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I/II

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◯ The proposition
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◯ Technocratic activism
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◯ Use yourself, kick yourself!
Andreas Birkbak

II. Technosciences, democracy and situated enactments of participation

◯ Leaks and overflows
Linda Soneryd & Göran Sundqvist

◯ STS and democracy co-produced?
Helen Pallett & Jason Chilvers

◯ A democratic inquiry launched and lost
Lotte Krabbenborg

II/III

◯ Convene, represent, deliberate?
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◯ The dark side of care?
Irina Papazu

III. Reconfigurations of democratic politics with new nonhuman actors

◯ Enlisting the body politic
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◯ Democratising software?
Laurie Waller & David Moats

◯ The conceived child
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DEMOCRATIC SITUATIONS

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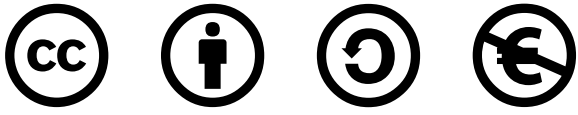

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CONTENTS

List of Figures 7
Contributors 8
Acknowledgements 12

1 · Introducing democratic situations 15
Andreas Birkbak and Irina Papazu, editors

PART I: THE INTERFACES OF TECHNODEMOCRACY

2 · The Proposition: Compiling and negotiating democracy in a Danish municipality 45
Anne Kathrine Vadgaard

3 · Technocratic activism: Environmental organisations, carbon markets and European bureaucracy 60
Véra Ehrenstein

4 · Use yourself, kick yourself! Learning from a newspaper how (not) to do good public debate 80
Andreas Birkbak

PART II: TECHNOSCIENCES, DEMOCRACY AND SITUATED ENACTMENTS OF PARTICIPATION

5 · Leaks and Overflows: Two contrasting cases of hybrid participation in environmental governance 101
Linda Soneryd and Göran Sundqvist

6 · STS and democracy co-produced? The making of public dialogue as a technology of participation 118
Helen Pallett and Jason Chilvers

7 · A democratic inquiry launched and lost: The Dutch national societal dialogue on nanotechnology 141
Lotte Krabbenborg

8 · Convene, represent, deliberate? Reasoning the democratic in embryonic stem cell research oversight committees 161
Rachel Douglas-Jones

9 · The dark side of care? Wayward participants in Samsø's renewable energy transition 186
Irina Papazu

PART III: RECONFIGURING DEMOCRATIC POLITICS WITH NEW NONHUMAN ACTORS

10 · Enlisting the body politic: Governmentalised technologies of participation in digital diplomacy 207
Alexei Tsinovoi

11 · Democratising software? Situating political campaigning technology in the UK's EU referendum 230
Laurie Waller and David Moats

12 · The conceived child: Material politics in the Polish 'war on gender' 256
Andrzej W. Nowak

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ANDREAS AND IRINA

Copenhagen, August 2021

1

INTRODUCING DEMOCRATIC SITUATIONS

Andreas Birkbak and Irina Papazu, editors

AT THE TIME OF WRITING THIS INTRODUCTION, IN THE SUMMER OF 2020, we find ourselves working from home. Denmark, like most countries in the world, is in a state of partial lockdown due to the Covid-19 pandemic. This sudden state of emergency is proving an apt occasion to consider the blurring of lines between science and democracy. During this crisis, situations related to medicine and health are seemingly becoming entangled with some of the strongest tropes of democracy, such as the experience of voting in a democratic election. As a case in point, the Danish politician Bertel Haarder made the following observation in a Facebook post, after he was tested for coronavirus:

> It was almost like voting: first you give your social security number. You then receive a note to deliver at the testing booth. At the booth, they shove a stick down your throat, and then it's back out in the sunshine. We are encouraged to get tested […] and I have a bit of a dry cough (Haarder 2020, translated from Danish by the authors).

The Facebook post compares getting tested for coronavirus with voting in an election. In voting, as in medical testing, you enter a carefully controlled setup where, on the basis of your social security number, something is extracted from you and stored, and you can then move on with your life.

The voting booth, which the politician alludes to, might be one of the first objects that comes to mind when thinking about democracy. The most remarkable feature of the voting booth is its lack of distinguishing features. In Denmark, at least, you can expect a bland and uninspiring booth with an opaque, heavy curtain and a bare minimum of interior equipment. It is their homogeneity that makes voting booths capable of generating a specific register of democracy: they make the voting experience predictable and safe, almost clinical, devoid of irregularities, as our choice of one candidate over another should not be conditioned by any irregularities of the situation in which we find ourselves. The voting booth is intended to create a space purified of political influence, to guarantee that the voter is not influenced by anything at the moment of voting.

A key difference between the voting situation and the test situation is that for the purposes of the coronavirus test, the results concern the person who takes the test, and a link must be maintained between you and the trace you leave behind. In the case of voting, this logic is reversed: as soon as your vote is cast, it must be dissociated from you in order to ensure anonymity, confidentiality and, thus, the legality of the vote.

The juxtaposition of the two situations, the voting experience and Covid testing, can help us appreciate how they both exert an influence on the involved individual. While the voting booth aims for a clinical, neutral appearance, it can by no means be characterised by an absence of influence on the individual. On the contrary, this setting deliberately severs individuals from their relations in order for them to stand 'free' and 'secret' in the act of choosing between candidates (Cochoy and Grandclément-Chaffy 2005), just as the Covid testing setup has to isolate the patient in order to achieve an uncontaminated test result.

The 'proposition' (Latour 2000; Dányi et al. 2021) of the seasoned politician, which endows the experimental scientific setup of Covid testing with traits and sentiments mimicking the democratic practice of voting, is a timely prompt to consider democracy and science as mutually constitutive, and to take democracy as seriously as technoscience as an empirical object of study in science and technology studies (STS). If we are to fully appreciate the politician's experience, we must ask questions pertaining to democracy, such as: How does getting tested for Covid-19 enact the citizen in a democratic register ('we are encouraged to

get tested')? And how does the test setup instil a democratic sentiment in the citizen? To address these questions is to explore how democracy is enacted and becomes part of social life with an experimentalist sentiment, emphasising that the role of technosciences in society is also one of instigating processes of enquiry and learning (Barry 2001, Latour 1987, Marres 2009), while at the same time complicating the study of the experimental test setup through its affiliation with democracy (Ezrahi 1990, 2012; Marres and Stark 2020). Part of this argument is well-known – fundamental, even – in STS: objects have politics (Winner 1980; Latour 1992; Marres 2005); politics is a socio-material phenomenon. But the juxtaposition of the two arrangements does not only tell us that *politics* is materially situated; it tells us that *democracy* is materially situated. The question that this book poses is: what makes materially situated politics *democratic*?

Democratic politics is a phenomenon understood and studied from many perspectives – as discursively organised conflict (e.g., Mouffe 2000), in terms of interests and power (e.g., Strøm 1990), as a matter of securing the right conditions for deliberation and free debate (e.g., Habermas 1985, Møller and Skaaning 2013), or as a complex of rules and institutions (e.g., Dahl 1989, Elklit 1999). Aside from a few notable exceptions in STS (such as Latour and Weibel 2005; Marres 2007), however, democratic politics has rarely been treated as a materially entangled phenomenon. Yet at least three developments characterising the period we live in provide potent demonstrations of a rapidly changing, unpredictable and materially entangled Euro-American democracy: first, the pandemic's science-policy entanglements; second, the 'ongoing, irreversible, ecological mutation' (Latour 2020) of the earth's climate and its ability to bring into view the relationships of interdependence between the human and the natural world; and third, political events such as Brexit and Donald Trump's presidency, fuelled by a so-called post-truth new media environment mobilising populist sentiment. Science communication has become 'high politics' (Keohane and Nye 2001), and new digital technologies have become high-profile protagonists in election victories (Vadgaard 2016; Waller and Moats, this volume). If ever the ideal of Democracy, with a capital D, as an unchanging, anthropocentric and primarily discursively organised phenomenon was tenable, then it has been decisively disproven in the last couple of decades.

The aim of this book is to contribute to the study of democracy, with a small d, by investigating it as a rapidly shifting and techno-scientifically entangled moving target. Each chapter explores a specific situation in which democracy is at once given and emergent. Democracy is given in the sense that the situations carry a certain 'signature of democracy' (Agamben 2009): actors evoke concepts and tropes that can be considered part of a democratic repertoire, just as something in the setting qualifies the situation as relevant in relation to democracy. Democracy is at the same time emergent in the sense that the analyses show the practical limits and contestability of the democratic concepts and ideals evoked. Through empirical analysis of practical encounters, democracy emerges as something that fluctuates; something that must be practically coordinated and is often contested as well as mobilised for different purposes. Through such situated analysis, democracy as a singular model vanishes and becomes a multiple phenomenon – not in a harmonious offering of various dishes of democracy, but in a complicated way where multiple versions of democracy supplement, override or combine with each other (Mol 1999).

The democratic fluctuations explored in this book have to do with 1) the ways in which democracy becomes *technodemocracy* through ongoing processes of institutional, infrastructural, theoretical and bureaucratic reproduction, 2) the relationships between democracy and the technosciences, and 3) the influx of new nonhuman actors such as digital technologies. The prevalence of questions pertaining to science, technology and reflexivity in these themes, which also organise the book into sections, indicates why we believe this is a good time for STS scholars to contribute to the study of democratic politics. Key STS topics such as scientific facts, material politics and the performativity of theory can no longer be relegated to the fringes but go to the core of contemporary democratic politics and political thought.

The timing, we believe, is also good for STS as a research field. Democracy has long been 'an object of inquiry and imagination in STS' (Pallett and Chilvers, this volume). Not least, Latour and Weibel's exhibition and anthology *Making Things Public: Atmospheres of Democracy* (2005) marked a shift in the field, where the project of understanding and criticising the production of scientific knowledge was brought into conversation with the making of democratic

politics. In making this shift, Latour and Weibel drew on Shapin and Schaffer's historical interrogation of the relations between science and the public (1985), Isabelle Stengers' (2005) studies of experimental science and John Dewey's pragmatist thinking about democratic politics (1927). The shift toward the study of democratic politics in STS is related, further, to pragmatist accounts of issue publics (Marres 2007), post-Foucauldian studies of political technologies and situations (Barry 2001), ANT-inspired examinations of 'the little tools of democracy' (Asdal 2008) and a wave of studies focusing on public participation in science and politics (Chilvers and Kearnes 2020; Kelty 2020).

True, 'efforts to democratise science' (Watson 2014: 75) have been present since the inception of the field of STS (Sismondo 2008). However, the abovementioned contributions notwithstanding, there were signs that some STS scholars, as Latour puts it, 'were so busy renewing some of the features of scientific practice' that 'we took off the shelf whatever political theory we had' (Latour 2007: 203). The political theory that was perhaps most often taken from the shelf was the 'assumption that … more public participation in technical decision-making, or at least more than has been traditional, improves the public value and quality of science and technology' (Sismondo 2008: 19).

In this volume, we do not seek to re-theorise democracy, but we do aim to employ our empirical work to disturb tenets of political theory that may have travelled into STS underexamined. This analytical logic is sometimes referred to as empirical philosophy (Mol 2002), or as an empiricist approach which 'takes seriously the ways in which actors deal in practice with what are usually considered philosophical concerns: what is good, what is right, what is true, and so on' (Jensen and Gad 2009: 292). The chapters in this book, while borrowing from a variety of analytical traditions in and around STS, all start from empirical situations where actors are tackling questions concerning politics and democracy, and let these practices point to and complicate common understandings of democracy, rather than employ such understandings or theories to evaluate the practices studied. Instead of criticising, for instance, the low degree of public involvement in a technoscientific matter, several chapters question the nature and aims of specific public involvement initiatives (e.g., Krabbenborg, Soneryd and Sundqvist, Tsinovoi).

The chapters in this collection all engage with contemporary Euro-American participatory democracy, broadly conceived. This is visible in the relative familiarity of the situations explored in the chapters: Election planning (Vadgaard), NGO lobbyism (Ehrenstein), procedures for public participation (Krabbenborg, Soneryd and Sundqvist, Pallett and Chilvers), political campaigns (Waller and Moats, Tsinovoi, Nowak), ethical review boards (Douglas-Jones), community organising (Papazu), and public debate (Birkbak). These are the categories of democratic practices studied in this volume. While they all fit quite readily with commonplace notions of Euro-American democratic politics today, the chapters also highlight the changing nature of democracy. They welcome new actors to the scene, such as digital marketing companies (Waller and Moats), apps (Tsinovoi) and activist-technocrat hybrids in the EU (Ehrenstein). And they make visible the malleable, socio-material nature of classic democratic tropes, such as public debate (Birkbak) and the electorate (Vadgaard).

As the book's title indicates, we believe the work of studying democracy in practice can be furthered by a slight shift in emphasis from settings to situations. The point of thinking the phenomenon through the setting remains important: democracy is not fixed in advance of the specific socio-material settings that participate in enacting it (Gomart and Hajer 2003). But we find that asserting the significance of specific settings is not enough. As Gomart and Hajer note, it is in the *variability* of the settings that the changes and shifts that mark democracy can be observed and studied (2003: 38). If important things happen to democracy as its settings shift and transform, then it is a vital analytical task to study these multiple settings as underdetermined, locally specified, fragile and only temporarily fixed. These settings must be seen as situated and rubbing up against other settings and arrangements, the existence of which the researcher must also be alert to.

The notion of situation is at the same time more localising and more open-ended than the notion of setting, and, as such, focusing on 'democratic situations' foregrounds the fragile and relational nature of the categories and settings of democratic politics, including their vulnerabilities and dependencies on other phenomena unfolding elsewhere in place and time. Barry (2012) invokes the concept of the political situation to describe how any singular political event is

always tied to other controversies, contexts and events, overspilling theoretical delineations and categorisations, and thus pointing to the relational and distributed characteristics of political events such as the ones studied in this book.

Barry's concept of the political situation also alerts the researcher to how different knowledge systems of the social, natural or technical sciences – including theories and concepts from other contexts, such as social science or political philosophy – can be activated as resources in the particular situation. This understanding of 'the situation' reminds us that events cannot be reduced to isolated case studies, just as they cannot be delimited to any *one* setting. By bringing the concept of the political situation to bear on democratic politics, democratic politics can be understood as grounded in, as well as produced by, the socio-material devices and actors (Marres 2012, Laurent 2011) and the social scientific theories and contexts (Asdal and Moser 2012) that inhabit and are invoked by or enacted in the situation. In this way, even though social scientific theories do not enter the analysis as judges called on to arbitrate democratic situations, their agency should be acknowledged as integral to the situations under study.

The chapters in this book pursue this research agenda by offering empirical inquiries into situations emphasising what happens in the cracks and interstices between the usual 'building blocks' of democracy – thereby adding new layers to our perception of those building blocks (see Dányi 2020). To foreshadow our more detailed discussion of the chapters below, Vadgaard, for instance, emphasises neither the election apparatus, nor bureaucracy itself, but instead the shifting interface between the two. Birkbak's chapter studies neither public debate nor the newspaper business alone but engages with their mutual inseparability. Pallett and Chilvers combine a study of public dialogue in the UK with observations about concurrent parliamentary politics and social scientific developments, attending to how they co-constitute each other and emerge together.

As these previews illustrate, we believe there is more work to be done with regards to the otherwise familiar categories of participatory Euro-American democracy. Such work will supplement existing STS arguments, which emphasise that democratic politics is not only present where mainstream narratives expect it to be. Three key lines can be distinguished. First, materialist approaches

foreground how the complicated problems of technological societies require an openness and constant reinvention of the forms of democratic politics (Gomart and Hajer 2003, Latour and Weibel 2005, Marres 2007, Callon et al. 2009, Barry 2001), which may be taken to suggest that it is more important to study material and artistic practices than the commonplace settings of participatory democracy (Marres 2012). Second, postcolonial approaches emphasise that attention must be paid to indigenous and locally grounded political practices in order to avoid extending Western standards (Verran 1998, de la Cadena 2010, de Castro 2012, Brooks et al. 2020, Dányi and Spencer 2020), as has been common not least when it comes to the 'democratisation process' of spreading democracy beyond the Western Hemisphere (e.g., Elklit 1999). Third, feminist scholars have highlighted the problems of exclusion and standardisation involved in shining a light on the loci of power (Haraway 1988, Star 1991), alerting the reader instead to individuals (Callon and Rabeharisoa 2004), creatures (Haraway 1978), environmental issues (Ebron and Tsing 2017), invisible infrastructures (Star 1999) and ageing and obsolete technologies (Cohn 2016) in need of repair, visibility and care (Mol, Moser and Pols 2010; Puig de la Bellacasa 2017).

These are important research agendas that expand both our imagination and our understanding of the range of forms that democratic politics can take, as well as what can be qualified as political or democratic in the first place. However, here we want to stick with the more mundane situations of participatory democracy and try to render them more interesting through empirical work. We find that there is value in studying more obviously political or democratic situations, not least as these have been less well studied by STS researchers. Indeed, according to Barry, it may be this tendency of STS to be 'dominated by the study of "cases" [...] whose significance for the study of politics is obscure', which has caused 'the connections between science, technology and politics' to be 'reproduced' rather than 'interrogated' (Barry 2001: 12).

The Covid testing setup described above was experienced by the Danish politician as transforming him, not only into a patient, but into a citizen doing his democratic duty. This is an example of how we are witnessing the emergence of new relations in contemporary Euro-American participatory democracy. Uncovering them requires an appreciation of the newness of the medical-political

situation as well as of the ways in which one of the most well-known tropes of democracy, the voting experience, is drawn into the situation. In this way, the situation reaches out, overspills and is distributed across a wider landscape than is at first glance apparent. It is in this spirit that the chapters in this volume seek to render situations of participatory democracy, which some may think they know all too well, more *interesting* (Stengers 2000: 48), by rendering them more active, distributed and situated.

We believe this research agenda can draw on and develop three ways in which STS has taken up the theme of democracy in recent years, which coincide with the three abovementioned transformations democracy is currently undergoing. First, democratic politics in practice is co-shaped by its interfaces with more or less rigid institutions and bureaucracies. Second, the relationship between technoscience, democracy and public participation is as intricate and shifting as ever, and the distinction between technoscience (predominantly concerned with organisms and materials) and democracy (concerned with the relations between humans) is destabilised and problematised, not least in the face of the pandemic and the wider environmental crisis. Third, nonhumans play a growing role in democratic politics, which among other things problematises the figure of the autonomous human individual in the voting booth.

To a large extent, the chapters in this collection combine all these three approaches. For example, Tsinovoi asks how the particular nonhuman *device* (#3) of a smartphone app formats the *participation* (#2) of lay citizens in the state-driven institution of digital *diplomacy* (#1) by enacting a hybrid, bot-like digital-human political actor. Still, the emphasis in the chapters differs, which allows us to structure the book and our discussion of the individual chapters along these three themes.

PART I: THE INTERFACES OF TECHNODEMOCRACY

Inspired by social studies of economic markets, STS scholars have explored how social scientific techniques enact publics in 'historical, contingent and disputable' ways (Muniesa et al. 2007: 3) including how settings such as focus groups, citizen assemblies and surveys have performative effects, constructing

both participants and democratic ideals in the process (Hajer 2005; Lezaun and Soneryd 2007; Law 2009; Jensen 2005; Blok 2007; Laurent 2011, Osborne and Rose 1999). A recent wave of studies focuses not on social science techniques but on the institutions and procedures belonging to the conventional domain of Politics with a capital P. Parliaments, for instance, have started to provoke substantial interest among STS scholars as sites for the empirical study of how democratic politics are assembled in practice (Dányi 2018, Asdal and Hobæk 2016, Brichzin 2020).

Extending such moves, the three chapters in this first section all take a well-defined socio-material setting – the election office (Vadgaard), the 'eco-system' of activist-lobbyists in Brussels (Ehrenstein), a national newspaper's 'debate school' (Birkbak) – as the starting point for asking how contemporary democracy is produced through political-administrative decision-making, EU lobbyism and newspaper debate. In the process, the chapters denaturalise ideals and assumptions underpinning democracy-as-democratic-theory, specifically the Weberian ideal of bureaucratic neutrality (Vadgaard), the Marxist ideal of radical resistance to capitalist arrangements (Ehrenstein), and the Habermasian ideal of the public sphere (Birkbak).

While all the chapters in this volume foreground and investigate the role of the setting in the situation under study, the three chapters in this section demonstrate this sentiment most explicitly by exploring organisational and institutional settings of democratic politics ethnographically, and by paying attention to how these both bring into play certain tropes of democracy and contribute to enacting specific versions of technodemocracy in practice. In short, they consider the diverse problems or 'facts' of democratic political practice an effect of the settings that enable their production and stabilisation and study these settings and their performative capacities in practical, socio-material detail.

A central argument from laboratory studies is that distinctions between the social and the natural world are the outcome, rather than the starting point, of scientific knowledge production (Latour and Woolgar 1979; Latour 1983; Latour 1987; Watson 2014). Bringing this logic to bear on the realm of local politics in Copenhagen Municipality, Vadgaard, in her chapter, argues that if, due to its world-making qualities, 'science is politics by other means' (Latour 1988), then

'so is bureaucracy'. Vadgaard observes how public administrators in an election office in Copenhagen Municipality work to construct a political proposition to remove and consolidate a number of polling stations with consequences for 'voter accessibility'. By following the proposition's circulation through the bureaucratic maze of political decision-making in the City of Copenhagen, Vadgaard describes how the boundary between political decisions and bureaucratic casework is performed and simultaneously constantly challenged. She points out that what counts as 'political' versus what can pass as disengaged, 'bureaucratic' work is a distinction that emerges as part of the practices of municipal procedure. This distinction, however, does not only emerge through practice: it also exists as a theoretical conception in the minds of the municipal employees who work hard to keep administration and politics apart. Vadgaard's analysis problematises the democratic ideal of bureaucratic neutrality (for a classic analysis, see March and Olsen 1989), while at the same time showing how this ideal is at play in the practices of the civil service. Vadgaard proposes the term 'technodemocracy', playing on Latour's concept of technoscience (Latour 1987), to capture how the democracy we think we know is spun into and produced through a web of socio-material practices.

With Ehrenstein's chapter, we dive further into the complicated politics of 'technodemocracy', as she investigates the 'technocratic activism' of NGO-based policy officers and analysts lobbying the EU system to modify the European Union Emissions Trading System. Ehrenstein argues that the NGO professionals she studies are neither just climate activists nor just experts in the neoliberal economics of emissions trading. The focus of these 'technocratic activists' is the political-bureaucratic procedures and practical workings and particularities of the EU system, which they navigate proficiently. With her study of EU activist-lobbyists, Ehrenstein reveals a middle ground between the classic civil society politics of participation (e.g., climate marches) and the institutionalised, techno-bureaucratic politics of the EU. In her chapter, we witness a disturbance of the dichotomy between an inside and an outside of institutionalised EU politics, with the activist-lobbyists situating their efforts somewhere in the middle. Here, in the 'zero point between dichotomies' (Star 1991: 47), the urgency of climate change activism rubs against the slow-paced temporality of the EU system, as

the technocratic activists find themselves in the roles of professionals working within the framework of the EU emissions trading scheme, trying to 'make it work', rather than attacking the system and proposing 'radical' alternatives.

While the chapters in this section take well-known settings of participatory democracy as their vantage points, the accounts point to democratic politics as something that also takes place in the 'high-tension zones' (Star 1991) between the institutional settings of participatory democracy. Democratic politics may be understood as staged in various settings, but when studied as specific political situations, we encounter a 'technodemocracy' where political values and technical procedures are intertwined. Here, each situation may inhabit and affect multiple settings which, in turn, also affect the actors working within and across them, installing expectations, procedures and regulations, and conditions of possibility and impossibility.

In his chapter, Birkbak locates the phenomenon of 'public debate' in the large Danish newspaper *Politiken*'s initiative to create a 'School of Debate and Critique'. Birkbak enrols in the school, and through his engagement with this format investigates how the school stages public debate through various technologies and arrangements (Latour and Weibel 2005; Barnett 2008), such as writing assignments, feedback and presentations by public speakers. Birkbak observes how *Politiken's* staff invokes the democratic ideal of equal representation: the students must mirror the demography of the Danish population, because public debate must mirror the concerns of the population. *Politiken*, he argues, aims for the students to represent 'their generation' – a generalised and abstract concept that turns out to create problems for the newspaper: it does not generate good texts. *Politiken* then asks for texts grounded in 'personal experiences' but continues to draw on 'generalising and trite categories', such as 'the Muslim minority' or 'young people' or 'females/males'. With inspiration from Stengers, Birkbak points out the missed opportunities for slowing down 'public language and majority reasoning' (Stengers 2010: 20). Instead of revitalising 'public debate', the newspaper ends up trying to reinforce and reproduce the existing order, missing out on the generative potential of the school event. Nevertheless, the event offers a glimpse of the challenges and opportunities for a legacy newspaper in the twenty-first century, which helps situate the abstract

notion of public debate in an ongoing effort to maintain and renew specific infrastructures and discourses.

A common thread running through these first three chapters by Birkbak, Ehrenstein and Vadgaard is the technical and managed form of democratic politics, which exists *between* rule-governed bureaucratic procedure and the open space of democratic freedom. In this middle-ground of technodemocracy, the chapters demonstrate how participatory democracy is simultaneously given and emergent in practice. As mentioned above, this also applies to the rest of the chapters in this volume, and this is an important consequence, we find, of thinking about democracy through situated encounters. The situations explored contain strong ideas about what democracy and related concepts consist of, and these ideas have some agency in practice. But we also see the practical limitations of these idea(l)s, and how the sheer challenge of coordinating a situation that can come close to living up to concepts about democracy endows the situations with something extra – something emergent that must be studied empirically to be detected. This is where Democracy with a capital D starts to become multiple democracies; where we notice that in each democratic situation, something distinct and different is at play that breaks with commonplace dichotomies, and which may be explored as resources for rethinking democracy through how it is done in practice.

PART II: TECHNOSCIENCES, DEMOCRACY AND SITUATED ENACTMENTS OF PARTICIPATION

STS has a longstanding interest in studying and problematising the relations between science and democracy, and the democratisation of science and technology has been a central political project since the inception of the field (Levidow 2018). This research can be seen as falling into, roughly, two parts: fora of public participation – that is, artificially constructed settings of engagement with specific topics, such as the consensus conference (Jensen 2005, Blok 2007) or the roundtable (Felt and Fochler 2010) – on the one side, and knowledge controversies on the other (Pinch 1981, Epstein 1995, Venturini 2010, Whatmore and Landström 2011).

The first group of studies investigates how citizens, scientists and policy-makers meet to discuss complex themes typically relating to the governance of science and technology in society (Cammaerts and Carpentier 2005). The purpose of these studies is often to 'criticise particular engagement activities while […] expressing a commitment to a wider principle of "democratisation"' (Irwin et al. 2013: 119). This notion that other types of knowledge and expertise besides those of established science deserve a voice is central to the branch of STS often referred to as Public Engagement with Science (PES).

The second group of studies investigates how knowledge controversies overflow their framings and sets out to map the seemingly incommensurable positions and alliances of different actors and issues involved in controversies. The intention here is to contribute to democratic politics by mapping, rearranging or staging new meetings between implicated actors and their knowledge practices. The knowledge controversy as an object of interest within STS is considered a particularly fruitful instance of politics as turning around issues, 'instead of having the issues enter into a ready-made political sphere to be dealt with' (Latour 2007: 815). Following Latour (ibid.), during the controversy 'the political' assumes different forms and is altered through interaction with changing issues and settings (Whatmore and Landström 2011; Papazu 2017); there is a moment of societal transformation, where the social is in a 'magmatic state' (Venturini 2010).

The public engagement with science literature comes face to face with controversy studies in Soneryd and Sundqvist's chapter, which juxtaposes two controversial issues: nuclear waste management and water management in Sweden. Soneryd and Sundqvist set out to investigate the limits of participation, as they find 'the usual' call for including ever-more voices in the governance of science and technology naïve, since 'participatory procedures can uphold and even strengthen already established power relations and knowledge authorities'. In this, Soneryd and Sundqvist go against the classic assumption in STS that more participation will necessarily improve the public value and quality of science and technology. Instead, they argue, in practice, efforts to organise public participation in science and technology must necessarily mix technocratic and participatory elements. By juxtaposing two profoundly different cases, with

nuclear waste a 'technocratically framed process' and water management situated in 'a long tradition of local engagement', Soneryd and Sundqvist show how both areas, despite Swedish attempts to create participatory arrangements around them, are characterised by the problem that the participants perceive their participation as practically meaningless. As such, calls for 'more participation' or warnings against technocracy are insufficient. Rather than abstract ideals, what is needed are investigations of how, for whom and under what conditions participation becomes meaningful, including scrutiny of the infrastructures for linking up with other democratic situations elsewhere – such as local or governmental decision-making procedures.

In their UK-based study of the participation format Public Dialogue, Pallett and Chilvers contribute to the task of exploring links between multiple democratic situations by situating the knowledge practices of STS as *part of* the phenomenon under study; this is an approach that resonates with Barry's (2012) insistence on understanding social scientific knowledge-making as a crucial ingredient in political situations. Pallett and Chilvers argue that STS researchers may not have the privilege of coming 'before or after' democracy, as innovators, interpreters or critical observers. Instead, they argue, as a scientific field with its own agency, STS must be understood as appearing *with* democracy. Specifically, they describe how STS researchers such as Brian Wynne (1992) have taken part in the setup and execution of deliberative Public Dialogues in relation to scientific developments in the UK, and how the format of Public Dialogue has changed over time, not least through engagements with the 'participatory democratic imagination' of STS scholars.

In the following chapter, Krabbenborg describes another highly artificial setup: the Dutch Societal Dialogue on Nanotechnology. Describing societal dialogues as 'ambitious attempts, initiated by government agencies, to create large scale, in-depth, and often longer term interactions among citizens, science and technology developers and other stakeholders to inform policy makers', she argues that while this participation format may be framed as a 'democratic situation' in the theoretical sense that citizens 'are stimulated to actively participate in policy-making processes regarding new science and technology developments', the important question is '*how* a societal dialogue is actually

designed and orchestrated', as this design enacts participation in a particular register and may or may not lead to involvement in the matters discussed. Krabbenborg here echoes the general commitment of the PES field to 'a wider principle of democratisation'. The setup of the Dutch societal dialogue can be understood as particularly artificial, because the participants are invited on the basis of their *lack* of prior relation to the topic of nanotechnology, invoking an ideal of unbiased participation. This ideal proves impractical in so far as Krabbenborg shows how the design of the dialogue never allows the topic of nanotechnology to become an *issue* (Marres 2005; Birkbak 2017) with relevance for participants' lives. Instead, 'awareness raising' and 'reaching as many people as possible' become the criteria of success for the organisers, leaving the participants untransformed by the experience (Stengers 2000; Gomart and Hajer 2003).

Douglas-Jones' chapter also engages in a discussion of the participatory turn in the democratic governance of science. Quoting Chilvers, she points out how STS scholars currently find themselves 'in the "tricky position" of shifting from a role of *promoting* the "democratisation of science" to critically and reflexively analyz[ing] these very same practices' (Chilvers 2017: 117). She adds that the 'move away from implicit theories of democracy towards an approach that considers the democratic as an emergent set of logics and practices aligns STS more closely with anthropologists who refuse the preconceived'. Based on her ethnography of stem cell research ethics committees (ESCROs) in the US, Douglas-Jones' chapter focuses on the largely tacit role which democratic ideals have within such spaces of research governance. Like Krabbenborg's Societal Dialogue on Nanotechnology, ESCROs are put in place to mediate questions of public concern about new scientific fields, and they 'claim to be reasoning in the public interest' (Jasanoff 2012: 5). However, the committees are not particularly participatory. They have almost no online existence, and the interviewed members admit to operating far from the public eye: 'we *say* they're open to the public, we say they're accessible, but try finding it', as a member notes. Democratic ideals of openness, transparency and accountability are constantly present in the ways committee members conceptualise their roles and responsibilities, but 'the ideals largely remain ideals'. In practice, concerns for

expertise, authority and secrecy keep the public at a distance, leaving democratic and participatory ideals as mere abstractions.

Continuing Soneryd and Sundqvist's interest in what counts as meaningful participation, when and for whom, in the last chapter within this theme, Papazu investigates the story of a community-driven renewable energy transition on the Danish island of Samsø. Samsø's energy transition has become a globally renowned model for 'energy democracy': a 'recipe' for how to manage the transition from fossil fuels to locally based renewable energy technologies without sparking public resistance and making the project democratically untenable (Papazu 2017). In her chapter, Papazu argues, however, that the storytelling surrounding 'the Samsø model' focuses on communication and participation while ignoring the techno-material, financial and legal challenges of energy transitions. Papazu employs Puig de la Bellacasa's (2011) concept 'matters of care' to disturb the distinction encountered on Samsø between community-oriented action ('good') and self-interested, materially oriented action ('bad'). Turning her ethnographic gaze to a large-scale farmer who played a significant role in the island's energy transition yet remains largely unacknowledged in the popularised narrative about Samsø, Papazu argues that although the farmer seems to personify the opposite of community, democracy and communication due to his stubborn attitude and his position of 'money and power' on the island, he is deeply invested in Samsø's transition. In Papazu's alternative narration of the story, the material-affective practices of the farmer-investor are foregrounded to appreciate how 'energy democracy' is about more than communicative action and community-building. This entails recognising how virtuous stories about citizen participation can be surprisingly exclusive and insensitive to actors that do not 'fit in'.

Participation in practice is not necessarily pretty, and even when successful in reaching its goals, it may fall short of the theoretical ideals it is constantly measured against. As the chapters in this section indicate, some of these ideals may be fruitfully redefined and renegotiated through co-constitutive encounters between practical democratic situations and the theoretical tropes that inhabit them.

PART III: RECONFIGURING DEMOCRATIC POLITICS WITH NEW NONHUMAN ACTORS

The third and final section of the book consists of three chapters that explore the arrival of new, mainly digital, technologies to existing settings of democratic politics: election campaigns, public diplomacy and social movement politics. The situations are distinct from those described in Part II in that they are not set within a public participation format, such as public or societal dialogue or committee or council work. Instead, the three chapters describe how a heterogeneous set of 'movements' – an electorate (Waller and Moats), citizen-diplomats (Tsinovoi), and abortion opponents (Nowak) – are created with the use of different 'tools of democracy' (Asdal 2008).

By investigating 'more-than-social' practices of participation (Papadopoulos 2018, Nowak, this volume), the chapters in this section contribute to the central interest of STS in how political agency is delegated to objects and technologies. There are many ways to pursue this, as indicated by Marres' demonstration of 'the powers of engagement' of mundane objects like environmental teapots and eco-show homes (Marres 2012) over classic examples, like the silent but powerful politics of Winner's (1980) Long Island bridges that constrain the mobility of certain societal groups, to Latour's (1992) early reflections on car safety belts and 'sleeping policemen' capable of installing a specific state-sanctioned morality in the driver.

The chapters in this section are mostly in conversation with recent scholarship on (digital) material participation (e.g., Marres 2012). However, the situations explored do not concern spontaneous publics 'sparked into being' by specific issues (Marres 2005). Rather, the chapters show how digital material politics can be orchestrated and steered from above. Nevertheless, Waller and Moats' approach remains inspired by Marres, as they examine empirically how objects and technologies – in their case campaign software – are assigned certain democratic qualities by specific actors. The strength and difficulty of this approach, which is a difficulty relevant to this book as a whole, is that democracy is no longer available in any simple way as an external ideal that can arbitrate between 'good' and 'bad' technological practices. Instead, it is an effect of these practices, whether good or bad.

This is particularly noteworthy in relation to the three final chapters, which all describe technological developments that invite concern and critique. We depart from the liberal figure of the choice-making independent citizen and learn about how attitudes, beliefs and actions are distributed across material objects and digital technologies, which at the same time become the grounds for political struggle. The chapters all point to ways in which the democratic actor can be re-conceptualised along more relational, affective and materialist lines, as they study situations where political agencies are installed, problematised and redistributed by political and state actors, with the help of mainly digital technologies.

In the first chapter, describing how the state of Israel uses social media campaigns to improve its reputation abroad, Tsinovoi examines how new digital technologies are associated with reconfiguring the autonomy of individual citizens, as 'the communication potential of the citizens is harnessed to conduct effective public diplomacy offensives', to paraphrase one of Tsinovoi's sources. Part of this diplomatic effort involves recruiting citizens to spread positive messages about Israel using different digital devices. In one of these reputation management initiatives, Tsinovoi is approached on Twitter, as he receives an algorithmically generated message extending an invitation to join a 'digital task force' to 'help Israel fight all the Fake News about it'. This appears to be a government-affiliated initiative called 'retweetisrael.org', which enlists citizens to help the Israeli state fight what it claims to be 'echo chambers' and 'fake news'. By joining in, he 'enables daily automatic retweets of facts about Israel' from his personal Twitter account. Tsinovoi asks what kind of participation is taking place, since, as he notes, 'unlike Marres' (2007) notion of public participation as an organic and spontaneous response to an unresolved issue, in these examples, participation is clearly the result of a strategic and calculated movement'. He suggests that we are witnessing a new mode of governmental 'action at a distance' (Latour 1987), whereby states render their publics active and governable in new ways.

Much in line with Tsinovoi's considerations of how new digital tools can be used to steer citizens from afar, Waller and Moats' contribution studies the contentious case of Brexit and the Vote Leave campaign. They examine how

campaign software employing big data techniques to micro-target political messages is constructed as a 'democratising' influence on election campaigns, as it is said to enable the mobilisation of 'people who usually ignore politics' and 'level the playing field' by employing open-source software. Waller and Moats show how the alleged democratic potential of such software is articulated as part of the marketing material of software companies, revealing a version of democratisation that cannot be disentangled from the hype around big data. The chapter highlights how democratic ideals, such as equal access, bottom-up participation and transparency can be appropriated by marketing companies and campaigning politicians. At the same time, while it might be tempting to write off such uses of democratic ideals as inauthentic, the point is that to attend to the roles that technology plays in contemporary politics we need to look at how technological change plays out in practice. This becomes more evident in situations in which what counts as democracy is up for grabs.

Lastly, in Nowak's chapter, it is not notions and ideals of democracy themselves that are contested, but something more directly entangled with the body: namely, gender equality and abortion rights in Poland. Focusing on the so-called 'war on gender', Nowak traces how Catholic-conservative forces employ digital devices and material objects in an ongoing political campaign to mobilise the public against gender equality and abortion rights. He finds that this battle must be understood as a case of ontological politics (Mol 1999) employed as a performative force 'able to influence future states of the world by means of crafted objects and practices'. The 'war' is fought with material weapons and strategically brings into play gory details such as blood and foetuses: The anti-abortionists' narrative of the early foetus as a 'conceived child' is buttressed by 3D-printed tiny plastic figurines depicting the foetus, an accompanying card game, and even a tamagochi-like app that allows users to 'adopt' a foetus and nurse it through pregnancy. The pro-abortion movement, for its part, also employs material means, as the black umbrella becomes a symbol of the demonstrations against anti-abortion regulations. Nowak concludes, however, that the material means of the pro-abortion movement 'continue to work more on the conventional symbolic level of social movement politics […] allowing the

catholic-conservative forces a somewhat surprising role as the more "technologically enhanced" actor'.

A tension runs through these three chapters, between well-known categories of democratic politics, such as referenda and social movement struggles, and the influx of new digital technologies. The latter turn out to be more mundane in practice than allowed by digital hype cycles, while the former turn out to be more unstable and shifting than expected by democratic theory. Studying such tensions as they unfold in democratic situations allows us to reconsider distinctions or boundaries between 'old' (ideals) and 'new' (technologies) by tracing what we described above as the simultaneously given and emergent qualities of democratic politics in situated encounters.

CONCLUSIONS

It is our hope that this book will contribute to a beginning rather than a conclusion of STS engagements with democratic politics as an object of study in its own right. In this introductory chapter, we have sought to indicate our preferred direction for such a research agenda, emphasising the situated, relational and distributed qualities of democratic politics. As the book's three themes suggest, we find that STS has a lot to offer, given the field's existing engagements with 1) institutions, bureaucracies and theoretical ideals, 2) participation in the technosciences, and 3) new technological translation processes, all three of which are key components in how democratic politics unfold in practice in contemporary Euro-American societies.

To push the point a bit further, we think relational accounts of democratic situations are valuable because of their potential to render the motley settings of participatory democracy more 'interesting' in the Stengersian sense of their capacity for creating new connections (Stengers 2000). As Gomart and Hajer put it, 'the interesting setting is one where the person or creature or thing is not left alone, authentic, but transformed by what occurs, and transformed in ways which induce its interference with the project' (Gomart and Hajer 2003: 39–40). The notion of interest is thus transformed from something determining (e.g., determined by economic and political interests) to something that is opening.

In practice, there is always a tension here. Indeed, this volume seeks to show that democratic politics is both governed by interests and is also (sometimes) interesting.

Coming back to the opening example of the coronavirus test setup in Denmark and the comparison with the act of casting a vote in a Danish election, the testing booth and the voting booth are instances of settings that seemingly leave individuals 'alone and authentic', but in practice very much rely on transforming individuals from their everyday, materially implicated, distributed selves into a spit sample or a cross on a ballot (and back to normal again). Such transformations do not leave the person unaffected, and empirical and analytical work needs to be done in order to unpack the specific interferences that happen in such situations, which may again render them more interesting.

The voting booth situation is arguably a particularly hard case to redescribe since it epitomises the modern-liberal narrative of an independent mind in an individual human citizen. Many other situations of Euro-American participatory democracy are more obviously distributed and in interference with other projects, as shown for instance in the chapters concerning science and democracy and all the configurations of 'participation' that connect them. Nevertheless, even the hard case of the voting experience has been somewhat transformed by the work presented here, with Vadgaard's chapter describing the politics of the election office and Waller and Moats' contribution adding the varying democratic capacities of campaign software to the equation. This is indicative of what we mean by offering more relational, situated and distributed accounts of democratic politics.

It also points to the value of reading the collection as a whole. As editors we have deliberately aimed for a wide-ranging collection of democratic situations, because we find that our argument about the relational and distributed quality of contemporary democratic politics is furthered by the juxtaposition of heterogeneous situations, which all contain claims about democracy in one way or another. Together, the chapters attest to democracy as something that is invoked in many different places by various actors in multiple ways. And this is only a beginning, since the list of potential democratic situations is open-ended

and of course neither limited to parliamentary politics, nor to the predominantly Euro-American practices studied in this book.

The fact that Euro-American participatory democracy is often upheld as an ideal for the rest of the world to follow makes it more, not less, important to study how it is itself a situated, distributed, material, emergent, heterogenous, fragile and at times faltering figure and project. Indeed, most of the chapters describe situations where democracy is not an uncomplicated, virtuous thing; and even if the chapter authors seek to render the settings more interesting by describing their situated variability, the Stengersian transformative potential of the situations is rarely actualised. So, the work is only starting, but we hope that these stories will nevertheless 'enlarge the scope of […] what interests us' (Stengers 2000: 51), and by doing so make room for surprising and inventive situations within the ordinary settings of contemporary democratic politics.

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