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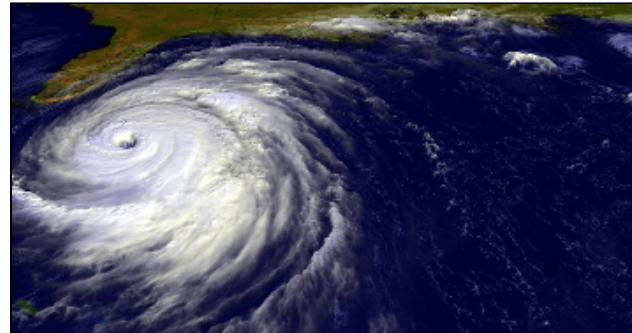
Stereotypes Might Make 'Female' Hurricanes Deadlier

People may get fatally lax in preparing for severe storms with women's names

By Bruce Bower
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For decades, meteorologists have been giving hurricanes and tropical storms human names. Hurricanes are named in alphabetical order, alternating between male and female names. A recent study at the University of Illinois at Urbana-Champaign discovered that due to gender stereotypes, hurricanes given female names are not always treated equally. As you read, take note of the different types and sources of data that the researchers collected and analyzed, and the conclusions they drew.

- [1] People view hurricanes with names such as Alexandra and Kate as less dangerous than hurricanes called, say, Alexander and Danny, reports a team led by business graduate student Kiju Jung and psychologist Sharon Shavitt, both of the University of Illinois at Urbana-Champaign. As a result, those in the path of an oncoming “female” hurricane are less likely to evacuate or take other precautions, upping the storm’s death toll, the researchers conclude June 2 in the Proceedings of the National Academy of Sciences.



"Hurricane Jeanne" is licensed under CC BY-NC-ND 2.0.

Other investigators, however, question that conclusion, which they say is based on too little data to give a complete picture.

“Giving human names to hurricanes may bring to mind qualities that are stereotypically associated with women or men, like mildness or aggressiveness, causing perceived qualities of the hurricane to shift toward those traits,” Shavitt says.

Her team analyzed data on fatalities¹ caused by 94 Atlantic hurricanes between 1950 and 2012. A severe hurricane with a masculine name caused an average of about 15 deaths, compared with an average of around 42 deaths for a severe hurricane with a feminine name, the researchers estimate. So, changing a severe hurricane’s name from, say, Charley to Eloise could nearly triple its death toll.

- [5] In six lab experiments, a total of 745 college students and 516 paid online volunteers read information about the severity of a hurricane with a female or male name. Participants increasingly downplayed the intensity and risk of hurricanes and became less willing to comply with voluntary evacuation requests as names became more feminine. For instance, Hurricane Dolly was viewed as less intense on average than Hurricane Bertha, which was seen as weaker than Hurricane Omar.

1. **Fatality (noun):** death

Don't alert the National Hurricane Center yet, cautions psychologist Clark McCauley of Bryn Mawr College in Pennsylvania. A larger sample of male and female storms is needed to confirm that more people die in female versus male hurricanes, McCauley says. The new study compares female hurricanes that have been named since 1950 with male hurricanes that have been named only since 1979, muddying any trends in the data, he adds. In 1979, federal officials began alternating between male and female names for hurricanes.

Although statistically significant, relationships between hurricane names and volunteers' perceptions of hurricane risk were relatively weak in the new study, McCauley says. Much stronger associations are needed to conclude that sex stereotypes largely accounted for a tripling of death rates from female hurricanes, he contends.

Average death rates for U.S. hurricanes have declined since 1979, consistent with the idea that naming only half the storms after females rather than all of them might have helped to reduce fatalities, Shavitt responds. And in her experiments, volunteers' estimates of storms' riskiness systematically declined as names became more feminine, suggesting that a subtle form of sexism influences people's willingness to prepare for hurricanes, she proposes. Weather officials perhaps should name hurricanes that require evacuation after dangerous animals and find neutral names for those deemed less urgent.

It's far from clear that female stereotypes caused more hurricane deaths in the new study, argues psychologist Yueh-Ting Lee of the University of Toledo in Ohio. Other factors, such as whether storms were strong and fast-moving or moderate and slow-moving, could have affected preparedness and created a false statistical impression that gender expectations played a role, he says.

- [10] Fear-inducing words, not gender references, best motivate people to perceive dangers quickly and take defensive action, Lee proposes. So Hurricane Tiger would cause fewer deaths than Hurricane Pigeon, much like Hurricane Omar compared with Hurricane Dolly, he predicts. Earlier studies found that stereotypes of males as more aggressive than females, and of females as warmer and more caring than males, are generally accurate, he adds. If feminine-named hurricanes are shown to be especially deadly in further studies, it may be due to a tendency to attribute a positive female stereotype to those storms.

Whether people actually take fewer precautions against real-life hurricanes with feminine names than storms with male names is still an open question, says psychologist David Funder of the University of California, Riverside. "A hurricane bearing down on your city surely invokes different psychological processes than reading an online scenario about a hurricane."

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Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. In your own words, summarize the central ideas of this article. [RI.2]

2. Which sentence best describes how the information in this article is organized? [RI.5]

- A. The author describes the methods used by the researchers to conduct the study, then explains why the study's findings were not scientifically valid.
- B. The author describes the study's findings, then lists the ways in which the study could have been conducted in a more scientifically accurate way.
- C. The author explains the purpose of the study, describes the research methods, then lists the different findings of the study.
- D. The author presents the study's findings, explains how the study was conducted, then presents potential problems with the findings.

3. Explain why the evolving history of naming hurricanes by gender may have resulted in a "muddying" of trends in data, as discussed in paragraph 6. [RI.3]

4. PART A: As it is used in paragraph 5, the word "severity" most closely means: [RI.4]

- A. Strictness
- B. Dangerousness
- C. Cruelty
- D. Difficulty

5. PART B: Which word from the paragraph provides the best context for determining the meaning of “severity”? [RI.1]
- A. Risk
 - B. Downplayed
 - C. Less willing
 - D. Comply

