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Vulnerability and Environmental Justice as Factors in Emergent US Nanotechnology Risk Perceptions

Introduction

The question generally posed by social scientists interested in perceived risk is: How might current growth in nanotechnology research and development be viewed by different publics and will the products and capacities derived from nanomaterials be met with optimism or aversion? Will nanotechnologies be the subject of controversy? Or, will benefit appreciation prevail over risk aversion and if so, why?

Results

- When the distribution of risks and benefits from nanotechnologies is perceived as unfair, concerns for social justice lead to heightened perception of the nanotechnologies as risky (see figure 1)
- Experiences of vulnerability also amplify perceptions of risk associated with nanotechnologies.
- There is significant variation in risk perception between application domains.

Recognizing the embeddedness of technological innovation in social contexts, including experiences of vulnerability and normative evaluations related to social justice, extends the conventional foci of risk perception research and demonstrates how justice has thus far been under-recognized as a factor in perceptions of risk.

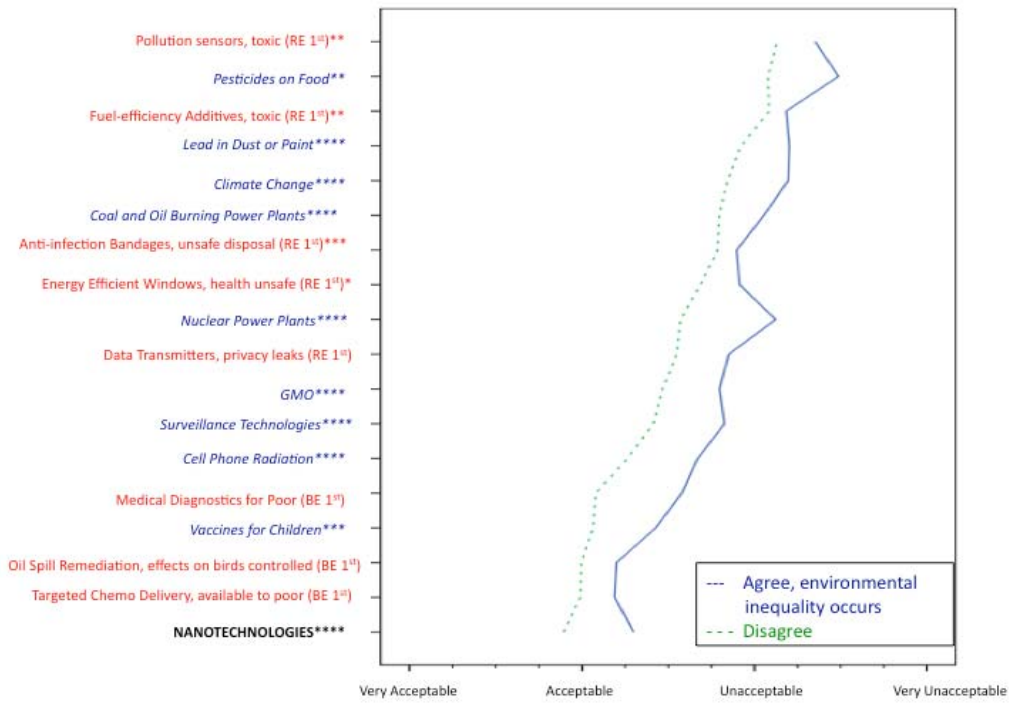

Figure 1. Risk judgments from respondents who acknowledge environmental inequality (blue) significantly differ from those that do not (green) on 14 of 18 items, including all non-nano risk objects.

Joe Conti, Terre Satterfield, Barbara Herr Harthorn, under review, *Risk Analysis.*