

Parallel Session 29: Is it a real social participation in GMO discussion?

SCIENTIFIC CITIZENSHIP: DANISH CITIZENS AND BIOTECHNOLOGY

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Abstract

An emerging paradigm of dialogue and participation in Danish S&T policy provides new arenas for public participation in decision making processes concerning biotechnology. Based on survey data this study examines indicators of both spectator and participatory scientific citizenship. While indicators of spectator scientific citizenship show that Danish citizens increasingly acknowledge the importance of biotechnology *for* their lives, the indicators of participatory scientific citizenship reveal a decreasing inclination to make biotechnology an element of importance *in* the daily lives of Danish citizens. In order to meet their democratic potential, the new arenas for public participation must be further cultivated.

Key Words: Citizen participation.

Context

Recently, within the Danish political discourse on science-society integration, the 'paradigm of science dissemination', which has emphasized the need for one-way transmission of knowledge from the world of science, to the passive lay citizen, has found company in an emerging 'paradigm of dialogue and participation', not least concerning the integration of new genetic technologies in economic and social systems. The Danish Board of Technology has been the primary engine in ensuring direct public participation in S&T assessment and actual face-to-face dialogue between scientists, industrialists, policymakers, and citizens. BioTik, the Danish action plan for biotechnology and ethics, has institutionalized public consultation as a guiding principle, and offers a web-based arena for public debate. NGO participation in long-term strategic S&T prioritization and The Danish Council of Ethics' efforts to support public meetings concerning ethical problems in biotechnology has also contributed to creating arenas for public involvement in biotech policy and debate.

These emerging arenas of participation offer a framework for democratic renewal. The science dissemination paradigm corresponds with the notion 'spectator democracy', in which "...citizens are superficially *interested* in politics - as citizens they want to know what happens - but not by any means *engaged* in politics... Politics is perceived to play a role *for* their lives but it does not play much of a

role *in their lives*" (Andersen & Torpe 2000: 5). This notion of spectator democracy is opposed by the notion of 'participatory democracy', which emphasizes citizen's *engagement* in politics - political consumption, participation in grass root activities or demonstrations, involvement in public debate etc. Participatory democracy stresses the importance of full citizenship in terms of both political and social *rights* and a republican ideal of civiness as a sense of societal obligation or *duty*, in which participation is a *virtue* (Barber 1984). Participatory citizenship is not simply about enjoying the right to enter the sphere of politics, but rather about actually entering it. The emerging paradigm of dialogue and participation in Danish S&T policy potentially enhance a democratic development towards participatory citizenship.

Objective and methods

Applying quantitative survey-based data on the public understanding of biotechnology in Denmark, indicators of what could be termed 'spectator' and 'participatory' scientific citizenship are examined¹. Indicators of spectator scientific citizenship include general interest in S&T, awareness of biotechnology, and factual knowledge of biotechnology. These indicators concern the passive appropriation of genetic technologies as an issue of importance *for* everyday life. Indicators of participatory scientific citizenship include engaging in discussions with family and friends about biotechnology, the inclination to engage in public debates / hearings concerning biotechnology, and the inclination to seek information by reading articles or watching programmes on the advantages and disadvantages of developments in biotechnology. These indicators concern the active appropriation of genetic technologies as an issue of importance in everyday life. Combining various surveys allows for examining the indicators over time.

Results

Over the last years, interest in S&T, awareness of biotechnology, and factual knowledge of biotechnology in Denmark has increased. The share of citizens that report interest in S&T has significantly increased from 57% in 1997 to 75% in 2000. From 1997 to 2000 the awareness of biotechnology, measured as unprovoked mentioning of biotechnology when describing associations to S&T, increased from 11% to 25%. Similarly, the mean score on a 0-9 scale biotech knowledge index rose from 5.78 in 1996 to 5.87 in 1999 and has recently been measured at 5.98 in 2002. These figures suggest that Danes increasingly consider biotechnology relevant for their lives.

Yet, the fact that Danish citizens have a relatively subtle insight in biotechnology, which is also observed in cross-country comparisons, does not necessarily imply that scientific citizenship is in accordance with its democratic potential. Citizens recognize and appreciate the importance of biotechnology *for* their lives, but the indicators for participatory scientific citizenship seem to tell a somewhat different story. The share of respondents, who report having engaged in discussion about biotechnology prior to the interview decreased from 53% in 1996 to 50% in 2002. Citizens were also less inclined to engage in public debates or hearing in 2002 (44%) compared to 1999 (53%). Finally, making a dedicated effort to read an

article or watch a programme, in order to better grasp advantages and disadvantages of developments in biotechnology seemed less attractive in 2002 (77%) than in 1999 (83%). The active appropriation of biotechnology, in which biotechnology figures as an element of importance *in* the daily lives of citizens is thus modestly declining.

Conclusions

In Denmark, new arenas for public participation in decision making processes concerning biotechnology offer a democratic development towards participatory scientific citizenship. Yet, survey results indicate that while Danish citizens tend to be increasingly aware of biotechnology from a spectator position, the level of active engagement is modestly decreasing. In order to strengthen the level of inclusion and ensure that scientific citizenship meets the promises it holds, the new arenas of public participation must be further cultivated.

Notes

1. Eurobarometers 46.1, 52.1, 58.0 and two Danish studies (1997 and 2000) are applied. It should be observed that the reported results cover disparate time spans due to changing items in the surveys.

References

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