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'Dy/Normic' Webs of Belief

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Extended Abstract

How do people change their mind? What sort of information, from what sorts of sources, shifts the ways that people understand the world? In social science, much work has been focused on the importance of social norms. Social norms, or perceptions of what is and is not appropriate in an environment, have been shown to powerfully influence attitudes and behaviors (e.g., [5]). Norms, however, can be slippery things (see [6] for a review). For one, they are inherently psychological constructions. People can't *know* what everyone else believes — we have to infer the beliefs of the community based on limited observation, mostly of public behavior. We may be prone to overgeneralize based on elevated salience of some referent, or overinterpret based on the perceived clarity of a signal. And what's even worse, we tend to be egocentric, using our own perspective (whether accurately or not) as a base from which to extrapolate to the views of others [2]. Norms are also forward-looking — we are interested in adjusting our thoughts and beliefs so that we can be feeling and acting appropriately in the future, not just in the present. Evidence that a norm is changing, even if just a few people currently hold a view, can be important information about whether we too should be reconsidering our current stances [4].

In this project, we investigate just how it is that people navigate norms over time. How do they represent the web of beliefs of their world, and how does the evolution of that web shape their own thinking? Specifically, we look at beliefs about the legality of abortion. When we initiated this project in the United States, abortion was still protected by the Supreme Court, though it was clear, thanks to a leaked draft, that it would soon lose that protection. Knowing that this major shock was coming, we set up a longitudinal multi-wave study in which we asked participants not just their own beliefs about abortion, but also what they thought that key informant groups believed: what they thought the beliefs were of their neighbors, of the average American, of the average Democrat, and of the average Republican, and then watched as their beliefs changed over the months after the Dobbs decision removed judicial protection for the right to an abortion in the United States.

Beliefs about abortion are an especially-interesting place to study the impact of norms because, in a sense, they are more invisible than most. Unlike say political beliefs, which are often signaled in conversation or with signs and paraphernalia, beliefs about abortion are often unspoken, if not obscured [3]. There are few awareness-raising campaigns about abortion, and therefore people may have an especially hazy view on the beliefs of others.

We conducted an online survey experiment using Amazon Mechanical Turk across 4 waves in 2022: May, September, October, November, using a previously pre-registered experimental design[1]. In each survey wave, we asked participants to report on their opinions and their beliefs about the opinions of others. To measure the participants' own beliefs, we asked about the extent to which they believed that abortion ought to be legal in most or all cases (using language adapted from Pew surveys of the same topic). To measure the participants' beliefs about the opinions of others, we asked them what they thought that their neighbors believed

[1] An anonymous version of the earlier registration is at `aspredicted.org/58X_T56`

about abortion, what they thought the average American believed about abortion, and what they thought that the average Democrat or Republican believed about abortion. All questions were asked in all waves (in a random order within each wave). To investigate potential moderators and shapers of an individuals' belief networks, we additionally asked about their political orientation, about how closely they felt tied to their neighborhood, and how closely they were following news about the abortion debate. A summary of the data across waves is found in Figure 1.

To take advantage of our ability to capture a rich web of perceived beliefs, we used graphical vector autoregressive models to capture the ebb and flow of attitude change [1]. We are able to look at the within-person temporal dynamics of attitude change — whether changes in one's own beliefs predict changes about the beliefs of others, and whether changes in the beliefs of others predict changes in one's own belief, while also capturing contemporaneous relationships between belief within a wave of data and looking at between-person networks of belief.

Modeling these networks with the data collected (e.g., the temporal networks shown in Figure 2), we can probe for mechanism. Who do people look to as key referents? How do they represent the beliefs of the broader world? Do changes in beliefs about others precede changes in one's own beliefs (as a purely normative account might suggest), or do people change their own views first and then infer that the world is changing around them? Are partisans especially affected by the perceived beliefs of their co-partisans? Are non-political people influenced by their beliefs about the average person? Do people need to feel connected to their neighbors in order to feel influenced by them? And to what extent does someone need to be paying attention to the news in order to be influenced at all. With the data that we have collected, we are beginning to answer a multitude of questions about dynamic/normative webs of belief.

While this data reflects an initial attempt to understand belief development, we believe that this approach to evaluating how peoples beliefs are influenced and evolve is one that shows broad promise empirically, around a wide range of complex and changing topics, but also theoretically, to identify mechanisms that may aid in predicting belief change in other settings too.

References

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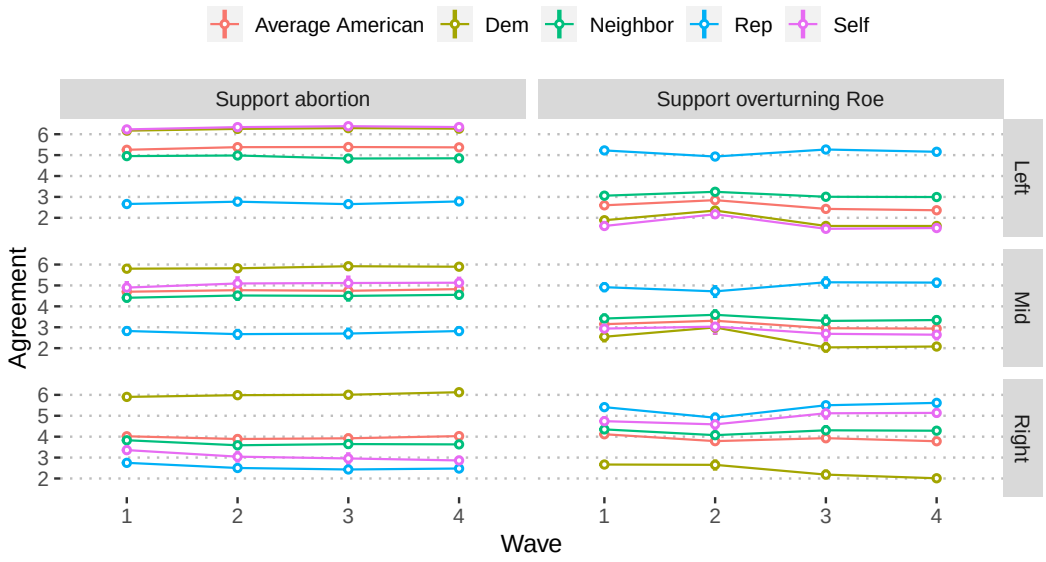

Figure 1: A time series plot of all data grouped by political lean of the participants. Point estimates and 95% compatibility intervals shown.

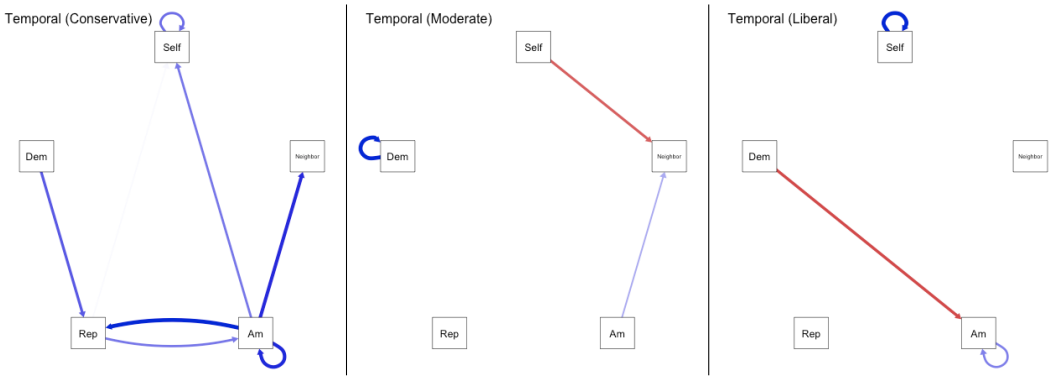

Figure 2: Temporal networks — giving visibility to how the previous time period values influenced those of the next time period — grouped by the political lean of the participants. We see that, for example, conservatives beliefs around abortion were in concordance with other sources around them, while liberal beliefs were self affirming, and lead to a negative trend against the average American (AM on the plot).