

Listening to Climate Perceptions: What the Comment Box Can Tell Us

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BACKGROUND

In 2011/2012, over 2,700 Extension professionals from eight southeastern states completed a web-based survey to measure perceptions of global climate change. The survey included items developed by researchers at Yale and George Mason Universities to identify audience segments based on global warming beliefs.

Respondents were also given space to type in comments about the survey or climate issues in general. Here, we explore those comments qualitatively to identify themes by the Six America segments and formulate suggestions for educators based on the findings.

The Six Americas are categories of the American public based on survey responses about belief in global warming and willingness to take action on the issue (Figure 1).

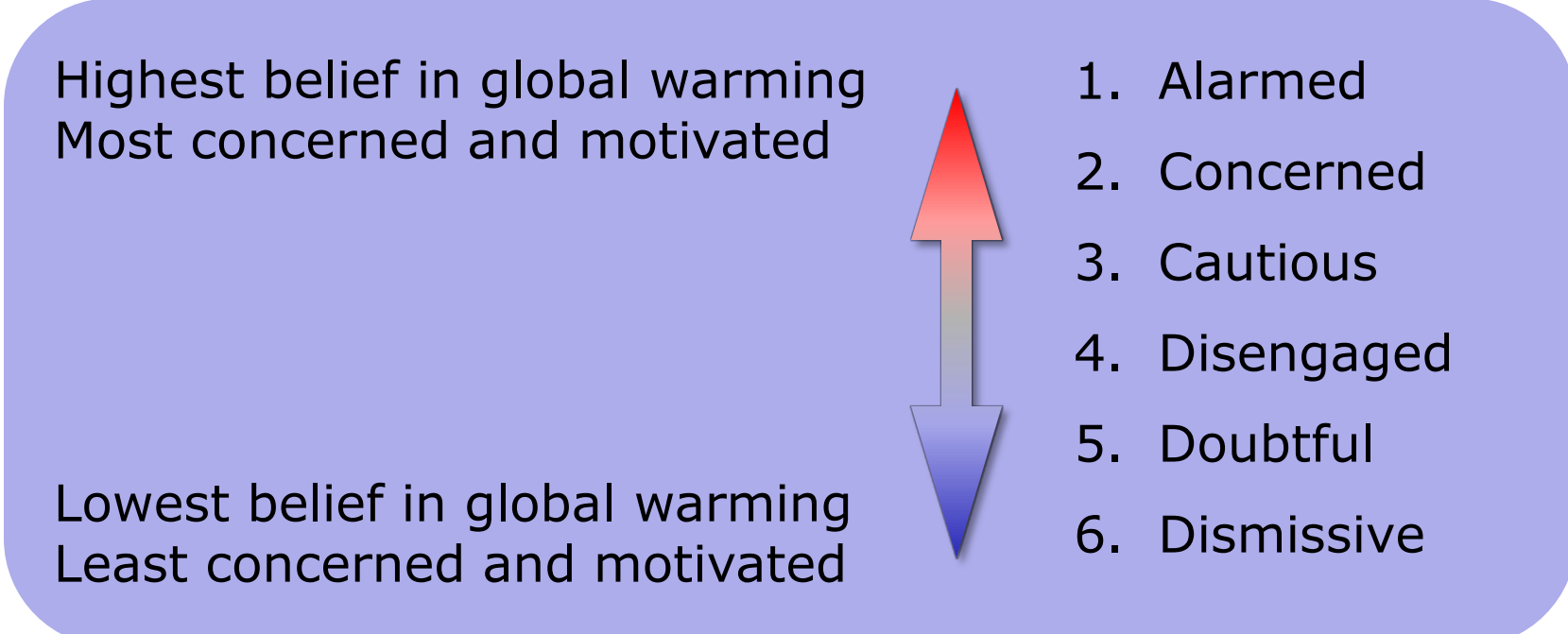


Figure 1: The Six Americas Segments

METHODS

Analysis used grounded theory to develop emergent themes, assign thematic codes to comments, and analyze themes for useful concepts and practical implications.

506 comments were grouped by their Six Americas segment, which followed the pattern of the overall survey (which in turn, mirrored the categorization found in the general public). The Doubtful and Dismissive were more likely to leave a comment when compared to the other segments (Figure 2).

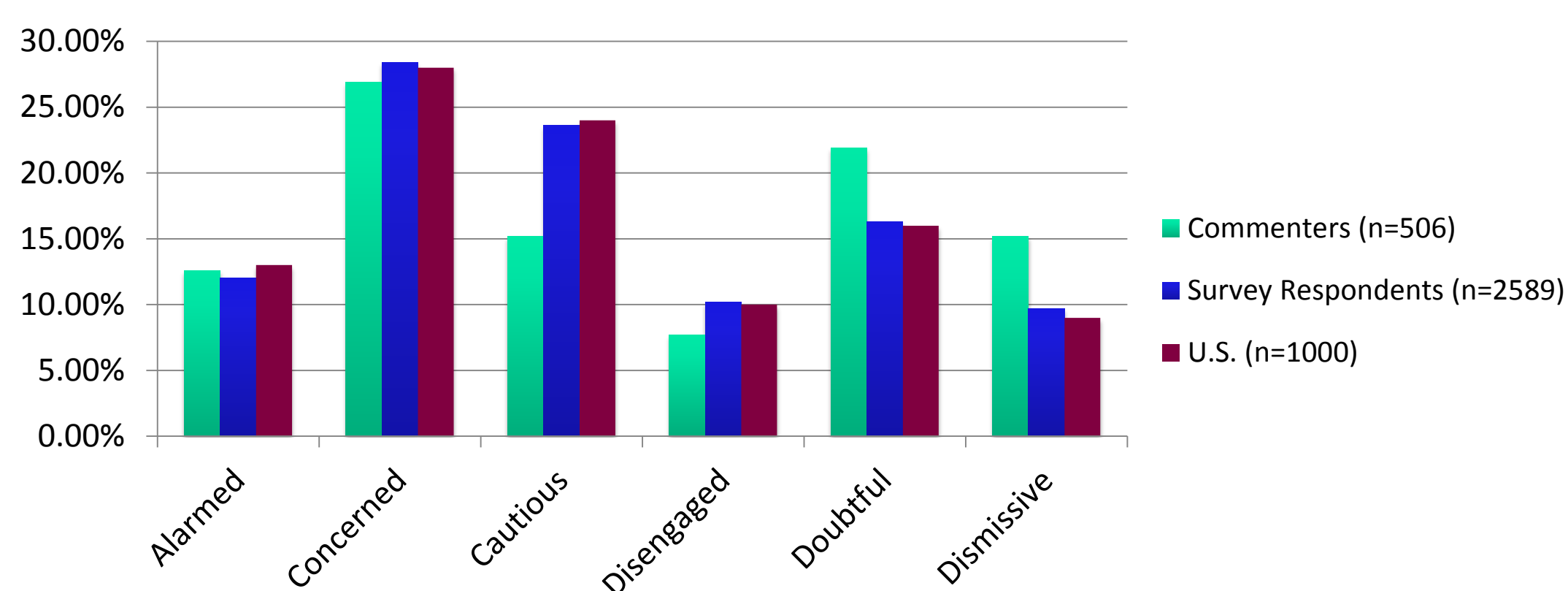


Figure 2: Distribution across the Six Americas categories

Comments by the Disengaged, Doubtful, and Dismissive tended to be longer, as evidenced by an increased average word count (Figure 3).

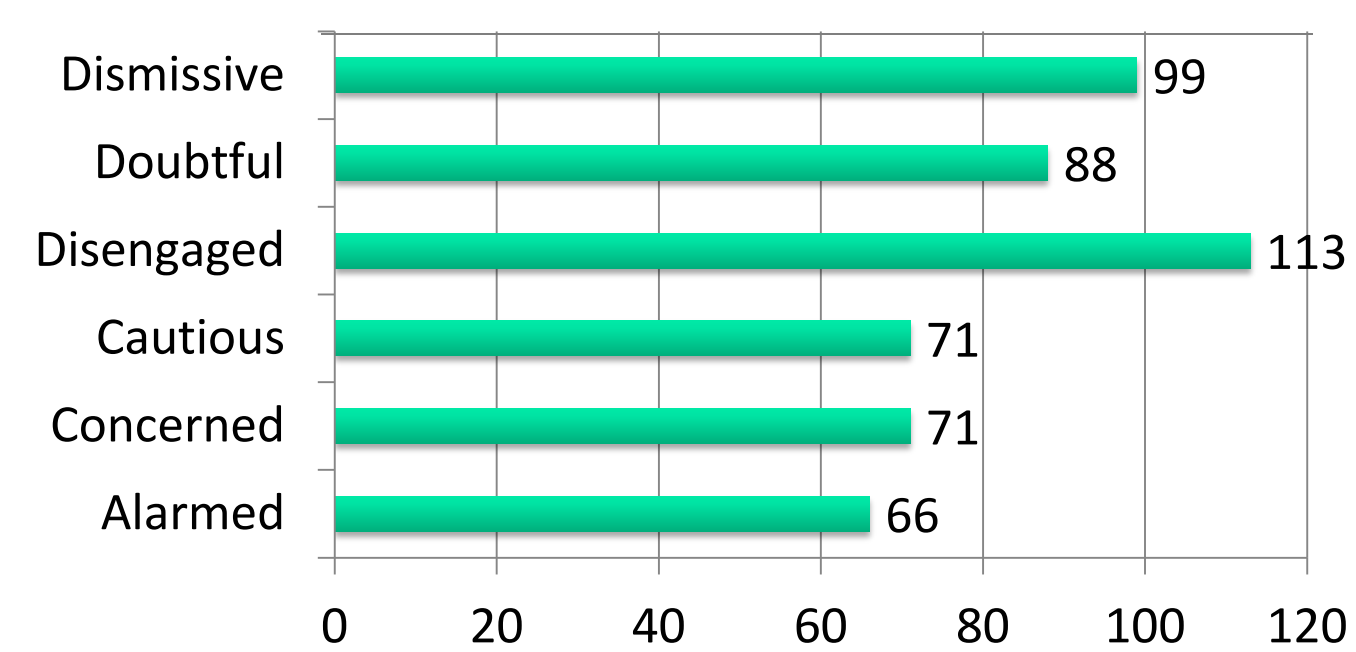
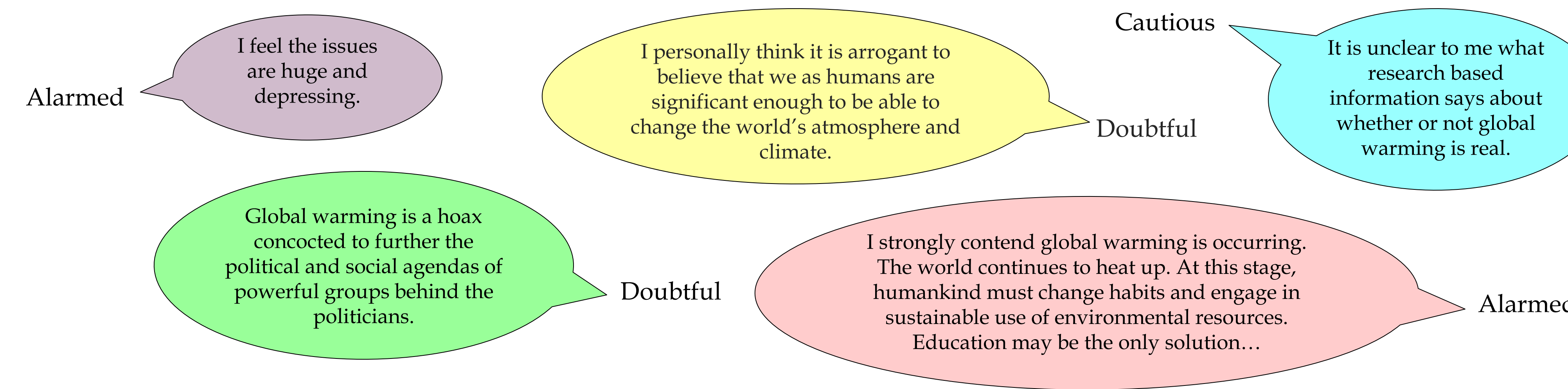


Figure 3: Average comment length in words

Finding 1: Support for the Six Americas

Comments from all six segments suggest the Six Americas designations are truly identifying different perceptions. For example, helplessness, deep worry, and belief in the need for behavior and lifestyle change to address the issue are provided by the Alarmed and Concerned. In contrast, denial, apathy, and belief that climate change is not important are found mostly among the Doubtful and Dismissive. Confusion about the issue abounds in the middle segments, less so among the Alarmed and Dismissive.



IMPLICATIONS

Repeated studies suggest that Americans hold a variety of perceptions on climate change (Leiserowitz et al. 2013). Surveys of farmers and Extension agents display the same diversity (Mayer et al. 2013). Agents and educators should assume that any group is likely to include the full range of opinions. Developing a program that speaks to everyone is the challenge, since information that some people need to hear will cause others to stop listening. Presenting facts as based on solid science, for example, will not entice those who believe scientists are fabricating results.

People are more likely to learn when they feel they are being heard and respected. It may be useful to introduce the diversity of opinions that are probably held by members of the audience; these ideas are expected and welcomed.

Although the Deniers are a challenging audience, they are likely to be a minority, and there are aspects of the issue that they will agree with, such as the following common ground:

- Focus on adaptation rather than mitigation.
- Teach the nature of science (NOS) and other science skills to address confusion.
- Develop programs about being good citizens of the earth.

If people attend an Extension program, they are interested in learning. Providing information in a way they can hear it requires acknowledging their existing knowledge and being a trusted source of information.

Finding 2: Deniers' Belief System

Emotionally-charged and lengthy comments from Doubtful and Dismissive respondents reveal a web of reasons behind Deniers' beliefs (Figure 4).

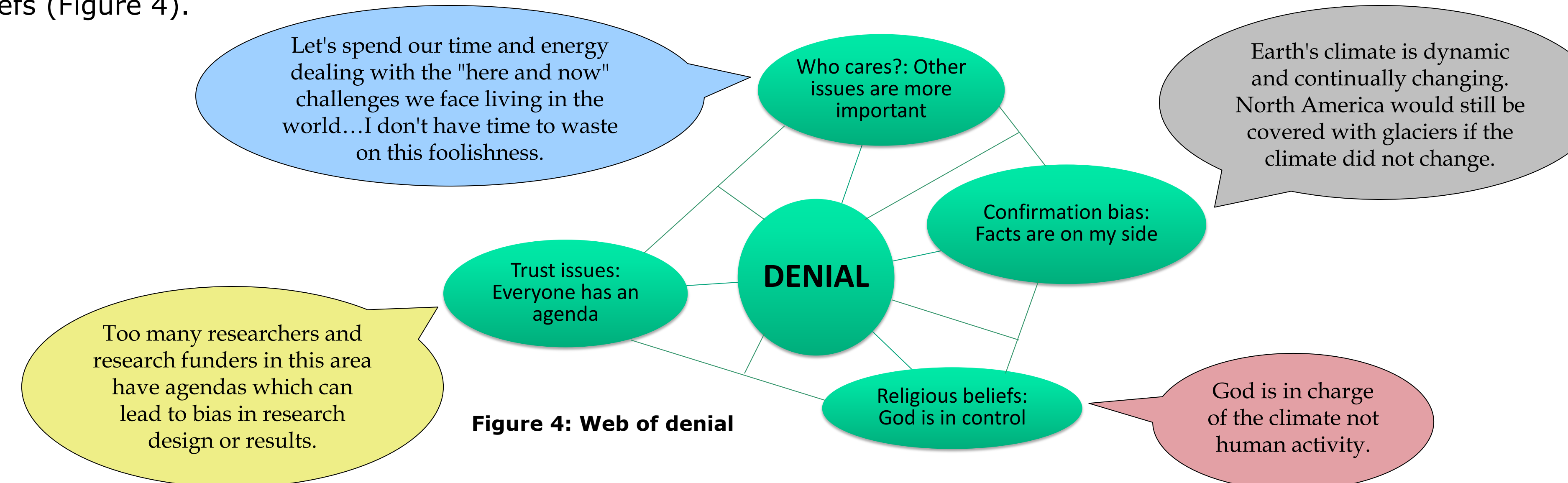


Figure 4: Web of denial

REFERENCES

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Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2013). *Global warming's Six Americas, September 2012*. Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication. <http://environment.yale.edu/climate/publications/Six-Americas-September-2012>

Mayer, F., Adair, S., & Pfaff, A. (2013). *Americans think the climate is changing and support some actions* (Policy Brief NI PB 13-10). Nicholas Institute for Environmental Policy Solutions, Duke University. http://nicholasinstitute.duke.edu/sites/default/files/publications/ni_pb_13-01_0.pdf

Figure 5 was created at <http://www.tagxedo.com> and is copyrighted material (2013).

Finding 3: Common Ground

Despite differences, general agreement across all six segments did exist in seven universal beliefs (Table 1). Figure 5 highlights some of the most popular words and concepts from the 506 comments.

Table 1: Themes with broad support

1. Economy plays a major role.
2. The issue is global.
3. Be a good steward of the earth.
4. Climate education is tricky.
5. Confusion surrounds the issue.
6. Adaptation is important.
7. Agriculture is impacted.

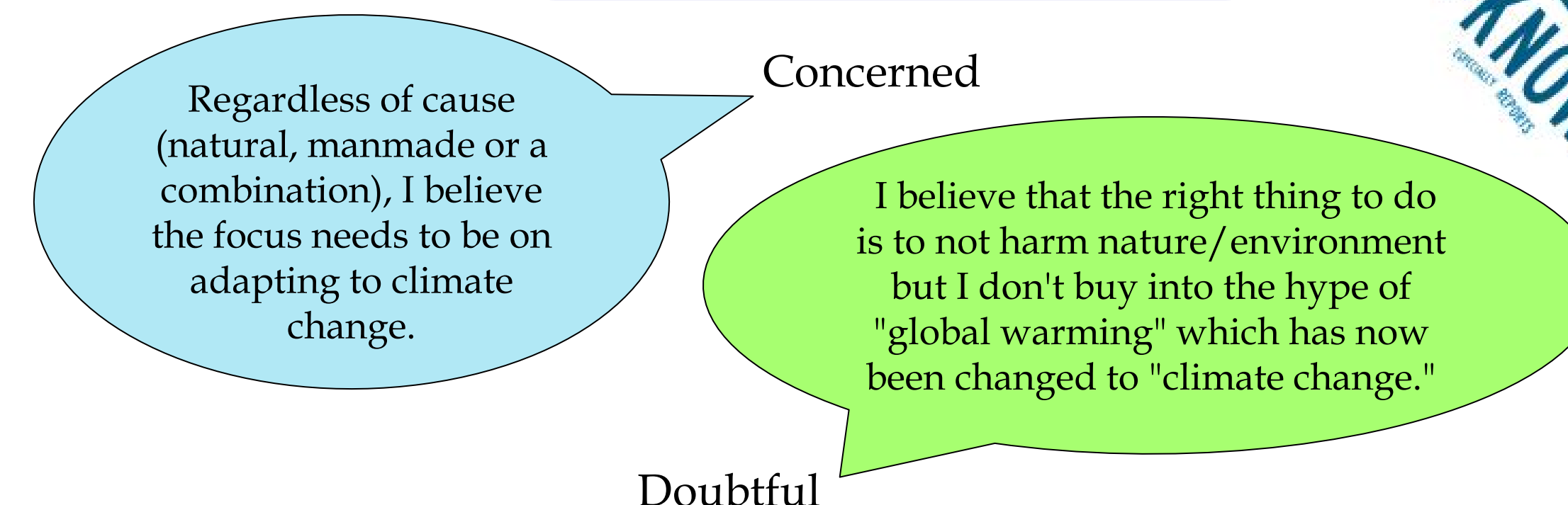


Figure 5: Word cloud generated from submitted comments

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