Commentary

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Care in context: Becoming an STS researcher

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Abstract

This collaborative article, written by graduate students who attended the Politics of Care in Technoscience Workshop, brings the themes in this volume to bear on their own developing science and technology study projects and research practices. Exploring the contours of five specific moments where questions of care have arisen in the course of their everyday research, they do not find a single or untroubled definition of care; instead, care is often a site of ambivalence, tension, and puzzlement. However, despite this uneasiness, they argue that taking the time to reflect on the multiple, sometimes conflicting, forms and definitions of care within a specific research context can inform the way that science and technology studies scholars envision and conduct their work.

Keywords

care in technoscience, contexts-in-the-making, feminist science studies, pedagogy, research methods

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Introduction

The articles in this issue offer neither a unified theory nor a normative definition of 'care'. Instead, they each explore the contours of care within an emergent context (Asdal and Moser, 2012), a context in which the author is also implicated. With their emphasis on the contingent and the contextual, these articles provoke curiosity about where questions of care arise in the practices of science and technology studies (STS) research. In keeping with this orientation, rather than offer a traditional commentary on each of the articles, we have decided to use this space as an occasion to engage more thoughtfully with the process of becoming STS researchers ourselves, as we move through graduate school and work to find employment. In this accompanying essay, we take up the provocations offered by the contributors in order to reflect upon our own research practices on and in technoscience. We offer five short vignettes that situate these wider questions of care within the contexts of our work: stories of lived encounters that continue to provoke and puzzle us.

As a literary form, the vignette allows us to draw attention to the subtle atmospheres of the mundane (Stewart, 2011), amplifying the sensuous quality of each of the moments recounted. We narrate scenes from familiar graduate school activities – preparing qualifying exams, doing fieldwork, and writing journal articles. Care, as we learn from this volume, is never innocent (Murphy, 2015) and not always desirable (Viseu, 2015). The question, then, is not 'how can we care more?' but instead to ask what happens to our work when we pay attention to moments where the question of 'how to care?' is insistent but not easily answerable. In this way, we use care as an analytic or provocation, more than a predetermined set of affective practices. The articles in this volume sensitized us to moments in our research where one notion of care sat uneasily with another, moments where care was felt as an absence or an ambivalent presence, moments where learning a different mode of attention caused a shift in practices of care. Reflecting on these moments here opens up new ways of relating to and within our research projects.

Although the vignettes do not resolve into easy answers, we are interested in 'staying with the trouble' (Haraway, 2012: 311) by giving these moments our time and attention. In the rich tradition of STS inquiry into the politics and practices of knowledge-making, we are interested in how thinking with care reorients our research practices. In the stories and commentaries that follow, we explore how care helps us approach moments of friction, response, orientation, breath, and convergence emerging from our research projects. We set out to describe each moment in rich detail, so our readers can immerse themselves in the shifting contexts from which the question of 'how to care' arises. More aesthetic and performative than argumentative, with these vignettes we hope to draw you into our 'matters of care' (Puig de la Bellacasa, 2011).

Response[1]

Having realized that I arrived thirty minutes early for my meeting, I walk to the nearest café. I pass surgeons in green scrubs darting into amber lit crosswalks and clinicians whose hurried paces cause their white coats to billow like full spinnakers. With files in arm, they walk past men with cupped hands who sit next to shopping carts draped with

blankets and piled high with irregularly shaped garbage bags. This movement of running shoes, tattered and new, and the jostling ID badges against hips and chests spans the seven-block stretch of medical buildings I wander through to kill time. The wind in this city is strong, and as I near the office of the integrative oncologist I have come to interview, my coffee turns cool. I make my way up to his office, silently counting the number of hand sanitizer dispensers adorning the walls. I knock on his door and he greets me warmly with focused attention. We speak about his medical training, his clinical practice, and the current research projects he is undertaking. He tells me about the kind of care he is able to enact with an integrative approach – one that involves two-hour intake appointments where he draws on both his biomedical and Ayurvedic training to meticulously chart the stories he invites his patients to tell about their medical history, their current condition, and their emotional state. Considering his method alongside the standard biomedical intake procedure, which creates fifteen- to thirty-minute windows for such charting, I ask him, 'Is there a difference for you in terms of care and treatment?' As with all of my questions, he thoughtfully pauses and then replies with gestural inflection:

> *I don't know that I consciously thought of it as such, but I suppose that they are different. When I think of treatment I think of treatment of a disease, and when I think of care I think it's more global – care could include the treatment of a disease or things that aren't directly treating the disease'. I glance to the voice recorder that sits between us and scribble 33:28 in my notebook.*

Following the work of care in this encounter invites new ways of understanding what it means to treat cancer and care for patients with cancer. We can see this in the physician's reference to the 'global' difference between treatment and care. In his rethinking of care, the physician draws on scalar imagery to describe a way of tapping into whole other worlds of possible treatment options. It seems that the idea of care resonates with him as a kind of critical response to the standard methods of cancer treatment, prescribing non-western medicines and therapeutic interventions that will complement and extend the efficacy of chemotherapy and radiation treatments for his patients, including herbs, acupuncture, meditation, and yoga. For this physician, performing care in his medical practice is a means of responding to the limitations of the biomedical approach to treating cancer – a model that he feels fails to support sufficiently the emotional, nutritional, and spiritual needs of the patient.

In the oncologist's office, a different configuration of care takes shape when the physician and the ethnographer open up their conceptions of care in the course of the conversation. Both become affected by the question of how to care (Schrader, 2015). Drawing on Donna Haraway, we understand care as being embedded in the responsivity of 'worlding games', and in acts of 'learning to pay attention' (Haraway, 2008: 19). Here, care materializes in and through exchange and response, offering a useful contrast with Viseu's and Murphy's articles in this issue, where predetermined notions of care reenforce power asymmetries. When asked if he sees a difference between care and treatment, the oncologist offers a definition of care that he enacts in his medical practice, but had previously not articulated. This emergent definition moves the ethnographer; she writes it down for safe keeping.

Brought to bear on our growth as STS researchers, this exchange emphasizes the importance of listening and responding not only as conversational virtues, but as being necessary for making responsible knowledge about the world together. This consists not only of the ethnographic skill of eliciting a desired response from an interlocutor, but also of learning to be affected by how they answer. Indeed, our response-ability and responsibility means acknowledging how we as researchers affect and are affected by whom and what we study (Myers and Dumit, 2011). From this perspective, interviews like this one can be a mundane site where new definitions of care may arise, if only for a moment.

Friction

The conversation leaps from Wittgenstein to role playing games and the confusing funding arrangements for Brazilian biomedical research. The air is heavy, a blender explodes, and the smell of smoked meat emanates from a nearby oven in an Ottawa bakery. The interviewee, a stout 60-something director of ethics for a Canadian funding agency, sits back in his wooden chair, reveling in my nervous energy. He calls me 'Grasshopper' – a reference to the 1970s television series, a textbook example of Hollywood Orientalism, Kung Fu[2] *– and assumes the role of master. Besides answering questions about the emergent category of translational medicine, he is determined to drive home a point about how I and my so-called 'kin' – fellow graduate students interested in the history, sociology, and anthropology of biomedicine – present ourselves to the physicians, researchers, and patients who inform their work. He implies that we are too eager, too anxious. He suggests that we will never be able to account fully for the technical expertise and mundane experiences that inform the life of a medical doctor turned bureaucratic 'paper pusher'. I ask if it is safe to say that ethics are enacted in these mundane moments. He sighs and tells a story of a plane trip he took in the late 1970s. He saved a man suffering from cardiac arrest by stabbing him with a hollowed out pen. He prefers that I listen, rather than telling him 'what ethics are'.*

In this issue, Ana Viseu (2015) argues that, despite the collaborative rhetoric of the 'integrated social scientist model', 'its discourses and sociomaterial orderings are based on traditional and prescriptive arrangements where disciplinary boundaries, funding arrangements and power asymmetries are not challenged but reified' (p. 643). Viseu's paper highlights obstacles facing those interested in more deliberative (Fortun, 2012) modes of ethnographic engagement within technoscientific institutions. For Kim Fortun (2012), deliberation is not about 'giving everyone a chance to speak', but rather, 'being open to intervention and foreigners, about hospitality, and solicitude' (p. 453). Yet, it is important to remember that this openness is an achievement, not a given. For every moment of mutual response – such as the one described in the preceding vignette about the integrative oncologist – there are others where meaningful response is foreclosed by imbalances of power and implicit assumptions about age, gender, and expertise (Viseu, 2015).

Here, the interview with the ethics director represents a zone of cultural friction (Tsing, 2005). Two ways of imagining what is worthy of care and attention collide, which results in a persistent and unresolved tension. The seasoned authority of a long-time practitioner rubs

uneasily against the curiosity of the interdisciplinary ethnographer-in-training. Embedded in the interviewee's lesson is a long-held belief in the inherent authority of technoscience's discourses and practices. He sees little value in conversation – in remaining open to the idea that there might be something to learn from or generate with his anxious interlocutor. As a result, the interviewer's interest in the ethical mundane gets overshadowed by an exceptional story of medical heroism. Even at the level of a one-on-one interview, multiple histories, disciplinary practices, personal experiences, and cultural preconceptions inform what contexts get made and, ultimately, what contexts come to matter.

A generous reader could argue that the interviewee's lesson is worth taking seriously. Emerging STS scholars do need to develop the patience and listening skills required to understand what their interlocutors find worthy of attention. As Astrid Schrader (2015) puts it, active listening 'requires a withdrawal of the self, an exercise in passivity and engagement at the same time' (p. 685). However, when to withdraw the self and when to protect the self are specific to the context. Here, the interviewee's preference for one-sided talk over mutual exchange reminds us that power imbalances are generated and maintained through many subtle cues, by conversational roadblocks and unchecked assumptions inherent in doing fieldwork. Here, these asymmetries play out in multiple ways that determine who gets called an expert, whose context comes to matter, and, indeed, who gets to call whom 'Grasshopper'.

Orientation

A colleague and I are researching the Portlands of Toronto – the most polluted and polluting part of town, which, in another life, used to support a robust swampland ecosystem. Walking through this concrete industrial zone, we are having difficulty getting a sense of the ecologies that take shape around industrial infrastructures and the living world. Our research is mired in concrete. We feel like there must be a different way into this world.

There is a constant rhythmic chink of wooden paddles hitting the metal gunwales of our canoe as we pull up near Toronto's industrial epicenter. The lake is very choppy; I feel a little seasick as I turn and make eye contact with a brown and grey sandhill crane perched on a tall construction crane. This feels like a different Portlands. The stark bifurcations that mark the land seem to wash away in the water. On the lake, we can see and are moved to care about different things, things unseen from our previous vantage point on land. Garbage, unnoticed on the side of the road, looks out of place here – the starkness of white plastic against blue water. So used to being propelled on cement, upright, feeling the ground through our feet, we now pull our way through the waves. We pass under a large overpass that almost entirely blocks out the light. All we can hear is the din of car traffic from the highway overhead. As we move through the water, we can see that someone is living under the overpass. A rope ladder hangs from a mattress that has been dragged up into the struts. We pull up to the shore, stretch our legs, unsteady from kneeling, and blend back into the industrial ecology of the city.

In the previous vignettes, a shared definition of care emerged or failed to emerge from interviews between STS scholars and their interlocutors. Here, canoeing takes us away

from these familiar research encounters and becomes a technique of re-orientation. Since, as Schrader argues, 'care issues from a practice of engagement' (p. 684), the re-orientation offered by the canoe activates different possibilities for paying attention to and knowing Toronto's Portlands. Canoeing provides a different experience of the ethnographic field – as a method of research, it allows for the weaving together of the academic and recreational. It is an act of engaging in 'serious play' (Bateson, 1972: 14–21) and living differently in urban space.

Paddling transforms the physicality of our encounter with our field. Moving from ground to water, from walking to paddling, allows us to see the world in a way where new constellations – white garbage against blue water, cranes on cranes, and secret rope ladders – become perceptible. It reworks the 'distribution of the sensible' (Rancière, quoted in Schrader, 2015: 673), allowing for 'the appearance of the unexpected' (p. 681). That said, it does not displace other more conventional forms of research such as searching through city archives, interviews, and theoretical exegesis. Instead, paddling as a 'practice of engagement' enriches our research, deepens the sensuous dimension of our work, and reorients how we care. It allows us to take seriously the pleasures of conducting research. It permits us to enjoy what we do and to do what we enjoy. In so doing, spaces open up where we can learn to care differently about our research objects, thereby allowing us to experience the world in and through our objects, and to experience our objects in and through the world, in unanticipated ways.

Breath

In preparation for my comprehensive exams, I would meet weekly with one of my advisors. We would settle in well-worn office chairs with coffees in hand. Her posture was relaxed and patient. I was nervously perched at the edge of my seat. Most of the time I would begin these meetings by rambling about whatever was weighing heavily on my mind. On occasion, she would sit and look at me as I stared at the ceiling, straining to find the words to begin. In these moments, she had a simple, yet very effective way of getting me to slow down, focus my attention, and find my words. She would lean back, relax into her chair, and when she had my attention, she would take in a deep breath and exhale. Her measured breath did not sound like a sigh of exasperation – it was an expression of permission, not a gesture of frustrated dismissal. It was a sign that she was there with me and that I could take the time I needed to edge my way into the pages of the text I was grappling with. Her breath and posture helped shape and direct the tonality of my inquiries. A relaxed pose and breath encouraged me to slow down and focus on how I was describing someone else's work. It signaled that I had touched on a wonderfully thick part of the text that was worth taking the time to unpack carefully and enjoy. She would lean in, fixing her focus on me when I was dangerously close to missing the point of the author's work. When I was completely off the mark, which happened more than I would like to recall, she would raise her eyebrows and chuckle. Those were the texts with which I clearly needed to spend more time.

This encounter brings pedagogical practices to the fore. Breath and posture help the student to locate and stay with the trouble. Here, care happens between utterances, in wordless gestures, as a way of relating and responding to another's discomfort. There is

a rich and sensuous history at play here. As Anne Carson (1986) reminds us in *Eros the Bittersweet* (p. 48), for the ancient Greeks 'breath is consciousness, breath is perception, breath is emotion'. Indeed, it is the instructor's breath that calms the anxious graduate student and allows her to make the time she requires to attend to the texts. When the response transforms into an audible chuckle, the student is called upon to pause and consider how the strategies she uses to engage texts may need to be discarded, extended, or reworked. The student learns to make associations through the responsive cues of her instructor. Teaching and learning happen between words, in the gestures and articulated movements that pace and guide the student's inquiries (Myers, 2015). Similar to the experience of dipping a paddle into watery depths, breathing is a practice of re-orientation that allows a shared matter of care to develop.

Following breath in this vignette turns our attention to how bodies are implicated in pedagogical practices. Not only does breath link these two bodies, but the movement of affects and the boundaries of learning are themselves brought into question. At a time when tuition costs are high, competition for funding intense and permanent academic jobs scarce, perhaps it is no surprise that the graduate student in this example experiences a type of performance anxiety. In her contribution to this issue, Puig de la Bellacasa (2015) invites a consideration of how 'care time' might rework and counter experiences of anxious futurity (p. 692). 'Care time' she writes, 'appears dense, thickened with a multiplicity of entangled and involved timelines, rather than compressed and subordinated to the linear achievement of future output' (p. 706). In this context, breath is charged and full of disruptive potential. It intervenes upon and inaugurates techniques and approaches for encountering and understanding; it is a gesture of care that reconfigures the rhythms of production, and calls attention to relations as they unfold.

Convergence

Ruth and I are writing an article together; we meet on Skype a few times a week or a few times a month depending on what is going on in our lives and where we are in the writing process. The article, which draws on her dissertation research interviewing postdocs in the life sciences, asks how we, as STS scholars, might address some of the problems identified in the study and how we might care for her research subjects.[3] Her findings suggest that career rationales in the life sciences privilege individualism, competition, and geographical mobility. However, we are familiar with these problems not just from this research project but also in the context of our own careers; we are postdocs too. We have recently moved across our respective continents for temporary jobs. We are eager to get publications for our own CVs. We are anxious about job security and unsure about our futures in academia. We began this article together to counter the individualism in our own fields, to affirm the importance of collaboration and friendship in our work lives. Our Skype meetings are a part of this. We work on our article. But we also try (and only occasionally fail) to make time to talk about mutual friends, our new apartments, Doctor Who, our plans for the weekend. Today, we are discussing a comment we received in a list of requested revisions. It reads: 'If the postdocs all dislike what they do, why do they stay in science? Can't they get jobs elsewhere?' This comment affected me not so much because it pointed out a weakness in our argument,

but because I could easily imagine the question addressed to me or any of my colleagues if we were to express anxiety about our careers to our mentors. As Ruth explains that she has heard this question many times from senior scientists, I feel palpably that in the case of this article, care for ourselves and care about the life science postdocs are completely and hopelessly enmeshed.

Different questions and practices of care converge in this vignette. It is difficult to distinguish Ruth's original research question about care in the social fabric of the life sciences from the desire to develop careful STS methods. Thinking with care also makes it difficult, and indeed undesirable, to separate professional research methods from the social relations that support and enliven them. But out of this thicket, interesting things emerge: not just the article, but a commitment to working collaboratively and cultivating pleasure in scholarship, doing work that is reparative (Sedgwick, 2003), that sustains rather than depletes, even and especially in the face of pervasive anxiety and uncertainty. Acknowledging how a work meeting is also a transatlantic social occasion is part of this ongoing commitment.

In this Skype meeting, care is not figured as heroic or paternalistic. It is not about 'saving' a victimized other. Instead, it is about exploring what practices strengthen or erode sustainable ways of living together in our research contexts, as well as our own conditions of living and working. Thinking with care invites these convergences – it 'make[s] us think and feel and wonder about what sustains us' (Stengers, 2008: 51). Through care it might become possible to recognize that the question of whether adjunct professors in the United States have access to employer-sponsored health insurance and other benefits is inseparable from what kind of research we can do inside these institutions. Viseu's (2015) article invites us to ask what is the 'existential price' we pay within different forms of institutionalized governance, and how we can resist the 'well-worn strategies of isolating and individualizing problems' that draw attention away from 'systemic and collective failures' (p. 643). Viseu speaks to the relatively new practice of 'integrating' STS scholars into publicly funded research initiatives, but it is also important to apply this analysis to the 'traditional' home of STS scholarship – university departments – and to ask after the collective practices capable of resisting the most damaging effects of so-called 'neoliberal' governance.

Reflecting on care offers us the opportunity to consider how laughing, canoeing in Lake Ontario, or savoring the latest episode of *Doctor Who* together could be an integral part of sustainable STS research that has the potential to engender both interesting work and livable lives. These kinds of convergences trouble conventional distinctions between work and play, personal and professional, scholarship and activism. But they can also offer different ways of proceeding or connect us more thickly with what we are already doing.

Conclusion

We do not read the articles in this volume as calling for a new turn or a new wave of STS thinking, a departure from what we have already been doing; rather we find that they encourage us to stay with the feelings and textures of moments that might have otherwise

been forgotten or sidelined as research projects develop, and experiences are smoothed into explanatory narratives for dissertations, tenure files, and publications. By narrating questions and practices of care and opening them up for consideration, we become more *involved* with those questions and practices (Hustak and Myers, 2012), more able to live with uncertainty and contestation around what counts as care in technoscientific contexts-in-the-making (Asdal and Moser, 2012). We learn how and how *not* to care from remembering and discussing these small moments that arise from an uncomfortable or stimulating interview, inside a canoe-cum-research vessel, in the office of a mentor, or over Skype.

By dwelling inside these moments together as co-authors, we also are learning to take care of ourselves and each other as we struggle to become response-able researchers and technoscientific citizens. And while these feelings might be more acute during the process of learning to do research – the trepidation of comprehensive exams, the anxiety of first time in 'the field', the feeling of inadequacy interviewing a new kind of scientific expert, and the existential fear of facing an unfavorable job market – we hope to continue to develop a sensitivity to these fleeting moments throughout our careers, inside or outside the academy, in our research and in our lives. For us 'the politics of care in technoscience' is not about knowing, but of questioning, opening, and attuning. It does not produce epistemological or ethical certainties – it is a 'politics without guarantees' (Stuart Hall, quoted in Jally, 1997).[4]

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Notes

1. Each vignette was composed by one of our co-authors from his or her own experience in becoming an STS researcher. The authors of the vignettes are, in the order they appear: Melissa Atkinson-Graham, Cameron Michael Murray, Kelly Ladd, Emily Simmonds, and Martha Kenney.
2. In a famous flashback, Caine, the half-Chinese, half-American protagonist (played by white American actor David Carradine) is asked by Po, his blind master, to close his eyes and describe what he hears around him. After describing a nearby fountain and birds in a cage, Po points out that Caine has failed to perceive the beat of his own heart or a grasshopper at his feet. From then on Po refers to Caine as 'Grasshopper'. Often understood as an affectionate term for a neophyte, referring to someone as 'Grasshopper' is also a way to generate the uneven dynamics of power and knowledge that informed the interview described in this vignette. Referencing *Kung Fu* also points to a generational divide in the conversation, as it participates in Orientalist discourses that were normalized in the 1970s and have since been criticized (Iwamura, 2011: 115).

3. Ruth Müller's dissertation research was part of the project 'Living Changes in the Life Sciences' funded by the Austrian Genome Program GEN-AU (bmwf) between 09/2007 and 12/2010 (Müller and Kenney, 2014). Project leader: U. Felt; Main collaborators: M. Fochler, R. Müller. For project details, please see: http://sciencestudies.univie.ac.at/en/research/completed-projects/living-changes-in-the-life-sciences/.
4. In Stuart Hall's well-known lecture, 'Race, the Floating Signifier', he develops an argument for the discursive and material unhinging of race from biology. (Hall in Jally, 1997) With a nod to Donna Haraway's *Primate Visions: Gender, Race, and Nature in the World of Modern Science*, he indicates that biological facts about race work to embed people in specific natural and cultural orders. Considering anti-racist interventions into the historical and political ordering of such inequitable stratifications, Hall concludes his lecture by asking: 'How do we construct an ethically responsible politics around race without the guarantee of biology? (Hall in Jally, 1997)' For Hall, to perform a politics without guarantees, 'one has to act in the notion that politics is always open' – that particular identities, contoured by particular constructions of biology, do not create the conditions for politically correct points of view. Where this piece is often read as an early critique of identity politics, we read this argument as a reminder that political commitments and concerns emerge with actions, not states of being. Listening to Hall as a collaborator for feminist technoscience, he reminds us that politics is the open-ended participatory process of proposing and recomposing affinities and concerns for different arrangements of power and bodies.

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