

# Risk, Advocacy, and Values in Engagement (RAVE)

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**Scientists active in the public sphere recognize the importance of broader communications but sometimes have an incomplete or exaggerated view of the risks to both their public and professional reputations as a function of their advocacy. These risks are connected fundamentally to the degree that the advocacy positions they take are based on values that are shared (or not) with their audiences. An encapsulation of the connections between Risks, Advocacy, and Values in Engagement (RAVE) may help inform choices that public scientists must make.**

With the rise of social media and an ever-increasing range of science-related policy issues, more scientists than ever are choosing to engage in the public discourse. These scientists are engaging with multiple audiences on multiple levels and have multiple aims and motivations<sup>1</sup>. Whether writing a 140 character tweet, speaking at a public event, working with a high school or briefing political staffers, choices are being made that reflect individual values, de-

degrees of self-awareness, and risk tolerance, as well as one's position on the subject in question. These variables are however not independent. Careful consideration of the interplay between the drivers of public engagement decisions can be useful in anticipating the consequences of such engagement <sup>2</sup> .

Here, we present a tool for assessing the risks for individual "public" scientists as a function of their advocacy position and the target audiences (ranging from close professional colleagues, journalists, faith or interest communities, to the general public). The "Risk, Advocacy, and Values in Engagement" (RAVE) assessment attempts to help individual scientists reflect on what positions they might want to take publicly in light of the fact that the risks follow from the degree to which the scientist's values are shared with their audience.

As we have argued elsewhere<sup>3,4</sup>, the very act of engaging with the public is, for professionals, an act of advocacy in itself, regardless of the position being pushed. But choosing to advocate comes with risks<sup>5</sup>, and as the number of scientists engaging with the public increases, it is worth being explicit about the predictable risks so that scientists can tailor their advocacy according to both their aims and their (personal) risk tolerance.

The issue of risks in public engagement is not sufficiently addressed in existing categorizations of engagement styles. For example, while instructive, the four-part typology of scientific engagement of <sup>6</sup> – issue advocates, stealth advocates, honest brokers, and pure scientists – collapses to a single one for most public scientists in the age of social media. 'Stealth' advocacy, in which scientists do not appreciate or express the influence of their values on a position, is increasingly difficult to distinguish given the ubiquitous and brief nature of many public statements. The 'honest broker', who presents a complete assessment of all findings and possible policy responses, is a seemingly attractive position, but the likelihood of an optimal fit

between a scientist and policymaker is extremely low. Indeed, this role is described as being most suitable for an official assessment body (such as the National Academies or the Intergovernmental Panel on Climate Change). Thus, any responsible scientist who is publicly active today effectively lies in the 'issue advocacy' quadrant and must decide how to best approach that role.

In this vein, we have previously<sup>4</sup> described the approaches to public engagement as a continuous, rather than categorical, space that ranges from more science-dominated to more advocacy-dominated positions. This one-dimensional model acknowledges the possibility of greater risk to advocacy-dominated engagement, but elides over the varying kinds of risks advocacy can engender.

The range of potential risks are broad. For example, they might include the loss of credibility among professional peers, harsh public criticism, enhanced and perhaps invasive scrutiny of one's professional and personal life, or loss of access to funding or resources. Fortunately, these are most often overwhelmed by the benefits (advocacy success, increased transparency of science, higher profiles, greater opportunities), but scientists embarking upon public stages need to be able to assess both.

Scientist advocacy is often driven by a deep knowledge of relevant scientific facts, combined with a set of values that suggest (to them) a way forward. It bears repeating that knowledge of facts alone does not determine specific policies. Risks to that advocacy are also related to values and specifically the degree to which those values are shared with a target particular audience. For example, controlled experiments<sup>7,8</sup> suggest that going beyond pure science to advocate for specific public policies may not impact the perceived credibility of scientists, unless the policy position is contrary to values in that audience. Scientists may be able to make

informed decisions about the manner of public engagement by carefully assessing their personal risk tolerance, motivations and objectives, as well as the audience attitudes about the subject.

To that end, we present a graphical heuristic (a “RAVE” profile) that recognizes the multiple dimensions of risk in public engagement and that explicitly acknowledges the relationship between risk for public scientists and the values held by different audiences (Figure 1). The graphic explicitly goes beyond a linear continuum<sup>4</sup> to encompass the variation in risks as a function of audience. Our goal is present some specific examples of risk profiles, and encourage scientists to assess for themselves the risks of what advocacy positions that they might want.

Such self-assessment is vital given that although the scientific community shares many values (for instance, the so-called “Mertonian” norms<sup>9</sup>), and perhaps in certain regions and on certain topics, a common political outlook, yet these values might not be shared as strongly with the general public or with decision-makers. Advocacy statements that can be well-received within a small community (because of a shared value system) might be far less well-received in another community with different values. The key point is that different advocacy positions will have different degrees of shared values and potential risk with different audiences.

In figure 1, we present RAVE profiles for four broad examples of advocacy (Science Literacy, Research Spending, Specific Policies, and Partisanship) and one example of perceived non-advocacy (Silence), recognizing that each example includes a range of stances which themselves would have range of risk.

Science Literacy is a familiar advocacy goal to many scientists. It encompasses a desire for improved basic education on scientific topics and increasing familiarity with scientific

discoveries or issues among the public. The profile for this is flat and low risk for all example audiences because the values that underpin the goals (such as the idea that an informed citizenry is better than one which is not) are widely shared in modern societies.

Advocacy of specific “Research Spending” is also common and the goal is to direct attention and/or resources to specific topics. However while research spending *per se* is widely considered a public good, advocacy to fund a specific facility or topic is often in conflict with other groups given limited budgets and time. Thus the RAVE profile indicates a higher risk among scientific colleagues in other fields, than among close colleagues or the public at large.

“Specific Policy” advocacy goes beyond informing audiences about policy-relevant science to advocating for generic or specific policies in light of scientific results in combination with ones values. An example might be pushing for stronger labeling on cigarette packages in the light of negative health outcomes from smoking. This is relatively low risk in modern western society because not wanting children to take up unhealthy habits is more strongly rooted than the feeling that cigarette companies should be able to label cigarette packs how they choose. However, a different example might have a very different profile - for example advocating for geoengineering to reduce impacts of climate change. In our experience, this policy suggestion is fraught with risks almost across the board since the values that underpin it are extremely contested both within the scientific community (with a focus on worries about physical consequences) and more broadly (since it touches on questions of ethics and moral hazards).

“Partisanship” is an advocacy stance that goes beyond specific policies and supports political parties, pressure groups, or tribal slates of issues. As is obvious from most elections this a very contested view in the general public, but may be less so in smaller communities where there is either partisan agreement or an understanding that some of the key values related to

doing science are still assumed to be shared.

We include “Silence” as an example to illustrate that not engaging in advocacy is also associated with risks. For instance, there are a class of issues where ones values are threatened or compromised, and where silence in the face of threats may provoke criticism. Examples might include not speaking up about harassment or misconduct, or not supporting an unjustly criticized colleague. In these cases, the risks are predominantly among colleagues, though severe issues can spread to the wider public. A milder example is simply that silence risks not getting enough appropriate attention to one’s work or topic and thereby losing out on opportunities. While there are instances where a subject matter expert failing to engage publicly on an issue of great public concern (e.g. chemical weapons, nuclear proliferation) could damage one’s reputation, it seems reasonable to assume the risks of silence are greater within smaller communities.

Our goal in presenting this framework is not to scare scientists away from engaging with the public - far from it. Rather, our aim is to help individuals recognize what advocacy positions they are pursuing and gauge their own efforts, and the costs and benefits, accordingly. Thinking ahead about the values that underpin one’s advocacy, with whom they are shared, and where a message is directed, will hopefully lead to better preparation, more clarity and greater participation.

Scientists increasingly face many calls to be more active, and more effective, in communications to the wider public, media, and within the scientific community. In our opinion, a prerequisite for greater effectiveness and wider participation is for scientists to explicitly consider what they wish to advocate for, why they wish to do so, and what risks they are willing to tolerate in so doing. We hope that considering their own RAVE profile will help scientists

crystallize these issues and be best prepared for public engagement.

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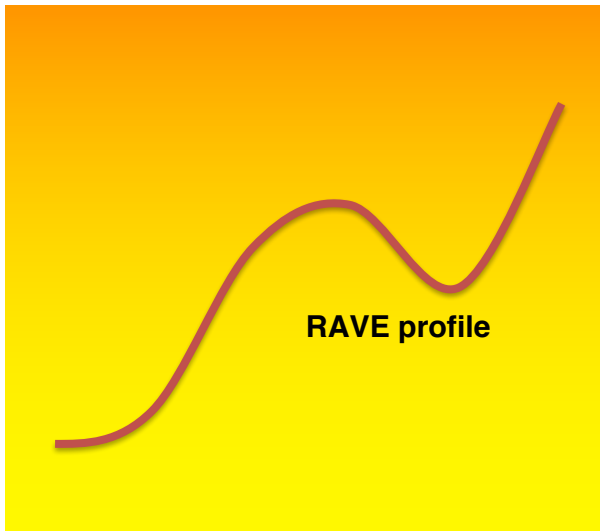
**Risks of specific advocacy positions vary with different audiences**

**Values**

Disparate



Shared



**RAVE profile**

**Risk**

High

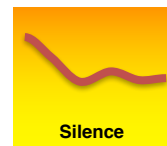


Low

Colleagues (same field)  
 Colleagues (wider field)  
 Journalists  
 Faith or interest community  
 Local/regional community  
 General public

**Example Audiences**

**Examples**





**Figure 1** A RAVE profile. Different advocacy positions have different risks that vary depending on the audience ranging from close colleagues to the general public as a function of the degree of shared values. The figure shows an example position sketched out for a set of typical audiences. Advocacy positions based on shared values within a community are generally low risk within that community, but might have substantially greater risk elsewhere. The five example profiles on the right-hand side are discussed in the text.