Word choice matters in weather communications

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New research from UGA suggests that some words used to motivate people to action in the face of bad weather may backfire. Credit: Lisa Robbins/UGA

When a storm like Hurricane Zeta is heading for vulnerable shorelines, meteorologists and local officials need people to act fast. And the words they use when addressing the public can mean the difference between people getting to safety or trying to stick it out until it's too late.

Words like "violent," "harsh," "wild" and "unpredictable" are more likely to make people feel helpless and out of control when faced with extreme weather, according to new research from the University of Georgia. And that might put them off from making rational safety precautions.

"Certain words just pack emotional associations," said Alan Stewart, a professor in UGA's Department of Counseling and Human Development Services based in the Mary Frances Early College of Education. "It's important to find that middle ground where you alert the public and you empower them, but you don't overwhelm them."

The study, published by the journal Atmosphere, looked at 141 commonly used words to describe weather, ranging from "crisp" and "clear" to "dark" and "depressing."

A sample of 420 participants rated each term along four dimensions on a slider scale:

- whether the word made them feel happy or sad
- calm or excited
- in control or passive
- and whether they viewed the word as indicating predictable or unpredictable conditions.

Words describing sunny conditions and mild weather received the highest ratings of happiness. Participants also reported feeling more in control with these terms. "Tornado," "hurricane" and the warnings that accompany them elicited feelings of being out of control, surprise and unhappy excitement among participants in the study.

Certain phrases, such as "tornado watch" or "severe thunderstorm warning," are warranted in weather alerts to properly convey the danger of an impending storm. And the National Weather Service does a good job of providing information without unnecessary embellishment, Stewart said.

But in places such as social media and live weather coverage, communication about storms often uses multiple negative terms strung together, which can sometimes give the impression that there's little people can do to stay safe in the face of potentially dangerous weather.

Such phrasing can also backfire if a storm ends up being milder than expected and another storm comes along soon after.

"Especially in a season where there's a lot of bad weather, people can get warning fatigue," Stewart said. "They'll be thinking, 'Not another one of these things,' and as a result they may do less to get ready for the impact."

The data from the study could be used to retroactively see how media coverage may have affected the public's response to looming bad weather events, particularly storm systems that receive a lot of coverage prior to actually occurring. Forecasters and reporters could then use that knowledge to inform the framing of future storms.

Provided by University of Georgia