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EDITORIAL

Editorial for the special issue on emotions in science communication

Luisa Massarani, Neta Shaby and Daniel Silva Luna

Abstract

While substantial research has focused on emotions within classroom activities such as class attendance, studying, and test-taking, less attention has been paid to emotional experience in informal science settings such as media, museums, and public science events. Despite their significant role, emotions are under-theorised and under-researched in science communication. However, there is a growing interest among researchers and practitioners in understanding their role in the public communication of science and leveraging these insights for more effective science communication. This context lead us to propose and organise this Special Issue on Emotions in Science Communication, comprising six manuscripts as detailed in this editorial.

Keywords

Public understanding of science and technology; Informal learning; Public engagement with science and technology

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Emotions are woven into every aspect of science communication. They colour the spark of curiosity [Davies, 2019], the awe at discovery [Silva Luna & Bering, 2022], the anxiety of risk [Tateno & Yokoyama, 2013], the anger at injustice [Dawson et al., 2022], and the hope of collective problem-solving and other emotions related to specific topics such as climate change [Hayhoe, 2022; Oliveira et al., 2025] and vaccines [Oliveira et al., 2023a]. They shape whether trust in science is extended or withheld [Drummond & Fischhoff, 2020], how scientists are perceived [Zahry & Besley, 2021], and whether people feel motivated to engage with or retreat from science and science communication activities [O'Neill & Nicholson-Cole, 2009; S. Rowe et al., 2022]. They also infuse science communication practices across settings, from museums [Massarani et al., 2023] to social media platforms [Oliveira et al., 2023b]. To ignore the affective is to miss a basic truth about how humans engage with knowledge: we do not simply process facts, we feel them. Research consistently shows that emotions matter — sometimes subtly, sometimes starkly — for learning, trust, decision-making, and the tenor of public debate [Davies et al., 2019]. The implication is clear: any fuller understanding of science communication must place emotions at its centre.

In the broad domain of social sciences, the so-called "affective turn" has reinforced this recognition, drawing attention to the felt, embodied, and relational dimensions of life [Gregg & Seigworth, 2020]. What unites much of this scholarship is the claim that emotions are central to human experience and cannot be bracketed out of analysis [Ahmed, 2004]. Beyond this agreement, however, definitions diverge. Psychologists often describe emotions as discrete or appraised responses [Moors et al., 2013; Tracy & Randles, 2011], neuroscientists as patterns of construction in the brain [Barrett, 2017], while sociologists and anthropologists emphasise their circulation in culture, their role in practices, and their place in social order [Lutz, 1988]. On what emotions are, no consensus exists and likely never will [Izard, 2010]. On their importance, by contrast, there is broad and enduring agreement [Gregg & Seigworth, 2020].

This lack of definitional closure is not a weakness but a reflection of the richness and complexity of emotions themselves. It also highlights their ubiquity; emotions permeate all domains of life, from fleeting humour in everyday exchanges to collective anxieties about global crises. Such breadth demands generosity not only in methods and theories, but also in the topics considered worthy of attention. For science communication, the task is not to impose order on this plurality but to recognise that, however defined, emotions are indispensable to how people encounter, interpret, and respond to science [Davies et al., 2019].

Recognising this does not mean privileging one theory or one method. On the contrary, studying emotions in science communication calls for methodological, theoretical, and thematic openness [Taddicken & Reif, 2020]. The contributions to this special issue, which showcases six articles, illustrate precisely this diversity. They demonstrate that emotions can be approached as constitutive of knowledge, as rhetorical and strategic resources, and as lived, embodied experiences.

First, emotions shape the production and circulation of knowledge. This is evident in contributions that examine contexts of crisis and risk. C. Rowe et al. [2025] show how risk communicators in New Zealand balance fear and fascination to encourage earthquake preparedness, highlighting how emotional appeals can both mobilise and paralyse. Chordaki and Zarifi [2025] turn the lens inward, exploring how emotions circulated among Greek experts during the COVID-19 pandemic. Their analysis traces how silences, hesitations, and

affective tensions became entangled with institutional authority, illustrating that emotion is not peripheral to expertise but constitutive of it.

Second, emotions operate as rhetorical and strategic resources. In the expanding landscape of digital and mediated communication, affect is mobilised to persuade and connect. Vivas Peraza [2025] analyses crowdfunding videos through the lens of Aristotelian *pathos*, finding that scientists often foreground positive appeals — friendship, kindness, trust — rather than fear or pity. Jonas and Taddicken [2025] examine affective cues in voice-based AI, showing that empathy and humour alter how people evaluate the trustworthiness of communicative AI. These studies illustrate that persuasion in contemporary science communication increasingly hinges not only on what is said, but on how it feels.

Third, emotions are lived and embodied experiences. Two contributions draw attention to the sensorial, performative, and collaborative production of affect. Montenegro et al. [2025] reflect on theatre as a medium for communicating bipolar disorder, showing how artistic practice can both draw on and generate strong audience emotions. Marques and Carlin [2025] analyse observational astronomy sessions, tracing how awe, wonder, and even disappointment are co-produced in real time as people look to the sky. These studies remind us that emotions are not abstractions but shared practices, enacted through voice, gesture, performance, and encounter.

Taken together, these six articles reveal the multiplicity of ways in which emotions infuse science communication. What unites them is not a single theory or definition but a shared recognition that affect is central to how science is lived, communicated, and contested. Their contributions are partial and exploratory rather than definitive, and precisely in this lies their value: they invite further debate and highlight the need for methodological, theoretical, and thematic diversity.

Such openness is important because emotions are not merely objects of measurement or coding, but dimensions of how people experience and interpret the world [Silva Luna & Bering, 2020]. Attending to them means recognising vulnerability, difference, and the ways science is felt in relation to backgrounds and circumstances. Science communication unfolds in a technoscientific world marked by both promise and precarity. People live with science not as detached observers but as feeling subjects, whose identities, hopes, and anxieties are bound up with scientific knowledge and its products [Davies, 2024]. To make emotions central in our scholarship is therefore not only a methodological choice but also an ethical commitment: to see audiences, practitioners, and scientists alike as embodied beings whose affective lives matter [Ahmed, 2004; Wray, 2021].

This special issue takes up that commitment. Across their variety, the six contributions illustrate what such an orientation can look like in practice: whether by tracing how fear, silence, and uncertainty contour communication in times of crisis; by analysing the affective cues through which scientists and technologies seek to build trust; or by showing how awe, empathy, and other emotions emerge in theatre, astronomy, and everyday encounters. These studies differ in theories, methods, and contexts, but they share a concern with treating emotions as central to the practice and experience of science communication. Our aim in bringing them together is not to impose closure, but to open space for further conversation. We hope this issue will serve as both a reference point and an invitation, encouraging new voices, perspectives, and methods to engage with the affective dimensions of science communication in the years to come.

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