- Knorr Cetina, K. (1999) *Epistemic Cultures: How the Sciences Make Knowledge*, Cambridge, Harvard University Press.
- Latour, B. (1989) La science en action, Paris, La Découverte.
- Latour, B. and Woolgar, S. (1986) *Laboratory Life: The Construction of Scientific Facts*, Princeton, Princeton University Press.
- Pontille, D. (2004) La Signature scientifique: une sociologie pragmatique de l'attribution, Paris, CNRS Éditions.
- Shapiro, S. (1994) A Social History of the Truth: Civility and Science in Seventeenth-Century England, Chicago, University of Chicago Press.
- Star, S.L. and Strauss, A. (1999) Layers of Silence, Arenas of Voice: The Ecology of Visible and Invisible Work, in "Computer Supported Cooperation Work", 8 (1-2), pp. 9-30.
- Wray, B.K. (2006) Scientific Authorship in the Age of Collaborative Research, in "Studies in History and Philosophy of Science Part A", 37 (3), pp. 505-514.
- Zuckerman, H.A. (1968) Patterns of Name Ordering among Authors of Scientific Papers: A Study of Social Symbolism and Its Ambiguity, in "American Journal of Sociology", 74 (3), pp. 276-291.

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### Simone Tosoni with Trevor Pinch

Entanglements: Traces of Science, Technology, and Sound, Cambridge, MA, MIT Press, 2017, pp. 200

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Science and Technology Studies (STS) are a compelling and heterogeneous interdisciplinary body of knowledge that has come a long way and continues to attract new generations of researchers. Despite in some geographical areas, such as Southern Europe, they are still relatively new, the maturity acquired after decades of intellectual debate and research efforts in the field are spurring moments of reflection and reflexivity among STS leading scholars, who do not dodge providing their own stories and viewpoints on the development of the field through conversations and interviews. In reading them, we come to know that, for example, Donna Haraway started reading St. Thomas when she was about twelve years old because of the advice of a Jesuite priest (Lykke et al. 2000), that a young PhD candidate Michael Lynch, like most of Ph.D candidates, mastered "the dubious arts of writing" that combined "defensiveness and intellectual pretense" (Lynch 2016), and that, in her encouragement to be "wild, innovative, inventive, sharp" as STS scholars, Anne Marie Mol thinks that guerrilla tactics are far more effective models than "old fashioned battles over regionally demarcated pieces" when it comes to sex-struggle (Bauchspies and de la Bellacasa 2009). It is precisely this blend of personal anecdotes, daring claims, and intellectual commitment that characterizes "Entanglements. Conversations on the Human Traces of Science, Technology, and Sound" between Simone Tosoni and Trevor Pinch.

The two voices of this extended dialogue belong to an Italian media scholar – Tosoni – with a large knowledge of STS, and to one of the leading figures in STS – Pinch – also known in neighbouring fields for being the co-founder of Social Construction of Technology (SCOT), and for his substantial contribution to the development of the field of Sound Studies.

The book is the outcome of four rounds of conversations that took place physically in Ithaca (USA), Paris, and Milan between 2012 and 2014, and that were subsequently transcribed, edited, and enriched with supplemental material from epistolary exchanges. The content is divided into four sections that cover Pinch's career, intellectual and personal path, from his early steps in the Sociology of Scientific Knowledge (SSK) as Ph.D and postgraduate scholar to the funding of SCOT and the dispute with other schools of thought in STS, to his more recent interests in sound studies.

The volume takes the reader in a rich and lively "guided tour" of SCOT, as well as of the past and present history of STS as experienced and recounted by Pinch through the wise and often challenging inquiries of Tosoni. The editorial work undertaken by the latter is very accurate, so that each reference mentioned in the conversation (books, papers, authors, approaches) is associated to clarifications and quotations in the footnotes which, therefore, take up a remarkable amount of space. For being of great interest, I would have preferred a bigger font-size for the quotations, which might become hard to read after the first pages.

The first round of exchanges between Tosoni and Pinch begins with the dawn of STS within the Sociology of Scientific Knowledge (SSK) and the Strong Programme developed by the Edinburgh School, which coincides with Pinch's early work within the Bath School and the Empirical Programme of Relativism (EPOR) in collaboration with Harry Collins. These were the days in which the metaphor of the "black box" came out written by Richard Whithley, who probably did not foresee the huge success that the "opening of the black box" would have achieved within and beyond the STS community.

Pinch's memories of his encounter, relationship, and work with Harry Collins are rich of intellectual inquiries and personal tales. One of the most unexpected passages of the book is, in fact, the strong link between the intellectual adventure taken up by a group of then unseasoned European scholars and the meaningful connections among them. This appears clear in the first place by looking at the mentorship relationship between Collins and Pinch, or "a discipulus-magister relationship" as Tosoni eruditely defines it. Like many of the things happened in those years, their collaboration starts by chance on the one hand, and because of their common work on the study of scientific controversies in physics and paranormal on the other. As Pinch recalls: "Turns out I was very lucky because Collins had this projects on Uri Geller and the paranormal [...] I was the only guy in the world who could possibly do this! Unbelievable! He was interviewing all these postdocs with degrees and books, and suddenly this naive guy, Trevor Pinch, steps in saving '[...] I am working on this wild idea of scientific controversies from the sociology of science perspective. I don't know what it all means, but this is what I am interested in', and I was just perfect" (p. 24). Then Collins decided to hire him and teach him everything as Pinch gratefully claims: that included how to properly interview scientists, how to set up field work trips, how to write scientific articles. And Collins' intention to instruct Pinch did not stop at the methodological training, but it went on with some advices about how to build a reliable academic appearance, which, in that case, meant for Pinch to dismiss his hippie clothes, get rid of science fantasy readings, and start to approach "some decent stuff" such as Flann O'Brien and William Faulkner. The relationship between research work and personal bonds goes beyond the University of Bath where Collins and Pinch were based, and involves a wider academic community starting from the Edinburgh School with Barry Barnes, Donald MacKenzie, Steve Shapin, Andrew Pickering, and David Bloor, and people working in the area of laboratory studies such as Karin Knorr-Cetina, Steve Woolgar, and Bruno Latour. Personal relationships were crucial in order to reinforce the network and the newborn field of study, and defend it from the hostility of philosophers of science. As Pinch explains, it is easy for people who are in a new field surrounded by scepticism and hostility to develop a strong new feeling like "Hey, we're on something important, a whole new view of science" (p. 26). It is striking to learn that the people who are now deemed as some of the preeminent scholars in STS have been regarded as "a wild, weird French guy", "an incomprehensible German", "undergrads with physics envy", and "old hippies" back in the day. On second thought, the rejection of "the new" is a common trait of all avant-guard movements that challenges what has been considered "the canon".

The approach developed by Collins and Pinch for the study of scientific controversies in the 1980s, and then exposed in the Golem Trilogy in the 1990s, was also applied to the study of technology in the seminal article "The Social Construction of Facts and Artefacts" that Pinch authored with Wiebe Bijker in 1984. This paper set out a new approach for the so-

cial studies of technology with the formulation of three fundamental concepts: relevant social groups, interpretative flexibility, and closure. The account of the development of SCOT covers the third and longest section (over 50 pages) of the book, with Pinch clarifying the terms whereby SCOT should be taken, that is not as a list of fixed concepts to be applied mechanically to the study of technological phenomena, but rather as a methodological approach that aims to tell people how to think about technology, rather than what to think about it. This is a crucial point as it marks out the discussion around SCOT's most recent developments and its dialectic relationship with Actor-network theory (ANT). In explaining his position about the understanding of the role of materiality and the nonhumans, Pinch claims that while Callon and Latour agree with SCOT in many respects, their treatment of humans and nonhumans as equivalent is "too radical". Perhaps this is anything but new for STS scholars, but it becomes important because such discussion is interestingly framed in political terms. Thanks to Tosoni's shrewd observations that articulate the idea of morality and social responsibility delegated to nonhumans by picking up the famous example on the speed bump by Latour, the two conversationalists agree that such delegation is problematic because social responsibility and morality are not plans that can be granted by an artefact and because the detachment of functions, meanings and values is not a methodological move as it is in Latour's treatment, but it pertains to the political domain. As Tosoni points out, one may slow down with her/his car because she/he is forced by an artefact, but then this course of actions does not account for the contextual decision of, for example, avoiding honking or throwing the cigarette butt on someone else's yard: we need more than the engineering repertoire to explain this set of actions, that is a view that takes into account the set of cultural values, motivations, and social goals that coexist with technical scripts. Therefore, the entanglement of all these elements represents a pivotal point of reference in order to think about technology in political terms as it calls into question the practice of drawing boundaries between something/someone that is in, and something/someone that is left out.

"Entanglement" is not only an analytic category whereby to interpret the epistemological inquiries and disputes that characterize the development of STS as experienced by one of its key proponents. "Entanglement" is also a lens whereby to read the important role that colleagues, friends, mentors, chance encounters, students, intellectual contenders, and significant others play within Pinch's professional and personal journey, which, accordingly, appears to be full of unexpected consequences, inspiring, and funny.

#### References

Bauchspies, W.K. and de La Bellacasa, M.P. (2009) Feminist Science and Tech-

nology Studies: A Patchwork of Moving Subjectivities. An Interview with Geoffrey Bowker, Sandra Harding, Anne Marie Mol, Susan Leigh Star and Banu Subramaniam, in "Subjectivity", 28 (1), pp. 334-344.

- Lykke, N., Markussen, R. and Olesen, F. (2000) There Are Always More Things Going on Than You Thought! Interview with Donna Haraway, in "Kvinder, køn og forskning", 4, pp. 52-61.
- Lynch M. (in conversation with Lucy Suchman) (2016) *Michael Lynch / Part II: That Delicate Balance*, in "Backchannels. Society for Social Studies of Science" (available at: http://www.4sonline.org/blog/post/michael\_lynch\_part\_ii\_that\_delicate\_balance.

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#### **Teun Zuiderent-Jerak**

Situated Intervention: Sociological Experiments in Health Care, Cambridge, MA, MIT Press, 2015, pp. 248

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Situated Intervention: Sociological Experiments in Health Care is certainly a book that the community of S&TS scholars interested in studying health care as sociomaterial knowledgeable doing could use to get a new promising outlook. In this book, Teun Zuiderent-Jerak, undermining the rigid opposition between basic and applied sociological knowledge, develops an interesting new methodological perspective for researchers engaged in studying and changing medical practices. Even from the opening pages, *Situated Intervention* outlines a fascinating challenge addressed to contemporary social scientists to advance the current understanding of medical work by actively being immersed in the health care organizations.

From the first moment I began to read the book, it brought to mind the seminal article, "The Human Sciences in a Biological Age", in which Nikolas Rose (2013) offered a deep discussion about some crucial implications to the social and human sciences stemming from the most relevant technoscientific transformations occurring in the field of contemporary life sciences. In his work, Rose was interested in discussing (and, in a certain sense, eroding) the epistemological boundaries traditionally erected between social sciences and life sciences to highlight how these two domains may have profitably contaminated each other. Conceptually speaking, Teun Zuiderent-Jerak's book can be considered a further and inno-