statements, pertaining to both STS and social sciences in general. First of all, “Nature «out-there» and Society «up-there» are no longer ontologically different. We do not make Society, more than we do Nature, and their opposition is no longer necessary.” Second of all, “instead of providing the explanatory resources in order to account for empirical phenomena, this common transcendence becomes what is to be explained.” Three, “instead of always being explained by a mixture of the two «pure» transcendences, the activity of nature/society making becomes the source from which societies and natures originate (...) everything interesting begins at what is no longer a meeting point but the origin of reality.” Four, “history (...) is back in the centre. (...) it flows from the experiments, from the trials of force.” Five, “the ontological activity that is no longer capitalized at the two extremities may be redistributed among all the actants. (...) we are allowed to have as many poles as there are actors” (Latour 1992: 10-13). All in all, following Latour’s propositions entails an almost complete upturning of the way social sciences were believed to have worked so far.

The above dualisms are founded within large, taken-for-granted chains of assumptions and practices, which makes them hard to examine and discard. Their reformulation would entail a profound transformation of some most basic assumptions accepted within social sciences<sup>50</sup>; a proposition of such a shift is expounded by Latour in one of his seminal works, entitled “Reassembling the Social. An Introduction to Actor-Network-Theory” (2005). His major recommendation is that social scientists should start to consider ‘the social’ not as an explanatory, essentialised entity, but something that in fact begs explanation and consists of constant movements and translations. “For sociologists of the social, the rule is order while decay, change, or creation are the exceptions. For

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50 Recently Latour has pointed to some practical opportunities of overcoming the micro-macro opposition. He argues that Internet-based methods of research, allowing to manage amounts data that are larger and more detailed than ever before, allows bridging the gap between individual and an aggregate, which was typical of traditional statistical methods. The point is that digital methods provide an opportunity to go back and forth between the two ends, without the need of reducing one to another (Latour 2010).

the sociologists of associations, the rule is performance and what has to be explained, the troubling exceptions, are any type of stability over the long term and on a larger scale” (Latour 2005: 35). Therefore, the task of sociologists is to “follow the actants” and “keep the landscape flat”, in other words, stay on the surface of phenomena and processes rather than impose any pre-established conceptual framework upon them or search what is ‘behind’ them.

In the same book Latour explicitly states that social sciences do have a performative dimension: “social aggregates are not the object of an *ostensive* definition – like mugs and cats and chairs that can be pointed at by the index finger – but only of a *performative* definition. They are made by the various ways and manners in which they are said to exist. This distinction, however, entails many delicate linguistic and metaphysical difficulties. I don’t want to suggest that groups are made by *fiat* or, worse still, out of speech acts by mere conventions. I want to use it simply to underline the difference between groups endowed with some inertia and groupings that need to be constantly kept up by some group-making effort” (Latour 2005: 34-35). This way Latour again highlights that what is traditionally regarded as supplies for sociological explanation, in fact is a temporary, unstable effect of numerous efforts and contributions aiming to create an appearance of essence. It seems that the strategy he proposes is similar to one applied in the inquiry over laboratories of natural sciences, especially in that the products of both fields are conceived as fabricated, performed. At the same time this is not to imply their pure artificiality or unreality; on the contrary, it should point to their embeddedness and stability accomplished by means of various efforts to recognise, ‘pack’, and maintain the selected fragments of reality together.

In a similar vein Pickering postulates that social sciences overcome the human/material dualism towards some more relational and processual ontologies. He states that: “mangling is a *temporally emergent* process: its upshots are not given at all in advance. This means that an adequate social theory can amount, at most, to a set of sensitivities in our encounter with empirical phenomena: we should look out for post-humanist intertwinings of the human and the nonhuman – the construction of subjects for objects, as well as vice versa – and we should recognize that in general nothing substantive endures in the encounter of material and human agency” (Pickering 2001: 173, original emphasis; see also Pickering 2005).

For instance, in a detailed historical account of the success of synthetic dyes industry, Pickering expounds how business, society, and science became interwoven in an emergent process in which transformations to things and products were of crucial importance. He says: “The establishment of new material procedures and products (the coupling reaction and azo dyes), new bodies of knowledge (modern organic chemistry) and topological transformations of social institutions (the enfold- ing of science by industry in the industrial research laboratory) hung together, reinforced one another and reciprocally structured each other’s development” (Pickering 2001: 175). Consequently, he argues that without paying special attention to the material performativity, sociology is virtually incapable of embracing progress and change in the contemporary world.

To finish with, it is worth noting that the above ideas and recommenda- tions have received some substantial criticism on the part of social scien- tists. Especially, Latour’s principle of parity of humans and non-humans has been widely accused of entailing a step towards losing questions of power and inequalities from sight<sup>51</sup>

## **Lukasz Afeltowicz and Krzysztof Pietrowicz: social machines**

The basic premise underlying the conception of social machines is to reformulate sociology by means of accommodating the natural sciences’ model of research (Afeltowicz, Pietrowicz 2013). Such claim, at first recalling a highly criticised traditional vision of sciences’ unity, in fact aims to adopt the STS perspective and this way make sociology more intervention-oriented and effective. In order to achieve this goal, the authors draw upon a range of conceptions, including the works of, among others, Latour, Hacking and Knorr Cetina.

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51 Harry Collins and Steven Yearley called it “a backward step, leading us to embrace once more the very priority of technological, rule-bound description, adopted from scientists and technologists, that we once learned to ignore. (...) If nonhumans are actants, then we need a way of determining their power. This is the business of sci- entists and technologists; it takes us directly back to the scientists’ conventional and prosaic accounts of the world from which we escaped in the early 1970s” (Collins, Yearley 1992: 322; see also Haraway 1992).

Afeltowicz and Pietrowicz argue that social sciences are currently facing rapidly growing domination of the natural sciences. These have always appeared more technologically productive, and, therefore, profitable; yet, with the recent rise of social networks analysis, neuro-sciences, Artificial Intelligence and Agent-Based Modeling, they are entering areas commonly viewed as the reign of the social sciences.

In consequence, social sciences should reorient themselves towards building the so-called social machines, originally fabricated in laboratory conditions and then successfully implemented 'outside'. Such a move entails adopting an interventionist, rather than representational, stance towards reality. Namely, sociologists ought to appropriate more tinkering with artificial phenomena, as well as embrace the fact that implementing innovations depends on active transformations of the world (Afeltowicz, Pietrowicz 2013: 192). This includes manipulating with elements such as norms, practices, symbols, organisational cultures, but also spatial arrangements, proxemics, and technologies. As the authors highlight, the non-symbolic, material elements often result much more effective in shaping the reality than a strategy of 'soft' influences.

Summarising in their own words: "A sociologist-engineer should learn to select specific social effects, learn how to elicit them in laboratory, and then attempt to reproduce these experimental condition in delimited areas of social reality. (...) Secondly, if we want to achieve high technological effectiveness, we need to accept the fact that any technological innovation is posited on reshaping the world outside laboratory so as to artificial laboratory products are able to operate outside its wall. And this turns us to the matters concerning technological and material surroundings in which social processes take place" (Afeltowicz, Pietrowicz 2008: 14). Afeltowicz and Pietrowicz account for various costs that social machines may incur; both in terms of finance and people's resistance. They are also aware that their approach is not applicable to the whole field of social inquiry; yet, in fact they do not hold any pretence to universality at all. Their examples of successfully operating social machines include, among others, management strategies dedicated to specific companies, the micro-loans systems that have gained immense popularity in South-Asian countries, but also a seemingly distinct psycho-analytic couch.

## John Law: performativity of the method

The way that the rise of statistics and surveys was coupled with development of the modern state has been investigated by several authors (see for example Desrosieres 1993; Hacking 1986, 2007). However, one of the most telling examples of how these tools – not necessarily researchers – actually create or reinvent what they look into, is provided by John Law in his analysis of the work of a Eurobarometer investigation (Law 2008)<sup>52</sup>.

To begin with, Law claims that social sciences methodologies, similarly to those applied in laboratory settings, constitute a specific hinterland of practices which allow producing realities. Looking into a Eurobarometer investigation of European citizens' attitudes to farm animal welfare, Law uncovers five layers of the survey's activity. Layer one creates a European consumer who cares about farm animal welfare, which is actually a starting point for the whole investigation. Layer two consists of European Politics which is supposed to take into account the "European public opinion". Then we have layer three, called "Subjectivities and the Location of Politics". Here Eurobarometer enacts consumers who want more information, and citizens with rights to that information. Next, there is "Europe as a Container of Individuals", based on the fact that statistical methods operate on sets of individuals, who are assumed to have opinions that are measurable, and that can be aggregated in order to become a collective distribution of opinions. And finally, Law identifies the "Romanticism, or Collectivity as Statistical Collection", that is, an underlying assumption that collectives operate as emergent, fairly homogenous, explicit wholes (while an alternative baroque vision of collectives holds them as incoherent, heterogeneous, and implicit)<sup>53</sup>.

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52 It is worth noting that out of several authors that have analysed how social sciences influence and make up the world, Law's stance explicitly avoids any kind of social constructivism. Instead, he focuses on various material practices of methodology application that produce objects, subjects and representations (Law 2008: 3, footnote no. 7), and emphasises that every time the hinterlands and the related practices reinforce each other, it gets more difficult and less probable to deconstruct them.

53 In Law's words: "Eurobarometer (...) does not simply describe and enact European consumers' views of farm animal welfare. Inter alia it also: does the consumer as an individual rational-ethical subject; reproduces the individual act of consumption as a proper location for political action; generates a hybrid consumer-citizen; allocates rights to the latter; enacts the EU as a neo-liberal political site; performs



Law hints at an important challenge to the work of Eurobarometer. He admits that it “is creating a reality but only in the context of its own interviews. In these it is indeed real. But this is a reality that links poorly with other animal-consumer-reality-practices, or at least some of them. If it did this better then there would be a network-hinterland of practices doing more or less the same consumer in other places” (Law 2008: 7; original emphasis). Thus, he illustrates that enacting a reality is extremely demanding and costly, and certainly does not come down to the ‘anything goes’ strategy. What follows is that surveys and their results, just like laboratory practices and facts, are at the same time fabricated and real. Eventually, surveys need to create proper realities: “Knowledge practices, and the forms of knowledge that these carry, become sustainable only if they are successfully able to manage two simultaneous tasks. First, they need to be able to create knowledge (theories, data, whatever) that work, that somehow or other hold together, that are convincing and (crucial this) do whatever job is set for them. But then secondly and counterintuitively, they have to be able generate realities that are fit for that knowledge” (Law 2008: 1-2; original emphasis).

Law’s most elaborated conception of social methods performativity is expounded in a book entitled “After Method. Mess in Social Science Research” (2004). Here he proposes a substantial reformulation of the ways we envision and apply methods of social research. Acknowledging of a rising complexity and messiness of social phenomena, he calls for a new method that would enable to account for ephemeral, rhizomic processes which have no underlying, fixed structure. The objective is not to eradicate the whole methodology of social sciences, rather, to think of inquiry as situated, often deliberately imprecise and inherently political. Thus, Law coins the notion of method assemblage<sup>54</sup>: “the enactment or crafting of a bundle of ramifying rela-

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Europe as an isomorphic population of individuals in a homogeneous, bounded, conceptual space; reproduces statistics and survey research as reliable tools for describing and so enacting social reality; and naturalises a philosophically romantic version of the collective in which «small» individuals are located within, and treated as contributory parts of, an emergent larger whole” (Law 2008: 12; original emphasis).

54 The concept of “assemblage” is inspired by Deleuze and Guattari’s works. In Law’s words, it is “an episteme plus technologies. It is ad hoc, not necessarily very coherent, and it is also active” (Law 2004: 41). Thus, application of this term allows Law to bring a host of heterogeneous elements together without the need to form them in a fixed shape or setting clear-cut criteria of their success.

tions that generates presence, manifest absence and Otherness, where it is the crafting of presence that distinguishes it as *method assemblage*” (Law 2004: 42; original emphasis). As Law explains, this poststructural framework of “*presence, manifest absence, and absence as Otherness*” can be translated as crafting the objects that are present (“in-here”) and their visible and relevant contexts (“out-there”), as well as ramifying what stays out-there, remaining necessary for what is “in-here”, but staying invisible, repressed. A method envisioned this way encompasses not only rules and procedures, but also skills, instrument and statements. And, what is most important, it is performative : rather than presenting what is ‘out there’, it produces outcomes and realities in the processes of both constructing and excluding.

Founding his approach upon the works of, mainly, ANT-related authors (especially Latour and Woolgar, and Annemarie Mol), Law examines how certain realities, the statements about them, their technical and human configurations are produced together through scientific practices. Next, he states that the created realities are multiple<sup>55</sup>. In order to embrace this premise he introduces Mol’s concept of enactment, differentiating it from Latour and Woolgar’s idea of construction that results in a fairly coherent, stabilised outcome. Performativity of a method assemblage leads to enacting several realities, which, however, require constantly upholding and which are not entirely separate. Multiplicity does not necessarily lead to fragmentation; rather, it is about “a *world* that is more than one and less than many” (Law 2004: 62; original

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55 Law pictures this statement referring to Mol’s research of the practices of medical diagnosing of lower-limb atherosclerosis. She starts it with a question concerning the very ‘essence’ of the illness. Watching the practices of doctors and their patients, the multiplicity and variety of accompanying conditions and volatility of conclusions, she reaches a point in which speaking of singular, stabilised objects (such as diagnosis or illness) seems inadequate. Rather, what she claims to be witnessing are numerous objects crafted with distinct methods; objects that remain open-ended and overlapping. Mol concludes that: “Ontology in medical practice is bound to a specific site and situation. In a single medical building there *are* many different atheroscleroses. And yet the building isn’t divided into wings with doors that never get opened. The different forms of knowledge aren’t divided into paradigms that are closed off from one another. It is one of the great miracles of hospital life: there are different atheroscleroses in the hospital but despite the differences between them they are connected” (Mol 2002: 55; cited after: Law 2004: 59 original emphasis).

emphasis). Finally, the multiple realities can be regulated and related in several ways<sup>56</sup> which foster interdependence without producing unity. They are partially co-ordinated and constantly overlap.

Additionally, Law notices that method assemblages include operations pertaining to realities and non-realities alike. He explains that the practice of enacting demands both creation and silencing, both including and othering. It is about making patterns and ignoring the noise, which implicates that “*realities grow out of distinctions between «right» and «wrong» patterns of similarity and difference*. It is this that enacts the distinction between real and unreal, and makes signal and silence. The implication is that silence and non-realities are also artful effects. They are the first steps towards avoiding dazzle and making realities” (Law 2004: 110; original emphasis). As a result, methods are not, and could never be, innocent or purely technical. On the contrary, they are imminently political and entail some substantial ethical decisions, including the fundamental choice of a direction to follow and the reality to make. As a result, any such movement enters the “ontological politics” (see Law 2004: 143-156). At the same time, this moral engagement can be, according to Law, one of the greatest advantages of the social research methods: it “is analytically and politically productive because it asks us to explore what it is that our methods actually do, and then whether or not this is desirable” (Law 2008: 1). In other words, method assemblage is about seeking engagement and making good differences (Law 2004: 7).

In sum, allow me to quote Law’s own conclusion of his work: “Method is not, I have argued, a more or less successful set of procedures for reporting on a given reality. Rather it is performative. It helps to produce realities. It does not do so freely and at whim. There is a hinterland of realities, of manifest absences and Othernesses, resonances and patterns of one kind or another, already being enacted, and it cannot

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56 In the case of medical practice, Mol points to strategies such as: the faith in singularity of a body (which can be “layered” if there are odd or unusual symptoms), translations allowing to turn one thing into another (e.g. angiographs converted into percentages of lumen loss) and submission, which enables to put the things in hierarchy (e.g. when it comes to assessing the adequacy of the results of different diagnostic procedures), rationalisations (e.g. taking into account extra-medical conditions that fit the situation), mutual exclusion: (e.g. an amputation of a leg makes it impossible to run any other procedures on it), and others (Mol 2002; see Law 2004: 60-62).

ignore these. At the same time, however, it is also creative. It re-works and re-bundles these and as it does so re-crafts realities and creates new versions of the world. (...) Enactments and the realities that they produce do not automatically stay in place. Instead they are made, and remade. This means that they can, at least in principle, be remade in other ways” (Law 2004: 143).

## **Economics’ performativity**

Also the rise of performative approaches within economics can be largely related to the growing interest in STS inquiry, especially actor-network theory. Michel Callon is considered one of the most prominent figures in this field, which today encompasses a great variety of conceptual and empirical studies by authors representing different schools of thought<sup>57</sup>. What can be seen as a common point of departure for them is abandoning the traditional conceptions of market, in which it was conceived as a fairly specific, concrete entity, with its activities accounted for in terms of more or less coherence or deviation from what theories anticipated (MacKenzie, Muniesa, Siu 2007). On the contrary, the focus of performative studies is situated on the issue of how markets are formed in response to the theoretical models. Alex Preda describes how such assumptions can be re-read through the language of actor-network theory: “performativity then implies the creation of a heterogeneous network that defines its interests and mobilizes adequate resources while tracing conceptual and cultural boundaries in such a manner that the outcome of this process (e.g., empirical data, results) appears to reinforce the resources (e.g., confirm the abstract model). However, since the outcome of boundary-marking (data) is neither independent of the resources used (model) nor interest-neutral, it follows that model and data circularly reinforce each other, in a way similar to the bond existing between theory producers and users” (Preda 2008: 911).

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57 For the sake of conciseness, here I present only some general, most fundamental ideas of two selected authors: Michel Callon and Donald MacKenzie. I also leave out a vast area of management and organisational studies. Only to give a sense on what these two fields deal with, let me quote Barbara Czarniawska’s work: “with performative definitions, organizations are ascribed neither a nature nor an essence in any absolute sense; rather, organizations are considered to be what the people producing them made them at the time when those who were the observers conducted their observations” (Czarniawska 2002: 316). See also Boll 2013; Czarniawska 2013; D’Adderio 2008; Vosselman 2013.

Callon explicitly states that “economics, in the broad sense of the term, performs, shapes and formats the economy, rather than observing how it functions” (Callon 1998: 2). More precisely, he understands market as a method of coordination, which, according to him, implies the existence of agents capable of calculation. The “calculative agency”, defined as “a self-interested agency obsessed by the calculation-optimization of his or her own interest” (Callon 2007: 346), consists of, on the one hand, values, norms and conceptions of the world through which abstract ideas or theories make influence; on the other, the socio-technical institutions connected to them. Such agencies are then not necessarily human. Altogether, the processes of object and agency-formation are what Callon considers the performativity of economics.

With a slightly different focus, Donald MacKenzie (2007: 54-86) proposes three types of performativity in economics: the “generic performativity” (based in theories and models, taking place when one uses them in real economic processes), the “effective performativity” (pertaining to an effect that this application brings about), and “Barnesian performativity” (concerned with how such applications ties economic processes to their theories, mainly by means of generating data that confirms with model predictions, or in more ANT-ish terms, by fitting a secure chain of reference between a model and the reality). Finally, MacKenzie also distinguishes the so-called the “counter-performativity”, which occurs when the real-life results of a model application are contrary to the intended ones. Thus, he draws attention to a very important issue, taken up by several STS scholars in the context of laboratory activities: performativity does not necessarily give a ‘positive’ effect; rather, it is non-linear, multiple and messy.

## **The turn to things**

By and large, STS vision of social sciences is founded upon a posthumanist, deeply processual and relational stance towards reality. Particular conceptions may be more or less radical in their recommendations, they all, however, welcome the renouncement of the taken-for-granted, hierarchical dualisms and distinctions, as well as question anything that seems obvious, stable, or natural, including the very notion of social. Embracing the material and the non-human is supposed to allow escaping the plights of both social constructivism and correspondence realism, at the same time promoting an engaged, active attitude of intervening upon realities rather than describing them.

Interestingly, the approaches presented above coincide with a recently growing interest in materiality within the very social sciences and humanities. This is not to say that such tendency was triggered by STS alone, for it definitely has some broader foundations. All in all, a brief outline of the field of “the turn to things” in social sciences is a useful example of incorporation and reformulation of selected postconstructivist propositions.

Several authors have recently declared a shift from anthropocentrism towards more concern for materiality and the non-human, including things, animals, plants, hybrids, etc. (see Appadurai 1986; Domańska 2008 a, b; Haraway 1997; Ingold 2011; Krajewski 2005, 2008, 2013; Olsen 2003, 2010; Preda 1999). Marek Krajewski notices that for a long time investigations of things were considered non-serious, dangerously close to play and certainly not deserving academic effort (Krajewski 2008). In a similar vein, Bjornar Olsen describes how text-centred approaches together with critical theory and various conceptions of consumption led to interpreting things in solely socially-derived terms. This, in turn, resulted in a one-sided reception of their role – as threatening to the humanity. Olsen argues that: “this desire for an immediate world emptied of its mediators, assigned to things an ambiguous position within the modern constitution. They are located outside the human sphere of power, interests and politics – and still not properly nature. Although prescribed for the non-human side, material culture ended up with not occupying any of the two positions prescribed by the modern constitution, as either culture or nature. Being a mixture of culture-nature, a work of translation, and itself increasingly mediating such relations, material culture becomes a matter out of place – part of the «excluded middle»” (Olsen 2003: 96).

Nevertheless, the contemporary transformations of the world, including the growing impact of technologies, recurring ecological crises, acts of terrorism and genocide, undermine the privileged position of the humankind and lead to questioning the very nature of humanity. Also, the rise of devices that rapidly change our ways of communicating, remembering and organising activities, the advancements in transplantations, the appearance of intelligent robots... – these and many other artefacts and hybrids make the boundary between human and non-human more transient and volatile (see Krajewski 2013; Haraway 1997). Furthermore, many authors highlight that individuals adapt themselves to reality by means of forging things; inclusively, they become

individuals thanks to creating objects, using, destroying and reflecting upon them (see Krajewski 2008, 2013; Preda 1999). At the same time, things also set conditions and impose upon our behaviour, often serving to transfer and maintain our knowledge, routines and social order. All in all, it is becoming more and more obvious that thanks to their impenetrability, interpretative stability, and closure-ness things greatly contribute to reproducing subjects and the social reality.

It should be clear then that the links between the 'turn to things' and various STS perspectives are fairly strong and prolific. First and foremost, many social researchers of materiality explicitly adopt the anti-dualist position, conceiving of reality in terms of entanglements and constant transitions rather than fixed entities. Olsen proposes that any difference between humans and things be conceptualised as dynamic and relative, not an inherent, abstract quality. Moreover, numerous authors situate the ability to act within networks of humans and non-humans; thus, agency is understood in terms of distribution (see for example Krajewski 2013: 27; Ingold 2011: 19-32). Furthermore, social research of materiality tends to overcome the micro / macro distinction, for its strong focus on networks entails connecting the individuals with a broader plan of structures and organisations. Eventually, the turn to things in social sciences and humanities is often interpreted as a strategy of including The Other. Accordingly, it is also widely considered as resulting from a crisis of the modern paradigm of knowledge and text-centered approach to culture (see Haraway 1997; Krajewski 2013; Olsen 2010).

## **Transitions: towards knowledge performativity**

Undoubtedly, postconstructivist studies of science and technology provide a distinctive and fairly complex vision of scientific knowledge production. Beginning with insights into the interventionist nature of laboratory practices, we have arrived at a set of conclusions that highlight the multifarious, processual, and transformative potential of all science, be it natural or social. The issue of performativity is certainly developed by the authors recalled above, yet, at times it remains harder to trace down than in the conceptions described in the first part of this book.

In general, the postconstructivist concept of performativity provides a productive framework for analysing the practical success, or rather, the effectivity of science in terms of its ability to create facts and objects in delimited, properly preconditioned segments of the world<sup>58</sup>. Postconstructivism aims to get hold of what makes them successful: stabilised, well-embedded and influential. All in all, the principle is to obtain repeatability (not an exact replica), that is, accordance with a significant pattern which each time can slightly differ from its previous versions (Rouse 2004)<sup>59</sup>.

From the standpoint presented here, science is about constructing niches, in the course of material-discursive engagement with transforming the world, as Rouse would argue. Latour and Woolgar put it this way: “Each text, laboratory, author and discipline strives to establish a world in which its own interpretation is made more likely by virtue of the increasing number of people from whom it extracts compliance. In other words, interpretations do not so much *inform* as *perform*” (Latour, Woolgar 1986: 285; original emphasis). Importantly, both material and discursive practices play a fundamental role in transforming the disorderly world into stabilised, flat and comparable results. Without being “packed into discourse” the researched objects would not be able to travel through various contexts and, in fact, become manageable. This shift is, in turn, made possible thanks to the work of inscription devices. Moreover, both scientific texts and technical devices are considered one of the most powerful elements within the whole process of knowledge production, as they deliver a civilised, decontextualised “report of findings” and hide

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58 Latour explicitly states that: “Facts and machines are like trains, electricity, packages of computer bytes or frozen vegetables: they can go everywhere as long as the track along which they travel is not interrupted in the slightest. This dependence and fragility is not felt by the observer of science because «universality» offers them the possibility of applying laws of physics, of biology, or of mathematics everywhere in principle. It is quite different in practice. You could say that it is possible in principle to land a Boeing 747 anywhere; but try in practice to land one on 5th Avenue in New York” (Latour 1987: 250). In other words, a success of a constructed fact depends on the extent to which the outside of laboratory is prepared to operate with it in an extended network.

59 As Hacking notices, although repeatability remains an important methodological rule, in fact running an experiment over and over again is usually an attempt to improve it in terms of producing “more stable, less noisy version of the phenomenon” (Hacking 1981: 231). Consequently, it never remains exactly the same as before.



the contingency and messiness of the research processes<sup>60</sup>. Certainly, they are not regarded as mute, independent, or merely technical/descriptive elements of the scientific activity.

As a result, the connections between science and the ‘outside’ world are of growing importance, both in organisational terms (related to, for example, expenditures and influence of policymakers and donors), and regarding the extension of scientific concepts, instrumentation, materials, and practices beyond laboratories (see Rouse 2014). Also, the processes of enacting pertain to both social, cultural reality, and the nature itself; namely, it always is material, discursive, and social at the same time.

It is also crucial to fully acknowledge of the fact that none of the presented authors accept the ‘anything goes’ principle: scientific activity does have a transformative and constructed character, but it always takes place against some background. And this can be understood as twofold: as material resistance and as the existing, ‘state-of-the-art’ landscape of accepted methods, devices, beliefs, routines, concepts, cultural norms, etc. Yet again, this is not to say that all these form some kind of a stable point of departure, as the resources necessary to conduct a scientific research are not given. In order to enter a laboratory setting, they have to be recognised and properly mobilised.

To finish with, the links between STS and the performative turn can be established not only by some mutual inspirations and references (e.g. to the works of Foucault or Butler), but also thanks to their shared assumptions and concern for a host of similar issues.

In general, the concept of performativity is brought up here in the context of overcoming some of the taken-for-granted dualisms and distinctions. It certainly links to the underlying anti-essentialism, with specific focus on the emergence of human and non-human agencies. For instance, Barad summarises her posthumanist notion of performativity as “one that incorporates important material and discursive, social and scientific, human and nonhuman, and natural and cultural factors.

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60 Knorr Cetina argues that published papers should be treated as hybrids that, first of all, bring together various layers of investigation in a structured, clear-cut manner, and, second of all, are co-produced by its authors, scientists who commented on them, and wider audiences to which they are directed (Knorr Cetina 1981: 94-135). Latour describes various literary strategies that are applied in order to make a text capable of performing in the absence of its author (see Abriszewski 2012: 123-146).

A posthumanist account calls into question the givenness of the differential categories of «human» and «non-human,» examining the practices through which these differential boundaries are stabilized and destabilized” (Barad 2003: 808).

At the same time, several authors attempt at bridging the gap between practice and theory as well as well between the experimental and the conceptual. For example, Pickering and Rouse demonstrate that the theoretical elements of scientific activity (concepts, models, abstractions, etc.) are capable of shaping realities, at the same time operating as simulacra rather than truthful depictions of reality (see for example Callon 1998, 2007; Law 2004; Pickering, Stephanides 1992; Rouse 2001). All in all, the insights from laboratory studies provide a point of departure for postconstructivist analyses of those scientific fields in which the material agency is much less apparent than, for instance, the impact of culture and conventions.

Yet from another standpoint, it is worth noticing that binding the discursive, the practical, and the material together allows overcoming the traditionally conceived epistemological gap between knowledge and the world. In ANT it is replaced by a vision of subsequent, open-ended shifts and transformations in the course of which we lose the particularity, locality, and diversity of ‘the object’, while making it more compatible, and standardised (see Bińczyk 2007: 228-229)<sup>61</sup>. Thus, relations of reference are multidimensional and dynamic; they can always be turned over by means of following the same steps that have led to their settlement (Bińczyk 2007: 224).

Postconstructivism takes notice of how sciences and knowledge intermingle with issues of exercising power. “Method (...) unavoidably produces not only truths and non-truths, realities and non-realities, presences and absences, but also arrangements with political implications. It crafts arrangements and gatherings of things – and accounts of the arrangements of those things – that could have been otherwise” (Law 2004: 143). It seems that once we account for science as actively shaping the world and agencies within it, then questions of ethics and politics become inextricably related to any practice as well as the outcomes of the whole process. Eventually, these are not only technological

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61 See for example Latour’s “chains of reference”; Pickering’s “interpretive” and “phenomenal” accounts of investigation; Rouse’s non-reifying understanding of discursive practices, described in this chapter.

advancements that are highly influential here, for science is shown as enmeshed into much more subtle, 'softwared' ways of making impact by articulating the world and the possibilities we have in it.

Moreover, the authors presented themselves make a shift from purely descriptive towards openly normative positions<sup>62</sup>. If Latour and Woolgar intend to give a picture of simply what is happening in a laboratory setting, then Barad, Rouse, and Law explicitly advocate that sciences, and especially the philosophical reflection upon them, should become more responsible and reflexive upon their own political situatedness as well as upon the consequences of the practices and the objects they produce. As Rouse explains, his "cultural studies of scientific knowledge have a stronger reflexive sense of their own cultural and political engagement, and typically do not eschew epistemic or political criticism. They find normative issues inevitably at stake in both science and cultural studies of science, but see them as arising both locally and reflexively. One cannot not be politically and epistemically engaged" (Rouse 1992: 77).

In sum, although the metaphors of construction and fabrication have become commonplace in STS, it is worth noting that the notion of performativity allows hinting at a slightly different direction than these two. Firstly, drawing upon Annemarie Mol's concept of enaction, it embraces both the constructed character of knowledge production, and the volatility and multiplicity of its results, including facts, objects and realities. These are not only fabricated, but also they no longer appear single or stable. Rather, they require constant maintenance and networking. In other words, the notion of performativity highlights the deeply anti-essentialist and relational character of the postconstructivist insight into the scientific enterprise. Secondly, thinking of scientific practices in terms of performativity integrates reflection upon materiality, discourse, and culture, as well as what is considered experimental and conceptual.

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62 Steve Fuller and James Collier convincingly show why Latour and Woolgar's (1986) descriptivist strategy has, in fact, never been free of the normative dimension: "because this «neutral» description of science clashes with the expectations of readers most of whose images of science are already very norm-laden, the net effect of these ethnographies has been to inspire a wide-ranging reevaluation of the epistemic legitimacy of science. Yet the ethnographers themselves claim they are merely describing what they have observed. Thus, the ethnographies passively intervene in the scientific enterprise simply by offering a perspective that differs substantially from standing expectations, thereby unintentionally questioning the groundedness of that enterprise" (Fuller, Collier 2004: 78-79).

In other words, it treats all these aspects as inseparable and equally subject to 'mangling': each and every contributes to the whole process and would not work alone. Thirdly, performativity as a conceptual tool brings to the fore issues of power and effect. Especially, it draws attention to the fact that every act of creation is at the same time an act of exclusion, of othering. And finally, the notion of performativity has been successfully applied in analyses of both natural, laboratory sciences, and the social sciences, again undermining the often taken-for-granted and traditionally grounded oppositions between them.

**KNOWLEDGE  
AS (A) PERFORMATIVE**



## **Knowledge as (a) performative: a conceptual outline**

Conceptions presented in the previous parts of this book are fundamental to a profound shift in an overall image of science and knowledge production within contemporary philosophical and social thought. This transition can be largely characterised in terms of problematizing almost any fixed assumptions we might hold about the nature of realities and the way that science works. On the whole, it entails refutation of any representational, essentialist models of knowledge and language, and thus, it focuses on the processes of mutual crafting and accommodating of knowledge and the world. Yet in other words, knowledge processes are no more flat, nor transparent accounts. Rather, they are of twofold character: scientific outcomes – facts, objects, statements – are made effective not only by means of adopting it to some external setting, but also the setting itself is accommodated to them. Now, such declaration may seem fairly obvious: that knowledge changes the world, and the world changes knowledge. Nevertheless, as will become clear in the following passages, this mutual realigning is worth attention, for its consequences, and the productive potential it carries, are much more promising than what may seem at first sight.

What I want to propose here is to conceive of knowledge in terms of its performativity. The notion of knowledge as (a) performative is supposed to draw attention to a specific, profoundly transformative, yet at the same time embedded character of knowledge, itself understood both as a product and a productive process. This is not to say that it works as some demiurgic power; contrarily, it always responds to some social conditions and conventions, remaining capable of introducing renewed realities and phenomena. Thus, in terms of quality assessment, primarily it has to stay workable on a daily basis, yet also, in a broader perspective, it does not shun from the ethical issues. In fact, both facets – the pragmatic and the axiological – are indispensable to its operation. Knowledge as (a) performative inevitably encompasses various types of practices and forms of knowing, without aiming to reconcile or separate them in a definitive manner. The constant, multifaceted work of knowledge and the world will be addressed in terms of translations. Consequently, knowledge as (a) performative requires specific spaces which value creativity and resourcefulness more than replication and maintaining institutional order. Such spaces are, as expected, of liminal character. All in all, the proposed vision of knowledge places focus on its open-ended,

non-linear, transient, and heterogeneous character, its active engagement with the world and within matrices of power, lack of clear-cut paths or easily measurable results. And most importantly, with such import, knowledge as (a) performative entails effectiveness in manner that encompasses the long-standing influence of ideas and conceptual practice, rather than solely technological applications.

The concept of knowledge as (a) performative is distinctive from several other philosophical approaches to knowledge and sciences in some important respects. First of all, it is based upon renouncement of the positivist standpoint, especially for its faith in effectiveness of methodologies and brilliant minds, with epistemological ideals of detachment and disinterestedness. Such conceptions, promoting static, propositional and product-like vision of knowledge, are clearly rejected. With regard to positivism, the notion that I present rightly conveys an Austinian discernment between constatives and performatives. Metaphorically, 'knowledge as (a) performative' can be characterised as being capable of doing what it states, whereas positivist vision of 'knowledge as representation' with its primarily descriptivist character is more alike to constatives. Subsequently, the former succumbs to felicity conditions – it can be either successful or not, while the latter can be judged as true or false.

At the same time the concept of knowledge as (a) performative departs from social constructivism which models knowledge in terms of social practices. Social constructivism has managed to overcome several theory-centric assumptions of positivism, altogether undermining the external/internal divide between what is purely scientific and what is merely contaminant. It has also significantly contributed to opening the field of examination of the pragmatic side to knowledge-making. Nevertheless, as expounded in the second part of the book, social constructivism has also been accused of upholding representationism and leaving aside the whole area of material and non-human agency. Its focus on solely social interests does not seem to suffice here.

Conceptually, knowledge as (a) performative shares its most basic premises with postconstructivist science and technology studies. The notion is founded upon a conviction that science is a primarily creative and transformational enterprise which consists in securing links between heterogeneous resources by means of complex practices of social, material, and discursive kind. Therefore, it accepts assumptions of a-representationism, anti-essentialism, posthumanism, and trivialised realism (see Bińczyk



2012, 2013a). However, the concept of knowledge as (a) performative takes the metaphors characteristic for postconstructivism – ones of intervention, construction, and fabrication – further than their original authors. First of all, it integrates insights from various conceptions, which, on their own, emphasise a range of varied features of knowledge processes. For instance, it draws upon the vision of niche construction, developed by Rouse (2014), but at the same time conceives of the processes specific for it in terms of translations, as it was elaborated in actor-network theory (Callon 1986; Latour 1983, 1999; Law 2007), finally looking into the effects in terms of enacting multiple realities, as Mol would have it (Mol 2002; see also Law 2004). Merging these authors and concepts under the notion of knowledge as (a) performative is supposed to highlight the intrinsic volatility and relationality of all aspects of knowledge making, from recognising the resources, to the very nature of its outcomes. Second of all, the postconstructivist import is read through the conceptions that have been presented in the first part of the book as largely related to the so-called performative turn. These will allow, above all, more insight into the complex temporality of knowledge as (a) performative, emphasising its transient and tenuous character. Moreover, the ideas from the performative turn also serve as a basis for theorising upon knowledge effects, its relations to power and ethics, and liminal spaces of its production. Altogether, the notion of knowledge as (a) performative adopts and reformulates assumptions from various theories of performativity and performance that have been largely presented in both previous sections of the book, and especially those examining how science works. Importantly, the concept is not intended to contest the other vision of science, be it positivism or social constructivism; much sooner it is a proposition based upon a distinct set of premises and with different aims, which in certain contexts might simply work better than others.

Having delineated the place of knowledge as (a) performative on a conceptual map, it is now vital to situate it in the context of phenomena related to the contemporary knowledge production. In brief, the background for the emergence of knowledge as (a) performative is shaped by the dominating role of capitalist economies and expansion of the principle of mini-maxing into subsequent areas of social life, as well as a growing sense of uncertainty and the awareness of the science-related risks. Unavoidably, these conditions translate into how knowledge and science work. Above all, the trust in scientific progress is undermined,

leading to the increased expectations for producing useful outcomes whilst remaining accountable. This results in a growing public pressure for opening and democratising the academic inquiry as well as making it more interdisciplinary, and thus applicable. At the same time, processes of knowledge production expand outside the traditionally conceived settings; we are witness to the rise of countless organisations and initiatives – think-tanks, fab-labs, expert non-governmental organisations, etc. – that deal with this or another type of knowledge. Eventually, in this landscape the social sciences and humanities seem to be somewhat lost to the race of economically understood utility, mainly for their image of impractical, abstract inquiry that brings no concrete, measurable effects.

The notion of knowledge as (a) performative may also resemble of numerous conceptions of managerial models of knowledge production which take place in non-academic settings. However, as already declared, here the concept is presumed as a certain commentary on how we can conceive of, above all, academic sciences. Unlike the above models, the pragmatic, every-day aspect of knowledge as (a) performative is balanced with a ‘heavy’ ethical background, one that sets long-standing objectives of accountability and social robustness rather than mere utility. Accordingly, science, with its institutional stability and a certain ethos, still has a unique potential for providing a welcoming space for such inquiry.

Finally, my aim is not to coin an entirely new concept, but bring together the already existent or emerging tendencies and ideas with an objective that, once they are all explicit and interconnected, they start to act as a useful tool of reflecting, acting, and debating over contemporary science and knowledge production. All in all, the objective of elaborating the notion of knowledge as (a) performative is not of empirical adequacy. Rather, I do aspire to, firstly, provide an overview of topics that have appeared in various contexts, but yet have not been put forward in an integrating manner, secondly, deliver, at least modestly, empowering concept, especially for contemporary humanities and social sciences.

In what respects knowledge as (a) performative can be productive, comparing to other concepts of knowledge production and against the neoliberal expectations that we have to face on a daily basis, will be expounded in the very end the book. Before that, the second chapter of

this part of the book presents examples of conceptions that, coming from humanities and social sciences, can actually be considered as operating in a fundamentally performative mode.

Before moving on to the next part, let me to explain each part of the proposed term, in the following order: “performative”, then the bracketed “(a)”, and finally “knowledge as”.

The decision to account for knowledge in terms of its performativity, rather than comparing it to performance, is primarily a result of its much closer relations to philosophy and STS, and thus language and knowledge analyses. The notion of performativity conveys the anti-essentialist, relational, and transformative character of the model of knowledge intended in a much suitable way than does the term “performance” (see, for instance, Butler’s discernment between performance and performatives; Butler 1993a: 24). At the same time, it hints at the inherent embeddedness of the process, be it under the Austinian focus on the role of conventions or Law’s notion of hinterland, thus countering the accusation of accepting relativism or the ‘anything goes’ attitude. Finally, philosophy of science has already witnessed some attempts at theorising science in terms of artistic performance, however, with results that eventually reinforced the traditional, positivist framework of analysis (see for example Crease 2003). All in all, the choice to employ the concept of performativity does not exclude ideas stemming from reflection upon performance; they are vital, but seen through the performativity-oriented standpoint.

Next, the purpose of putting an “a” into brackets is to avoid any kind of ‘essentialising’. Knowledge as (a) performative is thought as both a product and a process, consequently, its performativity is not to be defined either by a noun or an adjective. Altogether, the fluctuation is fully intended.

Ultimately, “knowledge as” is a reference to Richards Schechner’s distinction between “as performance” and “is performance”, that is, between the strategy of matching two terms in order to bring some features to the fore, and equating them as a result of an examination of their cultural and social contexts (Schechner 1998, 2006). Again, the “as” approach is employed here in order to prevent imposing any artificial delimitations, and at the same time to hint at a range of underlying issues and aspects of performativity.

Once I have outlined the conceptual framework with a broader socio-cultural context, then explained my own engaged position in this undertaking, and finally, decomposed the very notion, it is time to address the fundamental question – how does knowledge as (a) performative work?

## **Knowledge and the world: mutual embeddedness and enaction**

To claim that knowledge can be conceptualised in terms of its performativity is to assume its capability of doing something, or better, successfully effectuating some kind of change or novelty, rather than providing adequate descriptions of external reality. Hence, first and foremost, the notion of knowledge as (a) performative is founded upon a vision of a specific relation between knowledge and the world: one of ongoing mutual embedding and enacting.

Knowledge (a) a performative is anchored within the world: it does not emerge in a vacuum, it is no pure discovery or emergence. Rather, it is made possible within particular circumstances. Be it pure curiosity or a real-life problem, its point of departure is enmeshed within the existing matrices of social relations, discourses, materialities, normativity. Importantly, part to this matrix is also created by the existing various forms of knowledge: of propositional kind (e.g. research reports, articles, textbooks) as well as embodied, tacit routines and habits. These circumstances shape a certain hinterland of practices: “a bundle of indefinitely extending and more or less routinised and costly literary and material relations that include statements about reality and the realities themselves; a hinterland includes inscription devices, and enacts a topography of reality possibilities, impossibilities, and probabilities” (Law 2004: 160). A hinterland, then, is not the world as such. Yet, it encompasses all the intervening circumstances, such as social and material realities, statements about them, research agencies, instruments and devices, political agendas, etc. Its role to the process of knowledge-making is absolutely vital for it defines “an overall geography – a topography of reality-possibilities” (Law 2004: 34). Thus, a hinterland marks both constraints and opportunities, it provides some orientation for our choices and actions; it also regulates what is science and what it means to practise it (Law 2004: 29).

Importantly, a hinterland translates directly into what can be understood the felicity conditions of knowledge as (a) performative, that is, a set of assumptions concerning its effectiveness. And so, the felicity conditions for knowledge as (a) performative depend on what is recognised as a hinterland and how these elements are prioritised. Failing to comply with the felicity conditions can result, at best, in “the world kicking back”, to cite Karen Barad (2007: 215), whereas an inappropriate recognising of the very hinterland probably ends up in a lack of further movement, a complete silence or inertia, which altogether seem harder to detect as mistaken and, therefore, react to. All in all, the fact that knowledge as (a) performative always operates within and against a specific hinterland makes it in a way embedded in the world.

The difficulty is that the hinterland is in constant flux. It is misleading to treat it as something pre-existing or a stable point of reference. Hinterland is shaky and unstable – realities are made and realities are unmade, but they are never finished, as Law notices (2004: 107). So are the felicity conditions of knowledge as (a) performative: even if they seem perfectly appropriate in one moment, they may well fail the next one. Therefore, both hinterland and the felicity conditions need to be constantly recognised, reformulated, and then, most importantly, translated into knowledge processes. The strategy is rather of intervention and manipulation, than waiting for a discovery. “The world *is* intra-activity in its differential mattering”, as Barad argued (2003: 817; original emphasis); thus, in the simplest sense, a hinterland requires action, not a passive diagnosis. Moreover, the fact that hinterland is messy, ambiguous, and unsettled points to two things. The first is that it is purely impossible to embrace the whole landscape of change and transition: knowledge as (a) performative, like meaning, “is context-bound, but context is boundless” (Culler 2009: 91). Secondly, there is no need to do so. The hinterland tends to adopt a fairly routinised, pattern-like shape. This suggests that it is possible to start building upon the elements that are potentially most stabilised, and already available, like the black-boxed inscription devices or commonly accepted statements.

At the same time, ‘the world’ is itself shaped by previous knowledge processes; also, it is being constantly re-enacted within them. To begin with, the way that scientific knowledge produces discourses and, subsequently, subjects, was convincingly described by numerous authors, out of whom Michel Foucault is probably one of the most prominent (Foucault 1972, 1977). There are also numerous examples of how statistics and

classifications have contributed to creating phenomena and reinforcing the modern states (see, for example, Desrosieres 1993; Hacking 1986, 2007; Jasanoff 2004; Law 2008; Osborne, Rose 1999). Then, the STS conceptions convincingly show that world is 'proto-laboratorised', that is, orchestrated with universally accepted systems of measurement, categorisation, and arrangement (Latour 1999). Most importantly, however, postconstructivist studies describe how laboratory sciences fabricate their objects, fact, and statements about them, stabilising them together with the accommodated realities. Exactly, a proper space, a 'reality' is indispensable for a scientific outcome to successfully leave its initial setting (e.g. a laboratory): in properly preconditioned realities the fabricated results are made relevant and more operational.

The relations between knowledge as (a) performative and the world are conceptualised in terms of enactions (Mol 2002). Accordingly, it is assumed that scientific practice consists in constructing its outcomes by means of numerous heterogeneous translations, especially mobilising the vital elements of hinterland, turning them into manageable imprints on flat surface (Latour 1983: 164), and binding them all together so that they start to act as a seemingly stable, fixed objects, facts, or phenomena. Furthermore, enactions accept the inherent volatility and relationality of both outcomes and the realities. In fact, realities enacted are multiple; as Law points out, more than one, but less than many (Law 2004: 62). They are interrelated, yet to a certain extent separate. Finally, knowledge as (a) performative is also about upholding these outcomes and realities against a flux of indeterminacy and constant change.

Nevertheless, the world is being transformed not only as a result of knowledge processes, but in the very course of them. Subsequent translations, if based upon properly formulated felicity conditions, do change the very hinterland they depart from. With such shifts, which in fact are the evidence to knowledge as (a) performative successful processing, a hinterland is modified, and so are further felicity conditions. In other words, the constant flux of the world and the hinterland is a result of not only some seemingly external, unanticipated processes, but also primarily of the very knowledge practices conducted. The whole process then is non-linear and discontinuous, becoming fully graspable and justifiable only backwards.

Altogether, the landscape is of constant, spiral-like movement: facts, objects, and phenomena are crafted in the course of complex knowledge practices together with their adequate, functional realities; realities become part of the hinterland, the hinterland is recognised and translated into certain felicity conditions for more knowledge practices which change hinterlands and re-enact realities. The world itself is neither independent nor anterior to the processes of enaction. Instead, it is both the point of departure, and the point of arrival, only that each time it is somewhat different; knowledge is embedded in the world, the world is embedded in knowledge. As Latour argues, the more connected they are, the better (Latour 1999: 18). This also means that the very process is not linear. We need to embrace the fact that change is undergoing all the time; not only as marked by two points in time, the beginning and the end of the process. At the same time, this means that the possibility of failure is inherent, as changing hinterland poses constant challenges to what has already been achieved, and to the future formulations of felicity conditions.

It should already be clear that knowledge as (a) performative is both process- and product-like, while its anyhow understood success cannot be explained in terms of linear causality. I explore these two points in more detail in the following section.

## **Knowledge and knowing: bringing product and process together**

The very outcomes of knowledge as (a) performative – an object, a statement, a fact, and the transformed realities, should not be regarded as any fixed, ever-lasting entities. Instead, these are temporary, “interactive stabilisations” comprising of the elements that have been networked in the course of translations (see Pickering 1995; Latour, Woolgar 1983); these are “robust fits” between several heterogeneous elements, as Hacking would call it (Hacking 1999:71-73). Then, a network has to be extensive and dense, while its connections strong. However, the ultimate goal is to conceal both the history and provisional shape of the outcome: it should appear as an independent, steady entity that has just been discovered ‘out there’. Namely, a network has to become possibly transparent, non-imposing, obvious; the closer to a black-box it gets, the better (Latour 1999).

Out of the two dimensions – process and product, knowledge as (a) performative should be primarily conceived as a complex, multifaceted process in which product-like forms of knowing play a vital part, but only as temporary stabilisations within a much larger course of operation.

Who and what then participates in the process?

Knowledge as (a) performative is collective, not only in terms of working in teams of scientists, but also for its democratising appeal. It brings together a variety of actors with their specific forms of knowing, based upon diversified theories and scenarios, as well as embodied experiences and capacities. The need to involve the representatives of diverse environments and to take advantage of their ‘knowing’ is fairly well recognised within contemporary conceptions of science<sup>63</sup>. The reasons for employing such strategy are, again, ones of effectiveness and enhancing the chance of succeeding. It presumably improves the very quality of knowledge thanks to obtaining a versatile picture of its hinterland and drawing upon a host of forms of knowing from numerous participants. Moreover, it is about winning allies and legitimisation, avoiding conflicts, and finally expanding responsibility and impact. Knowledge as (a) performative seeks social robustness and broad support from the stakeholders.

Moreover, knowledge as (a) performative is distributed in material settings. One can argue if non-humans should be endowed with intentionality or merely intervene in the course of knowledge production, but certainly anthropocentrism does not apply to the concept of knowledge as (a) performative. Laboratory studies demonstrate that machines and devices are absolutely indispensable to research, not only by expanding human cognitive capacities, but also properly transforming the world in order to make it anyhow cognizable. At the same time, their seeming neutrality and inertia help concealing the contingency and messiness of the actual practice. The ‘nature’ of inscriptions from laboratory instruments appears largely unproblematic; they are “merely

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63 For example, see the notion of extended peer community in post-normal science, in Ravetz 2004: 353-354; processes of contextualisation in Mode 2 knowledge production, in Nowotny et al. 2001; and some more concrete examples of how to foster participation in science, in Bińczyk, Stępień 2014: 42-48. See also Latour’s categorization of various types of actors and their skills (he mentions scientists, politicians, economists, ethicists, administrators and bureaucrats, diplomats), in Bińczyk, Stępień 2014: 28-29.



technical matters” (Latour, Woolgar 1986: 63). Hence, as was argued in the second part of the book, the non-humans greatly contribute to science’s performativity.

Still, there is much more to the role of materiality than this. Firstly, ideas need things so that they are made more durable and able to travel across contexts. Latour illustrates this with an example of transferring the order to leave a hotel key at a reception desk into the very key: by making it heavy, cumbersome, and not worthy to carry around (Latour 1991). Secondly, ideas and actions are being inscribed into objects so that they gain stability and more forcefulness. A ‘sleeping policemen’, that is, a speed bump that makes drivers slow down, an example of both translations and a delegation of action (Latour 1999: 186-187). The bump translates the goal of drivers: from the one based upon morality (“do not put the pedestrians in danger”) into another, referring to selfishness (“do not ruin your car”). Speed reduction should follow both of them, but in practice the latter is much more effective. Then, in Latour’s view, the speed bump also conveys the engineers’ programme of action which is to make the drivers slow down: their action is delegated to a cumbersome piece of concrete. Also, we can think of ideas as translated into objects in a bit more familiar way: in terms of being ‘inscribed’ into some kind of a paper, or, at best, into a host of documents that encompass, for instance, guidelines, narrative accounts, checklists, summaries of best practices, etc. Packaged and orchestrated this way, ideas are certainly more likely to spread and last.

In sum, various authors rightly draw attention to the fact that things do not fulfil only some representational, symbolic functions, but primarily they reproduce social order and maintain our everyday habits and routines (Krajewski 2013; Olsen 2010). On the one hand, we produce things and make them meaningful; on the other, things become ‘objectified’, and as such they participate in sense-making, establish relations in communities, and finally, make some actions possible (and encourage to undertake them) while constrain and even rule out the other. Namely, due to interpretive stability, a certain transparency and neutrality, things deliver comfort and a sense of safety, but also exert coercion. Arguably, these aspects of how materiality works are fundamental to the translations of knowledge as (a) performative.

Then, alongside social and material practices there is also the discourse – again, indispensable to the work of knowledge as (a) performative. The authors recalled throughout the book have, in general, appealed to its both productive and constraining facet, thus leaving aside conceptions of language that treat it as neutral tool for representing the world. By and large, discursive practices are yet another way of binding and transforming the realities and knowledge outcomes. Importantly, they remain inherently tied to the socio-material activities. Latour describes a complex process of transforming a statement in a way that it starts to be perceived as having an independent, external referent. It turns out that such operation requires bringing together a host of elements, e.g. the technical devices and metrology, the scientific autonomy and the very scientists as trained audiences, allies recruited from various areas of social life, the media image of science, and finally, some skilful managing of all these parts, their relations and movements across what can be commonly considered ‘the core’ and ‘the context’ of science (Latour 1999: 99-108). Furthermore, Rouse highlights that articulations of the world do change it. Namely, the conceptual transformations both depend on a much broader socio-material sphere of scientific activity, and they do not limit themselves in language (Rouse 2014 286-287). All in all, the way that discursive practices become tied with the world is not based upon some detachment or linear description; rather, it is ‘mangled’ together with all the other elements of the process and should not be treated as separate or neutral.

Eventually, concepts, theoretical models, statements, scientific texts – all commonly deemed *impractical* – are regarded here as absolutely indispensable and productive, just like experimental practices are. In fact, thanks to the works of several authors from STS, it seems that experiments cannot do without conceptual practices. On the contrary, the opposite is perfectly thinkable, and, in my view, fairly common: the conceptual practices conducted outside laboratory settings are capable of effectively enacting various outcomes and realities. Such case is described in the second part of the book. It concerns the field of mathematics (Pickering, Stephanides 1992), but I can see no reason for not applying it to humanities and social sciences. To my mind, regardless of the setting – be it in laboratories or philosophical debates, the very condition for any conceptual practices to work in the mode of performativity is that they follow the general scheme of operation of knowledge as (a) performative, as it is expounded on this and the following pages.

Obviously, it may seem troublesome to link humanistic ideas with material practices in a way that is presented in STS. However, as was already described, material practices are not limited to interactions with high technologies or complex devices. Simple, everyday things often prove as powerful as the laboratory settings, thus acting a somewhat ‘natural’ allies for the humanist and social inquiry.

All things considered, the above passages can be regarded as a general framework of the felicity conditions for knowledge as (a) performative. For now, it only includes the three types of practices – the collective, the material, and the discursive – and their various, unavoidable connections. However, in real-life processes for the felicity conditions to set directions for practices, they need much more detail and scrutiny resulting from constant checking upon the hinterland.

As said, it is useful to think of knowledge as (a) performative in process in terms of subsequent translations, namely, a certain movement and transformation of both the previously maintained network, and its elements as well. Translations help to grasp how the various elements – entailing humans, non-humans, the discourse – are mobilised, brought together and stabilised.

In the first place, translations highlight the fact that knowledge as (a) performative in process is highly pragmatic and unpredictable; it is more about tinkering, pushing things forward<sup>64</sup>, than conducting a rational, planned, controllable sequence of justified decisions and steps. No one is ever in full control of it. Often, consequences and various forms of knowledge as (a) performative not only differ from what is planned and anticipated, but also appear in circumstances that are not taken into account at all. Whether the process of knowledge production is going in the right direction can be judged only from afterwards and only within the hitherto felicity conditions.

Nevertheless, this is not to say that knowledge translations come down to a merely ‘anything goes’ strategy. Again, a hinterland works as a space of both possibility, and constrain, and so there are better and worse decisions to be made within the currently recognised situation. The fact that knowledge as (a) performative is embedded in the world makes a range of alternatives fairly narrow, while implications of decisions, sooner or

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64 See Barbara Czarniawska’s framework for analysing practices of managing big cities, in which she uses terms like “muddling through”, “framing” and “reframing”, or “anchoring” (Czarniawska 2002).

later, apparent. The difficulty is that, apart from daily struggling which can be judged in terms of whether something works or not, both success and failure are often postponed in time, and, thus, hard to grasp in a clear-cut manner. Making any causal inferences about the effectiveness of translations is, at best, risky.

Secondly, translations allow embracing the multifarious character of knowledge as (a) performative in process; namely, the fact that it consists in several forms of knowing that are based upon current configurations of the social, material, and discursive elements. For instance, according to John Heron and Peter Reason (1997) we can think of four ways of knowing that can appear in different contexts, but intermingle and depend upon each other<sup>65</sup>. Experiential knowing entails a direct encounter, the feeling and the imaging together with conceptual articulating the reality. “It is knowing through participative, empathic resonance with a being (...). It is also the creative shaping of a world through the transaction of imaging it, perceptually and in other ways. Experiential knowing thus articulates reality through inner resonance with what there is, and through perceptually enacting (...) its forms of appearing” (Heron, Reason 1997: 281). Importantly, experiential knowing is relative to both the subject, and to the reality; it emerges in a creative interaction between the mind and the “what there is”, as Heron and Reason put it. Then, presentational knowing is founded upon the experiential one, shaping it into diverse aesthetic, spatio-temporal forms. Next, propositional knowing employs conceptual terms, like theories and statements; it is “knowledge by description” carried by presentational forms and grounded in experiential knowing (Heron, Reason 1997: 281). Finally, practical knowing is demonstrated in skills and competence; it is like putting all previous three forms into purposive action.

Hence, knowledge as (a) performative in various moments can be seen as more or less experiential, presentational, propositional, and practical in form. In general, it welcomes these forms of knowing that in the first part of the book have been described as largely excluded from the primarily text-centred, traditional approaches of Western cultures (see Conquergood 2002; Fischer-Lichte 2003). It does not shun

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65 In their approach, Heron and Reason do not employ the notion of performativity and eventually seem to accept an essentialist vision of language, meaning, and norms. However, their proposition of four forms of knowing provides important insight into how knowledge as (a) performative may work as both a process and several product-like stabilisations.

from the affective and embodied modes of knowing; neither does it limit itself to the walls of academia. Thus, it equally encourages various artistic, and even daily, non-professional ways of collaborative work. Knowledge as (a) performative can be seen as an attempt to realise the non-dualising, inclusive manner of meaning-making, interpretation, and learning.

Thirdly, the work of translations entails binding together several seemingly opposing features of knowledge as (a) performative, beginning from the very process vs product-like nature, to its portability vs intelligibility, finishing with the appearance of sameness vs acting as differential. These three disparate aspects blend in the course of one process, providing that knowledge as (a) performative adapts to the changing hinterland and, thus, is context-sensitive, but at the same time does not split into a host of separate pieces. Therefore, knowledge as (a) performative can be considered, in various respects, iterable (Derrida 1988). Basically, it has to operate in a context-sensitive mode, yet, its varied forms of knowing cannot be treated as creating some completely new ‘knowledges’; rather, they are specific product-like moments within the process. Yet from another standpoint, knowledge as (a) performative exists in constant reproduction that is differential: on the one hand, contextualisation requires that each time it takes a little distinct, unique, properly accommodated form; on the other hand, it has to remain capable of being identified as ‘the same’ and travel on, to further specific situations and needs. Rouse argues that knowledge has to circulate constantly, for the objective of knowledge practices is not to obtain a series of perfect replicas, but to achieve repeatability of a significant pattern whose future performances always entail a degree of difference (Rouse 1996: 161-183). Consequently, the iterable character of knowledge as (a) performative draws attention to its temporality. In general, it relies upon what has already been achieved, but these achievements are significant in the context of intending to reach beyond them and articulating new possibilities and corrections. “What [scientific] claims say about the world, is always open to further transformation” (Rouse 2014: 286; 1996). In sum, iterability is what allows grasping that there is nothing essential about knowledge as (a) performative: it does not have any shared, fixed content that gives rise to several, merely propositional pieces. Instead, it operates in an incessant movement without beginning or end, staying responsive to its subsequent forms that emerge in dissimilar felicity conditions, which themselves appear continuously every moment the hinterland is

recognised as transforming, often as a result of their own work. The vital thing is to stay contextualised but at the same time identifiable as ‘one’: portability across time, space, and institutions cannot cause damage to intelligibility at any moment.

Concluding, rather than a static entity to be possessed, knowledge as (a) performative should be accounted for in terms of open-ended translations of practices – of social, material, and discursive kind – which all come together and intermingle. Eventually, it is not possible to draw a clear-cut distinction between making realities, making statements about these realities, and the work of human-material configurations and practices that, taken together, produce both statements and realities. What is crucial is that the process-product circular coil never stops, just like the world never does. There is not one knowledge, nor one reality; there is constant, differential movement of various forms of knowing, contextualised against the currently recognised hinterland. Furthermore, none of the types of practices or forms of knowing should be anyhow privileged in advance. The make-up of translations depends on the current recognition of the hinterland and the according felicity conditions. Since knowledge as (a) performative is primarily about engaging the world, then the multiplicity of its forms and the tensions it reconciles are supposed to productively interrelate and reinforce each other. Even when it comes to working upon concepts or theories, these are treated in terms of modeling which enables manipulating the world (Rouse 2001: 203; see also Pickering, Stephanides 1992). Consequently, knowledge as (a) performative is both about creating technologies or ready-to-go solutions, and the purely humanistic ideas, ones that are commonly deemed absolutely impractical, context-insensitive, ineffective. Eventually, knowledge as (a) performative renounces any pre-established distinction between humanities, social and experimental sciences, or between basic and applied research.

### **Shift to the big picture: science, ethics, effectiveness**

As described above, the hinterland of knowledge as (a) performative is in constant flux and requires repeated recognising. However, there are two elements that shape it in a little more predictable and resilient manner, for knowledge as (a) performative operates upon an academic background, and it does assume an ethical import. In other words, the work of translations is particularly marked by two points of reference: one is

science, and the other is a sense of entanglement in the so-called ontological politics. Eventually, both translate into what effectiveness of knowledge as (a) performative actually entails.

Certainly, the academia continues to be one of the most favourable settings for knowledge production. With its technological and symbolic capital, it still provides an advantage over other environments dedicated to this objective. First of all, it has an impressive technical infrastructure, which, as demonstrated in various laboratory studies, is indispensable to making knowledge as (a) performative successful. Second of all, scientific authority remains an important source of power and legitimation. After all, performatives are deemed successful largely due to the fact that they are uttered by the authorised people in a proper setting with adequate witnesses (Kosofsky Sedgwick 2003: 71; Parker, Kosofsky Sedgwick 1995).

More importantly however, the fact that knowledge as (a) performative draws upon scientific resources makes it sensitive to the academic ethos. Various STS conceptions demonstrate that scientific practices are generally oriented towards making things work, while the appearances of truthfulness, objectivity, or universality are achieved thanks to a properly undertaken fabricating. In the case of knowledge as (a) performative, these traditional values do not disappear, but, likewise, become somewhat succumbed to and effectuated in the course of everyday, fairly pragmatic struggles. Consequently, they shape an ideal which is subject to translations just like any other element in picture. From a broader standpoint, the specific axiological framework of science and academy also promotes pursuing objectives which, in other settings, might seem too far-fetched and abstract. In general, academic ethos works as a certain “horizon of interpretations” of the scientific interpretive community (Fish 1989). It forms part of both pragmatic, daily work of translations, and influences a more general, long-standing scheme of ‘big’ ideas and objectives. As such, it tends to be perceived as fairly obvious, and non-imposing, which however does not mean that it is the only possible or ever-lasting.

As a result, scientificity of knowledge as (a) performative consists in the ability to mobilise collectives, materiality, and discourses as well as conceal its own processual and contingent facet, evolving into a product-like, ‘serious’ entity. The criterion is then primarily extra-epistemic. Fuller and Collier argue that knowledge is both about and in the world. Thus, they propose to discern between science and

non-science in rhetorical examinations of “the processes by which knowledge tries to be *about* the world without drawing undue attention to its existence *in* the world. Until we take seriously the thesis that knowledge inhabits the same world as its putative objects, we cannot fully appreciate the implications this point has for the legitimation of our knowledge enterprises” (Fuller, Collier 2004: 114; original emphasis). Consequently, it can be said that the epistemological privilege of knowledge as (a) performative is achieved by extra-epistemic means.

Accordingly, knowledge as (a) performative is always value-laden, both for its academic nexus, and for the very fact that it works upon the so-called ontological politics (Law 2004). This means that, having renounced the objectivist, fixed set of epistemological criteria of assessment (principally, the truth-false evaluation), there opens a potential for debating upon which and why certain enactments are better than other. For this reason, knowledge as (a) performative assumes an inevitable ethical import. Moreover, as Law notices, every act of enactment, of bringing something to life, inherently entails an act of exclusions: of the alternatives that have been present, and of all Others that have remained completely absent from the picture (Law 2004). Thus, inclusively the decision of not making a decision is political. And finally, from yet another standpoint, since part of the hinterland is shaped by normativity, then knowledge as (a) performative is capable of either reproducing the existing orders or subverting them in the name of some different futures. The following statement, formulated by Barad in order to expound what it means that her own approach is ethical, applies well to the concept of knowledge as (a) performative: “then [it – A.K.] is not about representations of an independent reality, but about the real consequences, interventions, creative possibilities, and responsibilities of intra-acting within and as part of the world” (Barad 2007: 37). In sum, knowledge as (a) performative is inevitably entangled in relations of power for it re-creates them; and, moreover, at all times it reflexively interacts with its own ethical obligation: of staying accountable.

Consequently, knowledge as (a) performative adopts the principle of effectiveness that is far broader than the one defined in economic input-output ratio. The felicity conditions are largely guided by on the one hand, everyday workability, and on the other, by the ‘big’ ideals, such as responsibility, social robustness, sustainability, etc. This combination translates into a never-ending strife for balance between managerialism and idealism, pragmatism and the great merits. For instance,



social robustness acts as both an ethical position and a means of avoiding conflicts and winning allies. The effectiveness of knowledge as (a) performative has to be scrutinised within the current felicity conditions, not by means of some universal, external, and objectively comparable measures. At the same time, it is reworked through the ontological politics, thus being reflexively balanced against a heavy ethical import of accountability and the potential for reworking the norms: “Enactments and the realities (...) do not automatically stay in place. Instead they are made, and remade. This means that they can, at least in principle, be remade in other ways” (Law 2004: 143).

As a result, the concept of knowledge as (a) performative entails an understanding of effectiveness that contrasts with the one of Lyotard (1984). For, it should be clear now that knowledge as (a) performative is neither a yet another, only radicalised, mode of capitalist or strictly managerial knowledge production, nor an attempt at conceptualising a grand narration that would supposedly dominate over the economic utility. It bypasses both pitfalls by its very mode of operation: it assumes a possibility of resistance and change without resorting to some external, universalised systems, it enacts what it states according to its very felicity conditions against a hinterland that itself is transforming, also as a result of the knowledge processes.

## **Liminal spaces of knowledge production**

The concept of liminality embraces several tensions and potentials that knowledge as (a) performative entails. Various performance theorists elaborated on this notion to grasp the situations of the “betwixt and between” in which norms and identities are temporarily suspended, while innovation is made possible (Fischer-Lichte 2008b; McKenzie 2001; Turner 1974). Therefore, there are several reasons why the liminal spaces can be considered as particularly welcoming to knowledge as (a) performative. First of all, we can see them as ones in which boundaries between disciplines and various areas of social life (such as science, art, culture, technology...) are blurred. The most productive and interesting clashes nowadays seem to take place in various border zones which encourage the creative intermingling of ideas, objects, people, etc.; for instance, in the conception of “Mode 2 knowledge production” such spaces are called agoras (Nowotny et al. 2001: 177). Thus, they provide a fairly favourable dynamics for the translations of knowledge as (a) performative. Second of all, the transitory status of liminal

spaces also means that it renounces any pre-established distinctions and hierarchies for the sake of open-ended negotiations and reconstitutions. In particular, liminality abandons the epistemological dualisms, like those of representation and presentation, human and non-human, serious and non-serious, product and process. Again, without this shift knowledge as (a) performative is simply impossible for it reconnects all, often extremely diversified, elements that at the moment are recognised as vital to complying with the felicity conditions. Furthermore, having removed the traditional, usually oppressive boundaries and orders, limen can also be regarded as a specific space in which consensus and inclusiveness are the guiding principles. In order to produce something new, and not merely reproduce the existing background, there has to be a space in which power acts as “potentia” (Domańska 2014a: 128-129) and the Wittgensteinian vision of language games profusion stands a chance of coming to life.

Altogether, in liminal spaces the heterogeneous elements intervening in the process of producing knowledge as (a) performative can be brought together, and reformulated in a way that is not oppressive, that does not impose some external rules in order to resolve tensions and paradoxes, but one in which ‘paralogies’, inconsistencies, and failures are welcome. Importantly, the liminal positions can be considered as running counter the dominating discourses of the today’s world. This is not to say that knowledge as (a) performative pretends that there is no other, more powerful model of knowledge-making. However, rather than engage in debating over it, which usually finishes in succumbing to the dominant framework, knowledge as (a) performative aims to constitute its own space and mode of operation. In this manner, liminality does evolve into a norm for knowledge as (a) performative (see McKenzie 200: 50).

## **Knowledge as (a) performative within humanities and social sciences**

By way of an ending, I bring forward three approaches which, I believe, can be considered as illustrations of the concept of knowledge as (a) performative within social sciences and humanities. They share a focus on producing knowledge for a social change, and thus aim to serve some explicit, yet in the long run fairly idealistic purposes. Both their mode of

operation and the supposed achievements allow balancing of the pragmatic, everyday workability' and the bigger picture that entails creating a better world to live in. Consequently, they need to be in a way effective. Most importantly however, they all appreciate of such types and forms of knowledge that traditionally remained undervalued or even left aside: all that is non-propositional, impure, mundane.

## **Performance and performativity in social research**

The first, fairly obvious direction to look for knowledge performativity within social sciences is a host of performance-oriented methodologies in qualitative research. Although they are generally very close to various types of participatory action-research, here I focus solely on those which explicitly take up on concepts of performance and performativity.

Susan Finley situates the rise of performance ethnography in relation to various transformations within radical aesthetic inquiry: the turn to activist social science, the emergence of arts-based research, and the turn to a radical, ethical, and revolutionary arts-based inquiry (Finley 2005). These changes have led to an introduction of the so-called ethics of care into research, a redefinition/democratization of the roles of researchers and communities, questioning of the forms in which research results are usually represented, and finally, heightening the awareness of the need to respond to social dilemmas of contemporary globalized capitalist democratic system. Additionally, Mary Gergen and Keith Gergen identify performance as one of four methodological innovations in social research, alongside reflexivity, multiple voicing and literary representation (Gergen, Gergen 2000). Reflexivity entails presenting various aspects of the researcher's situatedness (e.g. in auto-ethnographies) to the audiences; the multiple voicing tendency results in replacing a single, authoritative voice with various participant perspectives expressed in their languages; literary styling unfolds in a growing popularity of employing fiction, poetry, or autobiographical invention in research. All three share a common aim: to abandon the "truth telling discourse". Finally, according to the authors, adopting performance in social research entails, on the one hand, a complete renunciation of the inclinations towards traditionally conceived objectivity, on the other, staying capable of speaking through research.

As a result, performance-oriented research has emerged as a variegated body of approaches openly rejecting some of the commonly held epistemological assumptions, like that of representationalism, detachment from the object of study, or objectivity and validity understood as the values guiding research process. Furthermore, the authors representing this broad field of inquiry tend to withdraw from positions of academic authority, locating the transformative power in the audiences themselves.

Several assumptions accepted within performance-oriented research coincide with tendencies that are presented in the context of the performative turn in the first part of this book. Firstly, co-production of knowledge by investigators and their audiences is considered absolutely indispensable. Boundaries between subject and object, researcher and participants, speaker and audience dissolve as they all are engaged both in producing and ‘staging’ results (be it an artistic action or a textual account). Peter Dirksmeyer and Ilse Helbrecht claim that performance research involves a specific “framing”, in which audiences are kept engaged, and which ensures that the meanings are constituted particularly for and by them (Dirksmeyer, Helbrecht 2008: par. 2). Furthermore, Conquergood argues that all ethnographic research requires constant strife for balance between engagement, sensibility, and identification in the space of diverse relationships among investigators and the researched. He links it to a particular interest in the Other, thus formulating a conception of dialogical performance: “a way of having intimate conversation with other people and cultures. Instead of speaking about them, one speaks to and with them” (Conquergood 1985: 10).

Secondly, the issues of temporality emerge, especially in terms of redefining the entire course of a study. On the one hand, performance research often starts without clearly defined questions or problems. These can be formulated later, together with the people researched. On the other hand, since investigation is considered primarily as a practical engagement, then it cannot have a clear-cut ending. It is supposed to bring some change into the world; its work is of ontological nature, and, so, it never stops. Much of fieldwork and interpretation process is

actually out of researcher's control, especially when we take into account the scope of collaboration with the audience (see Bryant 2005; Gergen, Jones 2008; Haseman 2006)<sup>66</sup>.

Thirdly, performance research prefers the embodied, material-cognitive, experiential forms of producing and presenting knowledge over those of discursive, propositional nature. Many researchers attempt at creating "texts that move beyond the purely representational and towards the presentational" (Denzin 2003: xi). They often employ diverse literary and visual forms as well as acting, dance, and music in order to present their claims. As Dirksmeyer and Helbrecht highlight, performance "achieves a methodological status in social theory and it turns into a methodical instrument in social research" (Dirksmeyer, Helbrecht 2008: par. 24).

Consequently, the entrance of performance and performativity into social research inevitably raises question of power and ethics. Bryant argues that performance-oriented framework is a moral discourse: "it is situated activity that locates the participants, researchers, and observers in the world – a world in which the implications and complications of being and knowing others can be negotiated in mutually beneficial ways. It consists of a set of interpretive material practices that make culture visible; hence making manifest not only the cultural conditions of living, but also the joint concerns of humanism that can be equally distributed. These practices work to illuminate the world as much as they work to transform the world" (Bryant 2005: 417). Several authors highlight the importance of three interrelated aspects of performance research: keeping focus on opening what has yet remained unacknowledged, encouraging to see into and around oneself, aiming to make a positive impact in general (see Finley 2005, Bryant 2005). Accordingly, it is accepted that researchers' engagement is guided by certain values and ideals, especially those of social justice and human flourishing (see Finley 2005).

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66 Carlson argues that one of the consequences of such rejection of the border between observers and the observed is the need to adopt the position of "radical empiricism", and so an opening to "immediacy, activity and ambiguity, in other words, to the «holism» of performance theory" (Carlson 2004: 209).

Finally, performance research poses some serious questions over evaluating its own effects (for validity see Gergen, Gergen 2000; for veracity and repeatability see Bolt 2009)<sup>67</sup>. Again, it is fairly obvious that traditionally understood notions of truth, reliability or neutrality do not apply. New forms of expression call for experts that are able to recognise the innovative and unique layer of each performance. There have been attempts at structuring what should be judged in a performance-based research; nevertheless, the strategy of applying strict quality control is, at least equally often, regarded a harmful constraint.

What is interesting is that performance-oriented research adopts the concept of performativity precisely in the context of quality assessment. For instance, Finley considers performativity “as being necessary to achieve arts-based approaches to inquiry that is activist, engages in public criticism, is resistant to threats to social justice, and purposefully intends to facilitate critical race, indigenous, queer, and feminist and border studies as entree to multiple, new, and diverse ways of understanding and living in the world” (Finley 2005: 693). Another attempt at dealing with problems of quality assessment through the notion of performativity is made by Barbara Bolt. She departs from a recognition that the validity of performance research cannot result from an exact replication, or sameness. However, drawing upon the notion of iterability, Bolt argues that the interpretive tools that are founded in performativity allow reformulating the concept of validity: from reproducing ‘sameness’ towards enacting a repetition with difference. Therefore, a performative

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67 Bryant (2005) recapitulates three main aspects of evaluating performative methodologies. The first one pertains to their content. It encompasses several issues, such as contributing to understanding of social life (e.g. providing new knowledge and experience to the audience; inciting some political movement, emotional response), questions of reflexivity (if authors-performers and audiences are both producers of meanings or texts), and forms of expressing a reality (“Does this text present a fleshed out, embodied sense of lived experience?”). The second, the form, raises concerns of mainly aesthetic merit. The third – impact – asks if a performance-research has affected the performers and audience in an emotional, intellectual, or political way, if it has proposed any new ways of seeing the world, particular cultures, particular research practices, and ways of knowing the world, and finally if it has encouraged them to reflect upon the nature of their experience.

paradigm locates its truth claims in the effects of creative production, not in the relation of correspondence, as in traditionally conceived science (Bolt 2009).

In sum, performance-oriented research in social sciences can be regarded as a certain realisation of knowledge as (a) performative for several reasons. It accepts a host of premises that exclude representationism and epistemological detachment, and instead it holds positions of engagement and activism. Consequently, it reformulates relations with audiences, who become equally authorised producers of meanings and research results. Next, it fosters thinking of social reality in terms of processes, verbs, rather than static, easily manageable structures (see Conquergood 2002: 42). It applies methods for conducting research and presenting its results that avoid essentialism and renounce any claims for truth or objectivity. Its explicitly adopted objectives of fostering social good and justice translate into an increased awareness of one's responsibility. In other words, concerns for effectiveness are vividly accounted for alongside issues of power and ethics. Altogether, performance-oriented researchers engage themselves in long-standing, tenuous, and elusive relationship with their audiences and the realities they together wish to transform.

## **Non-representational theory**

Originating from Human Geography, the so-called non-representational theory makes for one of the most versatile and elaborated performativity-oriented methodologies. On the whole, it places focus on practices, defined by Nigel Thrift as “productive concatenations that have been constructed out of all manner of resources and which provide the basic intelligibility of the world” (Thrift 2008: 8), and “as material bodies of work or styles that have gained enough stability over time, through, for example, the establishment of corporeal routines and specialized devices, to reproduce themselves” (Thrift 2008: 8). Their most important aspects embrace all that is habitual, intuitive, tacit and, above all, pre-cognitive (Dirksmeyer 2008: 21-23). Thrift calls non-representational theory “anti-biographical and pre-individual” (Thrift 2008: 7). Thus, he calls for examining such modes of perception which are not subject-based. This means that

the notions of affect, sensation, and play are of crucial importance here. Altogether, non-representational theory values all that seems messy, trivial, chaotic, mistaken<sup>68</sup>.

Clearly then, non-representational theory adopts an anti-essentialist, processual vision of the world which takes full account of embodiment and materiality (see Cadman 2009; Dirksmeyer 2008). Nothing is given here: humans, things, sites, symbols exists only as relational effects. “[A]ctors can now be seen to not just occupy but to be made up of all kinds of intermediary spaces which cannot be tied down to just one and simultaneously participate with each other. The world, in other words, is jam-packed with entities” (Thrift 2008: 17). Not only does Thrift explicitly follow the Latourian vision of society as a collective, but he also claims that “things answer back” (Thrift 2008: 9). Furthermore, non-representational theory can be considered as consistent with the trivialised realism, as outlined in the second part of the book. It assumes the influence of a world understood as “the context or background against which particular things show up and take on significance: a mobile but more or less stable ensemble of practices, involvements, relations, capacities, tendencies and affordances. (...) In this sense «worlds» are not formed in the mind before they are lived in, rather we come to know and enact a world from inhabiting it, (...) from being able to initiate, imitate and elaborate skilled lines of action” (Anderson, Harrison 2010: 8-9).

Non-representational theory is explicitly posthumanist. Things considered as complex, hybrid assemblages, are believed to exert the same powers as humans. According to Thrift, their traffic has become so heavy and extensive that they have created their own indifferent geographies (Thrift 2008: 10). Thus, non-representational theory aims to open a new

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68 In order to recapitulate the non-representational theory’s approach to practices as messy, pre-cognitive and affective, let me briefly quote Thrift’s examination of dance as a rich source of intellectual inspiration. “For my purposes, dance is important: it engages the whole of the senses in bending time and space into new kinaesthetic shapes, taps into the long and variegated history of the unleashing of performance, leads us to understand movement as a potential, challenges the privileging of meaning (...), gives weight to intuition as thinking in-movement, foregrounds the «underlanguage» of gesture and kinetic semantics in general (...), teaches us anew about evolution (for example by demonstrating the crucial role of bipedality), and is able to point to key cognitive processes like imitation and suggestion which are now understood to be pivotal to any understanding of understanding (...) and, indeed, desire” (Thrift 2008: 14).



border of “inhuman endeavour, what might be called the construction of new matterings, along with their typical attachments, their passions, strengths and weaknesses, their differences and indifferences” (Thrift 2008: 22). Moreover, it pays a lot of attention to human body as the exact ‘place’ of interaction and cooperation with things.

What follows from this rejection of any kind of anthropocentrism is a profound transformation of ethical issues. No longer can a human be considered a rational, intentional, and responsible subject. From such standpoint, the norms which are imposed on people are, at the least, dubious. Not surprisingly, this approach openly adopts a fairly clear political agenda: its objective is to create new political forms and interventions, which “stress the disclosive power of performance as recognition of the fact that all solutions are responsive, relational, dialogical” (Thrift 2008: 147).

Altogether, non-representational theory is an example of how the concept of knowledge as (a) performative can work with regard to a specific object of interest, as one of its founders stated: “the geography of what happens” (Thrift 2008: 2). Both approaches are fairly consistent with each other, especially with regard to their engaged, transformational and accountability-based attitude towards reality, as well as the underlying anti-essentialism and trivialised realism<sup>69</sup>. More importantly, non-representational theory employs the concept of performativity, in the first place, in order to highlight the ongoing nature of practice and lack of any fixed, stable essences. “Performativity is not an act in time, rather it is the spacing which allows the next moment; it enables the unexpected and transformative but also the mundane ability to simply go on” (Cadman 2009: 5). Thus, performativity allows grasping the political and interventionist aspects of this approach. Additionally, non-representational theory is supposed to be experimental, in a way that involves methods characteristic for performing arts. These are believed to focus on dialogical actions and relations rather than texts and representation, supposedly endowing actors with equal rights to participate and exercise power. Thrift declares that such methods

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69 Thrift renounces several fairly problematic epistemological notions (e.g. mind, self, and truth) together with the so-called myths of modernism (e.g. the individuated mind, the individual self, and individual cognitions). Indeed, Anderson and Harrison declare that all non-representational theories “share an approach to meaning and value as «thought-in-action»” (Anderson, Harrison 2010: 6).

enable investigating the processes of bringing various collectives to life (Thrift 2008). Finally, Thrift himself proposes that we adopt a model of “world-practical-moral knowledge”, which emphasises that world is constituted through activity, in particular, the talk and the expressive bodily actions. After John Shotter, Thrift call this “knowledge-in-practice” and “knowledge held in common with others” (Thrift 2008: 122), aiming to grasp the very processes of articulation of appearances instead of facilitating discoveries of what is already in place.

## **Ewa Domańska: affirmative humanities**

The last example of a humanistic conception standing in line with the notion of knowledge as (a) performative I would like to present is the affirmative humanities, proposed by a Polish historicist and methodologist Ewa Domańska (2014a, b).

To begin with, it is worth recalling that Domańska argues that a performative function is fundamental to the critical meta-reflection upon history (the critical historiography, as she calls it; see Domańska 2005)<sup>70</sup>. Precisely, she argues that historical interpretation consists in reformulating rather than providing a commentary upon a text. As a result, any critical review of history should ask what a text does, not only what it means. Moreover, the performative function has an important formative dimension, in that it promotes a critical attitude and the capability of uncovering hidden assumptions behind a text. Finally, adopting performativity as a function of critical historiography allows to account for interpretation in terms of participation in a certain transition of historical awareness, one that gives rise to a more future-oriented, “post-historical” approach towards past (see Domańska 2005: 181-185).

Consequently, Domańska elaborates an approach she calls “affirmative humanities” (Domańska 2014a). She builds it upon, on the one hand, acceptance for the post-European paradigm, and on the other, a rejection of anthropocentrism. She also explicitly draws references to authors like Michel Foucault, Judith Butler, and Rosi Braidotti. The basic premise behind affirmative humanities is the need to take a step further from the critical spotlight of poststructuralism and other complementary conceptions. In Domańska’s view, although they do have a great merit in providing some powerful accounts of oppression,

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70 The other two functions of critical historiography that Domańska examines are the descriptive-analytical and the prophetic (Domańska 2005).

violence, and crises, they also lack a certain ‘constructive’ vision that would support a more future-oriented engagement towards a positive social change. Therefore, Domańska takes up on a fairly unexplored Foucauldian understanding of power as something mobilising and constructive, rather than solely oppressive. She points out that it is possible to conceive of it primarily in terms of constituting active, agential subjects, while not necessarily humans. Thus, the approach presented by Domańska shifts attention to relationships and solidarity with animals, plants, etc. Eventually, affirmative humanities are designed as inclusive also in cognitive terms: they should foster production of both Western and native, local knowledges.

Altogether, affirmative humanities are supposed to provide a certain “critically hopeful” framework for creating alternative visions of future. They should not avoid reflection upon catastrophes, genocide, terrorism or any other disasters; the strategy is not one of childlike “salvation”, but rather indicating the concrete possibilities of change. Next, a change can be accomplished through local, situated practice, but it manifests itself in individual attitudes (Domańska 2014a: 129). Ultimately, affirmative humanities are about “support, reinforcement, boosting development, building spaces for creating individual and collective identities/agency; [they are] about creating potentiality (*potentia*) for actions, which contribute to designing future within sustainable development” (Domańska 2014a: 128-129). Finally, affirmative humanities are thought as means of reinforcing the agential subjects and communities comprising of both humans and non-humans.

In order to illustrate how affirmative humanities can work, let me briefly recount Domańska’s idea of the so-called rescue history. In general, a rescue history is supposed to serve as a means of inducing certain change in people’s sense of agency and their relations with the other people, with things and the nature. Thus, it performs both a cognitive, and socio-integrative functions.

Rescue history is a “local (...), potential, existential, and affirmative” with a strong ecological dimension and a formative function (Domańska 2014b: 26). First of all, its locality consists in participatory rebuilding the knowledge about the past. Such practice takes place outside traditionally viewed academic communities; knowledge is recovered by and for its owners and creators. Second of all, the “potential” aspect of rescue history refers to its orientation towards future which stays compatible with its intrinsic interest with the past. For instance, it is supposed to

foster reconciliation and cohabitation through revealing how nations and groups were able to exist together, and not merely promote some naïve version of consensuality or unity. Third of all, the existential dimension of rescue history draws upon its ability to pose questions concerning human condition: freedom, truth, responsibility, sacrum. Moreover, it assumes that people are real, embodied agents who act in situated settings, belong to specific communities, and are endowed with particular perspectives on the world. Yet another dimension – the ecological – entails undermining the humankind’s central, unique position in the world. Consequently, rescue histories draw more attention to how non-humans shape the reality and act in relations with humans. Finally, the affirmative quality of rescue history is articulated in its ability to create a space of “*potentia*” for future action, its promise of transformation and the opening of new possibilities of coexistence. Additionally, according to Domańska, rescue history also has an important formative feature. It maintains a certain academic ethos of historical work by observing the methodological rules of research, applying one’s intellectual capabilities to manage a collective process of knowledge making, as well as reinforcing virtues such as a critical attitude, responsibility, diligence, mindfulness, sensibility, etc.

To sum it up, Domańska’s affirmative humanities can be regarded as a proposition that entails connecting some profound theoretical reflection into the past with future-oriented, very hands-on practical elements. With an explicitly stated objective of reinforcing communities and opening new possibilities, affirmative humanities assume that scientists on par with laypeople can act for better futures and societies. Also various material and non-human elements are supposed to be included within this process. Additionally, Domańska advocates for adopting a specific academic ethos of methodological values, however, it is clear that the realisation of rescue histories entails a range of activities and techniques outreaching the traditional scientific repertoires. Thus, the affirmative humanities can be considered as aiming to operate in a certain liminal space of mutual cooperation between academy and the social reality. Eventually, the point of departure is placed in practicing history, which, for a great many of the engaged intellectuals, still would not make for an obvious choice in terms of undertaking interventions into realities.

Altogether, the collective, posthumanist and transformative vision of knowledge production, together with adopting a 'positive' understanding of power as "potestas", and the academic import; all these make affirmative humanities close to what I would like to convey with the notion of knowledge as (a) performative.

## **Concluding remarks**

In this book I have attempted at examining knowledge in terms of performativity. Recounting a variety of ideas and conceptions of performativity and performance from a host of disciplines I have arrived at the concept of knowledge as (a) performative, being a specific model of contemporary knowledge production. The notion I put forward is supposed to provide a certain supplement to the philosophical landscape of studying science and knowledge, largely shaped by a positivist approach, which models knowledge in terms of representation, and constructivism with its focus on 'knowledge as social practice'. In its greatest part, the concept of knowledge as (a) performative draws upon postconstructivist studies of science and technology; yet, it also shares some important tenets with poststructuralism and other conceptions that are widely identified under the so-called performative turn. Altogether, the notion I propose is not intended to overrule the other visions of how science and knowledge work, neither does it pursue, at least for the time being, empirical adequacy. As such, the concept of knowledge as (a) performative is supposed to mark a simple, but a productive conceptual shift in the way we envision knowledge processes today: their goals, outcomes, mode of operation, criteria of assessment, but also complex relation to the world, including entanglement in relations of power.

The first two parts of this book have provided an overview of the vital conceptions and issues pertaining to performance and performativity. In part one I have sketched out the origins and developments of the so-called performative turn, touching upon fields such as theatre and performance studies, philosophy of language, literary studies, and gender studies. Then, the second part of the book has conveyed a variety of approaches from the field of postconstructivist science and technology studies, including their import into social sciences and humanities. All in all, the selection of ideas presented in the book should reflect the inherent interdisciplinarity, openness and often conflicting character

of the field. By way of a certain recapitulation, let me briefly recall some of the most substantial ideas and observations that transcend through the conceptions identified both with the performative turn and post-constructivist STS, and which have largely shaped the conceptual background for the notion of knowledge as (a) performative.

To begin with, the traditionally conceived borders and dichotomies are widely rejected, beginning from Derrida's attack on the Metaphysics of Presence, to Fischer-Lichte's vision of performance as transferring to a state of liminality, to Latour's account of the Modern Constitution. In general, it is believed that the traditionally taken-for-granted binary dualisms are arbitrary and lead to exclusion of various Others (materialities, writing, non-propositional knowledge(s), the mundane and 'non-serious', etc.). As a result, they are problematised and questioned as historical constructions that intervene in the course of research rather than precede it. Likewise, the representational approaches to language and meaning-making are abandoned. The focus is placed on how realities are constituted in an interplay of various elements and voices, both in artistic performance and scientific research; the divides between language use, acting, and the world become blurred.

Consequently, conceptions of performance and performativity give an overwhelming sense of instability and volatility – of identities, scientific facts, realities, etc. They put a lot of emphasis on contingency, messiness, and diversity of everyday micro practices, even when it comes to science-making. On one hand, they hold that there are no fixed, unquestionable entities to rely upon. Everything and everyone is treated as temporarily stabilised effect of actions; the focus is placed on processes of becoming, negotiating, maintaining, stabilising. Questions of time, body and materiality, and discourse come to the fore, usually all together. On the other hand, there is no acceptance for the 'anything goes' attitude. Contrarily, it is very much highlighted that constructing and maintaining anything that resembles of an independent, stable entity is a matter of great effort, of constant learning from trials and errors, a struggle with no predictable ending. Also, there usually is some transient, but recognisable background to relate to: like normativity, material agency, hinterland. These should not, however, give a false appearance of being some definite, reliable referents. Let me only recall that Derrida places the 'foundations' of language in

a never-ending, differential movement of citations, while the STS intellectuals employ a fairly deflated vision of reality, understood as a certain setting that influences the activities undertaken, and their – multiple and transient – outcomes.

Finally, a lot of attention is paid to broadly understood effectiveness and power, understood both in the context of exercising cultural norms and the capitalist domination. It is widely recognised that performances and performatives can contribute to either maintaining the status quo, or transgression. Also STS representatives turn the attention to the fact that if scientific practice results in something constituted, and, at the same time, excluded, then, inevitably, scientists are actively engaged in transforming the world. Consequently, they need to take account of what futures they enact; their merit can be debated, for instance, in terms of accountability. All in all, effectiveness is an inherent aspect of the work of both performance and performativity, but in either case it does not count down to economic utility.

In sum, it seems fair to say that in the light of the above ideas and conceptions an overall image of science and knowledge production shifts from one based in broadly understood representation, to another, founded upon performativity. This transition can be characterised as a series of movements: from epistemological to ontological questions, from distance to engagement and accountability, from truth-false assessments to felicity conditions (workability, effectiveness), from objectivity to iterability, from individual geniuses to human-material collectives, from description and explanation to a change and intervention, from methodology to management, etc. The list is obviously incomplete, but it should give a sense of direction in which we are heading.

The concept of knowledge as (a) performative takes full account of the prevailing conditions in which everything is at stake and at issue, processes are forever ongoing, and not a thing is given. It is based upon anti-essentialism, trivialised realism, posthumanism, and a-representationism. Knowledge in the performative mode aims at enacting its outcomes – facts, objects, statements, together with properly accommodated realities by means of incessant translations that bridge the gaps between the world, language and action, between the material, discursive and social, and between various forms of knowing. Its productivity is founded in iterability: it is portable and adapts to the context, but stays intelligible and identifiable as one; it responds to specific background, but also introduces some novelty; it remains

comprehensible, intuitive, but influential; it translates big ideas and values into pragmatic steps. At the same time, knowledge as (a) performative stays embedded and responsive to the world: it always works against a current hinterland of practices that translate into what felicity conditions are posited at a time.

Furthermore, the concept of knowledge as (a) performative welcomes a specific understanding of effectiveness. It is no more an external, discontinuous measure determined from afterwards by comparing input with output, or the point of departure with the point of arrival. Contrarily, effectiveness of knowledge as (a) performative rests upon the constantly reformulated felicity conditions, which result from interaction between a recognised hinterland and the anticipations concerning the current workability and the long-standing ethical import. Then, effectiveness is both pragmatic and idealist, and both real and relational. Furthermore, effectiveness of knowledge as (a) performative requires specific liminal spaces in which disciplinary borders, and the dominant norms are not completely renounced, but somewhat provisionally suspended. In sum, knowledge as (a) performative works upon a specific mode of operation, in particular spaces, according to characteristic, constantly re-fitted measures of success.

Hence, the notion of knowledge as (a) performative takes full notice of the inherent capability of all sciences', including social sciences and humanities, of engaging in and transforming the world. It accounts for the effectiveness of both experimental findings or technological devices, and the conceptual ideas or theories, that come from both laboratories and the 'basic research' settings.

Eventually, I argue (and I hope) that the concept of knowledge as (a) performative might itself prove at least a little performative to the very field of reflection upon science and knowledge.

For again, on the one hand, it seems obvious that knowledge changes the world and the world changes knowledge. The humanists, philosophers, social scientists know it well, they have actually proven it, and they know how it works. And yet, on the other hand, as Tadeusz Sławek argues, nowadays, humanities and social sciences are commonly deemed unproductive and incomprehensible. Thus, they perform the function of an 'other' within a mostly operative system; paradoxically, their assumed ineffectiveness is eventually what makes the system fully functional (Sławek 2014: 14). Therefore, it seems that a way out of this troublesome



situation cannot consist in constant strife for achieving the systems' merit. Neither can it aim at improving or accommodating the system's operation. The way out cannot come from the system itself.

At the same time, following Fuller and Collier, it appears that the very plight in which social sciences and humanities are today is caused by the fact that they have lost their claim to power. Such assertion, in spite of some widespread convictions, does not result from any epistemic principle, but is primarily rhetorical; and, as STS have demonstrated, this is also the case for natural sciences (Fuller, Collier 2004: 96). Consequently, it appears that reclaiming power by humanities and social sciences, and overturning the image of hopeless ineffectiveness, is a question of actually creating the renewed grounds of conceptualising the very knowledge production.

I consider the concept of knowledge as (a) performative as possibly addressing both challenges. It entails creating one's own space, mode of operation, and measures of success. It is definitely not a proposition of ameliorating or reforming some current plight. It re-instates the whole process of how science and knowledge operate, yet, it does not ignore the system. It simply bypasses it by formulating its very mode of functioning. The notion of knowledge as (a) performative is about reintegrating and exercising the "potentia" that has already been made available by a range of STS conceptions and the performative turn. As a result, it provides a sound conceptual basis for reformulating the grounds for science's claim to power, altogether embracing the fact that humanities and social sciences together with natural 'hard' science are perfectly capable of effectively transforming the world.

All things considered, I can only express my hope that the notion of knowledge as (a) performative encourages sensitiveness to the fact that a different, a performative framework of thinking, acting and debating about all sciences is possible, and that, in fact, it might work.



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# SUBJECT INDEX

- Abriszewski, Krzysztof 97  
Afeltowicz, Łukasz 13, 83, 86-87  
Ahmed, Sara 42  
Amsterdamska, Olga 58  
Anderson, Ben 128, 129  
Appadurai, Arjun 94  
Auslander, Philip 43  
Austin, John L. 12, 18, 23-27, 28, 29,  
34, 35, 37, 38, 40, 45-46, 47, 50,  
54, 104, 107  
Bachmann-Medick, Doris 17-18, 22, 53  
Baert, Patrick 57  
Bal, Mieke 43-44  
Barthes, Roland 35  
Bell, Elisabeth 18  
Berleant, Arnold 18  
Bińczyk, Ewa 35, 58-61, 68, 98, 104, 112  
Boll, Karen 92  
Bolt, Barbara 126-127  
Bryant, Keith A. 125-126  
Burzyńska, Anna 17, 18, 24, 35, 40, 41  
Butler, Judith 18, 26-28, 30, 34, 37,  
41-42, 45, 46-47, 48, 54, 74, 77,  
97, 107, 130  
Cadman, Lucy 128, 129  
Callon, Michel 10, 13, 60, 62-64, 84,  
92-93, 98, 105  
Carlson, Marvin 18, 20-22, 44, 125  
Carreira, da Silva Filipe 57  
Collier, James H. 99, 119-120, 137  
Collins, Harry. M. 86  
Conquergood, Dwight 22, 51-54,  
116, 124, 127  
Crease, Robert P. 107  
Culler, Jonathan 14, 18, 23, 24, 35,  
39, 45, 46, 109  
Czarniawska, Barbara 92, 115  
D'Adderio, Luciana 92  
Davies, David 18  
Deleuze, Gilles 30, 57, 89  
Denzin, Norman K. 52, 125  
Derrida, Jacques 12, 18, 24-27, 28, 34,  
35-38, 40-41, 44-45, 46, 77, 117, 134  
Desrosieres, Alain 88, 110  
Di Paolo, Ezequiel 59  
Diebner, Hans H. 53  
Dirksmeier, Peter 124-125, 127, 128  
Dolphijn, Rick 77  
Domańska, Ewa 13, 18, 22, 94,  
122, 130-132  
Dziamski, Grzegorz 18  
Finley, Susan 123, 125, 126  
Fischer-Lichte, Erika 12, 18, 19-20,  
33, 38-39, 40, 42-43, 51, 52,  
116, 121, 134  
Fish, Stanley 36-37, 39  
Foster, Susan L. 48  
Foucault, Michel 26, 30, 32, 35, 54, 57,  
74, 77, 97, 109, 130, 131  
Fuller, Steve 99, 119-120, 137  
Gallagher, Shaun 59  
Gapenne, Oliver 59  
Gergen, Keith J. 123, 126

- Gergen, Mary 123, 125, 126  
 Gingras, Yves 71  
 Goffman, Erving 18  
 Gregson, Nicky 47  
 Guattari, Felix 30, 57, 89  
 Hacking, Ian 58-59, 60, 61, 79, 82-83,  
     86, 88, 96, 110, 111  
 Hamera, Judith 50  
 Haraway, Donna J. 74, 86, 94-95  
 Harman, Graham 63  
 Harrison, Paul 128-129  
 Haseman, Brad 125  
 Heidegger, Martin 30, 57  
 Helbrecht, Ilse 124-125  
 Heron, John 116  
 Hinterwaldner, Inge 53  
 Hopkins, Mary F. 21  
 Horanyi, Rita 18  
 Ingold, Tim 94-95  
 Jagger, Gill 42  
 Jasanoff, Sheila 110  
 Jones, Kip 125  
 Kawalec, Anna 38  
 Knorr Cetina, Karen 57-60, 79,  
     82-83, 86, 97  
 Kosiński, Dariusz 18  
 Kosofsky Sedgwick, Eve  
     37-38, 39, 46, 119  
 Krajewski, Marek 94-95, 113  
 Kuhn, Thomas S. 17, 57  
 Latour, Bruno 10, 13, 57, 58, 60-69, 79,  
     83-86, 90, 95, 96, 97, 98, 99, 105, 111,  
     112, 113-114, 128, 134  
 Law, John 10, 13, 60-65, 83, 88-91,  
     98-99, 107, 109-110, 120-121  
 Lincoln, Yvonna S. 52  
 Loxley, James 19, 25, 41  
 Lynch, Michael 57  
 Lyotard, Jean-Francois 12, 18, 28-29, 30,  
     34, 48, 53, 54, 121  
 MacKenzie, Donald 92-93  
 Madison, D. Soyini 50  
 McKenzie, Jon 9, 12, 13, 18, 29-33, 34,  
     48-51, 53-54, 121-122  
 Mol, Annemarie 10, 48, 90, 91,  
     99, 105, 110  
 Muniesa, Fabian 17, 92  
 Nowotny, Helga 112, 121  
 Olsen, Bjornar 94-95, 113  
 Osborne, Peter 27  
 Osborne, Thomas 110  
 Parker, Andrew 14, 46, 119  
 Phelan, Peggy 43  
 Pickering, Andrew 10, 13, 57, 60, 69-74,  
     79, 83, 85-86, 98, 111, 114, 118  
 Pietrowicz, Krzysztof 13, 83, 86-87  
 Preda, Alex 92, 94-95  
 Ravetz, Jerome 112  
 Reason, Peter 116  
 Reckwitz, Andreas 79  
 Rosch, Eleanor 59  
 Rose, Gillian 47  
 Rose, Nikolas 110  
 Rouse, Joseph 10, 13, 60-62, 76, 77-82,  
     96-99, 105, 114, 117, 118  
 Salinas, Francisco S. 57  
 Schatzky, Theodore R. 79  
 Schechner, Richard 12, 18,  
     20-21, 44, 107  
 Schieffelin, Edward L. 22  
 Singer, Milton 18  
 Siu, Lucia 92  
 Sławek, Tadeusz 136  
 Soler, Léna 57, 82  
 Stephanides, Adam 72-73, 98, 114, 118  
 Stępień, Tomasz 112  
 Stewart, John 59  
 Strine, Mary S. 21  
 Thompson, Evan 59  
 Thrift, Nigel 22, 127-130  
 Turner, Stephen 78  
 Turner, Victor 18, 49, 121



- van der Tuin, Iris 77  
van Gennep, Arnold 18, 49  
Varela, Francisco J. 59  
Vosselman, Ed 92  
Wachowski, Jacek 18, 21, 44-46, 54  
Walker, Julia A. 22, 51  
Wehling, Peter 61, 62  
Woody, Andrea I. 72, 79  
Woolgar, Steve 57-58, 60, 61, 64-66, 90,  
96, 99, 111, 113  
Worthen, William B. 46, 50  
Yarbro-Bejarano, Yvonne 48  
Yearley, Steven 86  
Zeidler-Janiszewska, Anna 17



# REFERENCE INDEX

## A

- actor-network theory (also ANT):  
10, 13, 62-69, 74, 85, 90, 92, 93, 98,  
105; actants, 63-64, 84, 86; black  
boxes 63, 66, 84, 109, 111; chains  
of reference 67, 98; inscription  
devices 65-68, 96, 108, 109
- affirmative humanities 14, 130-133
- agency: 27, 38, 41, 48; disciplinary  
73; human and non-human,  
material 69-78, 78, 85, 93, 95, 98,  
104, 131, 134
- agential cut 76-77
- agential realism 13, 75-77
- anti-essentialism 13, 27, 35, 37, 39, 57,  
61-63, 82, 97, 99, 103, 104, 105, 107,  
127, 128, 129, 135
- anything goes (principle of) 72, 89, 97,  
107, 115, 134,
- a-representationism 60-61,  
104, 127, 135
- autopoietic feedback loop 43

## C

- constatives 23, 36, 104
- construction (metaphor): 61, 70-73, 85,  
99, 105, 129, 134; facts construction  
(in ANT) 62-69; gender  
construction 27-28, 41-42; niche  
construction 13, 78, 81, 96, 105

- correspondence (realism and relation  
of correspondence) 57, 60-61,  
69, 74, 93, 127
- cultural studies of science 13, 78, 82, 99

## D

- dialectic of resistance and  
accommodation 70-71, 73
- discourse: and power 26, 29, 33,  
34, 42, 46-47, 53; packing into  
discourse: 67, 96; see also: practices  
(discursive practices)
- dualisms (renouncement of): 10, 13,  
26, 63, 78, 79, 97, 117, 122, 134;  
in language 35-40; in social  
sciences 83-86, 93-95

## E

- effectiveness: challenge of efficacy,  
efficiency, effectiveness 30-31, 48;  
of knowledge as (a) performatives  
118-121, 135-137
- effects (of performance and  
performativity): cognitive,  
material, affective 45; economic  
mini-maxing and input-output  
11-12, 28-29, 120, 136; gender 27-28,  
41-42, 45, 46-47
- embodiment 21, 22, 31-33, 43, 48, 52-53,  
59, 75-76, 78, 105, 108, 112, 117, 125,  
126, 128, 132
- enactivism 59

## F

facts fabrication: see construction  
felicity conditions 23-25, 26, 46,  
54, 104, 109-111, 115, 117-118,  
120-122, 135, 136

## H

hinterland 88-89, 91, 107-111, 112, 115,  
117-118, 120-121, 134, 136

## I

illocution: see speech acts  
indeterminacy (of laboratory  
practices) 61, 77  
interpretation 18, 25, 35-36, 37, 40,  
43-44, 52, 96, 117, 119, 124  
interpretive communities 36  
intervening (vs representing) 57-60  
intra-activity 74-77, 79, 109, 120  
iterability 22, 24-26, 34, 37, 40-41, 43,  
47, 50, 117, 126, 135

## K

knowledge: as (a) performative 9-14,  
35, 103-137; 'as representation' 104;  
'as social practice' 133; deflationary  
account 62; experiential, practical,  
presentational, propositional 116;  
in postmodern condition 28-29, 48,  
49; knowing "what", "that", "who",  
"how" 54; performance stratum  
of power and knowledge 31-32, 49

## L

laboratory: as microworld 78, 81;  
ethnography of laboratories 57, 99;  
laboratory studies 13, 58-62, 64,  
74, 98, 112, 119; see also: practices  
(laboratory practices)

liminality: 10, 13, 38-40, 45, 49-51, 52,  
103, 105, 121-122, 132, 134, 136;  
liminautic 49; liminoid 49  
locution: see speech acts

## M

mangle of practice 13, 69-74, 83, 114  
materiality: see posthumanism and  
turn to things  
Metaphysics of Presence 24, 36, 134  
modernity: the grand  
narratives 28; The Modern  
Constitution 63, 94, 134  
multiple realities 91, 105

## N

non-representational  
theory 13, 127-130  
normativity 27, 31, 34, 48, 52,  
77-79, 99, 108, 120, 134;  
heterosexual norm 42, 47

## N

objectivity 11, 13, 36, 54, 57, 58, 60, 63,  
64, 66, 69, 72, 74, 80, 83, 119, 120,  
121, 123-124, 127, 135

## O

Other (The): 22, 95, 120, 124, 134;  
Otherness 89, 91; othering/  
othered 53, 91, 100

## P

paradigms: 17, 95, 130, cultural,  
technological, organisational  
performance 29-32; performative  
paradigm (in performance  
research) 127  
performance: artistic performance  
19-20, 33-34, 38-40, 42-44, 52,  
107, 134; as restored behaviour

(twice-behaved behaviour) 21;  
 general theory of performance  
 31, 33; "is" performance vs "as"  
 performance 21, 107; performance  
 vs text 22; performance-based  
 research (in social science) 123-127;  
 performance stratum of power and  
 knowledge 31-32, 49; performance  
 studies 10, 12, 19-22, 30, 38, 44, 52,  
 133; vs discipline 32  
 performative idiom (in science) 69-70  
 performatives: 23-27, 29, 31-32, 34,  
 37, 40-41, 45-46, 50, 104, 107;  
 originary performatives 26;  
 periperformatives 37, 39  
 performativity: and semioticity 38,  
 40, 52; economics' performativity  
 (Barnesian, effective, generic)  
 92-93; gender performativity  
 26-28, 41-42, 45, 47; knowledge  
 as (a) performative 9-14, 35,  
 103-137; language performativity  
 (see: speech acts) 23-28, 34,  
 35-40; performativity of method  
 88-92; science and knowledge  
 performativity 57-100;  
 perlocution: see speech acts  
 positivism 10, 69, 104-105, 107, 133  
 postconstructivism 10, 13, 60-62, 83,  
 95-99, 104-105, 110, 133-134  
 posthumanism 13, 61, 70, 75, 83-86, 93,  
 97-98, 104, 128, 133, 135  
 postmodernity 17, 28-29, 48, 49, 54  
 poststructuralism 17, 35-36,  
 90, 130, 133  
 power: 10, 12, 18, 25-29, 34-35, 38, 42,  
 43, 45-51; knowledge and power  
 31-33, 52, 54, 65, 70, 74, 77-80, 86,  
 98-100, 104, 105, 119, 122, 125, 127,  
 129 130-133, 135, 137; as potentia  
 122, 131, 132, 137

practices: 78-79, 103-104, 127;  
 conceptual practices 72-73, 99, 104,  
 114; discursive practices 31, 74-75,  
 78, 80, 99, 113-115; laboratory  
 practices 61, 65-74, 89, 90, 95;  
 material practices 74-77, 78, 88, 114,  
 115, 125; scientific practices 60-61,  
 66-82, 90, 99, 110, 119, 135; social  
 practices 104, 133  
 pragmatic realism 73  
 pragmatism 57

## R

representational idiom (in science) 69  
 rescue histories 131-132  
 resistance: and change 10, 121; material  
 70-73, 97; to power, discourse 22,  
 28, 29, 33, 34, 43, 45-50  
 rites of passage 18  
 robust fit 111

## S

Science and Technology Studies (also  
 STS) 10, 11, 13, 14, 57-100, 104, 107,  
 110, 114, 119, 133, 134, 135, 137  
 social constructivism 61,  
 88, 93, 104-105  
 social machines 13, 83, 86-87  
 social robustness 106, 112, 120, 121  
 spatiality (as metaphors  
 of performativity) 37, 39  
 speech acts 14, 24-27, 36, 39, 42, 85  
 stabilisation: 60, 61, 66, 112, 116;  
 interactive stabilisation 70-72, 111

## T

text: culture as text 22;  
 in poststructuralism 35-36, 50;  
 scientific text 60, 96-97, 114, 125;  
 text-centered approaches 51, 94, 95,  
 116; vs performance 22

- theory: 59, 69; and practice 52,  
72, 79, 98; in economy 92-93;  
modeling 60, 72-73, 80-81, 118;  
theory-centrism 9, 104
- tinkering 59, 87, 115
- transgression 33, 34, 45, 47-50, 54, 135
- translations 60, 63-64, 66, 68, 69,  
84, 91, 94, 103, 105, 110, 111, 113,  
115-119, 121, 135
- trivialised realism 61, 104, 128, 129, 135
- truth 23, 28, 29, 52, 54, 59, 60, 80, 98,  
104, 120, 123, 126, 127, 129, 132, 135
- turn: a concept 17-18; cultural turn  
17, 53; performative turn 10, 11, 12,  
17-33, 51-54, 97, 105, 124, 133-134,  
137; turn to things 93-95



