Revisiting positionality and the thesis of situated knowledge

Dragos Simandan
Geography Department, Brock University, Ontario, Canada, L2S 3A1, simandan@brocku.ca

ABSTRACT: Feminist epistemologies have been influential throughout human geography by means of the development of a set of interrelated approaches involving positionality, partiality, reflexivity, and the highly politicized thesis of situated knowledge. This paper aims to operationalize these approaches by introducing an anti-humanist, politically-attuned, and historically-contextualized framework, which postulates that one’s knowledge is inevitably incomplete and situated because information about the world always reaches one through a channel that is constituted by four epistemic gaps: (1) “possible worlds versus realized world”; (2) “realized world versus witnessed situation”; (3) “witnessed situation versus remembered situation”; and (4) “remembered situation versus confessed situation”.

Key words: feminist epistemology; power-knowledge; social justice; memory; politics of knowledge; human geography;
Introduction

Published three decades ago, Donna Haraway’s argument about the situatedness of our knowledge claims (Haraway, 1988; cf. Nagel, 1986) has become one of the basic epistemological blocks underpinning feminist and queer scholarship. The trope of “situated knowledge” is inherently spatial, a fact which contributes to explaining its wider appeal especially in the various sub-disciplines of human geography (Simandan, 2013). The awareness that theory and theorizing are important resources for both empirical research and political activism has led several feminist and queer scholars to both develop Haraway’s thesis and explore the wide range of its applicability (e.g. Hines, 2010; Hinton, 2014; Jensen and Glasmeier, 2010; Nightingale, 2016; Rose, 1997). As several recent retrospectives of feminist and queer scholarship have pointed out (Coddington, 2015; Longhurst and Johnston, 2014; Peake, 2015), the field has moved beyond its initial focus on gendering the human subjects, to develop distinctive ways of conceiving the world (feminist metaphysics or ontologies; Ferguson, 2017; Mikkola, 2015) and of exploring the possibilities and limits of knowing the world (feminist and queer epistemologies; Cope, 2002; Brown and Knopp, 2008; Daukas, 2017; England, 2015; Hughes and Lury, 2013).

The outstanding productivity of the thesis of situated knowledge in feminist and queer studies can be demonstrated by highlighting the wealth of recent research that has used it to articulate ideas of positionality, partiality, and specificity (Anderson et al, 2010; Hopkins, 2009; Kaspar and Landolt, 2016; Kohl and McCutcheon, 2015; Moser, 2008; Mukherjee, 2017; Pavlovskaya and St. Martin, 2007; Sidaway, 2000), subjectivity and reflexivity (Bondi, 2009; Faria and Mollett, 2016; Nagar and Geiger, 2007; Whitson, 2017), emotion and embodiment (Bartos,
Different researchers will have different understandings and operationalizations of the thesis of situated knowledge, some more useful in empirical work than others. Over the years I developed my own framework for thinking through the situatedness of our knowledge claims and the purpose of this paper is to share it with other scholars interested in this problematic. The argument is not premised on ranking and discarding alternative conceptualizations, but on the pragmatic reality of diversity. The same idea, even when supposedly obvious and overly rehearsed, may not “click” into someone’s mind until it is re-presented, re-articulated, or re-described in a new format, shape, or fashion. The politically-attuned, anti-humanist framework delineated in this paper is likely to be useful because it describes a sequence of information transmission that is logically coherent and easy to remember. It therefore shares a certain user-friendliness with other epistemological frameworks, such as Walmsley’s (2008) recently proposed DEEDS acronym that encapsulates the five central attributes of human cognition - Dynamic, Embodied, Extended, Distributed, and Situated – or the geographically-important classification of environments into kind (favourable to learning from experience) and wicked (unfavourable to learning from experience) in the work of Hogarth et al (2015) and Simandan (2011a).
In a nutshell, the framework I propose in order to help us think analytically and precisely about the situatedness of our knowledge claims postulates that one’s knowledge is inevitably incomplete and situated because information about the world always reaches us through a channel that is constituted by four epistemic gaps. The first gap (“possible worlds versus realized world”) requires us to think of the current world or current situation as a stochastic draw from a multitude of possible worlds or situations that have failed to materialize, but that could have materialized. Lay people and researchers alike tend to underestimate the low probability of the current world and therefore fail to attend to the manifold ways in which the present could have turned out very differently. Our bias of focusing only on the realized world and of overlooking how that realized world is situated in a stochastic universe of many possible worlds cripples our understanding of reality and misleads us into thinking that realized outcomes are less contingent and more necessary than they actually are (Kahneman and Miller, 2002; March, 2011). The second gap (“realized world versus witnessed situation”) captures the intuition that what we perceive in the world at any given moment is shaped by our positionality, geographical location, biases, interests, blind spots, and by the inherent cognitive and perceptual constraints of our species (Pronin et al, 2004). In more logical terms, the information one absorbs from a situation is always only a sub-set of the total informational content of the respective situation. In more political terms, the situation one gets to (or does not get to) witness, is shaped by uneven power relations through one’s specific location in a matrix of social difference (Hopkins, 2017; Nash, 2017). The third gap (“witnessed situation versus remembered situation”) highlights the fact that a significant part of our everyday knowledge is remembered information and that the many imperfections of human memory make our recollections inevitably impoverished accounts of the original situation we have actually witnessed (Hill, 2011). Finally, the forth unavoidable
epistemic gap ("remembered situation versus confessed situation") focuses on two intertwined meanings of the saying "we know more than we can tell" (Polanyi, 1966): firstly, significant parts of our knowledge and memories are unavailable to conscious awareness (Simandan, 2017); secondly, people are social creatures and knowledge is therefore socially constructed within various fields of power, which means that shame, fear of punishment, explicitly political motivations (e.g. Wright, 2018), or self-presentational concerns make people share with others much less than they actually remember (Cameron, 2012).

Different people are informationally situated in different ways by the cumulative and unavoidable loss of (potential) knowledge that occurs across the four aforementioned epistemic gaps. Becoming fully aware of these gaps and of these differences, of why they happen, and of how they happen, helps recast in novel ways the thesis of the situatedness of our knowledge claims and, thereby, helps us understand ourselves, our research participants, and the world we live in. The remaining of the paper fleshes out more fully the description of the four epistemic gaps and weaves it with several research threads in human geography. To be sure, the problematics addressed are extremely broad and would indeed be more suitable for an academic monograph than a single journal article. I conceive of this particular contribution as a starting point for further work rather than the definitive statement of my ideas, and I hope that the readers will join me in developing this first presentation to its full potential. The immediate next steps for such elaboration are readily suggested by three aspects of the topic to which I wasn’t able to do full justice in this contribution. Firstly, in what follows I focus primarily on inviting human geographers to appreciate a range of new ways of understanding knowledge as necessarily partial and situated, and, thereby, open to the idea that positionality can be productively expanded to include different accounts of partiality than simply social difference. This focus is carried out
through critiquing a humanist narrative of the subject, which left me too little space to explore in depth, and by way of empirical illustrations, how the four gaps affect different social groups in different ways. In other words, my framework will need to be refined by showing, specifically, how the four gaps are political\(^1\) and how different subject positions in networks of power intersect with one another to produce different experiences and perceptions of these gaps.

Secondly, whereas Haraway’s (1988) original formulation was primarily concerned with the unavoidable situatedness of “scientific” knowledge, my account has the ambition to show how all knowledge is situated, whether “lay” or “scientific”. This broader scope is buttressed by engaging recent neuroscientific, psychological, and philosophical scholarship on cognition and memory. As this scholarship is known for its individualistic and universalistic biases\(^2\) (Pykett, 2018), my framework would benefit from being more directly applied to the politics of academic knowledge production, by articulating in detail the connections between the four gaps and socialized and institutionalized practices of knowledge production, such as academic disciplines.

Lastly, the present contribution lays out a theoretical framework for revisiting positionality and the thesis of situated knowledge. Further scholarship needs to be carried out to explore in detail its implications for geographical methodology and to operationalize the four epistemic gaps in, and for, situated research.

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\(^1\) I conceive of the political not as a separate “sphere” or “realm” of social life, but as a dimension of social life (see also Daley et al., 2017; Kuus, 2017). That is to say, all social phenomena, knowledge production included, are amenable to political analysis, and “depoliticization is itself a deeply political act” (Rose-Redwood et al., 2018a: 165). As a dimension of social life, the political captures the dynamics of power relations, at a variety of temporal and spatial resolutions. Attempts at precision in defining the political thus run into the regress problem that “power” itself is an “essentially contested concept” (Gallie, 1956), open to multiple definitions (see Pratto, 2016).

\(^2\) To some extent, we become what we read: my attempt to guard against these biases notwithstanding, it was sobering to be told during the peer-review process that the language used still had strong flavors of individualism and universalism. On a more positive note, cognitive science is becoming increasingly aware of these biases and of why they are problematic (see Henrich et al., 2010, and Rosenthal, 2016).
Possible worlds versus realized world

One of the easily overlooked ways in which our knowledge is necessarily situated consists in the banal fact that we live in the real(ized), actual(ized) world we see around us. Our perpetual situatedness into the “specious present” (Abbott, 2001; Dodgshon, 2008), conjoined with the limitations of the human mind, guarantee that most people most of the time attend to the real, actual world, at the expense of thinking about unrealized, once-possible or still-possible worlds. This first epistemic gap has two complementary dimensions that jointly situate, provincialize, and politicize the present: the retrospective dimension (what has actually transpired versus what could have been) and the prospective dimension (what is versus what could be). These dimensions, in turn, can be used to politically situate knowledge and the knowing subject(s) either at the level of a specific gendered, raced, and classed individual, or at the level of a social group. To provide an illustration of the political significance of this gap, power and privilege almost always translate into having more freedom, that is to say, more choices, or more options. Each such choice or option, whether acted upon or not, is yet another possible world for the future of that individual or social group. As the polar opposite of power and privilege, oppression, marginalization, and social exclusion translate into having a restricted menu of choices, that is, a significantly narrower range of desirable future possible worlds. In this reading, fighting for social justice is fighting to “open up” the world of the oppressed, so as to provide more choices, options, or desirable possible worlds for them (the LGBTQ metaphor of “coming out of the closet” captures this idea beautifully, as does the “pro choice” symbol of activists for legalized abortion).
The problematic bias for caring about what is present to the detriment of what is absent has been an important theme in feminist historiography (Domosh, 1991) and in feminist ontologies of space. Gillian Rose, for example, views space as “extraordinarily convoluted, multiply overlaid, paradoxical, pleated, folded, broken and, perhaps, sometimes absent” (Rose, 1999: 247; italics added). More recently, one of the pioneers of the field of behavioral economics suggested that the most entrenched limitation of the human mind can be encapsulated in the acronym WYSIATI, standing for What You See Is All There Is (Kahneman, 2011). Also known as the availability bias, WYSIATI implies that we overestimate the importance of what we are attending to at any given moment and that, therefore, our learning about the world is truncated and partial. Supporting this insight, work on construal-level theory (Simandan, 2016) shows that attending to the here and now encourages concrete, low-level mental representations that focus on what is proximal in space (here), time (now), sociality (me and my kin), and hypotheticality (the certainty of the actualized world). Learning to think about possible worlds requires the effort to build abstract, high-level mental representations that include what is distant in space (there & faraway), time (then & a long time ago), sociality (distant strangers), and hypotheticality (the realm of what could have been and what could be). To put it differently, in our everyday life we miss many useful insights and make less-than-ideal political choices because of the habit of “narrow bracketing” of reality (Koch and Nafziger, 2016). Attending to the relationship between the real(ized) world and the possible worlds that failed to materialize or that could materialize requires “broad bracketing”, or a very generous, inclusive, definition of what constitutes reality. In philosophy, long-standing attempts to make sense of so-called “modal concepts” such as possible, impossible, contingent, and necessary, have taken the mental gymnastics required for
broad bracketing in surprising, perhaps even whimsical, directions. The influential school of
thought in metaphysics known as modal realism (Lewis, 1986), submits that:

…the world we inhabit – the entire cosmos of which we are a part - is but one of a vast plurality of worlds, or cosmoi, all causally and spatiotemporally isolated from one another. Whatever might have happened in our world does happen in one or more of these merely possible worlds: there are worlds in which donkeys talk and pigs fly, donkeys and pigs no less “real” or “concrete” than actual donkeys and pigs. Moreover, whatever you might have done but did not do, is done in another possible world by a counterpart of you, someone just like you up until shortly before the time in question, but whose life diverges from you thereafter (Bricker, 2006: 246; italics in original).

Even though such a metaphysics has many fierce critics in philosophy (e.g. Bunge, 2006) and few, if any, subscribers, outside of it, it remains a useful tool for solving many theoretical problems in logic and philosophy (Lewis, 1986) and for making us reflect not only about the situatedness of our knowledge, but also about the contingency and changeability of the current political-economic order, in the broadest of perspectives (Gibson-Graham, 1996). Within mainstream social science, the study of the relationship between the real(ized), actual(ized) world and the once-possible worlds is premised on the unfalsifiable, but politically useful presupposition that the world is contingent (Simandan, 2010, 2018a), which, in turn, encourages a probabilistic, or stochastic account of how things happen:

The events of history are a drawn from a distribution of possibilities…A particular realized history is likely to be a quite poor representation of the possibilities. As a result, learning from experience involves trying to learn not only from the actual events observed but also from the events that did not occur but might quite easily have occurred. (March, 2011: 107-108)

Because of the aforementioned availability bias and propensity for narrow bracketing, people tend to make sense of reality by focusing on what has actually transpired and by building subjectively satisfying stories that make outcomes seem inevitable, necessary, or “bound to have happened”. In other words, people…

…overestimate the probability of events they have actually experienced and underestimate the probability of events that might have occurred but did not. Thus, they tend to learn too much from the precise event that happened and learn too little from the many things that almost happened. They construct theories of history that make observed historical outcomes necessary, certain, and obvious, rather than a draw from a large pool of possible outcomes. (March, 1994: 183)

The epistemic gap between the possible worlds and the actual(ized) world is fundamentally unbridgeable because only time travel and a rerun of global or personal histories could fully teach us how things would have turned out if this or that antecedent event had (or had not) happened. This unescapable form of partiality and positionality is humbling and we can learn to live with it and learn from it (Kahneman and Miller, 2002). Even though plagued with epistemic problems, we can foray into possible worlds and explore alternative histories by either using computer simulations (see Millington and Wainwright, 2017) or, more traditionally, by engaging in counterfactual reasoning. Tetlock (2005: 147-148) describes counterfactual reasoning as a two-stage process:

The first stage is sensitive to historical details bearing on the mutability of antecedents (is there wiggle room at this juncture?) and the second stage is dominated by theory-driven assessments of antecedent-consequent linkages and long-term ramifications (what would be the short- and long-term effects of the permissible wiggling?).

The outcome of this two-stage process has to be taken with a grain of salt, lest we mistake musings about what could have happened (i.e. unverifiable thought experiments) for (necessarily lacking) empirical evidence of an alternative course of history. Even so, counterfactual reasoning can help sharpen intuitions about causal mechanisms and about the mutability of various outcomes of interest. The semi-factual “even if…” crystallizes an understanding of an event as necessary, as bound to have happened. At the opposite pole, the close counterfactual “if only…” highlights the easy mutability of an event, the fact that even with minimal changes in antecedent actions, the said event would not have happened in the exact manner in which it did, in fact,
happen (Byrne, 2016). Awareness that situations vary in their degree of mutability and that, therefore, timing matters, is a basic prerequisite for effective political activism, and for effective action, more generally. This insight has generated important work on so-called critical junctures, defined as “relatively short periods of time during which there is a substantially heightened probability that agents’ choices will affect the outcome of interest” (Capoccia and Kelemen, 2007: 348; see also Soifer, 2012). The logical counterpoint to critical junctures is the study of path-dependent processes, characterized by the fact that both the range of options and the likely impact of one’s choice are much more limited (Martin and Sunley, 2015).

The epistemic gap between possible worlds and the realized world merits closer attention in human geography and in feminist and queer epistemologies because it helps us understand the situatedness of our knowledge claims in a more encompassing, generous perspective, and because its problematic of mutability and contingency speaks to the political-practical ambitions of critical human geographers to help promote social justice (Barnett, 2018; Olson and Sayer, 2009). Its theoretical and political potential has already been amply demonstrated in economic geography by Gibson-Graham’s (1996, 2006) and Healy’s (Byrne and Healy, 2006; Healy, 2010) feminist and psychoanalytical critiques of capitalocentrism. Their anti-essentialist approach unmasks the dangers of equating all economic activity with a reified, inevitable, all-encompassing “capitalist system” and emphasizes instead a politics of possibility that recasts “capitalism” as nothing more but a set of situated, contingent, and therefore changeable, socio-economic practices. This performative and contingent redefinition of capitalist practices within the broader compass of “diverse economies” literally makes “other worlds possible” (Roelvink et al. 2015). Interestingly, this politically potent redefinition of “capitalism” in economic geography has been paralleled by political geographers’ recasting of “the state” in order to:
…illuminate state power as contingent, rehearsed, and unstable. The state comes into view as a situational and performative process: something that must be continuously enacted, mimicked, and stabilized by institutions and individuals alike (Kuus, 2017: 3).

From the practical standpoint of understanding our duties as geographers in the current context of political urgency (Benjaminsen et al., 2018; Daley et al., 2017), this type of contingent redefinition is also an excellent example of how to conjoin conceptual work and activism. Consider, for illustration, Katherine Gibson’s action research in a declining regional economy and the importance she places on contingent “breaks” in the network of performances that constitute it (Gibson, 2001: 664):

What, however, if there is a break in the network of relations constituting this performance? What might this mean for the durability of economic subjection and the potentiality of new becomings?…What might this mean for the subject now deprived of economic citizenship? Might this interruption caused by exclusion from a dominant economic calculus liberate new subjectivities and alternative forms of economic citizenship?

Far from being a politically irrelevant abstraction, acute awareness of the gap between the possible worlds and the realized world fosters a stance of “openness to contingency” (Byrne and Healy, 2006: 251), which is a prerequisite for hope and effective political mobilization. Seen in this light, activism for social justice can be recast in Byrne and Healy’s felicitous phrase as “working in, and identifying with, the gap” (ibid; pp. 241).

**Realized world versus witnessed situation**

The second epistemic gap that helps us operationalize the idea of situated knowledge concerns the relationship between the vast realized world (of which we are a very small part) and our necessarily partial and location-specific apprehension of it. If the prior epistemic gap has
received relatively little coverage in human geography, this second gap has been studied extensively, albeit under different guises. Indeed, one can say that the whole scientific enterprise aims at reducing the information loss that occurs in this gap, with various methodological approaches that range from the seemingly impersonal quantitative modelling of big data (cf. Kitchin, 2016) to auto-ethnographies (Weir and Clarke, 2018; note that Haraway’s 1988 thesis questions this scientific ideal, as it argues that partial perspective should be reframed not as a “deficit” to be overcome, but as “privilege”).

From the standpoint of information theory, the realized world in general and social reality in particular can be described as forms of massive parallel computation (Floridi, 2008). Since living organisms constitute computational processes operating on biological platforms, and since any particular organism is an almost negligible subset of the massive parallel computation continuously performed by the world, it logically follows that our apprehension of the world will also be a negligible subset of all the information contained in that world. Awareness of our vast ignorance has traditionally been a marker of wisdom (Rescher, 2009; Simandan, 2011b, 2018b-d) and this form of meta‐knowledge is a prerequisite to conjuring up more contextually sensitive and politically effective ways to witness the world. One such (traditional) way is specialization and subsequent dedication to becoming an expert in a narrow subject matter. As Herbert Simon has put it (Simon, 1996: 336): “Observations, to produce facts, must be skilled observations, by qualified observers. The description of a rock by a layman produces very little, if anything, in the way of fact. Only a geologist can extract a fact from a rock”. Taking this line of thought further, Dreyfus’ (2005) useful concept of “everyday expertise” can be politicized to describe one important facet of what it means to be a gendered, raced, and classed subject: by performing a particular gender, race, or social class in everyday life, one acquires grounded expertise in what
it means to be that gender, race, or social class, which in turn shapes which aspects of the
realized world one is sensitized to notice (see also discussions of feminist standpoint theory,
with its focus on constructing knowledge “from the perspective of women’s lives” (Harding,

Another such way requires overcoming the subject/object dichotomy of Western, masculinist,
epistemology and fosters apprehension of the world through the process of “vanishing into
things”:

To vanish into things is not the metaphysical dream of contemplative transparency before finally finished
forms. To vanish is to mix. The sugar vanishes into the water, not gone, merely rendered invisible, while
endowing its matrix with new tendency. To mix is to mix well…vanishing means becoming (more)
internally related. What becomes imperceptible offers no resistance to the mixing that redistributes it.
Fluently translated, its form is a phase, its identity experimental. We vanish into things when what they do,
their economy, becomes indistinguishable from what we do, our vitality. We vanish by synthesis,
symbiosis, and synergistic evolution. We mix well, not losing ourselves, despite losing boundaries that
seemed to separate us, and make us think we were subjects confronting objects. The only self to lose is one
that was an obstacle to apprehe

For a third, and final example, of conjuring up better ways of witnessing the world, one can point
to the recent proposal of a distinctly feminist methodology of “periscoping” (Hiemstra, 2017).
The periscope is an instrument that deploys an array of mirrors and prisms to afford one to
perceive things outside their direct field of vision. The methodology of periscoping presumes a
feminist ontology whereby “space, as well as whatever happens in space, is inevitably embodied.
Because neither bodies nor spaces can be contained, these embodiments flow out beyond the
original space in unpredictable ways. Through scrutiny of the everyday, these flows and leaks
can become the prisms and mirrors of the researcher’s periscope” (ibid, page 331). Nancy
Hiemstra is acutely aware of ways in which witnessing reality can go wrong and points out that her methodological proposal remains faithful to the thesis of situated knowledge (Hiemstra, 2017: 334):

Periscoping as a methodological approach suggests that researchers might see things that are not there, dangerously warp reality in their interpretations, or be misdirected to the ruin of a project. It is important to acknowledge these issues and dangers, but feminist researchers interested in employing a periscopic approach should also keep in mind the parallax principle of vision, which states that the same object will appear differently depending on the location from which it is viewed. With periscoping, as with other methodologies, the data collected and analysis conducted cannot produce any one “truth” and must be recognized as partial and situated.

In no other place than the analysis of this second epistemic gap does it become apparent how much the choice of words matters. Should we speak of the gap between the realized world and (1) the perceived situation, (2) the encountered situation, or (3) the witnessed situation? Connotations, political and otherwise, make a difference. Talking about (1) the perceived situation has the (dis)advantage of apparent scientific grounding and objectivity, in that perceptual processes are an established research area in the cognitive-affective sciences. In his classic Principles of Psychology, William James (1890) noted that the quality of our perceptions is a joint function of the “sagacity factor” (i.e. our mindfulness or undivided attention to what is happening in the moment) and of the “learning factor” (i.e. our store of knowledge that allows us to make sense of what we currently see). This pioneering account has been rediscovered and elaborated in human factors research under the heading of “situation awareness” (Endsley, 1995). In contemporary cognitive science, perception is understood as a constructive, inferential process that involves selectivity in the form of abstraction (Reed, 2016): when we attend to the

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3 In order to neutralize the false impression that perceptual processes should be studied by relying on the scientific method alone, we need to keep in mind the concept of “gaze” used by postcolonial scholars to capture the power-knowledge dynamics of constructing the “other” (Said, 1978; Gregory, 1994).
surrounding situation we “pull away” from it, or attend to, only a subset of its happenings and properties, namely that subset that seizes our interest. In other words, partiality and positionality are constitutive of the act of perception, as illustrated by the banal fact that even when exposed to the same situation, different individuals, embodying and enacting mutually produced axes of social difference, may attend to, and be surprised by, very different things (Lorini and Castelfranchi, 2007). An ironic, but worryingly relevant, example of this phenomenon is described at length in Peter Hopkins’ recent review of work on intersectionality in geography and the social sciences (Hopkins, 2017). He points out the perceived shock of Black feminist scholars at the whitening of intersectionality and erasure of its anti-racist origins and quotes Bilge’s poignant statement of how it makes her feel:

A grim irony: a tool elaborated by women of color to confront the racism and heterosexism of White-dominated feminism, as well as the sexism and heterosexism of antiracist movements, becomes, in another time and place, a field of expertise overwhelmingly dominated by White disciplinary feminists who keep race and racialized women at bay. (Bilge, 2013: 418, quoted in Hopkins, 2017: 4).

Whereas the constructive-inferential, and thereby power-laden, nature of perception has stimulated reflexive practices in feminist and queer scholarship and human geography, empirical research has shown that lay people are often not aware of this state of affairs and instead subscribe to naïve realism (Pronin et al, 2004) – the joint belief that one sees things as they actually are and that perceptual biases do exist but they affect the others, and not oneself. This pervasive lack of epistemological self-awareness among lay people has also been captured in the work by Einbach et al (2003) that showed how individuals often mistake change in self for change in the world (e.g. unconsciously displacing and projecting their own aging into the perception of pervasive societal decline; see also work in psychoanalytical geographies by Blum and Secor, 2011, Callard, 2003, and Pile and Kingsbury, 2016).
An alternative way to frame the second epistemic gap is by opposing the real(ized) world not to (1) the perceived situation, but to (2) the encountered situation (Wilson, 2017; Wynn, 2016). This relational, performative, anti-essentialist manner of thinking is destabilizing in a good way, because it highlights the politically-important idea that neither the situation nor the observers in it pre-exist their encounter (Gregson and Rose, 2000). Instead, the situation, its observers, and their knowledge of it are all co-produced in the moment in discursive webs of power alongside axes of social difference (cf. Pratto, 2016). This contextually-sensitive and politically-alert focus on encountering aligns with the recent call for a post-phenomenology that “rethink[s] intentionality as an emergent relation with the world, rather than an a priori condition of experience” (Ash and Simpson, 2016: 48). It also speaks to feminist work about the intimacy of encounters (Moss and Donovan, 2017), hybridity (Hovorka, 2017; Whatmore, 2002), and the twin psychoanalytical processes of transference and counter-transference (Bondi, 2014; Proudfoot, 2015).

The last suggestion for framing the second epistemic gap contrasts the vastness of the real(ized) world to (3) the witnessed situation. Even though Donna Haraway’s critique of the ideology of the scientist as “modest witness” (Haraway, 1996) suggests that she would avoid this third framing, it does remain useful in the broader context of the current deployment of the term in critical theory. Specifically, this phrasing encourages reflection on the inextricable intertwining of epistemology, ethics, and politics, that is, on the part we play as researchers or observers into how the situation unfolds and how it will later be re-presented. As feminist theorists have recently argued, observing the situation, witnessing what happens, can constitute forms of caring and forms of be(com)ing political (Allegranti and Wyatt, 2014; Husanovic, 2009; Olson, 2013,
2016, 2017). Witnessing a situation is a prerequisite for being able to bear witness to it or testify about it at a later moment. This linkage, however, is complicated by the third epistemic gap, to which I now turn.

Witnessed situation versus remembered situation

As Linda McDowell (2014: 152) has recently noted, there is a “growing focus on personal life, memoir and autobiography in feminist writing…Feminist geographers argue that…personal recollections should be part of studies of the construction of personal identity and a sense of place”. In what follows, I would like to suggest that a deeper, politicized, focus on the study of memory and remembering is necessary not only for studying personal identity and sense of place, but also for fleshing out more fully our understanding of positionality and the thesis of situated knowledge. The act of remembering now an event that happened some time ago is constituted as a relation between two subject positions: the present me and the past me that witnessed the event. This self-referential positionality is integral to philosophical debates about the metaphysics of personhood (Parfit, 1984; Simandan, 2017): is a person a spatio-temporally stretched entity or are we different persons at different slices in time? It is also integral to epistemological debates about the possibility of personal knowledge (Hirsch, 2002) and to research on the politics of oral histories and in-depth interviews (Dowling et al, 2016; Gardner, 2001). Self-referential positionality should also become a more explicit focus in intersectionality research, since various subject positions may or may not change dramatically over time (change of sex, sexual orientation, age, mental and physical health, level of education, social class, marital status, citizenship status, etc.), affecting what and how a presumed “same” person remembers and forgets about their earlier subject positions.
The current understanding of processes of memory, forgetting, and remembering in human geography owes a great deal to the flourishing of psychoanalytic socio-spatial theory (Blum and Secor, 2011; Bondi, 2014; Callard, 2003; Healy, 2010; Kingsbury and Pile, 2016; Proudfoot, 2015) and the attendant revival of attention paid to processes of (conscious) suppression and (unconscious) repression of unwanted memory. Pathologies of memory that range from being unable to forget (post-traumatic stress disorder and intrusive memories) to being unable to remember (various forms of amnesia) generate their own peculiar geographies and distinct modes of spatial cognition (Blum and Secor, 2011; Eichenbaum, 2017; Simandan, 2011).

Depending on their unique location within gendered, raced, and classed axes of social power, different people encode and recall experiences in place unevenly, across the five primitive representational systems: visual, auditory, kinesthetic, gustatory, and olfactory. The mark that a given place or witnessed situation has had on us is very difficult to estimate because it is encoded across multiple memory systems and, thereby, across multiple mutually constitutive axes of our politicized identities (Benwell, 2016; Hoelscher and Alderman, 2004; Legg, 2007; Muzaini, 2015; Said, 2000; Sumartojo, 2016). The storage of information through multiple memory systems is further complicated by the fact that people have conscious access to only a small subset of these systems. This state of affairs guarantees that we are condemned to forever be “strangers to ourselves” (Wilson, 2004), not individuals, but rather archipelagoes of dividual selves, engaged in provisional, and never fully successful, attempts to stitch together into a semblance of coherence and unified personhood the various “islands” of experience that we identify as “ours”. To further this anti-humanist line of reasoning⁴, the empirically demonstrated

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⁴ For a general discussion of the tenets of anti-humanism, see Weberman, 2000. For an account of Donna Haraway’s anti-humanist ontology, see Gane, 2006. For an explicitly anti-humanist geography of fractured subjectivities, see Simandan, 2017.
existence of memory systems closed to conscious access (Squire and Deed, 2015) guarantees that a significant part of our knowledge is tacit knowledge and that, therefore ‘we know more than we can tell’ (Polanyi, 1966).

There are ongoing debates in the cognitive-affective sciences about the “proper” taxonomy of memory systems (Eichenbaum, 2017; Hill, 2011), but the logic of the four epistemic gaps makes it advantageous to begin this classification by separating working memory from long term memory. *Working memory* describes the amount of information we can hold in our conscious awareness in real time, at a given moment. It can be measured, for example, by producing a series of arbitrary numbers and asking research subjects to recall the sequence immediately, either in the same order or in reverse order. Phenomenologically, working memory is our window into the world, our perceptual gate. It determines how much of a situation we can witness at a given moment in time, how much information we can attend to, in real time. It is therefore crucial to understanding the foregoing discussion of the (second) epistemic gap between the realized world and the witnessed situation. In contradistinction, *long term memory* needs investigating in order to help us grasp the mechanisms underpinning the third epistemic gap, namely that between the witnessed situation and the remembered situation. Long term memory comprises declarative or conscious memory and non-declarative or implicit memory (Squire and Dede, 2015). Declarative or conscious memory can be verbalized and is open to awareness. It is further sub-divided into two systems: semantic memory (which stores knowledge of facts and theories we learn from school, peers, parents, and broader culture) and episodic

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5 As a scholar thinking through the thesis of situated knowledge, I am suspicious of the allegedly non-political attempts to argue for “proper” or “correct” classifications, taxonomies, or typologies. For an in-depth discussion of the politics of classificatory practices, see Bowker and Star, 1999; see also Stoddard, 2007.
memory (which encodes autobiographical episodes, that is, situations that we have personally witnessed).

Both forms of conscious memory involve significant forgetting of the originally encoded information: in the case of semantic memory, students and teachers alike notice that learning for an exam is followed inevitably by massive forgetting of the initial information in the days and weeks after the exam; in the case of episodic memory, we tend to remember better the peak (most intense) and the end of a sequence of experience (the “peak-end” rule; Kahneman, 2011), the personally relevant information rather than what is happening to strangers or distant others, as well as that which is vivid, striking, salient, as opposed to the mundane, the unsurprising, and the unemotional. The imperfections of episodic memory include the well-documented hindsight bias or the knew-it-all-along-effect, which is the “tendency to overestimate the foreseeability of an outcome once it is known” (Giroux et al, 2016: 190). The consensus view in cognitive science is that episodic memory is a (re)constructive process (Squire and Deed, 2015): we do not retrieve pre-existing stored memories of events, but instead we recreate the memory of the event anew and modify it each time we attend to it: those components of a past situation we consciously recall get consolidated (strengthened synaptic links) whereas the unattended components become even more likely to be forgotten at the next attempt at recalling the situation (weakened synaptic links). This biological fact can be, and has been, mobilized politically: populations can be brainwashed to recall certain things and forget others by carefully controlling what ought to be publicly commemorated and what ought to be forgotten (Arendt, 1973; Foucault, 1980). The tools for controlling this process can be discursive (e.g. shaping educational requirements, curricula, textbooks, and censoring access to threatening media) as well as more explicitly reliant on manipulating geographical space itself (e.g. demolishing or relocating to the margins.
politically inconvenient “legacy” buildings; orchestrating what is visible and central in geographical space so as to keep it “fresh” and central in people’s minds; see also Alderman and Inwood, 2013).

If the classification of conscious memory into semantic and episodic is entrenched and widely used, there is much less clarity and consensus about how to subdivide implicit, non-declarative, or unconscious memory. Stephen Hill (2011) mentions five implicit memory systems: procedural memory (which encodes our skills and habits, our bodily repertoires for action), priming (e.g. subliminal exposure to a stimulus triggers faster retrieval of associated stimuli), habituation (feeling of familiarity gained through repeated exposure, which leads to decreased arousal), conditioning (e.g. previously neutral stimulus acquires the ability to trigger a specific response by being repeatedly associated with another stimulus that triggers that response), and sensitization (i.e. a learning process whereby recurrent exposure to a stimulus leads to gradually amplified responses to it). In the rejoinder to Hill, Simandan (2011c) brings attention to a sixth implicit memory system: immunological memory (our immune system’s ability to store information about prior exposure to various pathogens, in order to mount a more efficient subsequent response in the case of re-infection).

The third epistemic gap describes how much information is inevitably lost or distorted between the real-time witnessing of an unfolding situation and one’s later recollection of it. By “lost” information, as it has become apparent by now, I do not mean only "erased” or “destroyed” through the imperfections of our biology, but also “lost to awareness or conscious inspection".
Even though some of that information is still *in us* or *with us*, its distributed encoding across a wide range of conscious and unconscious memory systems means that we know more than we know, that we know more than we can tell, and that therefore we are strangers to ourselves. The third epistemic gap thus highlights two different ways in which our knowledge is situated: firstly, the present self who recalls a situation is located in a different temporal position and, therefore, has only partial access to the past self who witnessed an original situation of interest; secondly, the conscious, aware parts of one’s present self are located into a broader personal matrix composed of both conscious and unconscious systems, and they can recall only a subset of the total information stored about a witnessed situation, namely the subset open to conscious awareness (declarative memories). Given the importance of these unconscious systems in explicating the partiality and situatedness of our knowledge, I fully agree with Jesse Proudfoot’s observation (Proudfoot, 2015: 1138-1139) that psychoanalytical geographies hold much promise for furthering the reflexivity project begun by feminist scholars:

The unconscious raises different concerns for a project of reflexivity than what was originally imagined by feminism. While feminist reflexivity initially imagined a knowable subject situated within complex fields of power, psychoanalysis posits a split subject of the unconscious that is defined by its unknowability…Thus, the reflexivities imagined by feminism and psychoanalysis have fundamentally different objects...My argument, however, is that one necessarily leads to the other: in calling on researchers to become reflexive, feminist geography opens a door that must eventually include an analysis of how the unconscious haunts our research just as much as identity and privilege do.
**Remembered situation versus confessed situation**

If the previous epistemic gap studied the inevitable loss and distortion of information that happens within each one of us, as finite entities processing information on an imperfect *biological* substrate, the fourth and last epistemic gap – that between the personally remembered situation and the confessed, shared account of that situation – shifts the scale of analysis from the individual body and mind to social entities, ranging from a pair (romantic couple, partners of conversation) to formalized and institutionalized groups such as academic disciplines. Humans are social animals and knowledge is socially constructed and situated in and through webs of power (Foucault, 1980; Zerubavel and Smith, 2010). Just as we have personal memories, groups generate and cultivate collective memories and engage in a wide array of inescapably political practices of commemoration and dis-remembering (Hirst and Echterhoff, 2012; Landzelius, 2003; Runia, 2014; Stone et al, 2012). The fourth epistemic gap studies the social loss of private information that occurs because of political motivations, social pressures, fear of punishment, stigmatization and social exclusion, shame, embarrassment, self-presentational concerns, and myriad other situational factors that convince us to heavily curate and edit what we share from our private recollections (Cameron, 2012; Lloyd and Hopkins, 2015; Smith, 2018; Valentine, 1998; Zerubavel, 2007). In turn, our private recollections are themselves influenced by the mass-media and by the sharing of what other people remember, complicating even more the power-ridden logic of information transmission, loss, and distortion (Adams, 2017).

The political implications of the epistemic gap between the remembered situation and the confessed account of it to others can be grasped by delineating the *two limit cases* of bearing witness: silence (e.g. refusing to confess or to participate in dialogue; cf. Smith, 2018) and lying
(sharing a made-up story). The truth about a given matter may be well known to the members of a community, but none of them may be willing to bear the cost of stating it, which generates what Elisabeth Noelle-Neumann calls the spiral of silence (1984: 6-7):

The fear of isolation seems to be the force that sets the spiral of silence in motion. To run with the pack is a relatively happy state of affairs; but if you can’t, because you won’t share publicly in what seems to be a universally acclaimed conviction, you can at least remain silent, as a second choice, so that others can put up with you…silence can be interpreted as agreement; that is what makes it so tempting.

The phenomenon described by Noelle-Neumann appears relatively benign; however, for a more encompassing perspective, it should be contrasted with Guantánamo Bay and other spaces of exception, where “terrorists” are terrorized in order to break their silence, in order that they shall confess (Gregory, 2006; Hyndman and Mountz, 2007). It should also be further contrasted with the recent insidious practice of attempting to silence progressive scholars in academia under the pretense of promoting “free speech”, while actually promoting racism and colonialism (cf. Rose-Redwood, 2018a, for a discussion). Finally, as Bruce Janz (2018: 124) reminds us, given that listening “is difficult to compel, hard to measure, and easy to mischaracterize”, it also enables effective silencing of participants in dialogue – scholarly and otherwise – through not listening.

The other limit case of confessing is lying. The epistemology and ethics of lying have generated their own literature (for a review, see Stokke, 2013). Suffice to mention here the disturbing observation that lies are integral to the reproduction of the social order. Indeed, as James March incisively notes (2007: 1080) “the lies that support social institutions and beliefs are not resisted, but fomented by the representatives of society, who insist on and collaborate in the lies, punishing those who refuse to protect the ideal by lying”.

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Human geographers have a long record of remarkable scholarship on the foregoing matters, not least because of their sensitizing to feminist, postcolonial, and poststructuralist perspectives on the politics of knowledge, on the dynamics of power in everyday settings and in research contexts, and on the contingent, negotiated processes of the social construction of knowledge (Benson and Nagar, 2006; Clement, 2017; de Leeuw and Hunt, 2018; Hesse-Biber, 2014; Rose-Redwood et al., 2018a-b; Sin, 2003). Without necessarily identifying it as such, human geographers have explored how this fourth epistemic gap affects different people in different ways, as a function of their race, gender, social class, sexual orientation, age, and other intersecting axes of social difference: who gets to speak, what do they get to tell and to whom, and who gets listened to, are all important questions that politicize and situate the fourth gap in social arenas as diverse as family life, everyday racism and homophobia, the legal system, academia, “the war on terror”, or international development. To give just a (scholarly) example of how feminism and poststructuralism destabilize our conventional social science view of a widely used method such as oral history and interviewing, Boyle (2009: 32) points out that “the interview is generative – co-authoring memories – rather than performing as a ventilator – neutrally bringing preexisting memories to the surface. It is at root a political practice”. Sharing an account of an event with someone requires the use of a given language as a vehicle for one’s recollections. In turn, what we recall and how we recall is shaped by the language we use for giving form and coherence to those confessions (Boroditsky, 2011). Academia is a gendered and racialized field of power that is increasingly globalized and this fact compounds the problematic of language with postcolonial politics of translation and re-presentation (de Leeuw and Hunt, 2018; Husanovic, 2009; McEwan, 2003; Mills, 2009; Mullings, 1999; Said, 2000).
In contradistinction to the still widespread attention given to the gendered politics of representation, a growing body of feminist and queer scholarship has sought theoretical cross-fertilizations with non-representational theories (see Colls, 2012, for a review). This rapprochement is of direct relevance to our analysis because the problematic of situated knowledge, information loss, and positionality subtends Thrift’s argument for pushing representations in the background and bringing the experience of the lived-and-performed situation to the foreground (Thrift, 2000: 53; emphasis added):

We do not consider the fact that there is more information in an experience than in an account of it. It is the account that we consider to be information. But the whole basis of such an account is information that is discarded. Only after information has been discarded can a situation become an event people can talk about. The total situation we find ourselves in at any given time is precisely one we cannot provide an account of: we can give an account of it only when it has ‘collapsed’ into an event through the discarding of information.

In other words, the ambition of non-representational theory is to escape from the trap of the impoverished accounts of life (or the informational left-overs) we politely call “representations” (stories, narratives, paintings, movies, photographs, academic papers) and to go where the action is, before the interesting information gets discarded, by attending to, and partaking in the embodied practices constitutive of the actually unfolding situation. Operationalizing this ambition into a distinct set of non-representational methodologies is more difficult than anticipated (Anderson and Harrison, 2010; McCormack, 2017; Vannini, 2015), not least because academia is structured around the currency of various forms of socially sanctioned representations (e.g. peer-reviewed papers).
Conclusion

One of the frailties of cognition discussed in the foregoing is the knew-it-all-along effect, or the hindsight bias, that is, the empirically documented propensity of people to overestimate, post hoc, the foreseeability of an outcome ante hoc. It is tempting, as one revisits Donna Haraway’s original formulation of the thesis of situated knowledge, to fall prey to this bias, by saying that her thesis was “destined” to make a big impact in human geography. The timing was perfect and all the required ingredients were there: a distinctly spatial sensitivity, a geographical vocabulary for thinking through the possibility and privilege of knowledge, an acute awareness of the highly politicized processes of knowledge production, a concern for socio-political relevance (think critical geography), and an exploration of the problematic of embodiment and embodied cognition that predates non-representational theory:

I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims. These are claims on people’s lives. I am arguing from a view from a body, always a complex, contradictory, structuring and structured body, versus the view from above, from nowhere, from simplicity. Only the god trick is forbidden. (Haraway, 1988: 589)

Thirty years later, what more can we, human geographers, make of the thesis of situated knowledge? How else can we trace its ramifications? How can we let it change who we are and what we do? Over the last decade, I put together my own ever-evolving and partial framework for taking heart of the situatedness of our knowledge claims and the aim of this paper has been to share it with other scholars interested in this problematic. The argument put forward did not rank and discard alternative approaches, but was premised, instead, on the pragmatic reality of diversity. The same philosophy, even when it has become, supposedly, “old news”, may not
“click” into someone’s mind until it is re-described, re-articulated, or re-presented in a novel configuration. To recapitulate, my politically-alert, anti-humanist, and historically-contextualized framework postulates that one’s knowledge is inevitably incomplete and situated because information about the world always reaches us through a channel that is constituted by the aforementioned four epistemic gaps. Any theory is a constellation of epistemic strengths and weaknesses, in that it enables new ways of seeing things, while at the same time obscuring or downplaying other potential elements. In this spirit, I would like to alert the readers to the danger of misunderstanding this framework by subconsciously identifying the four epistemic gaps with a “deficit model”, whereby universalism and objectivism are ideals to which researchers wish to get as close as possible. My framework aims to help disseminate Haraway’s ideas to a wider social science audience, by organizing the current amorphousness within thinking about situated knowledge into a structured analysis of the specific processes that situate and politicize our knowledge. The organized description of the four epistemic gaps does not entail the prescription that we should strive to bridge them or reduce them. Such a prescription would presuppose an endorsement of the normative status of universality and objectivity and would thereby undermine the radical political potential of Haraway’s argument. Her paper celebrated “the privilege of partial perspective” and contributed to the development of a distinctly feminist epistemology that rejected “the deficit model” that underpins masculinist fictions of a universalist objectivist science. To think of positionality and situated knowledges as “privileges” rather than “deficits” is to be aware of how one’s capacity for knowing is enabled by, and suffused with, one’s specific positioning. Tracing the transmission of information in time, across the four epistemic gaps described in the present framework, may help open new vistas for embracing the (im)possibilities, uncertainties, and privileges of knowledge and for thinking through learning
itself as a geographical process (Simandan, 2002, 2013). In her critique of “transparent reflexivity” as an often used, but questionable, (early) feminist strategy for operationalizing situated knowledge, Gillian Rose notes that (Rose, 1997: 318):

> These uncertainties are precisely what transparent kinds of reflexivity cannot articulate; assuming that self and context are, even if in principle only, transparently understandable seems to me to be demanding an analytical certainty that is as insidious as the universalizing certainty that so many feminists have critiqued…In these different kinds of uncertainty lie possibilities for other strategies for situating knowledges and for other kinds of reflexivity.

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