On depictive testimony, or: how do you assert a graph?

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0. Introduction

Depictions—charts, graphs, diagrams, pictures, maps, etc.—play an important and non-redundant communicative role in scientific testimony.

Example: hockey stick graphs, a central part of climate science communication.

There are (or should be) norms that govern the presentation of depictions akin to those governing linguistic assertions. But what are they?

Thesis: a speaker who uses a depiction is responsible for both content and *perspective*: the perspective must be reliable and the content must be accurate from that perspective.
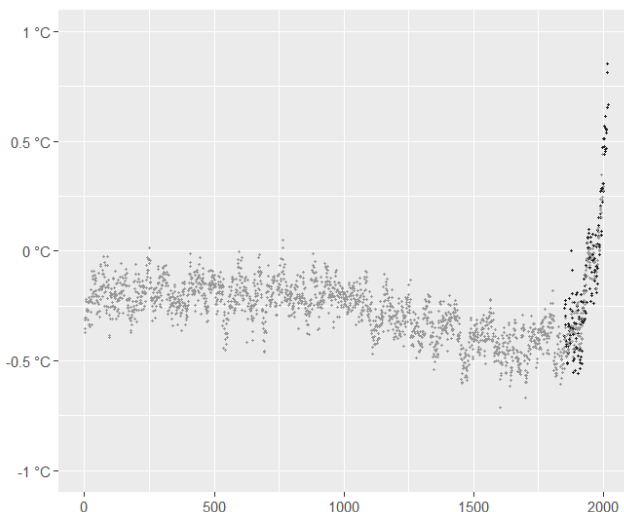

1. A first pass

Linguistic testimony : content of a sentence :: depictive testimony : content of a depiction.

Our example's content is something like: [mean global temperature in 1 CE = .369°C below 20th Century average] & [mean global temperature in 2 CE = .355°C below 20th Century average] & ...

So, if knowledge is the norm of assertion, then you can legitimately present this graph only if you know this content. (Similarly for belief, justified belief, etc.)
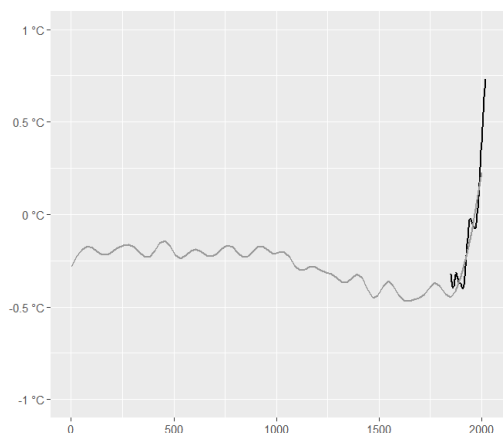

First problem: depictions can be acceptable with involving (known!) distortions.

For example: the line on a smoothed graphs passes through year-temperature pairs that are incorrect.

(Possibly a problem with the semantics.)

Second problem: speakers are often treated as *epistemically* responsible for non-contentful parts of depictions.

(a) "Standard" y axis   (b) Reversed y axis   (c) Expanded y axis
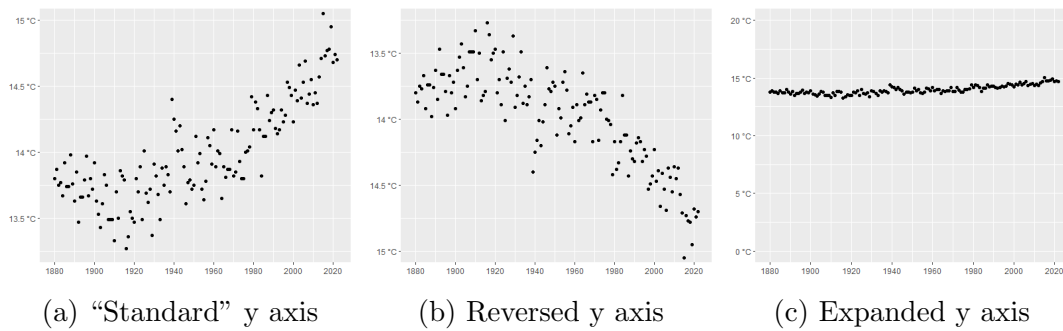
2. Introducing perspectives

Following Camp (2017, 2018, 2019a,b), a *perspective* is "an open-ended disposition to characterize: to encounter, interpret, and respond to some parts of the world in certain ways."

Speakers *influence* the perspective of the audience by way of *framing devices*: representational vehicles that encode perspectives—e.g., the scale on a graph.

Re: **first problem**: distortions etc. are acceptable insofar as they line up with the perspective in the right sort of way. (Compare first and second graph again.)

Re: **second problem**: speakers are (epistemically!) responsible for perspective at least when the audience relies on the speaker's choice of perspective in the same way that they rely on their say-so with respect to content.

Specifically, responsible for choosing a *reliable* perspective: relevant dispositions must be sufficiently truth-conducive.

3. Another way to the same conclusion

A worry: norms of depictive and linguistic testimony should be unified.

Rejoinder: there are lots of linguistic cases akin to my examples (see, e.g., Fraser 2021). Consider summaries (e.g., a sentence or paragraph beginning with "to summarize"):

> When summarizing, it is permissible to distort in service of "the main point."

> When summarizing, speakers are responsible for correctly identifying "the main point."

Summarizing exhibits a nearly-identical relationship to perspectives that we find in depictive testimony: a speaker who summarizes is responsible both for her choice of "main point" and for getting the content right relative to that main point.

Which means: we can think of testifying by way of a depiction as akin to asserting "this picture is a good summary of the relevant subject."

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References

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