not related to the climate at all, but anchors primarily on the feelings of dislike felt by one group towards the other [19].

These insights are especially important to consider given our secondary set of findings. Our analysis suggests that further asymmetries arise between Believers and Disbelievers engagement with disaster words in relation to their levels of affective polarization. Although comparable levels are seen when both groups are within average levels of our metric, moments of increased affective polarization correlate with opposite behaviors for Believers and Disbelievers. Believers appear to shift to other areas of contention, such that their aggression is characterized by non-disaster topics. In contrast, Disbelievers' increased invocation of disaster terms points to more aggressive discussion of these catastrophes, albeit positioned in resistance to explanations related to anthropogenic climate change. This introduces another layer of intractable conflict in beliefs, as major climate events do not appear to invite susceptibility of belief change for Disbelievers. Instead, they potentially incite more vigorous psychological resistance.

Besides the issue of demographic representativeness for online data, other limitations attend the present analysis. First, although we have a large number of tweets to characterize general affective behavior, however, it does not encompass those interactions which do not include our collection keywords. Second, the task of getting an aspect-level sentiment of each tweet towards other entities is a non-trivial task. We use Netmapper which has been used with reasonable accuracy for multiple sentiment level tasks [24], [25]. The focus of this paper is on designing a framework to get affective polarization score between two competing groups and we do not make an effort to improve aspect-level sentiment scores.

Recognizing the foregoing limitations, we also consider avenues for future work in this area. On a conceptual level, researchers may wish to expand the binary system of climate change beliefs assumed here. Affectively polarized dynamics between multiple groups may be a more challenging yet also potentially informative line of inquiry to explore given the diversity of positions held with respect to this complex issue. Acknowledging the non-neutrality of cyberspace, it would also be important to consider whether disinformation maneuvers may also be involved in shaping the wider climate change discussion. Inauthentic bot-like accounts and trolls may unduly influence different groups by manipulating the flow of information or amplifying intergroup aggressions; such factors have been seen in relation to other contentious issues and may potentially be present here as well [24].

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