

Half the human



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Feminist critique proclaiming human geography excluded ‘Half the human’, referred to the (very broadly) the Marxist – objective – ‘masculinist’ (Rose, 1993), situated knowledge and discourses producing ‘radical’ (Fitzsimmons, 1989) geographic epistemological and ontological knowledge. Establishing an esteemed strand of critique now within geography after the Cultural Turn in the postmodern setting, and calling to put the ‘human’ back in human geography (Ratzel, cit. Gregory, Whatmore, Johnston, Pratt, Watts, 2011) by looking inwards and questioning/activating dormant ‘black boxed’ factual units e. g. race & gender. The discipline once again finds its self being attacked by feminist Sarah Whatmore (among others) calling for a ‘more-than-human’ geography, questioning the ‘geo (earth) – bio (life)’ (2006) dualistic nexus discourse and addressing the ‘non-human world’ (Massey, Allan, Sarre, 1999).

To unpack this postulate, this paper will focus on how, technology developments – society nodes, political environmental pressure and organic world views (Baird & Bryant, 1997) are today more than ever, blurring these Enlightenment produced relations in a ‘post-human world’ (Nash, 2003). This call for more-than-human, needs new experimental practices/methods which include more sensory observers, new ‘fields’ of research, redistributing expertise beyond geography e. g. in other disciplinary areas and beyond the academy (Whatmore, 2006).

Discussing the use of the Actor Network Theory (ANT) (Callon & Latour & Law cit. Dolwick, 2009), Cyborg concept (Haraway, 1991), and by reconnecting culture (Michael, 2000) to the building/understanding of these two categories, this paper will conclude supporting the claim by recognising ‘

dynamic hybrid' space, and building upon the 'Trinity of Actants'(Jons, 2006) concept. There is an argument for all disciplines to hybridize their research area and make explicit why it is necessary.

'Nature' has always been socially constructed, whether through a painting, or understanding - e. . Judaeo Christians believed humans should 'master' nature regarding it (Callon & Law, 1995, cit. Whatmore, 2002) as resources during the Scientific Revolution (Pattberg, 2007). We lived in a world described through the God-Nature-Human trinity. Moreover, compiled with the institutional division between social and physical geography, the ontological separation of nature and space, and the cultural bias towards 'intellectuals', geography has failed to conceptualise 'Nature' adequately (Fitzsimmons, 1989).

Although, through gained scientific knowledge and paradoxically through the use of better technologies to understand aiming to master nature, critical realism (Gandy, 1996) and so on, we now know of and experience a 'reciprocal' relationship (Lui, 2007). Now there is a need to include the 'non-human' natural into the fabrication of our society (Latour cit. Crawford, 1993, cit. Whatmore, 2002). Focusing on the living spaces which include study areas for example, domestication, and quasi-objects, we are made up of heterogeneous processes/actors.

This new space of research and method has been named 'hybrid geography' (Whatmore, 2002) which essentially implodes the a priori society/nature constitutive binary in social theory, accounting for the 'non-human', and can be used in all disciplinary areas between the subject-object relationships. It is

the space between the passive objects which human's use, and their projected thoughts/will onto them making them socio-materials. For example, using linear and circular particle accelerators when studying nuclear reactions, we are able to extend our sensory experience into new spaces, using computer screens to translate/mediate the readings.

Whatmore applies ANT to conceptualise these quasi-objects in hybrid spaces. This theory does not assume a priori categorical units, instead, it mobilizes them by patterning them as 'actants', reconfiguring agency as a relation in a network of heterogeneous interacting components (Law & Mol, 1995). Essentially, there is a constant tension that is traced back between actants battling for power in a stabilizing process - thereby making knowledge temporal and situated.

It also returns to material semiotics, arguably recognising the diverse, hybridized world, disrupting the 'reality' - 'representation' binary. On the other hand, based on the Bloor-Latour ANT debate on how nature, society, knowledge and technology can be understood and interact with each other; by overcoming epistemologist's symmetrical binaries through rationalist and natural reality, it brackets off Nature and promotes 'Societies' full explanation, becoming symmetrical itself (Callon & Latour & Law cit.

Dolwick, 2009). This however, is the very structure it is trying to implode (Latour, cit. Crawford, 1993, cit. Whatmore, 2002). Through showing that there needs to be a development for new ways just as Thrift's None representational theory also recognises this blind spot, this paper will focus on ANT criticism using the example of high energy 'technoscience' (Michael,

2006) physics, and conclude advocating the use of ‘dynamic hybrids’ in ‘a trinity of actants’ (Jons, 2006) as the bridge for new development.

In the advent of ANT bringing to light how socio-material objects act upon humans, Latour argues that the role of objects in producing knowledge is not taken into account by the School of Edinburgh (the first to challenge the nature – society Black Boxes), thus ‘depriving themselves of half their resources’ (Crawford, 1993, cit. Whatmore, 2002), alike Hanson & Monk’s argument. Although, Shapin (1988) has criticised Latour for not including people’s own interests when looking at these actants as texts, as these are acting just as much. Bloor has also been criticised for not including forms of knowledge in the ANT.

Using the year 2000 Relativistic Heavy Ion Collider (RHIC) experiments example, we will explore these criticisms. The ANT reveals RHIC’s community of ‘invisible colleges’ (Crane, 1972 cit. Jons, 2006), as what they witness at the Brookhaven (USA) experiment’s, through socio-material objects and physician skills, is then documented in e. g. notes from memories, to provide an interpretation of the experiment. This is then transformed into telecommunications passed among the transnational community of 1000 researchers maintaining the network of knowledge production.