

COURSE NO. SSS 629N: SCIENCE, TECHNOLOGY AND SOCIAL CHANGE

MPhil 2nd Semester, Optional Course, Winter Semester January–May, Credit:4

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This course will address the nexus between science, technology, medicine and social change. It will begin by asking what kind of world making (or social change) presumably ushers in science; and what kind of world is presumably made, unmade, or non-made by the appearance of science. After this ‘foundational’ move, the course will take stock of the current preoccupation with the *non-human* in Science and Technology Studies (STS). It will examine why and how the annulled non-human has presumably come back to haunt science studies under the so-called ‘ontological turn’, and explore the consequences of this for science studies in particular and for ethnographic enquiry and practice in general. It will then attempt to set up a possible conversation between science studies, broadly conceived, and science studies (including medicine) as a discursive practice in South Asia, by using the *Contributions to Indian Sociology* (CIS) as an archive and index. Here the course will consider what appears to be three possible strands in science studies as a practice in South Asia: the transmutation of scientific disciplines, objects, technologies and agents when they are introduced into South Asia; the transmutation of ‘indigenous knowledge’ in conversation with science in the crucible of colonialism and thereafter; and finally, the possible methodological and discursive move to enlarge the South Asian canvas to include Europe as a necessary object to understand science/indigenous knowledge in South Asia. Part purpose of the last move is to dwell on why STS appears to be a marginal practice in South Asian Sociology and Anthropology, and the cognate but none too surprising phenomenon of the virtual absence of Anglo-Europeans from this genre.

Grading

This will be a seminar course where every class will bear witness to a close reading of about 50-80 pages of text. It will be presented as an 800 to 1000-word written essay by a respondent, followed by 600-word written response by a discussant. These written responses should be sent as an email attachment by Monday to my email ID (harish_naraindas@yahoo.com), and to the whole class through a group email ID that will be set up; and a hard copy of the same will be deposited in my mailbox (in the CSSS office) the day before the presentation. The respondent's main responsibility is to layout the argument in detail and subsequently to raise critical questions. The discussants' primary responsibility is to raise critical questions of the text. All the others have to appear in class with 2 (written) questions (more are welcome) of the text. These presentations and questions will constitute 50% (2 credits) of the cumulative grade. The students have to turn in and present *at least* 8 such written presentations during the course of the semester for these 2 credits (50%). This is mandatory.

The other 50 % (2 credits) will be given to an end-term paper, either based on a small piece of primary research (highly recommended) *to be determined in consultation with me*, or a term paper on a *mutually acceptable* topic. I hope to meet students on a one-on-one basis

about 3 weeks into the course to discuss their term paper. This term paper needs to be handed in latest by 30 April 2016. Submissions beyond that date will not be accepted unless it is with prior permission and for demonstrably good reasons. In any case, no term paper will be accepted beyond 6 May. The submission of the term paper, as specified above, is also mandatory. The term paper alone, without at least 8 written *in person* class presentations, will not be accepted.

Appended below is a reading list. While I would like to see most of these readings covered, I invite students to bring their concerns and interests to bear upon the course. I would be more than happy to change some of the readings to reflect these concerns. Hence, a lot depends on the passion that students bring to bear upon the course.

I. Foundational Constitutions: Modern, Non-Modern, A-Modern

Uberoi, J. P. S. (2002) *European Modernity: Science, Truth and Method*. New Delhi: Oxford University Press

Latour, Bruno (1993) *We have never been modern*. Cambridge, Massachusetts: Harvard University Press.

Jonas, Hans (1966) *Phenomenon of Life: Toward a Philosophical Biology*. New York: Harper and Row.

II. Objects, Agents, Non-humans: the causes and consequences of the ontological turn:

Viveiros de Castro, Eduardo (1998) Cosmological Deixis and Amerindian Perspectivism. *The Journal of the Royal Anthropological Institute*, Vol. 4, No. 3: 469-488.

Descola, Philippe (2014) *Beyond Nature and Culture*. Chicago: University of Chicago Press.

Hacking, Ian (2002) *Historical Ontology*. Cambridge, MA: Harvard University Press. pp. 1-26

Hacking, Ian (1999) Why Ask What? In: Hacking, Ian, *The Social Construction of What?*, pp. 1-35. Cambridge, MA: Harvard University Press

Kohn, Eduardo (2007). How Dogs Dream: Amazonian Natures and the Politics of Transspecies Engagement. *American Ethnologist*, 34 (1): 3-24.

Kohn, Eduardo (2013). *How Forests Think: Toward An Anthropology Beyond the Human*. Berkeley and Los Angeles: University of California Press.

Mol, Annemarie (2003) *The Body Multiple: Ontology in Medical Practice*. Duke University Press. (Selections)

Law, John and Mol, Annemarie (2001) Situating Technoscience: An Inquiry into Spatialities. *Society and Space*, Vol 19: 609-621.

Law, John and Marianne, Lien (2012) Slippery: Field Notes on Empirical Ontology. *Social Studies of Science*, 43 (3): 363-378.

Law, John and Mol, Annemarie (eds) (2002) *Complexities: Social Studies of Knowledge Practices*. Durham, NC: Duke University Press. (Selections: Articles by Law, Mol, Callon, Strathern, Charis Thompson)

Law, John (2012) Notes on Fish, Ponds and Theory. *Norsk antropologisk tidsskrift*, 03-04: 225- 236.

De Laet, Marianne & Mol, Annemarie (2000) The Zimbabwe Bush Pump: Mechanics of a Fluid Technology. *Social Studies of Science*, 30 (2): 225-63.

Phalkey, Jahnavi and Chattapadhyay, Sumandro (2015). The Aakash Tablet and

Technological Imaginaries of Mass Education in Contemporary India. *History and Technology*, 31(4):452-481

Thompson, Charis (2005). *Making Parents: The Ontological Choreography of Reproductive Technologies*. Cambridge, Ma: MIT Press.

Debates:

Carrithers, Michael, et al, (eds.) (2010) *Ontology Is Just another Word for Culture*. Motion Tabled at the 2008 Meeting of the Group for Debates in Anthropological Theory, University of Manchester. *Critique of Anthropology* 30 (2): 152-200.

HAU: The Journal of Ethnographic Theory Colloquium (2014): The Ontological Turn in French Philosophical Anthropology (John D. Kelly, Philippe Descola, Marshall Sahlins, Bruno Latour, Kim Fortun, and Michael M. J. Fischer) Vol. 4, No. 1.

Additional Readings

Holbraad, Martin (2012) *Truth in Motion: The Recursive Anthropology of Cuban Divination*. Chicago: University of Chicago Press.

Naraindas, Harish (2014) Nosopolitics: Epistemic Mangling and the Creolization of Contemporary Ayurveda. In: Dinges, Martin (ed.) *Medical Pluralism and Homeopathy in India and Germany (1810-2010)*, Stuttgart: Franz Steiner Verlag.

Nariandas, Harish (2014) My Vaidya and My Gynecologist: Agency, Authority and Risk in Quest of a Child. In: Naraindas, Harish, Sax, William and Quack, Johannes (eds.) *In Asymmetrical Conversations: Contestations, Circumventions, and the Blurring of Therapeutic Boundaries*, New York: Berghahn Books.

Pedersen, Morten Axel (2012) *Not Quite Shamans: Spirit Worlds and Political Lives in Northern Mongolia*. Ithaca: Cornell University Press.

III. STS as a (marginal?) discursive practice in South Asia: The CIS as archive and index.

Transmutations I: The metamorphosis of science in South Asia

Visvanathan, Shiv (1977) From laboratory to industry: a case study of the transfer of technology. *Contributions to Indian Sociology*, 11(1): 117-136.

Abraham, Itty (2000) Landscape and Postcolonial Science. *Contributions to Indian Sociology*, 34(2): 163-187.

Ramaswamy, Sumathi (2002) Visualizing India's geo-body: Globes, maps, bodyscapes. *Contributions to Indian Sociology*, 36 (1&2): 151-189

Yolmo, Nima Lamu (2014) Digitized money transactions and cultures of malling: Frauds and debt-making in New Delhi. *Contributions to Indian Sociology*, 48 (3): 307-331.

Transmutations II: The metamorphoses of indigenous knowledge

- Naraindas, Harish (1998) Care, welfare, and treason: The advent of vaccination in the 19th century. *Contributions to Indian Sociology*, 32 (1): 67-96.
- Banerjee, Madhulika (2002) Power, culture and medicine: Ayurvedic pharmaceuticals in the modern market. *Contributions to Indian Sociology*, 36 (3): 435-467.
- Sujatha, V. (2007) Pluralism in Indian medicine: Medical lore as a genre of medical knowledge. *Contributions to Indian Sociology*, 41(2): 169-202.
- Macdonald, Helen M. (2009) Handled with discretion: Shaping policing practices through witch accusations. *Contributions to Indian Sociology*, 43(2): 285-315.
- Apfell- Marglin (1998). Secularism, unicity and Diversity: The case of Haracandi's grove. *Contributions to Indian Sociology*, 32 (2): 217-235.

Redrawing the Canvas: Europe as an object for science/knowledge in South Asia

- Whitehead, Judy (1995) Modernizing the motherhood archetype: Public health models and the Child Marriage Restraint Act of 1929. *Contributions to Indian Sociology*, 29 (1&2): 187-209
- Chadha, Ashish (2011) Conjuring a river, imagining civilisation: Saraswati, archaeology and science in India. *Contributions to Indian Sociology*, 45 (1): 55-83.
- Naraindas, Harish (1996) Poisons, putrescence and the weather: A genealogy of the advent of Tropical Medicine. *Contributions to Indian Sociology*, 30 (1): 1-35.

Additional Readings

- George, Matthew (2011) Fever epidemics and fever clinics: Institutionalising disease and cure in contemporary Kerala. *Contributions to Indian Sociology*. 45 (3): 373-397.
- Lambert, Helen (1997) Illness, inauspiciousness and modes of healing in Rajasthan. *Contributions to Indian Sociology*, 31 (2): 253-271.
- Rosin, Thomas R. (2000) Wind, traffic and dust: The recycling of wastes. *Contributions to Indian Sociology*, 34 (3): 361-408.
- Smith, Richard Saumarez (2000) Between local tax and global statistic: The census as local record. *Contributions to Indian Sociology*, 34 (1): 1-35.
- Daele, Wim Van (2013) Igniting food assemblages in Sri Lanka: Ritual cooking to regenerate the world and interrelations. *Contributions to Indian Sociology*, 47 (1): 33-60.