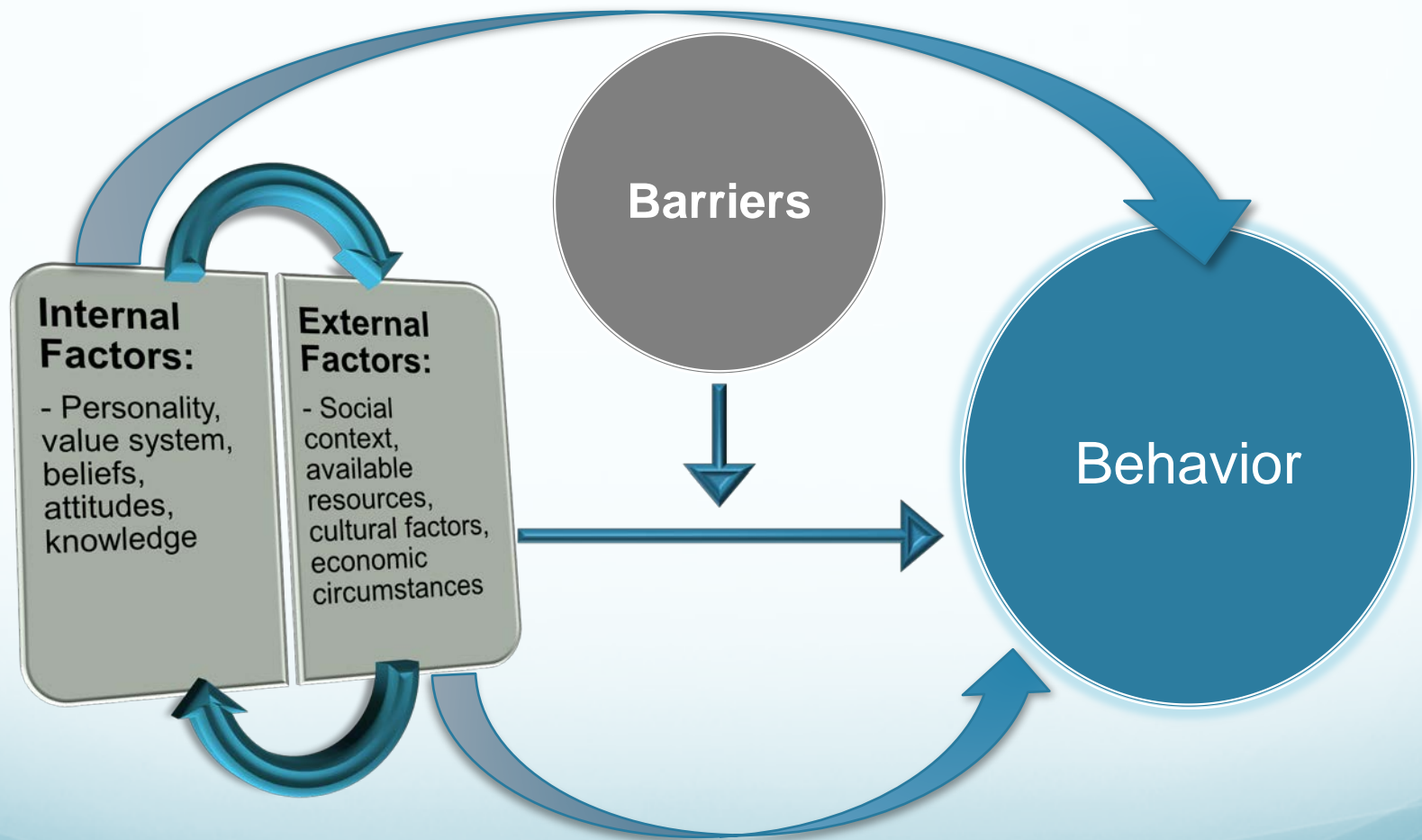


How do contextual and attitudinal factors influence tradeoffs among energy service priorities?

Evan Johnson

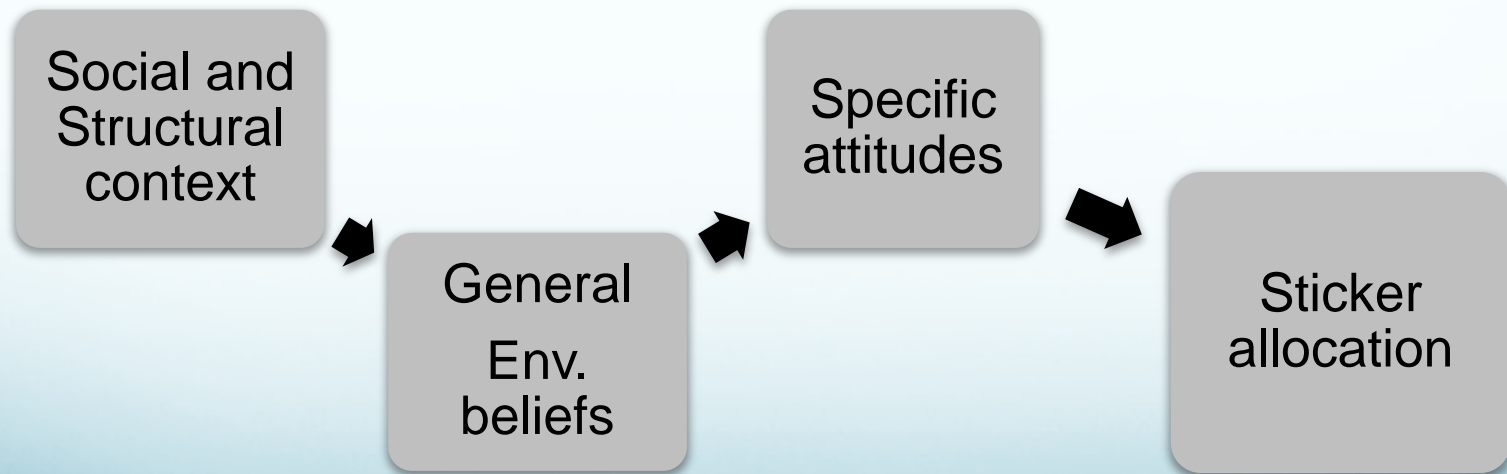
Department of Public Policy
UNC - Chapel Hill
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Model of Pro-environmental Behavior



Conceptual Model

- Examining direct effects of social structural and attitudinal influences
- 4 causal levels



Survey instrument

My Electric Service Priorities

61. In this question, you will be using the 20 stickers that are enclosed with this booklet. **Before you begin**, take a minute and **read all eight statements** shown below.

Now, we would like for you to describe **your electric service priorities** using the eight statements listed below. To do this, think about how important each of these statements is to you.

Using the stickers provided, please distribute **all 20 stickers** across the eight statements to show **how important each item is to you**. Put more stickers in the boxes for statements that are more important to you. Put fewer stickers in the boxes for statements that are less important to you. You may distribute the stickers across the statements in any way you wish as long as you **Use All 20 Stickers**.

The overall reliability of my electric service, that is, the frequency of power outages, flickers, surges, etc.

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The overall cost of my electricity.

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My electric company offering optional energy efficiency and conservation programs that provide incentives and rewards for me to use electricity more efficiently.



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Empirical Models

- **Negative binomial regression**

$$(1) \text{Prob}(Y_{\text{env. protection priority count}} | \lambda) = e^{-\lambda\mu} (\lambda_i \mu_i)^{y_i} / y_i!$$

$$(2) \text{Prob}(Y_{\text{renewable energy priority count}} | \lambda) = e^{-\lambda\mu} (\lambda_i \mu_i)^{y_i} / y_i!$$

- **Ordinary least squares**

$$(3) Y_{\text{energy service priorities}_i} = \alpha + \beta_{\text{social structural conditions}_i} + \beta_{\text{env.beliefs}_i} + \beta_{\text{env.attitudes}_i} + \beta_{\text{controls}_i} + \mu_i$$

Preliminary results – NB coefficients on key social structural variables

	Model 1 – environmental protection priority	Model 2 – renewable energy priority
High internet access	0.0446	0.132*
Heavy Social Networker	-0.0585	-0.0852
Income	0.0223	0.00843
Advanced degree	0.106***	0.105***

Preliminary results – NB coefficients on key attitudinal variables

	Model 1 – environmental protection priority	Model 2 – renewable energy priority
“Climate Change is real and we need to do something about it”	0.189^{***}	0.0940^{***}
“We should conserve energy to protect future generations”	0.0550^{***}	0.0410^{**}
“my household is conscientious about recycling”	0.0223 ^{**}	0.0203 [*]
“We should reduce household energy use”	0.0374 [*]	0.0447 ^{**}
“It is everyone’s duty to conserve energy”	-0.0322 [*]	-0.0314 ⁺