Emerging models of scientific citizenship

According to the dominant model of science-society relations, only those with the appropriate professional designations and institutional affiliations qualify as scientific citizens. These individuals are bestowed with sets of cognitive rights and responsibilities such as the right to pursue inquiry, to be sceptical of existing knowledge claims and to disagree with popular sentiment, as well as the responsibility to make research open and transparent to public constituencies.

A series of social, political and economic transformations over the past few decades have
extended the scope of scientific citizenship beyond the domain of professional scientists to include the capacities of so-called ordinary citizens. The most significant transformation lies with increased opportunities for a range of social actors to be enrolled in knowledge politics, to speak back to, challenge and in some instances transform scientific processes, products, practices and institutions.

Definitions of scientific citizenship change depending on how they are linked with alternative configurations of democracy. We characterize the various working models of scientific citizenship as follows: the informed, the dialogic and the radical scientific citizen (see Elam and Bertilsson, 2003).

The informed citizen is the most anaemic of the three with respect to the agency accorded to citizens. Grounded in liberal perspectives on democratic engagement and citizenship, citizens have the right to be informed about scientific issues, and once informed, have the right to make judgments about policy preferences. Reminiscent of the deficit model of science-society relations, knowledge production remains steadfastly in the institutions and practices of science, and knowledge is transferred in a one-way direction, from scientific institutions to the public. In essence, this is a model of the citizen as one who is encouraged to ‘think like a scientist’ in order to practice citizenship in relation to techno-scientific issues. The majority of public engagement approaches initiated by Western governments are predicated on this model, casting citizens as passive members of the public pre-occupied with questions of risk and safety rather than as active participants in agenda-setting for charting science and technology futures.

The dialogic citizen is grounded in the political ideals of deliberative democracy, and specifically the belief that collective decisions should be reached only after those affected by decisions have had the opportunity to contribute. It takes a procedural approach to citizenship, based on the assumption that the conditions of rational deliberation provide opportunity to reveal the best path forward and come to collective agreement. Rather than a focus on rights as with the liberal tradition, citizenship is viewed in line with a republican tradition as an ongoing practice of political judgment. Decision-making is seen as a matter of reaching consensus or a compromise among competing interests. In the context of organized public events, a more active role is granted to citizens in defining the consultation agenda, directing discussions, and contributing diverse forms of knowledge to the overall discussion.

The radical citizen connects scientific citizenship to a radical rather than a liberal or deliberative vision of democracy; as such, room is created for forms of confrontation with dominant scientific discourses and their underpinning ideologies (Mouffe, 2005). The assumption is that citizenship unfolds, not solely at the level of the individual, but through emergent social solidarities as well as political affiliations and interests that unite people around particular issues and visions of the public good. Radical democracy highlights, rather than attempts to conceal, the ideological and value conflicts at the heart of political debates. Science is not approached as a value-free body of knowledge, but as a historically and politically contingent mode of inquiry and style of practice.
Climate change and scientific citizenship

Once so-called ordinary citizens are enrolled in public dialogues about climate change, they are necessarily positioned in relation to these conflicting models of scientific citizenship. Science plays a fundamental and constitutive role in defining, demarcating, and illuminating the associated political and social challenges of climate change. The gap between the lived experience of weather with which most people are familiar and the opaque statistical constructs of a global climate underpins many contemporary political conflicts over climate change (Hulme, 2009). When asked to participate in formal or informal public dialogues about climate change, to what degree are citizens expected to consent to, challenge or contribute to knowledge about climate change? What are the implications of these expectations for democratic participation and shifting configurations of climate governance?

Bringing epistemic politics into focus, scientific citizenship illuminates the contradictory impulses, assumptions and values at play when non-expert citizens are asked to participate in public deliberations about techno-scientific issues, given what constitutes a ‘good’ citizen in these instances is not immediately apparent. In liberal and deliberative traditions, the unquestioned assumption tends to be that non-scientists must adopt the processes of scientific thinking in order to participate in public decision-making contexts. Although deliberative democracy offers agency to citizens, as Elam and Bertilsson argue, ‘by valuing rationality, reserve, selflessness and powers of argumentation, deliberative democracy is a democratic politics played out on scientists’ home turf’ (2003: 243). As a result, hierarchies between experts and lay citizens remain entrenched where the capacity to set public agendas is tacitly handed over to ‘institutionalized science and the power structures that may lie behind it’ (Wynne, 2005: 71 – 72).

By highlighting the possibility of questioning and potentially transforming dominant knowledge claims and their ideological underpinnings, radical democracy opens space for more diverse voices and perspectives to inform public debates. Radical scientific citizenship offers an analytic framework for understanding emergent configurations of citizen-subjects that extends beyond the contribution of preferences, opinions and values to otherwise pre-defined and bounded technological discussions. It encompasses a broader vision in which citizens are situated as bearers of knowledge in their own right, connected with identities, cultures and world-views as well as entangled in global networks and solidarities. Its emphasis on the impossibility of a power- and value-free consensus, however, does not provide easy solutions for addressing the exigencies of climate change, particularly in a political context in which policy action has become stymied due to appeals to scientific uncertainty.

References


