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TITLE: Ignorance, Attitudes, and Science Communication in the Debate on Genetic Engineering in Agriculture

ABSTRACT: The term 'deficit model' was coined by social scientists in the 1980s to highlight assumptions underlying much of science communication. According to the model, the general public's negative attitudes towards modern science and technology are based on ignorance. The proposed remedy: scientists should communicate the facts to non-scientists. In the subsequent literature the deficit model was criticized on empirical and theoretical grounds. The old ''paradigm'' of the Public Understanding of Science (PUS) has been replaced with a new one, namely that of the Public Engagement with Science and Technology (PEST).

Yet the deficit frame has proved persistent. Despite being continuously discredited (at least by social scientists) and supposedly abandoned (i.e., not many people would explicitly subscribe to it), it seems to remain a common mindset among many scientists and decision-makers. It has reappeared in more subtle forms. Brian Wynne (2006), for example, speaks about continual reinvention of public deficit explanations. This arguably colors science communication and policies, and it may account for some failures to establish genuine two-way public engagement mechanisms.

My paper discusses four assumptions of the deficit model type of thinking. It is argued that there is nothing wrong with ignorance-based explanations per se. Furthermore, more attention needs to be paid to the issue of relevance. Against the common mantra of rejecting the deficit model altogether, the paper points to ways to better distinguish between cases in which these type of explanations and assumptions are warranted and cases in which they do not hold. Examples are drawn from the debate on genetic engineering in agriculture.

References

Wynne, B. (2006). Public engagement as means of restoring public trust in science–Hitting the notes, but missing the music. *Community Genetics*, 9, 211–220.