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INVENTING THE SOCIAL

EDITED BY

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INTRODUCTION: FROM PERFORMANCE TO INVENTING THE SOCIAL

Noortje Marres, Michael Guggenheim, Alex Wilkie

ACROSS MANY DIFFERENT DOMAINS. EFFORTS ARE UNDERWAY TO REINVENT ways of researching social life. Both in established fields of social inquiry, such as sociology and anthropology, and in disciplines such as art, design and architecture, there is an appetite for adventure, for moving beyond the customary distinctions between knowledge and art, and for combining the 'doing' 'researching' and 'making' of social life in potentially new ways. Designers, architects and artists are now re-framing their practices as novel forms of social research (Rosner, forthcoming; Mazé 2013), while social and cultural researchers are taking up artistic instruments and techniques to research society by other than textual means, such as drawing and installation art (Wakeford and Lury 2012; Wilkie 2017). However, while the projects of conjoining sociology and design, and more generally of rethinking epistemic and aesthetic engagement with social life, are increasingly widespread, they have raised many unanswered questions, such as: What are the specific qualities of such endeavours and the entities they produce? Can the aims of artistic intervention and social inquiry really be aligned in research practices? Is it possible to contribute to both knowledge and art at once, and should we even wish to?

To address such questions, we would do well to consider more carefully specific examples of the above forms of social research. Thus, the overall aim

of this book is to introduce inventive approaches to social inquiry through the presentation of concrete projects and reflections on the contexts in which these projects are undertaken. At the outset, however, we want to offer a wider discussion of the intellectual background, methodological orientation and sensibilities that inform the projects and reflections presented here, and the commitment we think they have in common. Why use the term 'invention' in relation to social research? In what follows, we will describe the logics at work in the phrase 'inventing the social' and clarify what differentiates invention from innovation, and from performance, in relation to social life. We will argue that invention, unlike the other two terms, involves an active search for alternative ways of combining representation of, and intervention in, social life.

We will start by giving a brief introduction to what we take to be three key ingredients of established understandings of how social life is subject to design and artistic intervention. These approaches build on an old idea, namely that social life is not simply given – in the way that nature was previously assumed to be – but is performed, materially conditioned or constrained, and/or reflexive, i.e. it is transformable through knowledge, intervention and creativity. This will bring us to a discussion of the role of objects, technologies and environments in the accomplishment of social life, and of the difference between dominant ideals of the designability of social life and more inventive approaches to it. One of the main points we wish to make is that bringing together social research with arts and design practices makes possible new types of experimental intervention, that differ from narrow scientific experimentalism – moving away from from the idea that social science is able to engineer social phenomena like communities, collective behaviour and publics. Here, what might be understood as experimental procedures take on a very different appearance from their normative significance in modern science. Inventive social research finds its starting point in the inherent creativity of social life, and advances a particular form of experimental inquiry: it attempts to purposefully deploy creative aspects of social life – including performance, materiality, reflexivity – with the aim of rendering social phenomena interpretable and knowable. In the last part of this chapter we discuss what we view as markers of 'good' or pertinent inventions of sociality, namely experimentation as imagination (section four) and material intervention (section five).

SOCIAL LIFE AS TOGETHERNESS: PERFORMATIVE, REFLEXIVE, AND MATERIAL

So, what does this rather awkward and counter-intuitive phrase 'inventing the social' mean? We want to start by considering some background assumptions shared by the contributions to this volume. Most important is the well-established view in the social sciences that social life is not something that simply exists out there, but is *made*: the very existence of social life depends on specific practices of display, representation, accounting and enactment. Society is not like nature was long presumed to be, something that exists independently of human intervention and needs only to be represented in order to be known. Society is not given but done; indeed, it is often difficult to separate the doing and the knowing of social life. Take, for example, a wedding celebration. It is both a way of practising togetherness and of making visible, and representable, the various relations and actors involved. It is also a way of making new relations. Importantly, this insight into the role of social practices is nothing new: it has long been championed by social theorists, and can be variously traced back to the works of Max Weber, Gabriel Tarde, Alfred North Whitehead, John Dewey, John Austin, Ludwig Wittgenstein, Alfred Schütz, and Harold Garfinkel (for a discussion see Halewood 2014). According to these - in many respects very different – authors and the intellectual traditions they represent, social life is accomplished through rituals, representations, accounts, and dramatisations of togetherness: it is a consequence of our deliberate orientation towards others. In this view, then, there is no such thing as a society that exists independently of performative acts. Perhaps the most pertinent version of such a perspective is Garfinkel's (1967) generous idea of the 'methodical character' of social life, and his claim that social life is accomplished through everyday practices of 'accounting for social life as part of social life' (Thielmann 2012).

Different intellectual labels have been offered to identify this insight, from interpretative sociology to performance studies, but if we accept a looseness of terminology, we can say that they invoke the same basic idea: the active or deliberate curation, instantiation, representation and dramatisation of social bonds is critical to the very existence of the entity called society and the phenomenon of

sociability. Thus, it has been argued that social life has a dramaturgy (Goffman 1959), is reflexive (Woolgar 1988), and is marked by looping effects between how people are labelled – say, as foreigners – and how they understand themselves (Hacking 1995). This is to say that the basic idea of what we might call the artificiality of social life has become fairly well established over the course of the twentieth century. However, it has been argued that current proposals to 'engineer' social life, as in 'smart' urban laboratories, are raising new challenges for the understanding of social life as performed (e.g. Calvillo and Halpern 2016). Contemporary phenomena like the rise of social media platforms, and the digital city, have granted fresh relevance to the idea that social life is artificial, as we will discuss in more detail below.

It is important to recognise that not only social research, but also arts and design disciplines have, for some time, drawn attention to the special role of technology and material entities - such as buildings - in the conduct and performance of social life. The idea of the materiality of social life is of crucial importance in understanding how invention may be a characteristic of social research. Sociologists and anthropologists have long argued that it is not just practices, rituals and ideas that inform the ongoing performance of social life, but also the settings (such as buildings), infrastructures (such as electricity and radio) and environments (mountains, cities, the air) in which it unfolds. In social research, this attention to materiality is today mostly associated with Actor-Network Theory (ANT) (Michael 2016) and with anthropological approaches like material culture studies (Miller 1987; Hicks 2010). In social theory, ANT is known for introducing the concept of the non-human as an actor (Callon 1986; Latour 1992). Here, the idea that society is performed or made becomes directly associated with material and technological practices of engineering and design, such as attempts to design an electric vehicle (Callon 1986) the installation of 'sleeping policemen' in the street (Latour 1992), and the famous ANT slogan 'society is technology made durable'. However, as Calvillo reminds us in her contribution to this book, the idea that material practices contribute to the invention of social life is much older. The long history of architectural utopias and attempts to create new forms of society through buildings is testament to this idea (see also Guggenheim 2014). This realisation is also critical for

understanding why exchanges between social research and arts and design are becoming pertinent today. Or, to put it another way, architects and designers will not be surprised to hear it said that buildings and artefacts *do things*. 'Of course they do things' comes the reply – 'it's our job to *make* them do things!'. For designers and architects, the question is *how* things do things. Still, it is not self-evident how what architects and designers do 'to' society, relates to how sociologists understand it.

It is also increasingly recognised that social research itself, not just social life, is constituted by material practices (Lezaun 2007; Wyatt 2008). Drawing on John Austin's philosophy of language, sociologists have argued that material devices initially developed by social scientists to represent society – such as focus groups or surveys - may actually influence the conduct of social life or even generate forms of sociality (Muniesa et al. 2007; Law, Ruppert and Savage 2013). Such studies of the performativity of research methods strive to reveal the myriad of practical and material interventions that lurk below the surface of the official endeavour to represent society. Some of this work has explicitly challenged the representational understanding of social research, arguing that knowledge objects, such as focus groups and opinion polls, do not just refer to external states of affairs, but may actively constitute the very phenomena they purport to represent, such as opinions and preferences (Osborne and Rose 1999). Performative perspectives on social research reveal a troubling circumstance: devices that ostensibly serve to report on social life in actual fact influence it. A stock market index or opinion poll does not simply re-present the state of the economy or the public, but actively enrols audiences in arrangements for knowing and acting on the economy and the public. Moreover, the reverse is also true: phenomena that ostensibly serve as occasions for the enactment of social and public life – say a public debate organised by government or policy actors – at the same time enable the production of data, analysis and knowledge about it (Lezaun and Soneryd 2007). In short, devices that have been designed to represent a phenomenon – society, publics – actively work to shape or even create it.

Recent work that combines social research with arts and design practices builds on these insights into the performance of social life, but also moves beyond them. The implicit claim of performative analysis of social research devices is that 'social research is always already an intervention' but that this is not sufficiently appreciated in representational social science, and public discourse more widely (Law 2004). In this view, one needs to adopt a performative perspective – and its favoured research methodology, ethnography – to appreciate that observational social methods, such as survey research, do not simply represent social life, but act on and in it. By contrast, the project of inventing the social does *not* begin with a critique of the blind spots of representational [social] science, which must learn to acknowledge performativity. Instead, it begins with the idea that social life and social research are performed, and seeks to put this insight to use in a generative way, in collaboration with disciplines such as architecture, arts, computing and design. Here the starting point is not the forgetting of intervention, which performative approaches can subsequently claim to recover, but engagement with the creative competencies of other disciplines, and the question of how social research may share in these creative competencies. In our view, the difference between representational and performative approaches in social research methodology does not hinge on the question of whether research constitutes a form of intervention or not, but on the types of connection between representation and intervention that are made, enabled, and explored in social research. To acknowledge the performativity of social research is but a first step. To rethink social research based on this understanding means to invent the social.

FROM ANALYSING PERFORMATIVITY TO INVENTING THE SOCIAL

Inventive approaches to social research explore different ways of combining doing, making and knowing social life, of connecting representation and intervention. In mixing social research and arts and design practices to this end, inventive research takes up a diverse range of techniques and methods, from the design of material displays for survey findings, as in the case of Lucy Kimbell's 'Pindices' (2005), to the use of design prototypes to facilitate discussions of a public issue, as in Nold's chapter (this volume) on the use of

participatory design to elicit views of local residents on noise pollution around Heathrow. Each of these projects is idiosyncratic, but they share an important feature highlighted in Lury and Wakeford's (2012) introduction to the book *Inventive Methods*, which states that to inquire into a given phenomenon is to participate in it. For Lury and Wakeford, inventive methods are the means by which 'the social world is not only investigated, but may also be engaged. [...] To describe [methods] as inventive is to seek to realise the potential of this engagement, whether this is as intervention, interference or refraction' (Lury and Wakeford 2012: 6). From this insight a number of critical questions arise: can social research serve as an occasion for inventive engagement with social life? If participation is in some sense inevitable, could social research actively contribute to generating sociality? Crucially, however, for Lury and Wakeford the purpose of inventive methods is not to design new forms of living together from scratch but 'to enable the happening of the social world – its ongoingness, relationality, contingency and sensuousness - to be investigated' (Lury and Wakeford 2012: 2). In formulating this proposal, Lury and Wakeford make an important move beyond the critique of representational social science, to pose the question of how the creative capacities of social research might be purposefully or methodologically deployed.

Importantly, this invitation to combine social research and arts and design practices addresses an important contemporary ethical and political challenge that faces social research and design disciplines alike. As inventive research combines representing and intervening in social life, it offers a different vision of what it means to experiment on – or rather with – social life, one that may provide an alternative to more limited ideals of scientific experimentalism that have recently gained ascendency in voguish fields such as computational social science, behavioural governance, and smart city design. Indeed, this is a further reason why we must now move beyond the critique of representationalism. It seems to us that the performative proposition – the view that social methods do not merely describe social reality but actively inform and participate in its enactment – has now become a truism, as social research is today expected to be interventionist. In the wake of social media and other technologies, the idea that social life is somehow artificial, and can be curated, designed or even

engineered, has become increasingly prominent. Take for example the recent large-scale Facebook experiments, in which the social media platform deliberately modified particular platform settings by introducing an 'I voted button' on election day, to see if voter turnout could thereby be increased, and more generally to demonstrate the degree to which 'social behaviour is amenable to online intervention' (Bond et al. 2012). Such experiments may not, strictly speaking, be new – indeed they invoke early twentieth-century experiments in deploying social network analysis for reform purposes (Mayer 2012; Guggenheim 2012). They do signal, however, that the ideal of a purely representational social science is today less prominent in public discourses themselves and, in turn, that accounts – idealised or not – of experimental intervention in social life are becoming more so.

In this context, it becomes apparent why the critique of narrow scientific representationalism – of the view that social science merely represents phenomena that exist independently out there in external reality – is at the very least incomplete. In light of the idealisation of the instrumental deployment of social science research (as discussed in Muniesa's chapter on behaviouralism, this volume), what is required in addition is a critique of narrow scientific experimentalism – of the idea that social science is able to engineer social phenomena like communities, networks and publics. This, we want to argue, is not a form of social research that participates, nor one that invents, insofar as it ignores the creativity of social life itself, treating it instead as a passive object of knowledge, control and optimisation. Retrospectively, one could say that the performative critique of representation – its insistence that social science actively shapes the phenomena that it purports to describe - only works insofar as the idea of interventionist social science, of social engineering and the malleability of society remains discredited. Only in that context could performative understandings of social research claim it as their special insight that social science does not merely represent but also intervenes in the social world. To be sure, performative studies of social research did reflect on the demise of the modern ideal of the malleability of society (Law 2004; see also Woolgar et al. 2009), but these reflections translated into a cultivated scepticism vis-a-vis purposeful and planned societal intervention as such.

How do inventive approaches to social research address this situation? One way is by challenging methodological indifference, the way in which scientific methodology risks remaining unresponsive to the phenomenon under study (Stengers 2017). In this respect, there is another important difference between performative and inventive approaches in social research. Social studies of performativity tend to frame social methods as an object of inquiry – they wish to demonstrate how social research, say a census, does not simply represent but enacts social reality (Law and Urry 2004). By contrast, inventive approaches tend to regard the enactment of social phenomena not as a topic to be exposed or described, but as a research task or challenge: can we do it? Can we contribute to the creative articulation of social phenomena (Guggenheim et al., this volume)? As we have noted, inventive approaches take to task not just representationalism but also interventionism: instrumentalist ideals of experimental intervention in society, such as the behavioural nudge policy pursued by the UK government, are founded on the passivity of social phenomena. It is presumed that social phenomena are out there to be known and acted upon. Inventive approaches deem this presumption not just ethically but also methodologically unsound: conducting research on society always means actively engaging with social settings and actors – with techniques to which the researched are not indifferent. The contributions to this book take as their starting point the experimentality of social life. That is to say, following Matthias Gross, the authors treat society as an experiment: a 'sociological perspective [that] has got nothing to do with the idea of sociologists as experimenters in white coats. It is rather to be understood as called forth by the observation that in modern societies, social practices increasingly present themselves as experiments via a willingness to remain open to new forms of experience' (Gross and Krohn 2005: 80; see also Marres 2012). Inventive research takes this experimentality of social life as the occasion to reconfigure social research.

This is also to say that in shifting our attention away from the critique of social scientific representationalism as such, we do *not* move from representation to intervention as the primary concern. Instead we ask, what kinds of passages between representation and intervention are opened up by adopting an inventive approach to social life? An alternative experimentalism in social

research is still to be invented insofar as to engage in this type of social inquiry is to recognise that there are many possible inter-articulations between knowledge and intervention. In making this point, we follow Lury and Wakeford's insistence in *Inventive Methods* that research constitutes a form of participation. But we also differ from their approach. In choosing 'inventing the social' as the title for this book, we foreground a specific interest in not only the methods, but also the objects and objectives of creative forms of social inquiry.³ Many of the contributions to this book translate sociological ideas and sensibilities into arts and design research practices. Thus, Andre Jaque's chapter deploys the sociological distinction between the backstage and the frontstage of social and public life, while Christian Nold draws on insights from social studies of science and technology in examining the 'provocational capacities' of technological devices to elicit public debate and issue articulation in a specific setting, namely a neighbourhood in the proximity of Heathrow airport affected by sound pollution. For others, the primary interest is in the possibility of exchange – of collaboration - between arts and design and social research. Our intended audience for this book is all those engaged in social and cultural research, design, computing, art and architecture who are interested in the exchange of capacities, knowledges and sensibilities between these fields, to make possible new ways of combining knowing, doing and intervening in social life.

In creatively combining representing and intervening, inventive approaches to social inquiry actively seek to transform the ongoing practices that constitute social life as occasions for social inquiry (Marres 2014). Inventive social research assumes the performativity of its methods in the curation of its objects of study (Wilkie 2014; Guggenheim 2015), and in doing so it can be seen to follow the Marx-inspired dictum that, although social studies have long described the performative effects of social science concepts, methods and measures, the point is to deploy them (Marres and Moats 2015; Kimbell, this volume). In other words, the difference between performativity and invention is not only a theoretical, but also a methodological question to be addressed in specific practices of research. Once we consider the possibility that social research may curate, provoke, or even generate social formations, we may become curious about the creative potential of our own knowledge practices. What are the possible

roles that researchers can adopt in the curation of social situations, and how do and might they interact with various co-inventors, be they human – in the case of research subjects for example – or non-human, in the form of instruments, devices and so on? What role can tools and technologies play, from drawing pens to audio equipment (e.g. Michael 2004), prototypes and Twitter Bots (e.g. Wilkie et al. 2015), and hyperlinks, social media buttons, hashtags and Web scrapers (Rogers 2013) in the curation of social formations? And finally, what are the criteria of success of inventive social research?

GOOD INVENTIONS: EXPERIMENT AS IMAGINATION

It should now be obvious that, in our view, inventive approaches to social research are experimental. Above we have specified this notion in terms of the commitment to combine representation and intervention in social research. Practically, this means applying the term in two ways. First, the willingness to try out new methods, practices and techniques that are different from those presumed to define or belong to a home discipline, whether, for example, surveys or fieldwork in social research or modelling and prototyping practices in design and architecture. Second, taking an interest in forms of expression and knowledge that do not merely seek to represent social reality but seek to 'make visible phenomena in a form in which they could never possibly be lived, never otherwise made manifest' (Brown 2012: 69).4 Experimental social research seeks to articulate social phenomena not simply through describing them but by deliberately modifying settings and by inducing or provoking actors to behave and express themselves in ways they would probably not of their own accord. However, it is important to emphasise that the development of experimental approaches to social research is not just about adopting experimental methods from the natural sciences. As noted, invention entails a departure from methodological indifference to the object of inquiry – an affirmation that social research involves active participation in social life. If to inquire is to participate, and it is impossible to avoid intervention, then we may as well try to become good at it, i.e. to learn the artful diligence and response-ableness of experimentation.

Furthermore, if the imperative of clinical intervention is to improve a medical disorder – a definition that, arguably, informs how intervention is commonly understood – then what new kinds of intervention does creative experimentation make possible: does it ameliorate, add, enhance, provoke, reverse, challenge, accommodate?

Among those who have developed an experimental methodology specifically for social research, the aforementioned and pioneering ethnomethodologist Harold Garfinkel stands out. He famously noted that in order to understand society, we need to conduct experiments as 'aids to our sluggish imagination' (Garfinkel 1967: 38): to render visible what is going on in social situations it is not enough to carefully describe what happens, we must also provoke accounts. If we want to really grasp social processes we must somehow invite, persuade, or (to put it more strongly) provoke actors and situations to generate accounts, and to produce expressions and articulations of social reality. However, and as the sociologist Alvin Gouldner (1970) has pointed out, there are remarkable similarities between, on the one hand, Garfinkel's interventionist approach and, on the other hand, interventions in social and public life undertaken under the rubric of performance art and activism. Gouldner gives the example of the provocative methods used by the Amsterdam-based Provo movement to render visible the true nature of society. Provo mobilised a visible and material police force by releasing a small number of chickens on the Prinsengracht in Amsterdam one Saturday morning, thereby demonstrating the fear and anxiety of the Amsterdam authorities (Gouldner 1970; see also Marres 2012).

But what is arguably more apparent today than it was in the 1970s is the experimentality of social life itself: not just artists and activists, but also every-day actors themselves continuously engage in experimentation on (with) our forms of living, behaviours and habitats – as in living experiments, in mundane forms of digital self-presentation (social media), and in a wider turn to what Francisca Gromme (2015) refers to as 'governance by pilot'. In this context, the question for social researchers and knowledge practitioners more generally becomes: what can we add to experiments already underway (Guggenheim et al., this volume; Marres 2012)? Awareness of the experimentality of social

life changes what it means to undertake experiments in social research. In this context, it makes sense to adopt a minimal definition of experimental social inquiry, one that foregrounds the tactical modification of social settings, architectures and situations in order to render explicit latent social phenomena. As such, to experiment, first and foremost, means to intervene in social life, not necessarily with an instrumental goal in mind but to highlight social formations (Kimbell, this volume). Neither is the aim necessarily to scale the experiment up to a population, but rather to make visible, audible and tangible collective processes and problems that would otherwise be invisible, remain latent or exist as virtual phenomena, or *in potentia* (Savranksy, this volume; Lezaun et al. 2017).

While this definition is in need of further development, this way of framing the methodology of inventive social inquiry can help to clarify the relation between knowledge and creativity in these practices. Crucially, inventive social research does not proceed by adding creativity to more traditional, evidencebased forms of social research. The very idea that social research suffers from a creative deficit that needs to be addressed in order to make social research more engaging is, in our view, misguided. There are plenty of fictions, visions, and fantasies already at work in social research. The notion of a creativity deficit wrongly suggests a strict opposition between forms of knowledge and intervention grounded in facts and those that are grounded in the imagination. As philosophers of science such as Karl Popper, Alfred North Whitehead and Isabelle Stengers have long reminded us, imagination is not the opposite of truth; fiction is not the opposite of fact. Inquiry (knowledge) requires imagination. As Stengers (2002) pointed out in her retelling of Galilei Galileo's classic physics experiments, science always starts with an idea, a fiction, a 'what if?' What if weight made no difference to the velocity with which things fall?

The deployment of the imagination, and the generation of phenomena that are not given in the world, is not something that an inventive approach adds to empirical research – it is an approach and material reality that the arts, sciences and humanities have long shared. As the design researcher Daniela Rosner (forthcoming) points out, design, too, 'is always asking "what if?'" of the social worlds it inhabits: it imagines scenarios, tries out different shapes and ways of

doing things. However, Rosner also insists that asking 'what if' – introducing new scenarios and prototypes into social life – does not mean losing one's interest in what is already given in the world: it does not entail a shift from loyalty to 'what is' to 'what might be'; and it does not mean exchanging empiricism for speculation (Savransky et al. 2017). Instead, as Marsha Rosengarten shows in her contribution to this volume, practising inquiry by way of creative intervention is about engaging with what is already ongoing, already happening in the world with an explicit view to what *might be* in the world *in a different mode*. And this project does not belong to any one discipline, but is best understood as a shared undertaking across fields. Inventive inquiry may be pursued with the aid of social research methods such as participant observation, as well as through art and design practice. Its aim is to develop new ways of deploying the imagination as a method for knowing and intervening in social life, and to this end a variety of methodological traditions can be mobilised.

GOOD INVENTIONS: MATERIALITIES AND TECHNICITIES

The role of the imagination covers one aspect of the kinds of experiments that distinguish inventive approaches to understanding social life from descriptive, performative approaches. Another important feature is that material, aesthetic and technical milieus enable distinctive kinds of interactions with users, audiences and institutions of social research. An imaginary that is materialised in artefacts, architectures and everyday devices has different qualities than imaginations that are materialised in texts or laboratory set-ups. The 'what if?' of a tract on socialist utopia or a physics experiment is relatively difficult to engage with unless you do not need to wait for your revolution, or are trained in the field, but the 'what if?' of an app or a sweater can be tested very quickly. To create imaginative experiments, we need the right – meaning well-designed – devices. Social research now takes account of the materiality of the social in many different ways. However, we need to go further than this: the pressing question today, in our view, is whether social research can reflexively deploy

things, environments and non-humans to make an ostensible difference to our forms of life, and to how we live together.

It is now commonplace to point out that non-humans actively participate in social life. For example, we typically interact with bots on our phones, we find their messages in our inboxes and we are lured into bot-enhanced advertising, marketing and lobbying in our everyday interactions on social media, and many of us reflect on these novel yet mundane circumstances. Remarkably, however, even if non-humans are acknowledged as a significant presence in social life, this does not mean that society is now widely recognised as being hybrid – involving a co-mingling of humans and machines. On the contrary, human forms of sociability are, on the whole, firmly upheld and prioritised in the world of designed sociability. Examples of this, such as social media platforms, tend to materialise distinctively human forms of social organisation (Marres & Gerlitz, this volume): the friend network, the community, social behaviour. Contemporary forms of designed sociality tend to invoke classic social forms. This is another reason why we want to affirm experimentality, and why we need to exercise our skills in other than descriptive/observational forms of inquiry. It is not enough to empiricise the question of the social (Boltanski 2011), and to describe the social theories invoked by the actors themselves to account for social life. Now that we have established the generative capacities of devices, objects and settings in social life, the question arises: how does their participation in social life make a difference to our forms of life; can they inspire alternative forms of knowing and doing? This experimentalisation of social life is inherently in question (this is part of what makes an experiment): we do not already know how to conduct, understand and change contemporary social life, and no one knows what forms of inquiry and intervention are the most adequate for this purpose (not even the actors themselves).

To adopt an inventive approach to social inquiry, then, is not to jump on the technological determinist bandwagon and to believe that it is new technologies that have the power to produce new societies. Rather, the aim is to create experiments that can serve to articulate, explicate and elaborate ways of (not) living together that are already ongoing. As many of the contributions to this book show, the experimental explication of social forms often depends on tactical (as

well as literal) operations upon materialities: moving materials from the cellar to the exhibition space (Jaque, this volume), or exchanging bricks with helium (Calvillo, this volume), or, for that matter, the re-programming of bots (Wilkie & Michael, this volume), or introducing soft toys to a medical measuring tool (Guggenheim, Kroell and Kraftner, this volume).

Jaque's paper offers a fascinating account of the type of experimental renegotiation of social forms that we have in mind. His Barcelona Pavilion experiment produced a form of assembly that went against the organisational forms and logics of the social composed and given concrete form by self-appointed executors of the ideas of the architect Mies van der Rohe (the 'Mies Society'): their obsession with stabilisation and purification was exposed as limited in scope and un-lively. Jaque's pavilion intervention demonstrates the cost of stabilisation, exposing how this commitment rendered particular kinds of assembly invisible and impracticable. However, his attempt to address this by staging some of these invisible assemblies in the pavilion also comes at a cost, as it threatens to render un-doable particular modes of assembly like the Mies Society. This is an excellent example of the 'coming out of things' (Marres, 2012): the outing of hybrid collectives and the explication of experimental forms of togetherness by way of material intervention. It also demonstrates a political truth: that the work of re-assembling the social is likely to generate tensions and conflicts; one society's assembly, to put it somewhat inelegantly, is another's dis-assembly.

Many of the material inventions described in this volume are modest and low-key: the experimental practices of social research we are presenting here do not aspire to the heroic design of large-scale knowledge infrastructures. Rather, ad-hocism, bricolage, hacking, glitching and prototyping are the interventions of choice (Jencks and Silver 1973; Corsín, Jimenez and Estalella 2010). Certainly, this is partly due to the financial restrictions researchers are under. The nimbleness and playfulness enabled by small-scale interventions also have a deeper connection to experimental practices: preferring to be materially and resource light, such endeavours do not wish to impose their inventions on the world, but rather to operate in the mode of making material suggestions, offerings, and attempts at indicating that a different society is possible.

CONCLUSION

In sum, then, inventive approaches to social research must be distinguished both from performative social studies and from attempts to reinstate social engineering as a viable paradigm. On the one hand, inventive approaches do not seek to describe the performance of social reality, but rather treat performativity as an effect that may be purposefully deployed in social research. However, to move from performance to invention does not require the endorsement of the simplistic ideal of the designability of social life. Inventive social inquiry precisely seeks to carve out an alternative to the ideal of the designable society. The two approaches, or experimental regimes, if you will – designability versus invention - are markedly different, in two ways: first, from the standpoint of the designable society, experimental capacities are an attribute of technical apparatuses or architectures. It is the online platform, or the smart city architecture that is presumed to enable experimental intervention into an external object (society) – as for example in recent policy preoccupations where creativity as an economic object can be stimulated by urban planning (Farías and Wilkie 2015: 2). Inventive approaches, by contrast, find their starting point in the experimentality of social life and social situations themselves.

From the standpoint of the designability of society, the latter are presumed to be largely passive, they are to be acted upon by technology and innovation, and technology is assumed to align itself with this purposeful invention. Here the assumption is that the social world will comply with the goals of social design ('and if it won't we'll try something else'). By contrast, inventive approaches to social inquiry are para-instrumental: they *expect* social situations to push back against our social theories, and they deliberately look for recalcitrance in materials and situations: the aim is to press societies' 'buttons' and in doing so to activate latent social realities. Here, resistance is not noise, and neither is it simply anarchic: it has methodological value. The aims and goals of experimental social inquiry are here assumed to require situational adjustment. This, indeed, is what social research is all about: the adjustment of the practices and aims of inquiry during the process of research signals that we have learnt something.

NOTES

- 1 A word of caution is necessary here regarding the performance of social life. For Austin (1962), performativity in language statements that bring into being states of affairs, such as marriage or war require particular 'felicity conditions', meaning that certain circumstances need to obtain in order for them to work. For example, they may need to be pronounced by an appropriate actor (priest, head of state) or in a particular place (a church or press conference). If these conditions of felicity are not in place, then such statements will not 'act' appropriately, i.e. they will not work.
- 2 Things quickly become complicated, however, when, for instance, actor-network theorists such as Bruno Latour disavow the concept of the social. Latour mischievously adopted Margaret Thatcher's phrase that there is no such thing as society (Latour 2005). As Marres and Gerlitz suggest in their contribution, 'inventing the social' can also be framed as a project to recover the specificity of social forms in the face of ANT's (and Thatcherite) indifference.
- **3** Lury and Wakeford are interested in invention as a property of method. In their account, method is what constitutes the interface between social research and art. In presenting invention in this light, their approach has the advantage of foregrounding the question of *how* research operates in the world, but it also has the effect of suspending, or downplaying, the question of what forms of collaboration and types of exchange are possible between social research and creative disciplines in the practice of social research. Reinstating the more abstract notion of 'method' inevitably distracts from and at times, brackets the issue of collaboration, the exchanges of competencies that are possible between the domains, fields, sites, technologies and genealogies of social research, design, art, and architecture.
- **4** In this regard, inventive social inquiry returns us to a classic maxim of structuralist sociology: to gain knowledge of society requires the explication of dynamics that are not readily observable.

REFERENCES

Austin, J. L., *How to Do Things with Words*, 2nd edn (Oxford: University Press, 1975 [1962]). Barry, A., and N. Thrift., 'Gabriel Tarde: Imitation, Invention and Economy', *Economy and Society*, 36.4 (2007), 509–25.

Boltanski, L., On Critique: A Sociology of Emancipation (Cambridge; Malden, MA: Polity, 2011).

Bond, R. M., et al., 'A 61-Million-Person Experiment in Social Influence and Political Mobilisation', *Nature*, 489. 7415 (2012), 295–98.

Callon, M., 'Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay', in J. Law, ed., *Power, Action and Belief: A New*

- Sociology of Knowledge? (Abingdon, Oxon; New York, NY: Routledge, 1986), pp. 196–223.
- Callon, M., 'The Sociology of an Actor-Network: The Case of the Electric Vehicle' in M. Callon et al., eds, *Mapping the Dynamics of Science and Technology* (London: Macmillan, 1986), pp. 19–34.
- Callon, M., and J. Law., 'Agency and the Hybrid Collectif'. *The South Atlantic Quarterly*, 94 (1995), 481–507.
- Calvillo, N., et al., eds, 'Testbed as urban epistemology', in S., Marvin, A., Luque-Ayala, and C. McFarlane, *Smart Urbanism: Utopian Vision or False dawn?* (Abingdon, Oxon; New York, NY: Routledge, 2016), pp. 145–167.
- Farías, I., and A. Wilkie, 'Studio studies: Notes for a research programme' in I. Farías and A. Wilkie, eds, *Studio studies: Operations, topologies and displacements*. (Abingdon, Oxon; New York, NY: Routledge, 2015), pp. 1–21.
- Ford, L. S., 'Creativity in a Future Key', in R. C. Neville, ed., *New Essays in Metaphysics* (Albany, New York: State University of New York Press, 1986), pp. 179–197.
- Garfinkel, H., Studies in Ethnomethodology (Cambridge: Polity Press, 1967).
- Goffman, E., The Presentation of Self in Everyday Life (New York: Anchor, 1959).
- Gouldner, A. W., 'Ethnomethodology: Sociology as Happening', in *The Coming Crises of Western Sociology* (London and New York: Basic Books, 1970), pp. 390–5.
- Grommé, F., 'Governance by pilot projects: Experimenting with surveillance in Dutch crime control' (PhD thesis, Institute for Social Science Research, University of Amsterdam, 2015).
- Gross, M., and W. Krohn, 'Society as Experiment: Sociological Foundations for a Self-Experimental Society', *History of the Human Sciences*, 18.2 (2015), 63–86.
- Guggenheim, M., 'Mutable Immobiles. Change of Use of Buildings as a Problem of Quasi-Technologies', in Ignacio Farias and Thomas Bender, eds, *Urban Assemblages. How Actor Network Theory Transforms Urban Studies.* (London and New York: Routledge, 2012), pp.161–78.
- ----- 'Laboratizing and De-laboratizing the World: Changing Sociological Concepts for Places of Knowledge Production', History of the Human Sciences, 25.1(2012), 99–118.
- —— 'From Prototyping to Allotyping: The Invention of Change of Use and the Crisis of Building Types, *Journal of Cultural Economy*, 7.1 (2014), pp. 411–33.
- ----- 'The Media of Sociology: Tight or Loose Translations', *British Journal of Sociology*, 66.2 (2015), 345–72.
- Hacking, I., *Representing and Intervening* (Cambridge, England: Cambridge University Press, 1983).
- Halewood, M., Rethinking the Social through Durkheim, Marx, Weber and Whitehead. (London: Anthem Press, 2014).
- Hicks, D., and M. C., Beaudry, eds, *The Oxford Handbook of Material Culture Studies* (Oxford: Oxford University Press, 2010).

- Jiménez, A. C., A., Estalella, and Z. Collective, 'The Interior Design of [Free] Knowledge', *Journal of Cultural Economy*, 7.4 (2014), pp. 493–515.
- Latour, B., 'Where are the Missing Masses, Sociology of a Few Mundane Artefacts' in W., Bijker and J., Law, eds, *Shaping Technology-Building Society. Studies in Sociotechnical Change* (Cambridge: MIT Press, 1992), pp. 225–59.
- —— 'Do Scientific Objects Have a History? Pastuer and Whitehead in a Bath of Lactic Acid', *Common Knowledge* 5.1 (1996), 76–91.
- ——Reassembling the social: An Introduction to Actor-NetworkTheory. (Clarendon Lectures. Oxford: Oxford University Press, 2005).
- Law, J., *After Method: Mess in Social Science Research* (London and New York: Routledge, 2004).
- Law, J., and J. Urry, 'Enacting the Social', *Economy and Society*, 33.3 (2004), 390–410.
- Lezaun, J., 'A Market of Opinions: the Political Epistemology of Focus Groups'. *The Sociological Review*, 55.52 (2007), 130–51.
- Lezaun, J., and L. Soneryd., 'Consulting Citizens: Technologies of Elicitation and the Mobility of Publics', *Public Understanding of Science*, 16.3 (2007), 279–97.
- Lezaun, J., N. Marres and M. Tironi, 'Experiments in Participation', in C. Miller et al., eds, *Handbook of Science and Technology Studies*, vol 4 (Cambridge: MIT Press, forthcoming).
- Lury, C., and N. Wakeford, 'Introduction' in C. Lury and N. Wakeford, eds, *Inventive Methods:* The Happening of the Social (London and New York: Routledge, 2012), pp. 1–24.
- ——eds., *Inventive Methods: The Happening of the Social.* (London; New York, NY: Routledge, 2012).
- Marres, N., Material Participation: Technology, the Environment and Every Publics. (Basingstoke: Palgrave, 2012).
- ——'Who is Afraid of the Green Cloud? On the Environmental Rendering of Controversy, CSISP Working Paper Nr. 2. (2013) http://www.gold.ac.uk/media/Marres_NuageVert_Controversy_analysis%20copy.pdf [accessed 30 April 2018].
- ——Digital Sociology: the Re-invention of Social Research (Cambridge: Polity, 2017).
- Mayer, K., 'Objectifying Social Structures: Network Visualisation as Means of Social Optimisation', *Theory and Psychology*, 22.162 (2012).
- Mazé, R., ed, SWITCH! Design and Everyday Energy Ecologies (Stockholm: Interactive Institute Swedish ICT, 2013).
- Michael, M., Actor Network Theory: Trials, Trails and Translations (New York and London: Sage, 2016).
- ——'On Making Data Social: Heterogeneity in Sociological Practice', *Qualitative Research*. 4.1 (2004), 5–23.
- ——Actor Network Theory: Trials, Trails and Translations (Los Angeles, CA; London; New Delhi; Singapore; Washignton, CD; Melbourne: Sage, 2016).
- Muniesa, F., Y. Millo and M. Callon., 'An Introduction to Market Devices', *The Sociological Review*, 55. s2 (2007), 1-12.

- Osborne, T., and N. Rose, 'Do the Social Sciences Create Phenomena?: The Example of Public Opinion Research', *The British Journal of Sociology*, 50.3 (1999), 367–96.
- Rogers, R., Digital Methods (Cambridge: MIT Press, 2013).
- Rosner, D., Integrative Inquiry: A Reflexive Approach to Design Research (Cambridge: MIT Press, forthcoming).
- Savransky, M., A. Wilkie and M. Rosengarten, 'The Lure of Possible Futures: On Speculative Research', in Wilkie, A., et al., eds, *Speculative Research: The Lure of Possible Futures* (Abingdon, Oxon; New York, NY: Routledge, 2017), pp.1–18.
- Shaviro, S., Without Criteria: Kant, Whitehead, Deleuze, and Aesthetics (Cambridge, MA: MIT Press, 2009).
- ——Discognition (Watkins Media Limited, 2016).
- Stengers, I., 'The Thousand and One Sexes of Science', in *Power and invention: situating science* (Minnesota: The University of Minnesota Press, 1997), pp.133–52.
- ——A Constructivist Reading of Process and Reality' *Theory, Culture & Society*, 25.4 (2008), 91–110.
- ——Cosmopolitics (Minnesota: University of Minnesota Press, 2010).
- Thielmann, T., 'Taking into Account. Harold Garfinkels Beitrag für eine Theorie sozialer Medien', in: *Zeitschrift für Medienwissenschaft*, 6 (2012), 85–102.
- Wakeford, N., 'Don't Go All the Way: Revisiting 'Misplaced Concretism' in G.Bowker and S. Timmermans, eds, *Boundary Objects and Beyond: Working with Leigh Star* (Cambridge: MIT Press, 2012).
- Whitehead, A. N., Science and the Modern World (New York, NY: The Free Press, 1997 [1926]).
- Wilkie, A., 'User Assemblages in Design: an Ethnographic Study' (PhD Thesis, Goldsmiths, University of London, 2010).
- ----- Prototyping as Event: Designing the Future of Obesity', *Journal of Cultural Economy*, 7.4 (2014), 476–492.
- Wilkie, A., et al., Speculative Techniques. Speculative research: The Lure of Possible Futures (Abingdon, Oxon; New York, NY, Routledge: 2017), 111–13.
- Wilkie, A. (2018) 'Studios, Publics, Problems', in A., Boucher, et al., *Energy Babble*. (Manchester: Mattering Press, forthcoming).
- Wilkie, A., M. Michael and M. Plummer-Fernandez., 'Speculative Method and Twitter: Bots, Energy and Three Conceptual Characters', *The Sociological Review*, 63 (2015), 79–101.
- Woolgar, S., ed., *Knowledge and Reflexivity: New Frontiers in the Sociology of Knowledge*. (Thousand Oaks: Sage Publications, 2008).
- Woolgar, S., C. Coopmans and D. Neyland, 'Does STS Mean Business?' *Organisation*, 16.1 (2009), 5–30.