

The Politics of Intergroup Attitudes and Stereotypes

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I want to make two points today, the first being that political orientation, the alignment of one's self on conservative to liberal dimension varies systematically on implicit cognition — on two particular core attitude categories — attitudes towards inequality, attitudes towards stability, tradition and order. Then, the second point is a more general one, that implicit cognitive methods have something to add to political psychology research, in general, and so I'll try to make some more general pitch about that. And so apologies to the folks that were at the talk last week. You'll have ten minutes of repeat, which I hope is okay and then new things.

So I'd like to begin with a basic observation, that people have preferences for some groups over others. High status groups are privileged, in not just the social positions, but in mental positions as well. These examples are histogram plots of implicit association test results from a public website that we manage, and an IAT implicit association test, for those who are not psychologists, is an indirect way of measuring attitudes or associations of various kinds. Rather than depending on asking a person for what their opinion is, we just look for ways to measure the strength of association of things in memory.

So taking the first one up on the top left, for example, the black bars indicate people who had an easier time sorting black faces with negative meaning words and white faces with positive meaning words than the reverse. Whereas, the gray bars are people who have the opposite association. They were faster to associate white faces with negative words and black faces with positive words, and so we see a strong skew away from center where most people found it easier to associate black faces with bad and white faces with good, than the opposite. And we see that pattern across a variety of different domains — high status groups whether you're white, young, straight or thin tend to be more strongly associated with good or positive than the lower status groups in those domains.

The samples that we used at this website are not representative of any definable population, but they are large and they are very heterogeneous. The closest to representative that they are is to the Internet population, but they're not even representative of that, but what we do find from these samples is that implicit biases like these, these strengths of association are very widespread.

One other point on these is that while we see that there's a consistent displacement from zero from equal association strengths of goodness with white and black, or thin and fat or young and old — there's also a substantial degree of interindividual variability.

One of the main interests in our laboratory is trying to understand, “*How is it that this interindividual variability emerges? What are the factors influencing whether someone shows strong associations or weak ones?*” Given the conference theme, the dimension that we’ll focus on today is political orientation or political ideology and its role in inter-group preferences, and classic and modern theories in psychology and political science and elsewhere converge on the notion that there is a relationship between group-based attitudes and political orientation of different kinds.

So classic work and authoritarianism, by Adorno and more recent updates by [Altimato], social dominance orientation, and Jon mentioned a few of the variety of different theories beyond these. They all summarize too what [Giddins] explained in the quote, “One major criterion continually reappears in distinguishing the political left from right attitudes towards equality. The left favors greater equality, where the right sees society as inevitably hierarchical.

A review by John [Jost] and Jack [Glaser] summarized a lot of historical and modern literature on this topic and came away with two general attitude categories that tend to be differentiated between the political left and right from their perspective. One is attitudes towards inequality and the second is attitudes towards social change versus tradition — the latter being that liberals tend to be more advocating social change, and conservatives tend to be more interested in stability, status quo, order and tradition. So these two ideas are the focus of the data that I will review today in terms of how implicit cognitions also conform to these particular expectations of what will differentiate the left from the right.

We take a very simple approach for characterizing the left and the right, which is a single choice dimension of strongly liberal to strongly conservative either on a 6-point or 7-point scale. This is not to dismiss the nuance that is, and the rich parts of how political ideology as a measure, but rather it’s a macro or a molar assessment of ideology. And John, I think, will talk more about this in his talk to justify it, so if you don’t like it blame him. (*Laughter*)

So what I’m illustrating here is that even a simple choice item on a 6-point scale is effective at discriminating things that we would expect it to discriminate in things related to political choice or political attitudes, so this line is a distribution of attitudes towards George Bush relative to other recent presidents, and negative values indicating preference for the other presidents and positive values indicating the preference for Bush, and this is on the an implicit measure, the IAT. You see a distribution that is reflecting more conservatives are more favorable towards Bush compared to other presidents. We see that when we specifically contrast Bush with John Kerry, and we see similar patterns in self-reported attitudes as well on those same dimensions. So it does a decent job of distinguishing that, and we see similar things, if you use the DV as voting intentions right before the 2000 election or “whom did you vote for?” in questions right after the elections.

So we examined variation in implicit group preferences along this liberal conservative dimension for a variety of different social group domains, and we find a very consistent pattern. So what I'm showing you here on the Y-axis is positivity toward the higher status group, on the Y and Cohen's d units, and all of them are above zero. And then on the X-axis, again, is this liberal to conservative dimension. When we look at attitudes towards whites versus blacks, or light skin versus dark skin, we see a trend of increasing positivity towards the high status group, light skin or white people among conservatives and relative to liberals.

The effect size difference on the white-black dimension is about .3 from the low end to the high end. We see the same of an anonymous group of other people that are obviously foreign names compared to Arab Muslims. Conservatives show more pro-other people, just not Arab Muslims, and liberals show more tolerance between the two and more Deltarianism. We see small effects on abled versus disabled. Conservatives show slightly more pro-able biases, although this is a small effect, a .1 Cohen's c between the extremes. Straight versus gay has a very large difference between the political extremes. That's almost a 1.0 Cohen's c between extremes. Trim versus fat has a small trend as well, like abled-disabled, but the pattern is consistent. There are more pro-thin biases among more conservatives compared to liberals, and young versus old shows the smallest effect. It is consistent in direction, but it is very weak and only a .6, a less than .1 difference between extremes.

All of these are highly reliable, because they're based on very, very large samples so the pattern is very consistent, even when we break it down to specific subgroups within these particular domains, but again, these are not parameter estimates by any means, because they're not representative sampling. This is not limited to implicit measures like indirect self-report, and so the averages there — it's a range of about .35 or so effect size and Cohen's d, a moderate sized effect. This isn't limited to implicit measures, because we also see the same sorts of patterns with self-report — just asking people to say whom you prefer on a 5-point or a 7-point or 9-point scale on those same dimensions.

Liberals tend to say more that they like whites and blacks relatively equally, while conservatives tend to report liking blacks more so. We see the same thing again with light skin versus dark skin, with others versus Arabs. Again, we see the pattern of conservatives being pro-others compared to Arabs. Abled and disabled, again, the line is very weakly positively inclined on that dimension. Straight versus gay again is the most dramatic difference between the political left and right. Thin versus fat does not conform to the pattern. It is relatively flat line. It has some variation on this dimension. Young versus old also does not conform to the overall pattern. In fact, conservatives report slightly more positive attitudes towards old relative to young than liberals do, although the reverse is slightly true when we use implicit measures for that pattern.

Again, there is the average across these different dimensions, so we can present those two at the same time just to see them in terms of their effect size, that both implicit and explicit measures reveal a consistent trend

across a variety of domains — with a couple of exceptions in self-report of political conservatives reporting stronger group preferences than political liberals.

There are a couple of things to make note of — in both of those figures and in the summary — is that it's not the case that liberals are not reporting social biases and not showing them implicitly, because they do substantially. This is only in terms of matter of degree that there is variation amongst the two dimensions. In fact, in none of the domains did liberals report complete egalitarianism, even the most extreme liberals.

Also, the effect size is consistently larger for implicit measures. That could be that implicit biases are, in fact, larger and stronger than self-report biases. It could also be something about measurement types, so I would say that it's possible and perhaps probable that implicit biases are stronger, especially given that they tend to be less reliable and still are eliciting stronger effect sizes, but that's not something that can be definitively concluded with these data.

Okay. So that's the first dimension, "attitudes towards inequality," with conservatives showing more comfort with reporting preferences between different social groups. The second dimension that Jack and John identified in their review, and many others have, is interest in attitudes towards social order and tradition versus flexibility, change, upheaval and progress. So we've looked at these dimensions also in terms of people's implicit responses to concepts that reinforce the idea of status quo, order or tradition, versus their alternatives.

In this case we used a 7-point scale for the liberal-conservative dimension adding a neutral point. And what I'm showing here is the item in red, "tradition," is the one that conservatives tended to favor. The one in blue is the one that liberals tended to favor. All of them are oriented so that we expect a positive slope, if it conforms to the general hypothesis, that even implicitly conservatives will be more pro-tradition and social order than liberals will, and the main effect is so that anything above the zero point is in the direction of what we would expect conservatives to tend to show on average.

So conservatives show more pro-tradition preferences, although only slightly over comparison to progress. Liberals tend to show more progress preferences, even implicitly. Order versus chaos — everybody prefers order to chaos, but conservatives even more so. Stable and flexible conservatives prefer stable more to flexible. Liberals show a slight opposite tendency. Conforming versus rebellious — everybody implicitly prefers conformity versus rebellion, although conservatives more so, and explicitly you see a very different pattern on that one. Security versus freedom, there is a consistent trend, except right at the end in our sample of everyone being pro-freedom, but conservatives being more matched between security and freedom than liberals are. And then traditional values versus feminism, we see a strong differentiation

across the midpoint of conservatives being more pro-traditional values and liberals being more pro-feminism and that's all with those.

So across these different ways of conceptualizing the idea of tradition or status quo, we see a very consistent — even in sort of our implicit or automatic reactions to different concepts and ideas — the tendency for conservatives to show a stronger pro-tradition, status quo, order, stability bias compared to liberals, who apparently are willing for anything to happen at any time. Okay. So both of these expectations are consistent also in, not just self-report data, but in the automatic reactions that political conservatives and liberals have.

Okay. I want to move to a more general point about how we might think about implicit measures being very useful for thinking about issues like what political orientation is. What I'm representing here is a very simple concept of indicators that we might expect to be more like political orientation. *What is it that when people are saying, "This is what my political orientation is," what information are they using and vice versa? "Are implicit measures able to capture something that we expect is happening when people are reporting their political orientation?"*

So we can think of a single dimension of indicators being things that are very closely aligned, very similar to our concept of what political orientation should assess and then things that are further from it. So this is not supposed to be anything complicated as an idea, so I'm just here arranging a variety of different concepts that we would plausibly think should be very closely aligned to our idea of what political orientation is all about, like attitudes towards the political dimensions, or towards different parties or towards candidates that are in those parties — issues that are specifically aligned with conservatism versus liberalism. Those core ideology attitudes that we've already reviewed being somewhat less, but still closely aligned with political orientation. And then things that might have some relation, but not be directly implicated by political attitudes might be other related social attitudes, and then there should be discriminately, there should be things that have no direct relevance but our attitude or evaluative in some way that are not connected to political orientation.

So this sort of representation is not itself a taxonomy or a theory, although it's informed by theoretical ideas of why these things should line up with political orientation, but it can be a proto-taxonomy that would guide the development of taxonomies of understanding — what are the dimensions of the elements of political orientation and political attitudes, and then guide particular theory. So, for example, if we have a matrix of all of these different things and how they relate to political orientation, if we start to look at how they interrelate with each other, we might develop a dimensional view of what are the components of political orientation. We might develop a hierarchical concept of how these different attitudes are relevant to what we end up reporting as our political orientation. And we might have causal theories, like ones presented by Jack and

John, in their paper, of how different factors of attitudes and everything else tend to develop, drive and interrelate with other components related to political orientation or ideology.

So I just want to give some examples besides the core social attitudes that I've already presented, of things measured implicitly that are showing very near indicators, and we expect to show near indicators with political orientation, and those that are much more distant from it. So we did have a study that's on our website, and then I can talk more about how the website operates and collects data.

In this particular study, people are randomly assigned to do self-report and implicit measures for one of 95 different attitude domains that are more or less relevant to political orientation or political attitudes in general. So among those domains, I ordered them simply from how much does this dimension discriminate people on political left and right, on that single self-report dimension. Those that do the best job correlate the most with political orientation are the closest indicators of these different implicit attitudes for one's political orientation — at least what they tell us that their political orientation is.

And so as you might expect, the ones that are the closest indicators among all of these 95 different domains, are the ones that are the most directly relevant to what a political orientation is — your attitudes towards the parties that supposedly represent those orientations, attitudes towards the political orientations themselves and attitudes towards candidates that represent those parties.

And then the second most coherent group of attitudes that are connected to these two political orientation reports, even though these are measured indirectly just as strengths of associations, our attitudes towards political positions and political issues like pro-choice versus pro-life, gun rights versus gun control, social programs versus tax reductions.

We can also look at the far other dimension to ensure discriminant validity that it's not just the case that these implicit measures have some consistent relationship that's not attitudinal at all, distinguishing political left, that happens to co-vary with political left versus right, and so there is a variety of attitude objects that show virtually no relationship with people's attitude reports towards different political orientations. So comedies versus dramas and Coke versus Pepsi are not dimensions on which there is variation — at least as measured implicitly — variation on political orientation.

Okay. So we see some consistency of that between their near indicators and mid-range indicators of what political orientation is all about in people's report. We also saw some for non-relation, and then there are ones that are sort of in between — things that are not directly political in any obvious way, but that might have some sort of relevance to political orientation. So, for example, liberals tend to favor Apple implicitly, and conservatives tend to favor Microsoft — corporation, counterculture. Vegetables versus meats, books

versus television liberals are pro-vegetables and conservatives are more pro-meat, and liberals more pro-books, conservatives more pro-television, and conforming to that, liberals are more pro-nerds and conservatives are more pro-jocks. All right. Jazz versus teen pop, we have the jazz culture that is more liberal-oriented, and teen pop is more conservative. We see that with Britney Spears versus 50 Cent, and Tom Cruise versus Denzel Washington as well. Letterman versus Leno — Letterman is the liberal guy, and apparently Leno is the conservative one. Cats are independent and so are liberals, and dogs are loyal and so are conservatives, right?

I think that I also must have intended to put married versus single. Conservatives are more pro-married, although everyone is pro-married. Liberals are relatively more equal on married versus single. Plastic surgery versus wrinkles, conservatives are more pro-plastic surgery and liberals are more pro-wrinkles. Emotions versus reasons, we know this from how babyish liberals can be. Leaders versus helpers with conservatives being more pro-leadership and liberals more helpers, and giving versus receiving is where liberals are more pro-giving. Although, I must be clear that we didn't specify what was being given or received, so this is whatever they interpreted the question to be.

Okay. So these are obviously not the cutting edge part of the science, but they are illustrative of the general way in which we have social attitudes that can be informed or related somehow to the more general ideas of one's political orientation. And taken in context with all of the other things that we think should be closely aligned versus not at all aligned, we can develop a better taxonomy of understanding what it is that people are using or thinking about or generating in order to report or think about their political orientations. All of these are done without actually asking people what they think about the different domains. It's just the strengths of associations between these different concepts and positive and negative things.

So I want to do one example from the lab recently that's an example of predictive validity of implicit measures on things that have some political relevance, so this is research led by Nicole Linder, who is a graduate student in the lab.

We were interested in people's application of constitutional rights, and in this case, of free speech principles. *"Will they apply the principles of free speech equivalently across different types of scenarios when only small things are varied in terms of the content of what the actual speech act is?"* So we presented people with a scenario like this. Brett Sullivan pasted a poster on the front of his garage that read in large block letters either "Arabs are the problem," or "Americans are the problem." This person, whom we made clear is an American defended his actions by saying, "People have to realize who the enemy is." Sullivan's neighbor disagrees saying, "The poster is offensive beyond belief," and asks him to take it down.

After they read that scenario, we then ask them a variety of different questions. *“How much should this particular act be protected by the Constitution? How much factually is it protected by the Constitution?”* And things like, *“What is your attitude? Do you agree or disagree with the statement that Brett Sullivan made in this particular scenario?”*

We also measured both their self-reported political orientation and implicitly, the degree to which they associated Democrats and Republicans, I think in this, and maybe it was liberal and conservative — liberal and conservative with good and bad in order to see if those particular things had some relation to the degree to which they desired to protect the different sorts of speech acts.

One of the speech acts, “Arabs are the problem,” is a far right statement and the other one, “Americans are the problem,” was conceived as a far left particular speech act, and you can see some of the sample information there.

So what we see in the data is what I’m showing you on the X-axis, is again, this pro-liberal or pro-conservative dimension, except that this time it’s not the self-report scale. It’s just this indirect implicit measure of how strongly these concepts are associated with good and bad. On the Y-axis is how much they agree personally with the opinion stated by the actor in this scenario.

When the statement is, “Americans are the problem,” we see that liberals tend to say that they support it — implicitly-measured liberals support it much more than conservatives do. That’s the declining blue line there, and that’s a beta weight there — the $-.39$.

For the other statement, “Arabs are the problem,” extreme liberals can’t disagree with it any more than they do. This is the bottom of the scale. And conservatives don’t ever get to the midpoint of agreement, but they do disagree with it less than extreme liberals do, so “Americans are the problem” is less extreme in this particular case than “Arabs are the problem,” even though they are equivalent in other ways.

These numbers, 1.55 and .21 are if you just take people who are at this point or more extreme, this is the Cohen’s d difference between the group in this condition versus the group in that condition, to get an idea of the effect size of how much they’re saying that they agree with it.

Then on questions of how much they think that this particular speech act should be protected versus prohibited, we see a somewhat different pattern. There is a relationship between one’s political preference and whether they think the speech act should be protected in the “Americans are the problem.” Everyone is agreeing that both speech acts on average should be protected, but everyone wants to protect the “Americans are the problem” speech more than the “Arabs are the problem” speech.

There is an interesting pattern here as well, which is especially that extreme liberals are much less consistent in their protection of these two speech acts than are conservatives. Conservatives are less protecting overall, but they are also more consistent in applying the degree of protection more equally to these two different statements, whereas liberals are very much in line with protecting the act that was saying something negative about the government, but not as much about a group of people.

I'll say this one very briefly — while a lot of the history of implicit cognition research talked about these things as very slow to change and very antagonistic to malleability that if we have an automatic reaction, it will be consistent across the situation and across time. There is a huge body of evidence now showing that they are very contextually situated, that there are lot of factors that will shift attitudes very quickly in a variety of different contexts, and so I just want to show one of those examples that's relevant to the particular interests at this meeting.

What I'm showing you here, and this is again collected at our website — we have a measure in '99 through 2001 or 2002 of attitudes towards George Bush relative to Al Gore, and that's represented on the Y-axis with more positive values signaling more positive attitudes towards George Bush relative to Gore, and this is by month — from September of 2000, through August of 2001. And then 9/11 happened, and even implicitly we see a major shift in people's automatic reactions to be more pro-Bush after 9/11, and then there was some decline and then we invaded Afghanistan, and it jumped again.

Now, what's interesting, perhaps, with these data, is that while this is an implicit measure with no direct self-report, when we look at the effect sizes for self-report on the same graph, they mirror almost perfectly with these. These are the data collected at our website, so both the implicit and explicit response are moving very similarly in this particular case, whereas in other situations one or the other might shift in showing disassociation between the measurement types. We haven't yet looked at how this relates to representative Gallup polling or other sorts of polling, but that's the next step. So that's all that I wanted to say, and I wanted to make sure to acknowledge the collaborators, especially Nicole Linder, on the predictive validity study, and a lot of collaborators on a variety of parts of this research, especially some of that earlier data which is a massive data analysis, and then the technical support team that does a lot of management of the website. So thanks very much for your time. *(End of Nosek_1 file)*

Q: *—In the early part of your talk you showed the relations of various attitudes to liberalism, conservatism. Do you have any speculation about why “straights-gays” just jumps out as being so much more powerfully related than anything else, when the others are either more conceptually related or like black-white, or the big divides in American politics over the centuries. Why is “straight-gays” such an issue?*

Well, I think that it's the contemporary version of black-white was in the 60s, so I'll bet that we would have seen the same pattern if we would have been able to collect the data in the 60s on race as we see on sexual orientation now. So I think that's one factor, and another, I think, is that there's a very strong affective response in relation to "straight-gay," that there isn't necessarily as strongly in some of the other dimensions. Particularly, with implicit measures we have some evidence that they are largely affectively charged rather than necessarily being as cognitively based.

Q. *Could it just be a proxy for traditional religiosity then?*

Yes, that's the other one. And so it reinforces both of the dimensions that Jon and Jackie distinguished in their review. Inequality, some groups are on the top and others on the bottom and traditional values staying with the status quo — changing the definition of marriage are a threat, and so both of those things reinforce this particular division.

Q. *I was going to ask a similar question, that if you take conservative and separate that into more of the traditional notion of economic conservatism versus more the religious right notion conservatism — have you played around with that to see whether these things are holding true, and whether they're really being driven by the religious right kind of conservatism? That if you look at people that are more middle-of-the-road or more liberal on social issues, but on more economic issues are more big government versus small government taxes that you would get the constant results?*

The closest that we've done to it is we have not parsed political orientation, specifically, so like social conservatism versus fiscal. We have looked at religiosity and political orientation simultaneously. And when we do that, we see that the strongest social group biases are observed among non-religious conservatives, and religiosity actually is a negative predictor when politics is included. So controlling for politics, religiosity is associated somewhat less with social group biases, on average, at least in the domains that we've looked at.

But on particular domains, like gay-straight that are violations of traditional codes and other parts that are relevant to high religiosity in most religions, you still see a stronger bias on high religious. But religiosity is promoting tolerance and equality and all of these different things, and so to the extent of being successful by doing that separate from the variation of conservatism, liberalism among different religious organizations—

Q: *Just a small clarification. On religiosity is it those that are religious, or more those that are more the religious right—?*

I can't really say for certain. I might have a slide. So, for example, these are conservatives, moderates and liberals by religiosity from not at all to very religious—

Q. *So it's just how religious you are?*

—And we see a positive trend for the more religious you are, the more pro-straight versus gay you are, and the more conservative you are. So that's one where they go together, but attitudes towards rich versus poor, you see a negative relationship. More conservatism is associated with more — and this is self-report — being more pro-rich versus poor. But being more religious is associated with less being pro-rich versus poor, so these are complicated when you talk about it in terms of the differences between social dominance, which tends to not be associated with religiosity and authoritarianism, which tends to be positively associated.

Q. *I was thinking about Petty's first question about the strong relationship between the implicit and explicit measures of ideology versus the weak relationship between implicit and explicit measures of say racial prejudice. Just thinking about the pragmatics of this kind of conference, so if one could only put IAT in the National Election Survey, what would you recommend? My answer to that question seems to be something more like a race prejudice IAT where you're clearly getting at something distinct, versus an ideology IAT.*

I think that I'd do Britney Spears versus 50 Cent, but the race one would be my second, yes.

Q. *I have a sort of statistical question. So when you're distinguishing between not at all and very religious people or conservatives on that 7-point scale with conservative and liberal, do you find that the errors are different across that spread? See, I would guess that people who are slightly conservative or slightly liberal—and Rich, you might actually get to this sort of attitude uncertainty in your talk, but that they're just not as certain about whether or not they're conservative or liberal? I wonder if that uncertainty is reflected in your differential error terms or biases in any of the statistics, or if you have a sense of whether or not you're capturing uncertainty.*

Yes, that's a very good question. I have not evaluated it systematically. Sort of anecdotally looking at data we tend to see the largest error bars in the middle of the scale — especially if we have a midpoint. People that want to opt out use the midpoint, and so we see a lot more variability. When we don't have a midpoint, we don't see as much, but we tend to see somewhat larger variation in the middle and at the extremes. But that is anecdotal, because I haven't done a systematic analysis, at least with our data. I'm sure that there is a lot of other data that it's consistent with.

Q. *You listed a number of characteristics related to liberal conservative, and only one of them related to clothing as I recall, of boxers versus briefs. I'm just curious. We did a study in the Netherlands in which we let people look at pictures of people, and they could classify the political party by their clothing and by their physical appearance — facial hair and these sorts of things. Did you not include these, or are these not related to liberal-conservative in the United States?*

I don't think that we've included anything that would capture that. The work that I know of in psychology that's relevant is Sam Gosling. He's a personality researcher, and they've gone into dorm rooms and had people just say, "Is this person liberal or conservative?" People are very accurate just looking at the way in which the dorm is set up of reporting what the person's political orientation is. For example, messy rooms tend to be liberal, and clean rooms tend to be more conservative.

Q. *I'm glad to hear that.*

Q. *Since we're getting to the end of time, I'll just take this opportunity to say one quick observation, which is that I'm pleased to say that the National Election Study has explicit measures of almost every variable you've looked at in this talk, and so you can in fact go back 50 years and look at some of these things. Even questions about homosexuals—attitudes towards homosexuals go back decades, and so given what we're seeing here in these results that the implicit and explicit look pretty good paralleling each other. There really is a domain in which people are uncomfortable (unintelligible). You can view these analyses of the representative national samples over a long period of time, and we're happy to provide you with that data at no cost.*

I will end with this question, if you don't mind, which is I think one way to look at these results is that there are lots of correlations between the variable on the X-axis and the (unintelligible). Do you have some speculations about sort of what's causing these correlations, or are you thinking really of this work more as descriptive (unintelligible)?

Yes, where we are with these data sets is very descriptive. This is data pulled out of what is a very large sort of multivariate cross-domain data set that we're actually hoping to make available, if other people are interested as well to start to mine some of these relationships. So this does not do any of the causal unpacking or modeling that we'd like to do ourselves, but other people are doing as well. It's just not there. Okay, thank you very much.