AMERICAN ACADEMY
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Communication Working Group Brief

Proven Principles of Effective Climate Change Communication

The American Academy of Arts and Sciences is a nonpartisan independent research center and membership society located in Cambridge, Massachusetts. In 2021, the Academy formed a multiyear commission to identify the key shifts necessary for meaningful action on climate change and to propose policy and communication recommendations to address these needs. Mustafa Santiago Ali, Christopher Bower Field, David G. Victor, and Patricia Vincent-Collawn chair this commission. With its diverse, cross-disciplinary membership, power of convening, and nonpartisan status, the American Academy is uniquely positioned to reach across fields and sectors to identify causes of inaction on climate change and recommend optimal responses.

The Commission on Accelerating Climate Action's working group focused on communication is chaired by Bob Inglis, Kathleen Hall Jamieson, and J. Marshall Shepherd.

Because climate change is a generational crisis, communicating its urgency has received increased attention within the scientific community. Several actors have been critical in communicating climate risk, creating a science-consistent narrative, and spearheading needed action. Because media are a primary means through which the public learns about science in general and climate science in particular, it is important that the reports the media produce are aligned not only with the best available evidence about the causes, nature, and impact of climate change but also about its risks and effective responses. As a result, as Bolsen and Shapiro (2018) argue, scholars, media, and stakeholders should "develop communication initiatives to challenge how all citizens think and talk about climate change as a way to build consensus through public engagement efforts."

For professional and amateur communicators interested in spurring effective climate action, sidestepping tribalism to overcome political polarization while still communicating urgency is critically important. Based on research and conversations with people in the climate communication space, the Commission's working group on communication identified twelve principles useful in overcoming communication-related barriers to effective climate action.

The barriers: low prioritization of climate action among the issues the public considers when evaluating prospective office holders and when voting; partisan polarization that leads some to reject the science that establishes the need for urgent action; attempts to mobilize that instead demobilize: misunderstanding messages about the need for urgent action to mean that individual and collective action are no longer able to save us from an unlivable future; and the need to harness individual commitment in service of collective action and structural change.

The need to prioritize climate action

- To increase knowledge about the salience of climate change and awareness of the need for redressive action, media at the international, national, and local levels should routinely explain the widespread confidence of climate researchers that climate change is affecting all of our lives by increasing the likelihood or severity of heat waves, fires, flooding, droughts, and hurricanes (see principle 1 on the media's need to frame extreme weather events as a result of climate change, principle 2 on communicating consensus, and principle 7 on making climate messages locally relevant). Individuals who care about climate

change should express their thoughts on the topic so that others who are like-minded are more likely to speak up (see principle 4).

The need to sidetrack partisan polarization

- To sidetrack partisan polarization, climate advocates should change social norms within a community (see principle 3), feature identities that they share with their intended audiences (see principle 5), adopt in-group rather than out-group frames (see principle 6), and invite the audience to draw its own conclusions from scientific data (see principle 8).

The need to overcome the assumption that action is futile

- To thwart the assumption that action is futile, climate advocates should align social norms with constructive climate action (see principle 3), combine hope with action (see principle 9), empower individuals to take personal action that is consistent with structural change (see principle 10), and demand the kinds of accountability that will produce structural change (see principle 11).

The need to create large-scale, structural change

- To ensure that individual commitment is translated into structural change, climate advocates should encourage climate action that includes structural changes such as low-cost access to electric vehicles and low-cost charging stations (see principle 11) and the widespread adoption of climate action plans by individuals who will, as part of their plan, insist that everyone and every structure within that person's sphere of influence do the same (see principle 12).

For explanations and illustrative implementations of these principles, please see the white paper, *Proven Principles of Effective Climate Change Communication*.

12 Climate Change Communication Principles

1. **Prioritize a climate frame in news.** News media can increase the salience of climate change by relating its effects (for example, an increase in extreme weather events such as wildfires, drought, and hurricanes) to human causes.

The need: clear communication from media outlets connecting extreme weather in local areas to global climate change.

2. **Communicate consensus.** People are more likely to believe climate change is happening and caused by human beings if they understand that the scientific evidence justifies these conclusions and that there is a scientific consensus about both.

The need: clear communication that uses trusted messengers to reiterate the scientific consensus that climate change is happening and increasing the likelihood or severity of heat waves, fires, flooding, droughts, and hurricanes.

3. **Change social norms.** People are susceptible to peer pressure. When individuals feel that their neighbors expect them to act in a more climate-friendly way, those individuals are more likely to take science-consistent climate action.

The need: find ways to apply social norming to all sectors of our lives and the economy.

4. **Overcome the spiral of silence (if you believe it, say it).** Those who view the belief in the realities of climate change as an unpopular position are less likely to share their science-consistent beliefs about it with others, which makes others who may agree less likely to voice their views as well. To overcome the "spiral of silence," people should share their science-consistent climate views.

The need: change the balance of discourse on climate by increasing the likelihood that those who hold science-consistent beliefs about climate change express them.

5. **Emphasize nonscientific identities.** Scientists and other experts can minimize the polarizing effects of tribal identity by emphasizing aspects of identity that they share with their audience. While many Americans oppose elitism and, correspondingly, messages from elite scientists, people identify with those they see as like them.

The need: identify, deploy, and test the feasibility of employing other identities that climate advocates have in common with their intended audiences.

6. **Frame climate change as an in-group issue.** People listen to and believe people they think of as like them and as liking them. Such in-group validation increases the acceptance of climate realities among those who identify with groups historically associated with a rejection of climate action.

The need: expand the reach of communicators from historically climate change–denying groups who frame taking action on climate change as an in-group position.

7. **Make messages locally relevant.** Many people in the United States align their identity with groups that have historically doubted climate change. When communicators convey information about a changing climate without attacking these identities, they can convince people more readily. Those who see an issue as local are more likely to be concerned about it and are more likely to support policy solutions to it. Strategies to accomplish this include adapting messages to local audiences and communicating through local messengers.

The need: increase the number of meteorologists and other communicators connecting local events to climate change at the local and national levels.

8. **After priming an accuracy motivation, encourage audiences to draw their own conclusions.** Asking audiences to focus on accuracy before presenting data can minimize motivated reasoning. Inviting audiences to examine the scientific data and draw their own conclusions serves that purpose.

The need: tie engaged participation to the creation, implementation, and monitoring of climate action plans in ways that demonstrate their possible effects on human well-being and a sustainable economy and ecosphere.

9. **Combine hope with actions.** When provided with engaging stories that convey hope, people are more likely to take action. Narratives have unique persuasive power. People who are confident their actions will have an effect are more likely to feel motivated to act.

The need: increase the scale and scope of engaging journalism that demonstrates solutions in a fashion that engenders hope and, with it, action at the local, national, and international levels.

10. **Help people take actions themselves.** When problems are seen as large, individuals can become fearful and hopeless. People engage with climate science and support taking action when they believe that the actions they, as individuals, take will matter.

The need: increase uptake of individual climate-friendly actions.

11. **Demand accountability.** Organizations are not only collections of individuals; they also respond to the collective demands of those on whom they depend for survival. One of the individual actions that a person can take is to insist that the groups of which they are a part (for example, local, state, and federal governments; businesses; social groups; educational and financial institutions) engage in the kinds of science-consistent action required to create a sustainable future.

The need: increase public pressure on all types of organizations to take steps needed to create a sustainable future.

12. **Encourage commitments in the form of accountable climate action plans.** When people, organizations, and governments make concrete commitments through climate action plans, they are more likely to take the promised action. Concrete commitments also help others hold them more accountable and reduce the likelihood of greenwashing.

The need: increase the number of organizations and individuals committed to plans that address and reduce climate change, timelines that meet the need, and forms of disclosure that ease monitoring and maximize accountability of the plans and their promulgators.

References

Bolsen, T. and M. A. Shapiro. 2018. "The US News Media, Polarization on Climate Change, and Pathways to Effective Communication." *Environmental Communication* 12 (2): 149–163. https://doi.org/10.1080/17524032.2017.1397039.

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Veronica Johnson, chief meteorologist at WJLA, gives the weather forecast on air at the station in Arlington, VA, on Tuesday, January 10, 2023. Photo by Matt McClain/*The Washington Post* via Getty Images.

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