The Appeal to "Transparency" in the Regulation of Genetically Modified Insects

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Since 2011, genetically modified mosquitoes have been released in the Cayman Islands, Brazil, and Malaysia, and will soon be released in Key West, Florida, in order to control the *Aedes aegypti* mosquito population, the primary vector of dengue fever. A controversial discussion regarding appropriate regulation of this technology has ensued in PLoS *Neglected Tropical Diseases* among Reeves, et al. and Alphey and Beech (1, 2). A central question of this debate is "public engagement," the issue of when and how to incorporate public voices in the regulatory process. In discussing the role of "public engagement" in the regulatory process of GM mosquitoes, these authors evoke qualitatively different notions of "transparency." Reeves, et al. adopt a definition of "transparency" that incorporates and emphasizes public values in the regulatory process. Alphey and Beech, on the other hand, favor a definition of "transparency" that assumes clear, objective, unvarnished decoding and recoding of information. In this paper, we argue that this latter use (which is pervasive in many arguments regarding the regulation of science and emerging technologies) functions as a metaphor for access and "clarity," of communication without "noise," which in turn hides the difficult questions of when and how public discourse is permitted to enter scientific arguments. But even more than this, it conceals the operation of language in science. Rhetorical scholars who study language and persuasion know that what is made "transparent" is not transparent, but is rather viewed through what Kenneth Burke calls a "terministic screen" (3). Any means of representing data both directs and deflects attention in deliberate and strategic ways. Transparency, as it is colloquially used, then, is a myth. To make data and language literally transparent would be to make them disappear. In this paper, we focus on the term "transparency" as it is used in these debates regarding the regulation of genetically modified mosquitoes for controlling dengue fever. We argue that the appeal to transparency in these arguments obscures the necessity of examining the role of language, argument, and style in debates about biotechnology, public participation, and regulation, and thus shuts down further dialog about the nature of communication itself. In conclusion, we argue that the opaqueness of "transparency" highlights a need for STS and, especially, rhetorical scholars, in the development of new technologies that require public dialog and regulatory procedures. If brought into the process early, STS and rhetoric can focus on how meaning and attention is directed in language, by whom, and for whom. This includes questions of what gets amplified, deflected, concealed, and unveiled in the language used by participants in the discussion. The role of rhetoric is crucial in this research. Not giving due attention to what the term "transparency" actually entails conceals the power of language in the construction of these debates.

References

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