

Climate Change Knowledge, Beliefs, and Behaviors: A Profile of High School Students in Phoenix, AZ

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Young people may not be as informed about climate change, but they do believe it is being caused by humans.

- Children tend to be less knowledgeable about the topic than adults, and often confuse climate change with other environmental phenomenon (such as global warming, and ozone depletion).
- Having a biospheric-altruistic value orientation (a belief that a behavior will benefit the environment and others) can influence environmental behavior.

Today's young people will be impacted by climate change, so understanding what influences their beliefs and behavior choices can provide insight into more effective communication and education strategies.

Data Collection

- A three-part survey was conducted with five high school classes at a public high school in a suburban neighborhood in Phoenix, AZ.
- Questions addressed students' climate change knowledge and beliefs, behavior choices, and demographic information.

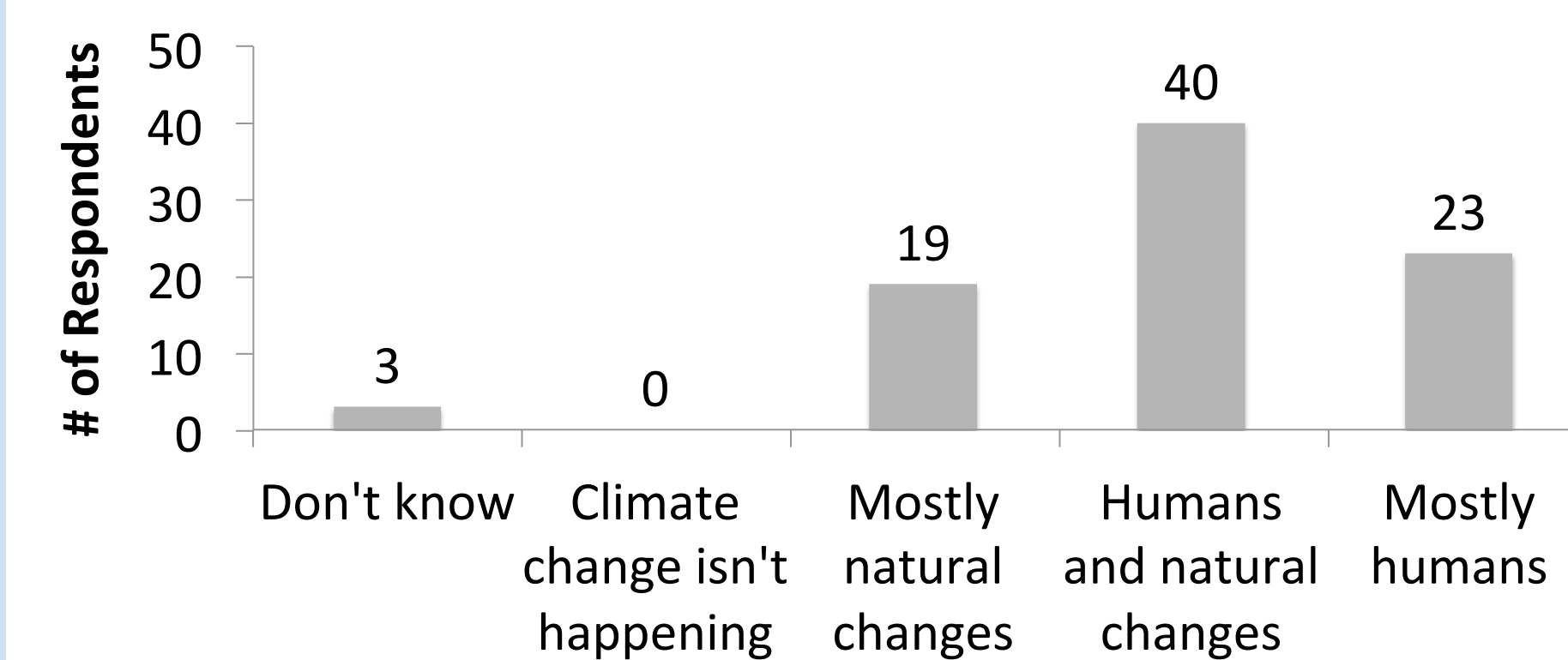
Number of Students	Mean Year Born (Mean Age)	% Male % Female	% Soph % Junior % Senior
85	1997 (17)	46% 54%	2.4% 75.3% 22.4%

Data Analysis

- Using SPSS, reliability tests showed Cronbach's Alpha to be $>.50$ on all scales used, and in most cases, $>.70$.
- These scales were then used in correlation analysis to uncover relationships between beliefs, knowledge, and behaviors.

What do high school students know and believe about climate change, and what types of behaviors do they exhibit in their everyday lives?

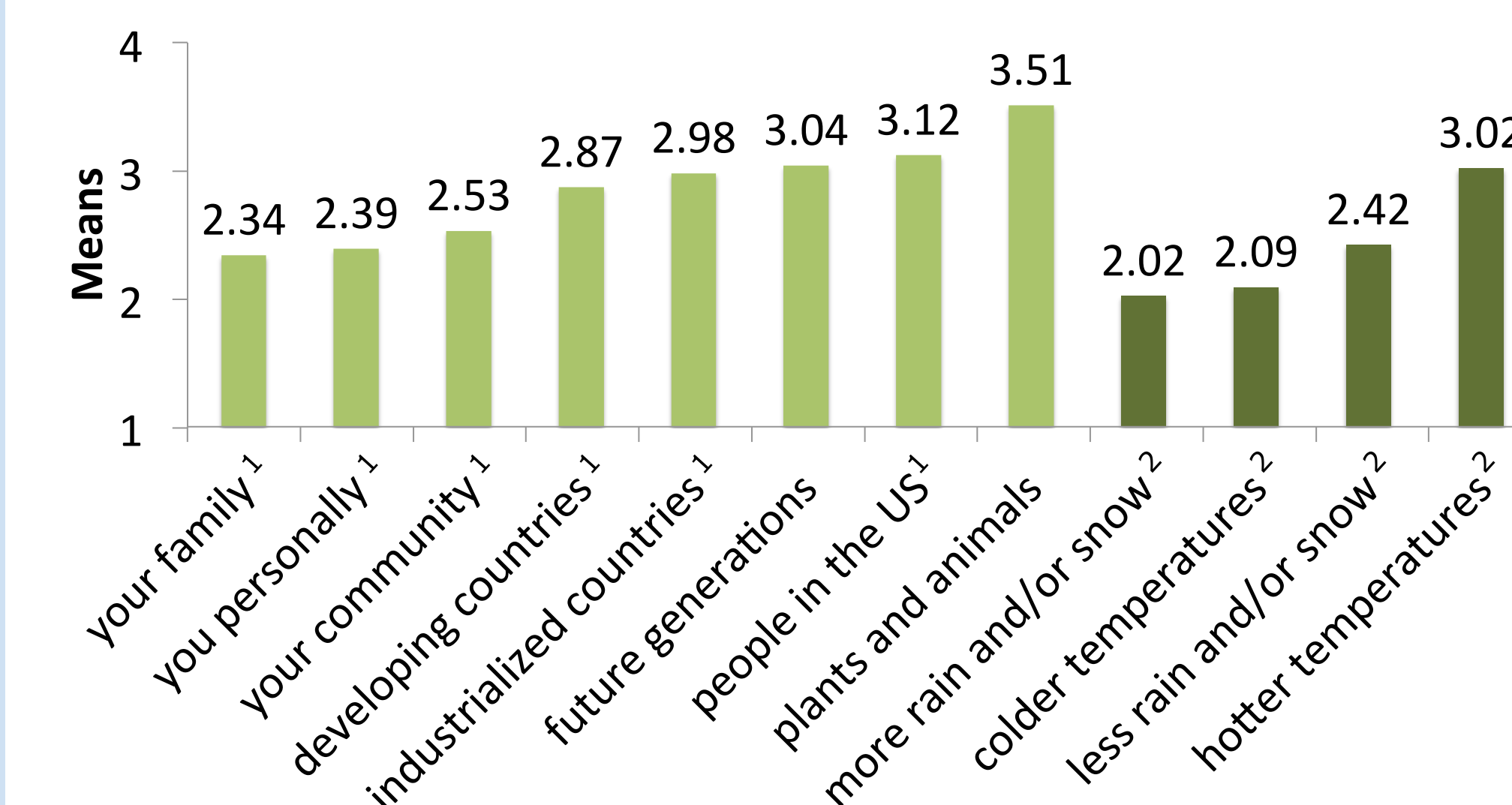
What do you think is the main cause of climate change:



Students think climate change is happening, and most think that **natural changes and humans are the main causes of it.**

How much do you think climate change will affect:

[1=Not at all, 4=A great deal, 0=Don't know]



How do you think climate change will impact you locally?

[1=Not at all, 4=A great deal, 0=Don't know]

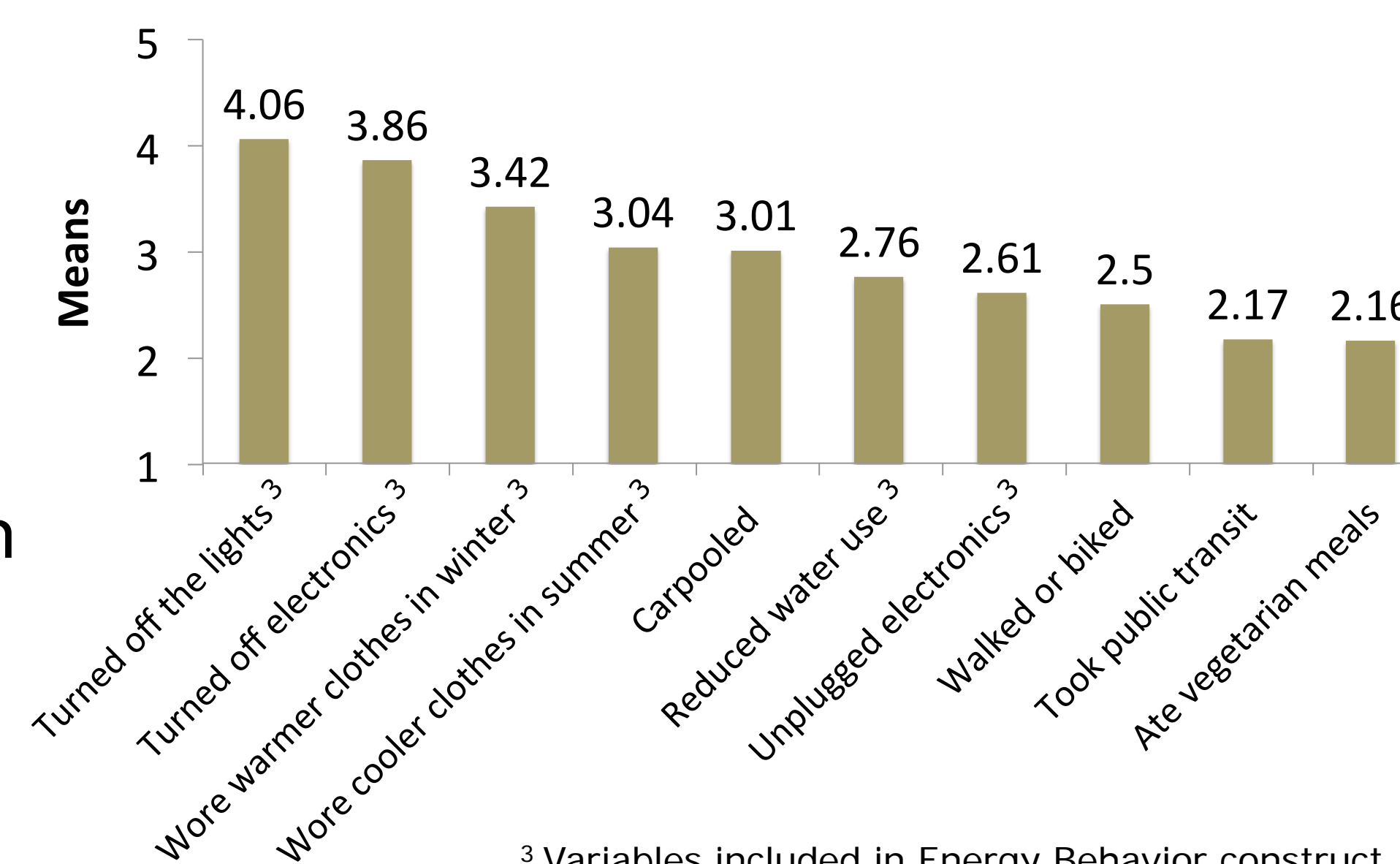
Most students believe **plant and animal species** will be impacted more than themselves, their family, people in other countries, and future generations.

¹ Variables included in Beliefs about Global Impacts construct
² Variables included in Beliefs about Local Impacts construct

How often have you participated in the following:

[1=Never, 5=All of the time]

Students tend to turn off lights and other electronics and wearing warmer clothing in the winter, while they do not often walk or bike, take public transit, or eat vegetarian meals.



³ Variables included in Energy Behavior construct

Are beliefs about climate change related to knowledge and more sustainable behavior choices?

Correlations

Beliefs	Knowledge	Behaviors	
	Knowledge Scale	Frequency of Sustainable Behaviors	Frequency of Energy Efficient Behavior
Beliefs about Global Impacts	.414**	.198	.231*
Beliefs about Local Impacts	.020	.120	.043

* Correlation is significant at the .05 level
** Correlation is significant at the .01 level

- There is a positive correlation between what a student knows and if they believe climate change will cause global impacts.
- **The more a student believes that climate change will cause global impacts, the more frequently they choose energy efficient behaviors.**
- Beliefs about local impacts do not have significant correlations to knowledge or behavior choices.

What do these findings mean?

These **students do not strongly believe that climate change will affect them personally.** By making climate change more personally relevant, students may be more inclined to take action to reduce its impacts.

Students' **behaviors are not strongly correlated to beliefs** about climate change. This indicates there may be **other influences on behavior choices.** Further research, and qualitative analysis from small group discussions with students, could inform alternative behavioral motivations.

Acknowledgements

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