

EDITORIAL

Care in STS

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Introduction

During the last 10 years the Science and Technology Studies (STS) community has witnessed a flourishing, intense and multifaceted engagement around "care". While care had been addressed already before in Joanna Latimer's The conduct of care: Understanding nursing practice (Latimer, 2000), and in Jeanette Pols' Good care: Enacting a complex ideal in long term-psychiatry (Pols, 2004), care seemed to be on everybody's lips around 2010. Around the same time, the edited volume Care in practice: On tinkering in clinics, homes and farms (Mol et al., 2010) and the article Matters of care in technoscience: Assembling neglected things (Puig de la Bellacasa, 2011) were published. With akin, yet partly diverging, agendas and concerns, these two key publications drastically increased the amount of research that identify with something like an area of "care studies" in STS. This can also be seen in the publication of special issues devoted to care during the last years, notably the much-cited 2015 issue in Social Studies of Science focused on feminist technoscience interventions into the politics and "darker sides" of care (Martin et al., 2015), and the more recent on relationalities and specificities of care in East Asian Science, Technology and Society (Coopmans & McNamara, 2020). Noteworthy is also the special issue on "The politics of policy practices" in The Sociological Review Monograph, where Gill et al. (2017) discuss how policy and care are entangled, and how such entanglements could be enacted more "care-fully". These publications have spurred rich and generative engagements about ways to attend to the affective, ethico-political and/or material layers of care, within and beyond areas traditionally thought of as related to care (such as healthcare and childcare).

Currently, the notion of "care" circulates, thrive and is mobilised, both within and outside academia. Responding to the "carelessness" of the world, amplified by the current COVID-19 pandemic, the authors behind *The Care Manifesto* argue that the world is in urgent need of a politics that "puts care front and center" (The Care Collective, 2020, p. 5). The pandemic, they write, make clear that for long we have "simply been failing to care for each other, especially the vulnerable, the poor and the weak" (The Care Collective, 2020, p. 2). They therefore propose

a vision of care that reclaims forms of collective and communal life to mobilise and cultivate a "radical cosmopolitan conviviality" (The Care Collective, 2020, p. 20). The COVID-19 pandemic has indeed provoked resurgent discussions around care, in STS and related fields, for example about complex relations between care and temporality (Lydahl, 2020) and between care and punishment (Varfolomeeva, 2020). As another example, the importance of a more-than-human perspective to understand the nature-culture entanglements that constitute COVID-19 has been emphasised (Kirksey, 2020; Serle & Turnbull, 2020). A more-than-human perspective, Searle and Turnbull (2020, p. 291) write, allows us to approach the pandemic as "a multispecies endeavour requiring cultivation and nurture" (Searle & Turnbull, 2020, p. 294), pointing towards the need for "multispecies cooperation, cultivation, and care to foster more liveable futures".

Care has also during the last year circulated in and through the Black Lives Matter (BLM)-movement, mobilised as a vital capacity and collective force for a more just and equal society. In her victory speech Democratic congress woman elect and activist Cori Bush, standing before a Black Lives Matter-banner, repeated the importance of care:

If I love you I care that you are able to have a dignity and have a quality of life the same as the next person, the same as those that don't look like you, that didn't grew up the same way you did, those that don't have the same socio-economic status as you. I care.²

As the examples of COVID-19 and the BLM movement make clear, care is currently evoked – in relation to academia and the worlds it forms part of – as significant for thinking and living, both with regards to its promising "caring agencies" and potentialities (Puig de la Bellacasa, 2017, p. 2) and as a critical lens needed to interrogate and disrupt enduring and intensified injustices and damages of current (more-than-human) worlds (Martin et al., 2015; Searle & Turnbull, 2020; The Care Collective, 2020). This, we propose with this special issue, makes it vital for STS to further conceptualisations

¹ The order is alphabetical. Both authors contributed equally to this manuscript.

² The Guardian (2020) https://www.youtube.com/watch?v=RgWLt7BhRoc (Collected December 16, 2020 our transcript)



and practices of care, as it may help the field to intervene in current crises and the making of collective future worlds.

During the Nordic STS conference in pre-pandemic Tampere in 2019, where some of the articles in this special issue were first presented, the "care in STS" panel we organised together with our two colleagues Elena Bogdanova and Linda Soneryd was the largest at the conference. Presenting at the panel were researchers not only from the Nordic countries, but also from locations such as the UK, the Netherlands and Taiwan. The impetus of the panel was that we wanted to "take stock" of care in STS, now about ten years after the publications by Mol et al. (2010) and Puig de la Bellacasa (2011). We did not define care in our call for papers, instead we drew upon the different uses already existing within the STS community. We did so to provoke and facilitate new and inventive discussions, gatherings and possible tensions occurring with and through care studies in STS, rather than taking too much control of the direction of where "care studies" are heading. Guided by the last ten years' STS research emphasising the potentialities and troubles - the goods and the bads (Mol et al., 2010; Pols, 2004) – of care, we wanted to encourage conversations around "what now?". Therefore, in the open call for abstracts, and what later became a call for papers for this special issue, we asked open-ended questions such as: What is gained from studying practices as care practices and what is lost? What is made present and what is made absent? When and where is it fruitful to think about science and technology as matters of care?

During the two days of the conference, we collectively engaged in conversations about care in STS. Perhaps above everything, our conversations attuned us, the conveners, panellists and the audience, to questions about what care is and has become, in STS, and in the worlds we engage closely with in our research. Our discussion became focused on questions about the relations between these two layers of care: between care as a theoretical sensibility and as already existing among the actors in the worlds we encounter and work with in our studies (Martin et al., 2015, p. 626). Much of our questions and concerns were guided by previous STS researchers' invitations to think with care and care practices. Some participants emphasised the ethical importance of making care visible as it "does not speak for itself" (Mol, 2008,

p. 2), others emphasised care's non-innocence and "darker sides" (Martin et al. 2015, p. 627) and a need to "stay with the trouble" of care (Haraway, 2016). Importantly, it was not only excitement, but also frustration in the room. What is the point of the notion of care if it can be anything? Doesn't it lose it political and ethical significance if anything can be understood as care? Don't we have to delimit the scope of what care can be? Without a doubt, there was a lot of intense debate, frustration and "buzz" around care in the conference room, and the conference panel left us, the conveners of the panel, wondering: what is care in STS in this moment of time and what can it become in the future?

In an email conversation with one of the authors in this special issue, it was suggested that care, indeed, has been somewhat of a buzzword in STS, but that it no longer is so. If this then means that we with this special issue are coming (too) late to the party, this special issue, we suggest, provides concrete examples of the continued importance of thinking with care as something vital not only for the worlds we live in, and will live in in the future, but also for STS researchers who want to participate in the making of those worlds. It provides examples of productive interventions into care, and ways of holding on to the significance of care. As STS researchers have discussed during latter years, this does not imply that care is a taken-for-granted-good (Singleton & Mee, 2017). Holding on to the importance of care is also to attend closely to its exclusions, violence and marginalisations, and to what is enabled for us as the researchers to say and do by (attending to) those exclusions and/or that violence (Lindén, 2016; Giraud, 2019; Lindén & Singleton, 2020). In different ways, and by enrolling partly differing STS care theories, the articles in this special issue start from an understanding of care as a noninnocent practice and use this to, through different and concrete empirical sites and/or practical interventions, explore the makings of care in the worlds they engage in-here, in STS, and out-there - and, not seldom, the relations between these two layers of care (Martin et al., 2015, p. 626). While being generatively and inspiringly different, the articles share a commitment to an STS that intervenes in practices and relations of care to facilitate and provoke better ways of getting along together, through situated empirical and/or practical work. Thanks to their partly different takes on care, we suggest, that they productively showcase possible and inspiring ways of extending STS care studies.

A short overview of "care in STS"

In 2010 when Care in practice: On tinkering in clinics, homes and farms was published, Mol, Moser and Pols (2010) were concerned about care. While being central to daily life, care was not getting the scholarly attention and reflection it deserved and needed. With the edited volume Mol and colleagues wanted to strengthen the scholarly attention to care, because if not carefully attended to, they argued, care practices risk eroding. Drawing on an empirical

philosophy tradition, the chapters in the volume describe "practices to do with care, all the while wondering what care is" (Mol et al., 2010, p. 7). They stress that care is not something to be judged "in general terms and from the outside, but something to do, in practice" (Mol et al., 2010, p. 13). Summarizing the chapters in the volume the editors conclude that "good care" can be approached as "persistent tinkering in a world full of ambivalences



and shifting tensions" (Mol et al., 2010, p. 14). This tinkering centres the relation between care and materiality, as care is seen as a material practice, for example involving technologies (Van Hout et al., 2015) and non-human animals (Singleton, 2010). The "care in practice" perspective has been widely used and commonly shares a focus on how care is enacted in daily, often mundane, practices. Examples include studies on losing weight and taking pleasure (Vogel & Mol, 2014), on the role of care in daily tasting practices (Mann, 2018), on how good care is made in home visits at the margins of welfare (Lydahl & Hansen Löfstrand, 2020), on tinkering with visibility in gynaecological training (Wallenburg et al., 2013), and how "the home" is made when intersecting with new forms of care as a result of ageing (Pasveer et al., 2020, see also van Hees et al., 2017).

An important distinction from previous research in care ethics, including for example Fisher and Tronto (1990), is "the care in practice" perspective's relation to normativity. Feminist care ethics was developed as an alternative to principlebased medical ethics during the late 1970s and early 1980s by emphasising relational interdependency. Because care ethicists then often felt the obligation to define and describe the essence of good care, a "prescriptive ethics of care" was formulated with scholars "indicating the criteria that need to be met in order to call an activity, relation or practice care and hence good" (Pols, 2015, p. 82, italics in original). As an alternative, and building on the symmetry principle in Actor-Network Theory (ANT), Pols (2008; 2015) develops what she calls an empirical ethics of care urging the researcher to not define what is good and what is care a priori, but rather to focus on care in practice, analysing the "different and sometimes conflicting notions of what is good care within care practices" (Pols, 2015, p. 82). Building on this perspective of care, Pols stresses the promise of being rescriptive and suggestive by interfering "in the practices studied by opening implicit notions of good care for (self) reflection" (Pols, 2008, p. 52) and by making suggestions and transporting lessons learnt from other practices. Others have similarly suggested to make improvements in care by "articulating alternatives" (Moser, 2005; 2010), and by attending to the "nothings" of experience (Lydahl, 2021a).

Five years after *Care in Practice* (Mol et al., 2010) was published, the special issue on "The politics of care in technoscience" in *Social Studies of Science* was released, and partly new, yet connected, concerns about care were articulated. Stemming from a feminist and postcolonial STS tradition the editors of the special issue wanted to bring to the fore an understanding of care privileging "themes of power in specific on-the-ground sites of care that entangle both humans and more-than-human others" (Martin et al., 2015, p. 626). Responding to Puig de la Bellacasa's (2011, 2017) call for thinking with care in STS, the volume approaches care as "an affective state, a material vital doing, and an ethico-political obligation" (Puig de la Bellacasa, 2017, p. 42). It particularly draws

attention to not only *for whom* one cares, "but also 'Who cares?' 'What for?' 'Why do 'we' care?', and mostly, 'How to care?" (Puig de la Bellacasa, 2011, p. 96, see also Martin et al., 2015, p. 626). From this perspective – what Martin et al. (2015) suggest we think of through a notion of "critical care" – an important dimension of care is added. Asking what "we are encouraging caring for?", Puig de la Bellacasa (2011, p. 92 italics in original) urges the researcher to not only study how care is enacted in the practice under study, but also to think about our own care and concerns; what worlds we, as STS researchers and feminists, want to question, encourage and strengthen through our research.

Utilizing these questions and concerns, Martin with colleagues encourage STS to take seriously the many layers of the wording "critical" in "critical care": "more than a disapproving or judgemental attitude, it can also be an analytic that is cautious, thoughtful, and considered" (Martin et al., 2015: 635). In the special issue, they particularly illustrate how care is a "selective mode of attention" (Martin et al., 2015, p. 627), which in the process of valuing some things, lives and phenomena necessarily excludes others. Thus, the authors suggest that care should not be conflated with affection and positive feelings, but instead we ought to acknowledge and critique the violence sometimes committed in the name of care and that care, therefore, has a "dark side" (Martin et al., 2015, p. 627).

The critical care perspective highlights the importance of staying with the trouble of care (Haraway, 2016). Consequently, and being part of the special issue, Murphy (2015) encourages STS scholars to "unsettle care", urging for an understanding of care as already circulating in a world violated, and for the need to "vexate" particular care relations "so that they might be acknowledged and remade in better, less violent, more liveable ways" (Murphy, 2015, p. 722). Drawing upon these insights, Duclos and Criado (2020, p. 154, italics in original) explore "the relation between the conservative and generative sides of care". Working with care, they argue requires researchers to both critically trouble distinctions and exclusions, and support "ecologies of support" (Duclos & Criado, 2020, p. 155). This, they propose, "might imply further experimenting with ways to make a difference in the lives of the people we collaborate with, perhaps also acting as 'careful troublemakers'" (Duclos & Criado 2020, p. 167). Relatedly, and extending a discussion around care and its exclusion further, Giraud (2019) argues for the vital importance of not only acknowledging but also politicizing the constitutive role of care's exclusions. Giraud develops what she calls an ethics of exclusion, suggesting that a vision of care - often embraced in STS and elsewhere - as relationality and entanglements risks masking "asymmetrical distributions of agency that not only constrain what ways of being are possible in a given situation but, in doing so, inhibit possibilities for future transformation" (Giraud, 2019, p. 177). This suggests the potentialities of attending to (the politics of) care's tensions and exclusions.



Presented in the above way, it might look like the "care in practice" and "critical care" STS approaches are separate and not in dialogue with each other. In contrast, we agree with Coopmans and McNamara (2020, p. 5) who encourage thinking about different approaches to care in STS through "a rough map". With reference to the work around care as material tinkering and as ethico-politics, respectively, they emphasise that such rough map "lend itself to dual engagement as both a practice and a moralpolitical orientation" (Coopmans & McNamara, 2020, p. 5). Such "dual engagement", we suggest, takes seriously that "while ways of caring can be identified, researched, and understood concretely and empirically, care remains ambivalent in significance and ontology" (Puig de la Bellacasa, 2017, p. 1). Several STS scholars, such as the articles collected in the Coopmans and McNamara (2020) and Gills et al. (2017) special issues, combine insights from perspectives on "care in practice" (Mol et al., 2010) and "critical care" (Martin et al., 2015), showing the "partial connections" (Strathern, 2004) of different ways of attending to and doing care in STS, while also exploring tensions between them (Jerak-Zuiderent, 2020; Verran, 2017). For example, by drawing upon

an understanding of care as both material practice and ethicopolitical obligation, Jerak-Zuiderent (2020) explores generative differences of care practices by attending to how the figure of the knower is rendered in scholarly accounts. She suggests the importance of caring for unease or wonder in scholarly work by attending to practices of "motile not-knowing an other", as opposed to "solid knowing" (De Laet & Mol, 2000). By exploring a "going along" with "neglected things" (Puig de la Bellacasa, 2017), and seeing where such going along leads us in our scholarly accounts, she argues that this comes with a fostering of "caring obligations" (Jerak-Zuiderent, 2020, p. 197). In relation to discussions about symmetry in STS, she emphasises that such "obligations to reciprocate attentiveness to others happen asymmetrically", something that calls for an attentiveness to the response to and of an 'other' in scholarly work (Jerak-Zuiderent, 2020, p. 197). Similarly, and as we show below, several of the authors in this special issue combine attention to care as a matter of tinkering in practice and care as an ethico-political commitment, making clear the productivity of situated and critical approaches to care in STS.

The potentialities of attending to care's exclusions, specificities, and tensions

The articles in this special issue approaches care in different, yet overlapping, ways, and, in doing so, they productively demonstrate ways of extending STS care studies. One important thematic emerging in several articles is that of the non-innocence of care, and the exclusions of and in care, highlighted previously by scholars such as Martin et al. (2015) and Giraud (2019). This is most salient in the article by Anna Varfolomeeva. In her article "Destructive care: Emotional engagements in mining narratives", Varfolomeeva explores relations between the notions of "care" and "maintenance" through a case study of the Veps ethnic minority in Karelia, Northwestern Russia and their miners' relations to the rare ornamental stones gabbro-diabase and raspberry quartzite. Through her article, Varfolomeeva takes critical care studies to the realm of the industry and manual labour, a place she shows is apt for STS analyses of, and with, care. Extending STS work on the "darker sides" of care (Martin et al., 2015), she introduces the notion of destructive care to stress the complex and often detrimental effects of human-industry relations. Varfolomeeva shows that through their caring - affective, bodily and material - relations to stones, Veps workers "take risks for the sake of productivity, neglect safety rules, and feel emotionally estranged towards their bodies" (Varfolomeeva, 2021, p. 14). Even more, while caring for their own bodies, workers also contribute to the perpetuation of both their own labour and the mining industry.

While perhaps providing the most striking case of "a darker side of care" in this special issue, Varfolomeeva's analysis nevertheless points towards the need of a multifaceted conceptualization of

care to understand the case of the Veps and their destructive care. Although the Russian state promotes, she shows, self-sacrifice for the sake of industry, through their affective entanglements with industry and with stones, workers feel pride of their stones, become skilful producers of valuable resources and create new bonds with non-human actors. Therefore, the Veps' example, Varfolomeeva stresses, "contributes to the vision of care as a multimodal concept bridging losses and potentialities, ruptures and new becomings" (p. 23). In this manner, Varfolomeeva manages to hold together a need for critical analysis of the violence committed in the name of care and a nuanced attention to the embodied narratives about appreciation and commitment told by workers themselves.

In her article on city planning, Maria Eidenskog introduces the concept *careful place* to better understand how place is enacted as both material practice and ethico-politics in the making of the socially sustainable city. Bringing care studies to the empirical area of planning, and building on planning documents and mental map workshops with citizens, she explores how thinking with care in the analysis of city planning can contribute to shine light on the complexities often made invisible in contexts of care. By putting what is often marginalized at the centre of her analysis, Eidenskog shows that the notion of careful place can help "sensitize us to care for more-than-human ecologies and create an awareness of our part in them" (Eidenskog, 2021, p. 27). In particular, and suggestive of another re-occurring thematic among the articles around care's tensions, she shows



that careful places enact tensions: a careful place for some means exclusions for others. While building on a critical care tradition to understand the constitutive role of such exclusions, Eidenskog also makes use of the STS notion of tinkering (Mol et al., 2010) to study the practical ordering of some matters of care over others. By extending the notion to the world of city planning, she shows how both planners and residents tinker, with words, meanings, criterions, buildings and concepts, and in this process specific versions of social sustainability are enacted as matters of care, and other versions are made absent. Thus, as some matters of care cannot "co-exist" (Mol, 2002) with other matters of care, the practical ordering of - the tinkering with care relations has political effects. Staying with care's tensions, Eidenskog shows, allows putting in focus the ethico-politics of care's exclusions in city planning, something that can open for more radical visions of what sustainability might look like in a more-than-human-world.

Similarly to Eidenskog, Andy Yuille also extends care studies to practices of spatial planning (c.f. Metzger, 2014), but with a focus on public participation and public policy. Contributing to research on the entanglement of care and policy, such as the work in Gill et al. (2017), Yuille begins the paper by sketching out the history of (city) planning in the UK. He argues that while citizens historically, at least in rhetoric, have been encouraged to be engaged in planning, their care has conventionally been marginalised from decision-making. Neighbourhood planning, the latest "in a long line of planning reforms" (Yuille, 2021, p. 40), constitutes a policy that in contrast explicitly valorises care and affective connection with place, and Yuille traces what happens with that care in practice. Through long-term ethnographic studies of two neighbourhood planning groups in the UK he shows how the groups' legitimacy relies on their enactment of three distinct identities and associated sources of authority: in the neighbourhood, of the neighbourhood and apart from the neighbourhood. Each of these identities, Yuille argues, embody different objects, methods, exclusions and ideals of care, which are in tension and sometimes outright conflict with each other. Similar to how Law (2010, p. 69) have defined tinkering as "holding together that which does necessary hold together", Yuille shows how his neighbourhood planning groups had to find ways of holding tensions and ambivalences around care together, and that how this was done determined what was cared for and how. Instead of contrasting (local, situated) care with (abstract, general) policy, Yuille shows that care and policy are woven through each other in complex relations which are contingently configured, and how they are configured has implications for what gets cared for and how. In so doing, his analysis is both situated and critical, suggesting the productivity of attending to care's ambivalences and tensions. In conclusion, Yuille argues that neighbourhood planning groups, and STS scholars, have to find ways to "reconfigure" care-policy relations, in order to hold tensions and ambivalences productively together.

In the article "Not in our Name": Vexing Care in the Neoliberal University", Emily Jay Nicholls, Jade Vu Henry and Fay Dennis discuss their collaborative work of running an early career researcher (ECR) salon for thinking about care in STS research. STS scholars have previously used care as an analytic to scrutinize research practices and to discuss the positioning of the STS researcher as the analyser of those practices (see for example Müller & Kenney, 2014; Viseu, 2015). Building on such insights, Nicholls, Henry and Dennis innovatively "unsettle" (Murphy, 2015) academic interventions – their own included – explicitly enrolling the ECR through appeals to care. They describe how they found themselves engaging with different "registers" of care. While they practiced a feminist ethics of care (c.f. Fisher & Tronto, 1990) in their collaborative working relations with each other, care was also the object of their research inquiry. What is more, they found themselves becoming objects of care as more and more funders and professional organisations express concern about the precarity of ECRs in the contemporary university. Being critical of the exclusionary practices and patterns of care in neoliberal universities, the authors reflect on their ambivalence about how care interventions for ECRs on the one hand seek to make difficult conditions in the university more bearable, but on the other hand do this without changing the system itself. Similar to Yuille's attention to care's ambivalences, and by taking inspiration from Murphy's (2015) call for a "vexation of care", they ask: what if caring about and for ECRs through the salon "allow a broken system to keep ticking over, without offering or enabling space for others in higher education to think and do the academy differently"? (Nicholls et al., 2021, p. 72). Nevertheless, they emphasise that their experience with the salon allows for holding on to "differences" as offering potentiality for doing "ECR care work" differently, in ways that do not "flatten out, individualize and marginalize the ECR experience" (p. 72). As an example of another re-occurring theme among the articles around care's specificities, the salon, they write, "allowed us to enact forms of care and kinship which were attuned to the specificities of our distinct identities and circumstances" (p. 22). Holding on to care's specificities and ambivalences may, they show, allow ECRs to articulate "ecologies of support from below and beyond" (Duclos and Criado 2020, p. 153). This may, they hope, constitute formations of care that give sustenance for transforming the university from within, perhaps providing the energy needed to act as the "careful troublemakers" suggested by Duclos and Criado (2020, p. 167). In doing so, they articulate how feminist STS approaches to care can be mobilised as situated and critical resources to practically intervene in political and troubling worlds.

While Nicholls et al. intervene in care practices by mobilising an ambivalent care as a collective force for support and resistance, Anna Mann's article "Abandoning questionnaires: Improving quality of life in daily nephrology practice" instead intervenes through attentive attention to the potential of the mundane. She starts from one of the very questions we asked in the call



for papers: what is gained by studying practices in terms of care? Through an ethnographic study of good provision of haemodialysis treatment in daily nephrology practice at a dialysis unit in Austria, she attends to the daily makings of "quality of life". By mobilising Mol et al.'s approach to care as "practical tinkering" and "attentive experimentation" (Mol et al., 2010, p. 13), she tells the story of how a predominant ideal asserting that quality of life is to be measured with a questionnaire, in the daily nephrology practice where she did her fieldwork, was abandoned. Extending STS care studies on tinkering, Mann shows that questionnaires, forms, protocols, and the prominent practice they are part of, may not always be adjusted to make them fit local clinical practice, as previous STS studies have shown (Timmermans & Berg, 1997; Lydahl, 2021b). Instead, they may become abandoned, forgotten, and left behind, and the already existing, often less formalized and more mundane, alternative enactments of care may continue to thrive.

While paying close attention to the local specificities of how this abandoning of quality-of-life questionnaires is enacted, Mann also discusses the political context of the quality of life-movement, part of the broader prominent ideal of evidence-based medicine.

Therefore, she makes clear that it is of interest for STS to hold together local specificities and the broader context they rub-up against, to examine what circumstances "that enable alternative enactments of a good provision of health care to strive and prominent practices to become abandoned" (Mann, 2021, p. 62). She shows that attending to care as "attentive experimentation" (Mol et al., 2010) can provide key STS insights into the potential of daily care practices, in all their specificity. Such daily care practices, she shows, highlight not only that things could be otherwise, but that they already are so, if we attend closely and attentively to the daily doings of care already existing alongside predominant ideals such as evidence-based medicine. Thus, while Varfolomeeva, Eidenskog, Nicholls et al. and Yuille unsettle, and sometimes critique, dominant enactments of care in their analyses with the help of STS tools and sensibilities, Mann instead articulates how an alternative already flourishing within the care practice under study enacted an exclusion of a dominant ideal of care. Hence, in making use of an empirical philosophy tradition to care, Mann shows that attentive attention to local specificities allows furthering STS understandings of (the productivity and politics of) care's exclusions.

Ways forward: a double vision of care

While care has perhaps been a buzzword in STS that has run out of the "buzz", we have, simultaneously noted that COVID-19 during the last year has re-actualized care as a research agenda in STS. As a suggestive example, in the accepted open panels for the upcoming 4s conference in Toronto (and worldwide) in October 2021, care is mentioned no less than 48 (!) times. Similarly, we have noted debates about the role of STS care studies in times of the pandemic occurring on STS Twitter, and at other media platforms, during the last couple of months. However, rather than simply making care a "buzz" again, a revitalised interest in care in STS highlights the need to find ways forward in thinking with care that help us respond to the worlds of, and beyond, the pandemic and its accompanied crises.

Learning from the insights from the articles in this special issue, one way of doing this is to engage what we, drawing on Haraway (1988), suggest calling a *double vision of care*. A double vision is a vision that "can interrogate positionings and be accountable" (Haraway, 1988, p. 586) since it "sees from both perspectives at once [and] reveals both dominations and possibilities unimaginable from the other vantage point" (Haraway, 1991, p. 154). In other words, a double vision of care is both *situated* and *critical*, staying with the practices, specificities and potentialities of care while simultaneously critically interrogating those practices when needed. A double vision of care partially connects aspects of both critical care and care in practice perspectives to care in STS, by emphasizing how one through situated and empirically close research can interrogate, complicate and/or

unsettle the social, material and political contexts of the practice of care under study. Such double vision of care holds on to "possibilities of abstraction alongside the particular and situating work of cleaning-up (again and again) those here-now places where those visions are pursued" (Winthereik & Verran, 2012, p. 48). In different ways, we argue, all articles in this special issue suggest the importance of such double vision of care.

From a double vision of care, and drawing from the articles in this special issue, we find three matters to be especially important to explore further. The first topic is method. As we suggested already in our call for paper, the methods we use have effects for how we can analyse and do care. Following Haraway (1997) it is possible to understand each method as providing "a wonderfully detailed, active, partial way of organizing worlds" (Haraway, 1997, p. 90), making it clear that methods also participate in producing active, detailed and partial versions of care. As the articles in this special issue utilize different methods, they point towards the potentialities of methods in relation to care studies in STS. With the help of detailed "ethnographic storytelling" (Winthereik & Verran, 2012), Mann and Yuille showcase the generativity of using ethnography to hold together (the tensions between) specific doings of care with their predominant policies and/or ideals, in order to make present alternative enactments of care otherwise at risk of becoming invisible, eroded or less real (c.f. Moser, 2011; Martin et al., 2015). Suggestive of a double vision of care, they use ethnography to hold together, and locate, abstractions and specificities. In using policy documents,



Eidenskog is able to both trace how the practical ordering of matters of care changes over time and the ethico-political effects of those changes for humans and non-humans, and to "scale up" (Murphy, 2015; Lindén, 2021) her analysis by putting local planning practice in relation to policies about diversity and social sustainability. Differently, the mental maps allowed citizens in her study to draw what they care about, generating drawings where the everyday exists alongside large-scale policies and visions. Her article, we therefore argue, articulates drawing as a specific mode of doing care (Cleeve, 2020) that might enable a double vision of care which entangles the mundane with largescale visions. Varfolomeeva, evoking a long feminist tradition of taking embodied experiences of political phenomena seriously, uses interviews to highlight personal narratives, allowing her to hold individual and bodily experiences of care together with the detrimental effects of industrial destructive care. As these examples suggest, the partiality and specificity of methods enable differing interventions into debates about, and practices of, care. The different methods attune the researcher to specific qualities and dimensions of care, which, in all their partiality, may enact care as both a material practice and an ethicopolitical commitment.

The second topic is the relationship between care and interventions. In their article, Nicholls, Henry and Dennis unsettle academic interventions of care, while at the same time emphasizing that their experience of doing a care intervention also provided potentiality for doing care in academia differently. Thus, their article provides an example of a practical intervention in care that we would suggest can be understood as a practicing of a double vision of care, where they practice care through ambivalence and attention to difference. Similarly, Yuille intervenes in care and policy relations by actively enabling such relations to be done in less exclusionary ways. Especially he points towards the STS researcher's capability of holding contradictory cares in productive tension. This, he shows, might allow for practitioners and policy-makers to engage in a more conscious and reflexive decision-making that reduces the likelihood of matters that matter to people being automatically sidelined. As these two examples suggest, there is a lot of possibilities for STS to actively intervene in the making and doing of care through a double vision of care that holds on to the potentialities of care's ambivalences, tensions and specificities. Drawing on López-Gómez (2019) we see potentialities in using care as a heuristic for "taking sides, participating, acting, making a choice, taking a position, but without taking for granted a general or fundamental principle on which these actions would safely and coherently be grounded" (López-Gómez, 2019 p.10). This heuristic would in itself be a practicing of a double vision that does not use care as a safe grounding but as a situating sensibility that holds in tension the need for taking of sides and positions with a willingness to always be ready to be unsettled and surprised by other visions and practices of care.

Finally, the third topic is locations of care. This was something we also pointed towards in our call for papers when we asked: when and where is it fruitful to think about science and technology as matters of care? We posed this question in relation to the ongoing STS discussion about the boundaries for what constitutes care (what is care?; what is not care?). As a first, several of the articles show the relevance of care in locations not often thought about as locations of care: city/spatial planning, industrial mining and ECR workshops. This, in itself, highlights the potentiality of thinking with different (new) locations of care. However, in addition, by learning from the different articles in this issue, we would emphasize the productivity of holding on to the two layers of care at play here and in many other STS care studies, too. As emphasized by Martin et al. (2015, p. 626) these two layers include both the care we as STS researcher bring to the field of study and the care already circulating out-there. All the articles in this special issue, we suggest, hold these two layers together (in tension) when thinking with their respective location of care. That is, instead of either being empirical studies of locations of care or studies that use care as an analytic and method, they do both, and in doing so they enact inventive engagements with locations of care. This might seem as a given but has implications for a double vision of care. When engaging their different empirical locations of care - ranging from more traditional areas of care such as health care to more innovative locations such as city planning – they also put these in productive tension with STS notions of care and show how the meetings between these different "cares" allow for specific engagements. We suggest that these particular meetings between these two layers of care may allow the STS researchers to engage a double vision of care that hold in tension the possibilities of abstraction alongside the particular and situating work of location (c.f. Haraway, 1988; Winterheik & Verran, 2012). This means that STS care studies can in principle be put in productive use anywhere, but it is the meeting between STS notions of care and specific empirical locations that elucidates when and where it is relevant to conceptualize science and technology in terms of care. Hence, anything can be a location of care, but not everything is so.

This special issue continues a line of research combining insights from perspective on care in practice and critical care (c.f. Coopmans & McNamara, 2020; Gill et al., 2017; Jerak-Zuiderent, 2015; 2020; Singleton & Mee, 2017). However, in making clear the perspectives' partial connections, we argue that the articles in this special issue also adds something partially new that help taking care studies further. They add, and showcase the importance of, what we have suggested to call a double vision of care and the potentialities of attending to (the constitutive role of) care's exclusions, tensions and specificities, emphasizing that both meticulous attention to local practices and specificities of care and a critical (in the multi-layered meaning of the term) interrogation of those practices is needed. A further exploration of such situated and critical practices to care in STS might also



entail careful attention to "touching visions" (Puig de la Bellacasa, 2017) of difference as part of a double vision, reminding us to keep on developing sensitivities for how to stay "tactful" (Puig de la Bellacasa, 2017) to the response of an "other" (Jerak-Zuiderient, 2020).³ To elaborate a touching double vision on care, then, STS needs to hold together care as both situated material practice

and an ethico-political commitment, sometimes in tension and sometimes not. Thus, keeping with such double vision can be one of the ways forward in thinking with care that helps us respond to the world of and beyond the crisis we have experienced during the last year – making care not a "buzz" again but relevant now and in the future years to come.

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³ Drawing on Puig de la Bellacasa, this is a form of embodied "politeness, understood as a political art of gauging distance and proximity" (2017, p. 119). We thank Sonja Jerak-Zuiderent for suggesting to us to include Puig de la Bellacasa (2017) attention to "touching visions" in our thinking about a double vision of care.



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