Chapman University has published the results of a state-wide study on the communication campaigns California has been employing to address its ongoing drought. The study looked at current message strategies aimed to reduce residential water use in California.

"What we learned was counterintuitive to what we expected," said Jake Liang, Ph.D., assistant professor in Chapman's School of Communication, and lead author on the study. "Conservation campaigns, regardless of the strategy - in general - led to participants having an attitude change in a negative direction—meaning they were less inclined to take action to conserve water after seeing the messages. This calls for a re-examination of the conservation strategies that the state is currently using."

The study was conducted in three phases. The first phase identified 12 strategies of ongoing water conservation messages in California. These were: conservation tips, loss aversion, evidence of drought, social norms, social comparison, social identity, referrals and redirections, policies, goal setting, commitment, humor and direct requests. The most common strategies were conservation tips, which refer to messages that directly provide the individual with any type of content, tips and/or strategies to save water; and referrals and redirection, which refers to messages that aim to direct a person to another source of information about conservation.

The second phase looked at current California conservation campaigns, such as Save Our Water, and categorized them according to the strategies used in phase 1. In phase 3 participants’ attitudes were assessed before reading a water conservation message and again afterward. In this phase the researchers focused specifically on three strategies: loss aversion, evidence of drought, and conservation tips and how effective they were individually and used in combinations. These three strategies were chosen for testing because they are directly related to message design. They can be implemented by campaign practitioners immediately after reading the study. Other strategies require additional information or efforts such as legislation if a campaign practitioner is to employ policies.

Surprisingly, the data revealed that exposure to pro-conservation messages actually decreased participants' attitude toward water conservation. These results suggest that initial attitudes are generally highly favorable toward conservation but can be negatively affected after message exposure. Given this finding, campaign practitioners may need to reconsider using these strategies or at least monitor if their use indeed leads to the well-intended results.

Although their study did not test directly for the specific reason for the negative effect, they discussed some possibilities:

- People feel that conservation messages threatened their freedom to choose,
- Which message strategy is used,
- The possibility that an individual simply cannot conserve water,
- The source's credibility is questioned.

"Communication messages remain a golden opportunity to influence people's attitudes and water use without incurring the high financial costs of legislating or retrofitting water systems in the midst of such an ongoing crisis," said Dr. Liang.

"If carbon emissions continue to increase, NASA projects a dramatic increase in the likelihood of a
mega-drought in the Southwest and Central Plains within the next 35 years," said Kerk Kee, Ph.D., associate professor in Chapman's School of Communication and a co-author on the study. "Therefore the need to develop effective message campaigns for water conservation is more crucial than ever."

The study called, Running out of Water! Developing a Message Typology and Evaluating Message Effects on Attitude toward Water Conservation, is published in the journal *Environmental Communication*. The sample of participants was 180 U.S. adults who reside in California. The average age was 49 and 50 percent of the participants were female. Conservations messages were randomly sampled from campaigns in 2014 and 2015. The dataset reflects a sample of 23 conservation organizations, with a total of 100 conservation messages.

**More information:** *Environmental Communication* [http://www.tandfonline.com/doi...7524032.2017.1288648](http://www.tandfonline.com/doi...7524032.2017.1288648)

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