



# IS THIS THING ON? The Role of Broadcast Meteorologists as Risk Communicators of Severe Weather Preparedness: 10 Years after Hurricane Katrina

Tyra L. Brown, NOVA Southeastern University - Department of Conflict Analysis & Resolution

## Introduction

The convergence of meteorology and media creates a complex landscape from which the weather story must be told with accuracy while using language and visual aids to address audience needs in a balanced manner. As a weather media event, Hurricane Katrina demonstrated the dual role of weathercasting as both a function of dissemination and translation of scientific information, and a form of risk communication.

Although advanced hurricane forecasting has led to more accurate predictions and longer lead times, this has not translated into increased hurricane preparedness among affected households. The popular notion that accurate forecasting will lead to improved individual preparedness and more resilient communities is inaccurate, especially in cases of high-impact events such as hurricanes. In contrast, this research posits that social attitudes and behaviors toward weather emergencies may be most influenced by media.

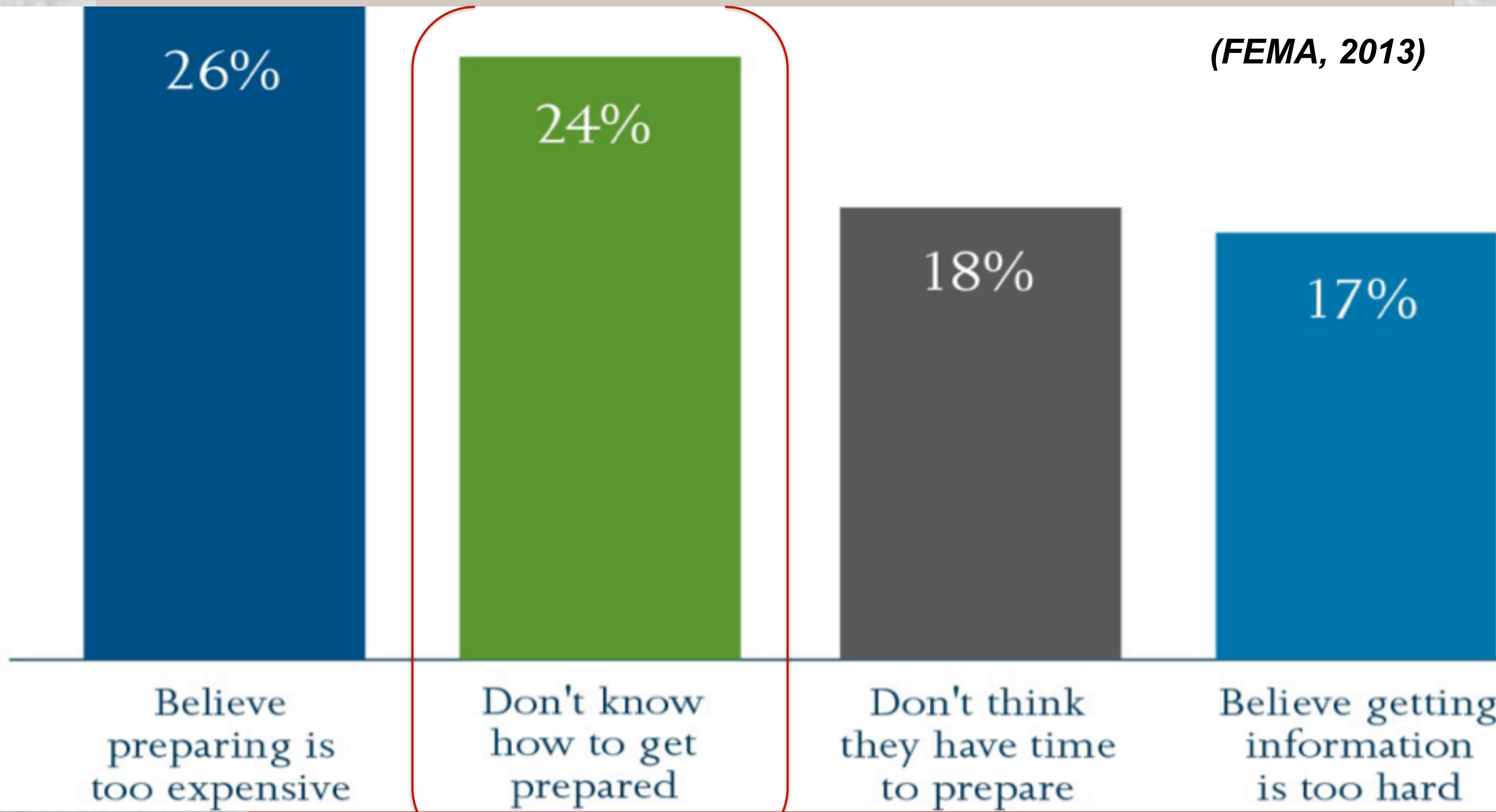
Despite the growing number of weather information dissemination methods available to the public, television news remains the primary media source for most of the general U.S. population. In the case of severe weather events, news channels experience a significant spike in viewership as individuals seek to understand what is happening and how to ensure their safety. Hence what one learns about weather disasters and how to prepare for them, is largely obtained through media. Weathercasting creates a symbolic environment of observational learning. In this environment broadcast meteorologists communicate both weather and risk information through weathercasts.

This study seeks to examine if weathercasts framed hurricane preparedness through visual representation and how this may or may not reduce efficacy barriers. Additionally, the study explores how the use of frames in weathercasting could lead to a fundamental social change toward weather preparedness.

## Significance

Today in the U.S. the greatest risk to public health and safety are natural disasters. Over 80% of all public emergencies are the result of extreme weather. A prepared citizenry is necessary to mitigate property damages and reduce the risk of bodily harm.

Adequate preparation for high impact weather emergencies requires an on-going planning process that involves understanding the threat, knowing what precautions to take, and having access to resources. Understanding how audiovisual aids can enhance efficacy beliefs, weathercasts could be a most effective means by which to inform, enable, and motivate preparedness behaviors.



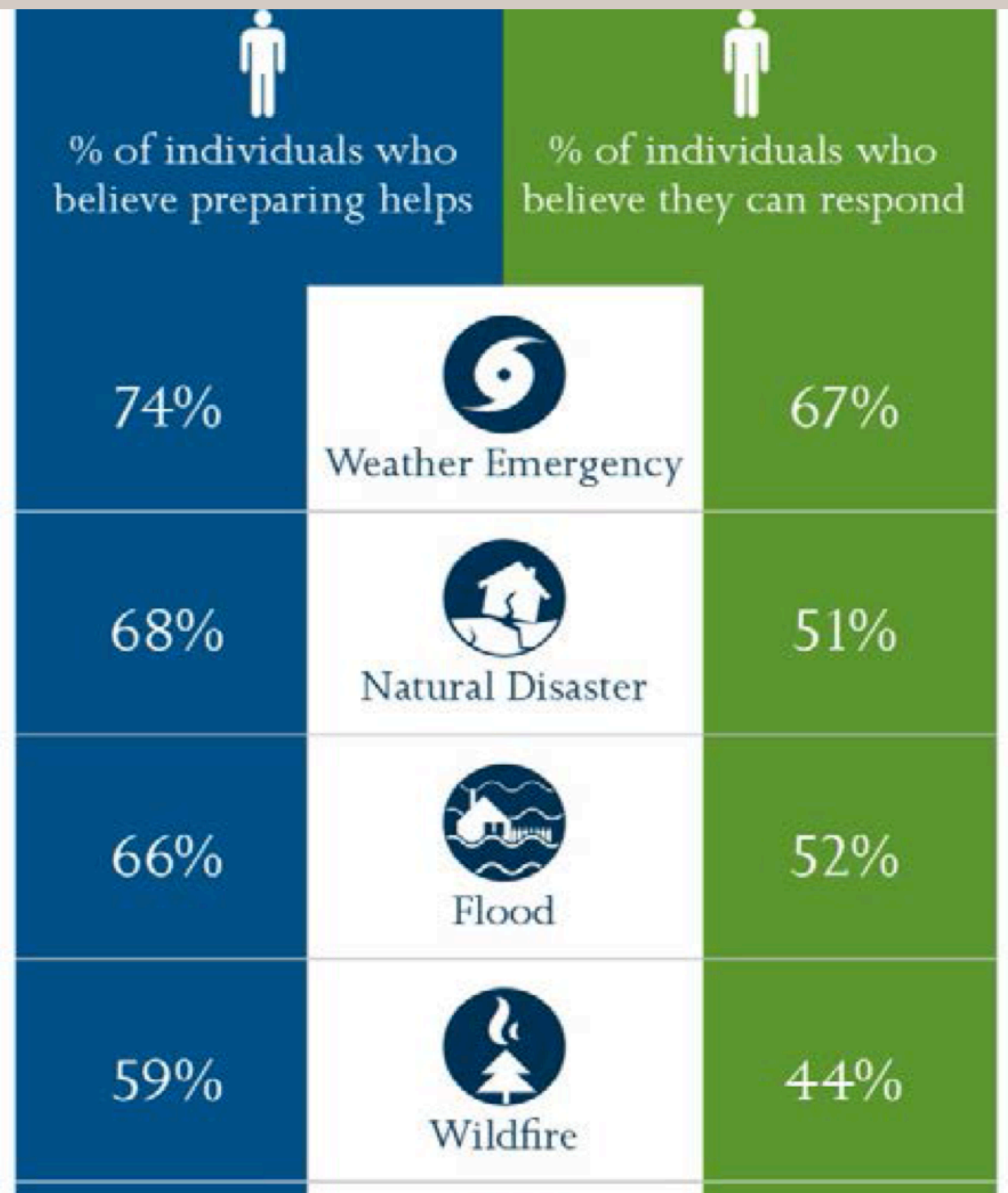
## Background/Previous Research

Communication research has shown mass media effects to have a profound impact on sociocognitive processes. Mediated messages carry information that affect and shape social practices. These messages are interpreted through four major subfunctions of social modeling. Social cognitive theory posits that observational learning is most effective when modeling shows the process by which a desired behavior is accomplished. This increases self-efficacy and the likelihood of the behavior being adopted. Disaster research often examines media from the aspect of public use and as a communication tool during a hazardous event. This research will focus on media attributes and factors that contribute to preparedness behavior performance.

## Questions

Do weathercasts frame the issue of hurricane preparedness leading up to landfall?

Do weathercasts provide viewers with visuals representations that model hurricane preparedness behaviors?



## Proposed Methodology

### Design

Based on a conflict-systems framework, the study uses an interpretivist approach to explore and contextualize visual representations of preparedness actions in weathercasts. Drawing from the social cognitive theory and framing as a theory of media effects, this study will explore how local and national televised weathercasts present the issue of preparedness and the potential correlation to viewers' perceived efficacy.

### Methodology

A content analysis will be performed on weathercasts from four television news stations (local and national) during Aug. 23-29, 2005. Using mixed-methods, frame elements of the audiovisual text will be coded and analyzed for whether it included a preparedness perspective.



## Acknowledgements

The author wishes to acknowledge the following individuals for their guidance and support in the process of this dissertation research project: Dr. Alexia Georgakopolous (NSU), Dr. Elena Bastidas (NSU) and Dr. Hugh Gladwin (FIU)

## References

Bryant, J., & Oliver, M. B. (2009). Media effects: Advances in theory and research. New York: Routledge.  
Henson, R. (2013). Weather on the Air: A History of Broadcast Meteorology. Springer Science & Business Media.  
Meyrowitz, J. (1985). No Sense of Place: The Impact of Electronic Media on Social Behavior. Oxford University Press.  
Peacock, W. G., Morrow, B. H., & Gladwin, H. (1997). Hurricane Andrew: Ethnicity, Gender, and the Sociology of Disasters. Routledge.  
Poe, M. T. (2010). A History of Communications: Media and Society from the Evolution of Speech to the Internet. Cambridge University Press.  
Sherman-Morris, K. (2013). The Public Response to Hazardous Weather Events: 25 Years of Research. Geography Compass, 7(10), 669–685. doi:10.1111/gec3.12076  
U.S. Department of Homeland Security, Federal Emergency Management Agency. (2013). Preparedness in America: Research Insights to Increase Individual, Organizational, and Community Action. Retrieved from <http://www.fema.gov/media-library-data/662ad7b4a323dcf07b829ce0c5b77ad9/2012+FEMA+National+Survey+Report.pdf>

**Contact Information:** Tyra L. Brown  
tb915@nova.edu  
www.tyrabrown.info

For more information about the research please scan the QR code to the right for access to the full proposal and data as it becomes available.

