

finds legitimation in the “word of science”, in the name of the maintenance of social order, especially in emergencies, risks, dangers and crises. But when the events contradict this word, memories, fears, old angers re-surface and the conflict of subjected knowledges emerges as an open crack in the damaged walls of the rationalized structures of modernity. Through the cracks, the day after the earthquake, between the dust and the rubble, something that was already happening in the days and weeks before the 6th April became clearer: in that period L’Aquila was in fact turned into a sort of laboratory of public fear and reassurance, that was produced by the degeneration of the social function of scientific institutions. The ‘bio-political’ experiment was to intervene through a “media operation” (as the ex-head of Italian Civil Protection, Guido Bertolaso put it) on a population weakened by weeks of earthquake, with the goal not to discuss, make evaluation, research information: the aim was to reassure people, persuading them that there would not be an earthquake. This is the accusation of Ciccozzi against that “word of science” which provokes death and pain with the negligence and incompetence of power.

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Mathieu Quet

Politiques du savoir: Sciences, technologies et participation dans les années 1968 [Knowledge Politics: Science, Technology and Participation in the 1968s]

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When participatory mechanisms fail, it is because their promoters have taken for granted the founding elements of the very definition of participation – a reductionist view that ends up breaking against the wall of “reality” and complexity of today’s political processes. Using as an introductory example the spectacular failure of the 2009-2010 public cycles of discussions on nanotechnology organized by the French Commission for Public Debate (CNDP), this is how Mathieu Quet (researcher at the Parisian *Institut de la Recherche et du Développement* – IRD), introduces us to the central argument of his book, based on a PhD dissertation defended at the *Ecole des Hautes Etudes en Sciences Sociales* in 2009. The definition that the promoters of participatory mechanisms make of participation – often too narrow and reductive, if not outright incomplete or based on powerful assumptions – should be put on trial so as to highlight the plurality of organizational, social and political forms that constitute

“participation” in practice.

To do so, explains the author, it is necessary to retrace the history that has shaped participation as a term. Yet, the book does not have the ambition – which would most likely be excessive – to start this history from the beginnings of political participation, to be traced back to the origins of democracy in ancient Greece. Instead, it focuses on a moment in time and in space when “a notion of participation in science and technology emerges, still fragile, less categorically and hegemonically defined” (p. 4): the 1970s in France. What interests the author most are the discourses of participation rather than its practices: but his approach situates itself in the scholarly current that, blending communication studies with STS, looks at the discursive dimension of problems as issue- and sense-making, having an active role in the shaping of devices, processes and practices. The “suspended genealogy” of the 1970s, as he calls it (p. 5), allows the author to follow the emergence of *what it means to participate in science and technology* as a central issue of our times. His narration is both chronological and analytical.

Chapter 1, an *avant-histoire* covering the 1945-1968 period, analyzes how the emergence of the participation discourse is dependent on a variety of converging social evolutions. The chapter argues that this emergence is the consequence of the 1968 political and cultural movements impacting the French scientific and technical world as it had shaped itself throughout the *trente glorieuses*, the decades of economic prosperity that followed the end of the Second World War. The “infrastructural” context of participation is laid down. A “Big Science” is born, the accomplished integration of science, industry and state, the material changes in living and working conditions reflected in institutional evolutions and changes in the control structures.

Chapter 2 introduces the “explosive encounter” (p. 30) between the new cultural and activist forms, appeared in May 1968, and the powerful Big Science machine. The ’68 dynamics of controversy and militancy take hold of issues related to science and technology. In doing so, they plant the seeds of a renovated, less naïve, more complex discourse on the political dimension of science. Declarations of intent to “put the science at the service of people” are no longer enough to face the important questions of societies’ relationship to scientific and technical development. As science and technology emerge as bearers of new political issues, new claims of participation in scientific and technological choices start rising.

The birth of the “scientific *autocritique*”, known in other countries as *radical science movement*, which will eventually lead to laying down some of the premises of participation, is the subject of Chapter 3. While French activist engagement in science and technology first takes the shape of anti-nuclear critiques and environmental controversies, the “politicization” of science and technology also takes place within the scientific field itself. Researchers renew their political engagement by claiming novel forms of responsibility vis-à-vis their professional activities, which leads, more

broadly, to rethink practices of scientific engagement. The Big Science is not enough and not all: reflections start on the collective practices of science, and on the necessity of a People's Science (as in produced by the people). These reflections lay the ground for some of the premises of participation.

This self-critical movement is soon echoed by governmental institutions (Chapter 4). The entities in charge of scientific policy and foresight are especially receptive to the claims of young critical researchers. A "governmental variation" (p. 79) on the notion of participation takes shape, this time associated with institutions – in particular with the Organization for Economic Cooperation and Development, OECD – rather than with emancipation from politics. By setting the scene for a decade of reflections on technological evaluation, the OECD comes to define participation as the means to regulate the political space by avoiding conflict as much as possible, and the tool for a more effective and rational government. "Participation participates" (p. 102) in the governmental project, by representing and making explicit to governments the interests of social actors.

In Chapter 5, human and social sciences enter the picture – the author presents Science and Technology Studies (or Science, Technology and Society, STS), as a field of study, as an actor in the shaping of participation. Focusing again on the emergence of the field in France, which happens in the mid-70s, the author observes that it entails the "institutionalization of the critique of sciences in university settings" (p. 103). The themes of participation are imported in the academic field, but during this operation, they are reformulated, and give birth to other participatory premises. Notably, participation becomes less of a normative and political matter, and more of an epistemological and descriptive one.

Chapter 6 addresses the different social "circulations" among the three different spaces analyzed in the previous chapters: participation as a governmental tool, promoted by institutions; participation as a means of description of the social, prompted in university settings; participation as need for emancipation and empowerment, fostered by the militant *milieu*. The author argues that these three spaces, as different as they could be, become intertwined again. An integrated analysis of participation cannot neglect the circulation of objects, references, people that "contribute to the reproduction of homogeneity where we see nothing but heterogeneity yet" (p. 129). The last part of the book takes on the discussion of the threads and concepts that are given birth in this common regime of discourse, beyond frontiers and differences specific to each space.

Chapter 7 addresses in more details, and in a comparative perspective, the specificities of the conceptions to be found in each space, before showing what these conceptions share, and what they can contribute to the contemporary definition of participation. The militant space pushes for a reconsideration of the public, coupled with a de-consideration of the expert; the technocratic/institutional space conceives participation as

a tool of pacification of the social order; academic settings produce a descriptive and epistemological conception of participation, feeding the participatory *imaginaire* with the construction of representations of scientific practice. Yet, these three spaces “participate in a same discursive regime” (p. 164): all these significations co-exist, and according to different periods of time, spaces, and configurations, some of them become dominant and more effective than others, determining, in turn, different representations of what *le politique* is.

The last chapter of the book ties its different threads together, arguing for the necessity of a perspective of “pluralization” of the sense that is today most frequently attributed to participation, that of deliberation and precaution in face of a potentially “risky” science. In particular, the author suggests that the participatory discourse of the 1970s can be interpreted as “experimentation” (p. 175). While some elements of each of the three definitions seem to have disappeared from the dominant definitions of today, there is a convergence between the remaining elements. In particular, all three seem to have in-built the “metaphor of experience” (p. 185): a recurring equivalence between participation and experimentation. It is important, the author concludes, to read the participatory discourses of the 1970s less as the predecessors of contemporary participation, and more as the elements of a “suspended genealogy”, by means of which participation is founded as a practice of experimentation with formats and contents, not as a practice of deliberation and control.

What does the analysis of participation in the France of the 1970s tell us of the problems, and the potential, of participation mechanisms today? There is little doubt that participation has become a major issue of today’s democracies and a *passé-partout* word of global governance. Yet, following Sheila Jasanoff, the author argues that participation as it is defined today does not allow to solve the problem of the democratization of science and technology. The historiography of participation that unfolds in this book, by putting in perspective the *construction of the meaning* of the need for participation, does not have a normative objective, does not wish to prescribe how participation should be. Instead, it can give a toolbox for a better understanding of participation’s pluralist nature. The reader – especially the foreign reader – can sometimes have the feeling that she is getting lost in the sea of references and the extremely detailed accounts of French research and science policy that populate the book; however, the epistemological and historical objective of Mathieu Quet’s intellectual project is successfully achieved through this agile, well-documented, engagingly-written volume.