Commentary on "Belief in the Utility of Cross-Partisan Empathy Reduces Partisan Animosity and Facilitates Political Persuasion"

Conversational Receptiveness and the effects of Empathy on Disagreement Outcomes

Michael Yeomans, Julia Minson & Hanne Collins

Abstract): The recent paper by Santos et al. highlights the importance of cross-partisan empathy in social interactions between people who disagree with one another. Helpfully, they also provide an intervention which can increase cross-partisan empathy and improve relationships between disagreeing parties. We build on this finding in two ways. First, we demonstrate that the behavioral mechanism for the effect of cross-partisan empathy is measurable using a natural language processing algorithm. Second, we present our own results from a similar study that compare an empathy-focused manipulation to one based on directly targeting conversation behaviors. Our results provide theoretical insights into intervention design for reducing partisan polarization.

Statement of Relevance (121 of 150 words)**:**
Affective polarization—the dislike and distrust of political opponents—is judged by many to be a significant threat to democracy. In a recent paper, Santos et al. test an intervention to increase the feelings of cross-partisan empathy and improve the interactions between parties in disagreement. In this commentary, we show that the intervention is effective in part because it affects the language used by counterparts in disagreement, and that these linguistic differences are readily measurable using existing tools. We then present new data that allows us to evaluate the benefits of designing interventions that affect individuals' thoughts and feelings, versus those that directly impact behavior. We argue that in fighting affective polarization, scholars may benefit from giving greater consideration to the latter.

Keywords: Conflict management; natural language processing; empathy; polarization

Word Count: 984 words (max 1,000)

Research Transparency Statement

General Disclosures

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Study One

Preregistration: We did not preregister anything. However, our sample size was determined by the original authors, and we used methods off the shelf from in other papers, limiting our researcher degrees of freedom. Materials: The original authors' materials are linked in their paper. Data: All data come from the original paper and are publicly available. Analysis scripts: All analysis scripts are in our OSF repository.

Study Two

Preregistration: The pre-registration for this study is in our OSF repository.. Materials: The materials are in our OSF repository. Data: The data are in our OSF repository. Analysis scripts: The analysis scripts are in our OSF repository.

Introduction

The recent paper, "Belief in the Utility of Cross-Partisan Empathy Reduces Partisan Animosity and Facilitates Political Persuasion" (Santos, Voelkel, Willer & Zaki, 2022) offers novel approaches for reducing partisanship and engaging across divides. The authors were thorough and transparent, and we applaud their insights and commitment to open science.

Santos et al. find that belief in the utility of cross-partisan empathy ("BCPE") is correlated with enhanced interpersonal evaluations and relationships across party lines. Importantly, in Study 4, the authors show that manipulating BCPE affects participants' language during disagreement, leading to better conversational outcomes. We build on these results by re-analyzing the data using natural language processing (NLP) to test a novel mechanism for the documented effect (Study 1 here). Namely, we demonstrate that increasing BCPE increases the use of linguistic features comprising the construct of "conversational receptiveness" (Yeomans, et al. 2020)—a communication style that signals to individuals that their counterpart is thoughtfully engaging with their perspective. Our additional analyses identify specific linguistic features that individuals high on BCPE use and that lead to improved outcomes.

In our Study 2, we extend the research by testing the effectiveness of an intervention manipulating participant psychological states in order to impact their language and compare this to manipulating language directly. We find that instructing participants in conversational receptiveness leads to substantially larger effects than a belief-based intervention. Together, these studies generate important insights about how psychological states affect conversational behavior and vice versa.

Study 1

Santos et al. manipulated participants' BCPE and asked them to write a message to a disagreeing counterpart. Out-party readers rated the messages on Likert scales and found those from the High BCPE condition to be more empathetic and persuasive. Readers also evaluated the High BCPE authors and their party more positively. To understand how BCPE affected the messages, trained research assistants read every text and found those from the High BCPE condition to be higher on conciliatory tone, despite

containing a similar number of arguments and exhibiting similar position strength. Conciliatory tone mediated the effect of condition on persuasion.

A topic model analysis revealed topics correlating with condition assignment—however, like in most such analyses, the topics were primarily content-based (e.g., "reduce mass shootings," "crime") and thus, are unlikely to generalize to other issues. They also reported results based on an ad hoc dictionary to measure perspective-taking and acknowledgement which included only six words: "I," "we," "think," "understand," "agree," and "however."[1]

In the present research we leverage a pre-trained natural language processing algorithm to more precisely specify how BCPE affects language used during disagreement, and thus conversational outcomes. We find that the effect of BCPE is largely accounted for by the constellation of linguistic features comprising "conversational receptiveness," (Yeomans et al., 2020) a well-validated conversational style that can be easily taught to conflict counterparts.

Method

To conduct our analyses, we downloaded the data for the 1,049 participants who enrolled in Santos et al. Study 4, of which 1,019 were assigned to condition. We then used the "politeness" R package to analyze the text (Yeomans, Kantor & Tingley, 2018). This is a well-documented, open-source library that uses grammar parsing via SpaCy (Honibal & Johnson, 2015) to extract linguistic choices relevant to conflictual dialogue. We tallied all 38 features identified in the package as well as word count and sentiment (positive emotion minus negative emotion).

Importantly, this feature set includes two features named "acknowledgement" and "agreement," which closely map onto what Santos et al. call "perspective-taking" and "acknowledgement of agreement" when describing their new dictionary. Importantly, our method is grammar-aware -- counting "I agree" as agreement, but not "I don't agree." Furthermore, using individual pronouns may produce

[1] Though this dictionary was not declared in the original paper or posted code, we confirmed it in discussion with the original authors (Santos et al., personal communication, Feb 8, 2023)

many false positives (e.g., “I” could be used to say “I hate you”). Finally, our method is completely reproducible in an open-source R package.

In addition to the individual features, we also calculated a single score of “conversational receptiveness” from a pre-trained model included in the package. This model is based on 2,835 texts, from Studies 1 and 4 of Yeomans et al. (2020), as well as unpublished data from a study using a similar paradigm. Notably, the training data included discussions on different policy issues than Santos et al.—specifically, police brutality and campus sexual assault policy. However, because the receptiveness model focuses on stylistic and structural elements of text, we have found minimal drop-off in accuracy if it is trained on one issue and tested on another (Yeomans et al., 2020).

Results

Santos et al. report two sets of measures—ratings by participants and by trained annotators. To these, we add five measures algorithmically extracted from the text: an overall score of conversational receptiveness, word count, sentiment, and grammar-aware measures of acknowledgement and agreement. We report a correlation matrix of all measures in our Online Appendix A. Conversational receptiveness correlates with many of the important variables reported in the text—outgroup affect, perceived empathy, conciliatory tone, and persuasiveness (all correlations where $r > 0.065$ are significant at the $p < .05$ level).

Having several outcome measures (measures extracted from text via NLP, the participant ratings, and the human annotations) allows us to examine which measure is most strongly affected by the manipulation. We present a plot of the standardized effect of the BCPE manipulation on all the available measures in Online Appendix B.

In addition to the documented effect of BCPE on annotator ratings of conciliatory tone, our NLP analyses reveal large effects on interpretable linguistic behaviors. We find that the linguistic choice that is most strongly affected by the BCPE manipulation is the NLP-measured use of Acknowledgement phrases (such as “I understand” and “I see”; standardized $\beta = .538$; SE = .060; $t(1017) = 8.9$, $p < .001$). Interestingly, the second largest effect is on overall use of conversational receptiveness, a construct of which acknowledgement phrases are a key feature (standardized $\beta = .470$; SE = .061; $t(1017) = 7.7$, $p <$

.001). Other features associated with greater use of conversational receptiveness, including positive sentiment (standardized β= .234; SE = .063; $t(1017) = 3.8$, $p < .001$), expressions of agreement (standardized β = .209; SE = .062; $t(1017) = 3.3$, $p < .001$), and word count (standardized β = .131; SE = .063; $t(1017) = 2.1$, $p = .036$) are also impacted by BCPE, although these features have smaller effects than the participant ratings of empathy, persuasion, and affect toward the writer.

Human-annotated conciliatory tone was the single strongest variable associated with condition, although it is robustly predicted by receptiveness (standardized β = .272, SE = .030; $t(1017) = 9.0$, $p < .001$), including when controlling for word count and sentiment (standardized β = .248, SE = .032; $t(1015) = 7.8$, $p < .001$). Interestingly, word count is an even stronger predictor of conciliatory tone (standardized β = .349, SE = .029; $t(1015) = 12.2$, $p < .001$), suggesting that significant variation in this outcome was related to the effort expended by the writer.

These results suggest that conversational receptiveness is a key outcome of belief in the utility of cross-partisan empathy. The pre-trained model—and in particular, its acknowledgement feature—was similar to annotations of conciliatory tone for detecting manipulated BCPE, and strongly outperformed all other human metrics. Critically, this model provides a scalable and interpretable approach to measuring belief in cross-partisan empathy from natural language—and does so in a way that describes a concrete set of linguistic features that can be effectively taught and implemented (Yeomans et al. 2020).

Study 2

An important contribution of Santos et al. is the suggestion that believing in the value of empathy leads people to engage empathically across disagreements. Our analyses show that their belief-focused intervention impacts behavior, enhancing use of conversational receptiveness. Another potential approach is to intervene on conversational behavior directly—not by changing beliefs about the world (a notoriously difficult task), but by encouraging specific linguistic choices. In Study 2 we directly compare a belief change intervention to teaching participants a specific set of linguistic markers signaling conversational receptiveness. How does intervening on participant *behavior* versus participant *beliefs* influence conflict outcomes?

Method

First, we recruited a sample of participants from Prolific Academic to complete a screener survey in which they reported their beliefs about preferential hiring practices for women in STEM fields (a topic we had pretested for eliciting polarized opinions on Prolific). We then randomly assigned participants to the role of "writer" or "replier." Repliers (n = 2,333) were told they would be contacted in the next couple of days to complete a follow-up survey. Writers (n = 1,113) immediately completed a survey in which they read a position statement written by another person in a previous study describing that person's beliefs regarding preferential hiring of women in STEM fields. We always assigned writers to read statements that expressed the opposite opinion from the one they had reported.

We then instructed the writers to draft a written response to the statement. Before responding, they were assigned to one of three conditions—an untreated control condition where participants were instructed to reply naturally; a condition instructing them to use specific words and phrases associated with conversational receptiveness (the "behavior change" condition); and a condition instructing them to be more empathetic, open-minded, and intellectually humble (the "belief change" condition). The exact text of the treatments is available in our Online Appendix C.

After collecting writer responses, we reached out to our sample of repliers to complete a follow-up survey (n = 946; with no differential attrition, $\chi^2(2) = 1.9$, $p = .385$). They were asked to read the initial position statement (which they agreed with) and the writer's response (which they disagreed with). They then wrote a response to the writer and used 7-point Likert scales to report the extent to which they found the writer to be: reasonable, objective, likable, intelligent, and trustworthy. As part of a data collection for another project the repliers' responses were then sent to the writers for further evaluation.

Results

Effect on partner evaluations: Following our pre-registered analysis plan, we estimated the effects of the two treatments (compared to control) on each impression rating separately. Both treatments significantly and positively impacted replier evaluations of disagreeing writers on each of the items we used. In other words, intervening on both beliefs and behaviors reduced partisan animosity. However,

across all four measures, the effect of the behavior change intervention was roughly twice the size of the effect of the belief change intervention.

Analyses of individual items generated the following effects for each treatment: reasonable (behavior change: standardized β = .285, SE = .078, $t(941) = 3.7$, $p < .001$; belief change: β = .123, SE = .077, $t(941) = 1.6$, p = .111), likable (behavior change: β = .258, SE = .078, $t(941) = 3.3$, $p = .001$; belief change: β = .117, SE = .078, $t(941) = 1.5$, $p = .132$), intelligent (behavior change: β = .155, SE = .079, $t(941) = 2.0$, $p = .049$; belief change: β = .092, SE = .078, $t(941) = 1.2$, $p = .240$), and trustworthy (behavior change: β = .206, SE = .079, $t(941) = 2.6$, $p = .009$; belief change: standardized β = .145, SE = .078, $t(941) = 1.9$, $p = .064$). Direct pairwise comparisons between the two treatment conditions suggest that there is a clear difference between the two interventions in their effect on the partners' perceptions of reasonableness ($t(623) = 2.1$, $p = .038$) and perhaps likability ($t(623) = 1.8$, $p = .077$), but less so for intelligence ($t(623) = 0.8$, $p = .434$) and trustworthiness ($t(623) = 0.8$, $p = .436$).

Effect on language: Given the key role of perspective-taking/acknowledgment noted by Santos et al. and supported by our additional analyses, we analyzed Study 2 data using the same algorithmic measures. We found that in parallel to the Santos et al. results, our belief change intervention primarily activated use of acknowledgement (standardized β = .462, SE = .075, $t(943) = 6.2$, $p < .001$), and had an effect on overall conversational receptiveness scores (standardized β = .427, SE = .071, $t(943) = 6.0$, $p < .001$). Importantly, however, the behavior change intervention had a bigger impact on acknowledgement (standardized β = .784, SE = .076, $t(943) = 10.4$, $p < .001$; pairwise comparison: $t(624) = 3.7$, $p < .001$) and an even bigger-still effect on receptiveness scores (standardized β = 1.09, SE = .072, $t(943) = 15.2$, $p < .001$; pairwise comparison: $t(624) = 8.7$, $p < .001$). Neither intervention in Study 2 had a significant effect on word count. The greater effect of the behavioral intervention on language may explain why participants directly trained to change their linguistic behavior were more favorably evaluated by their counterparts.

Comparison Across Studies: Figure 1 plots the standardized effect sizes of all three interventions (Santos et al., and the two we test in Study 2) on the linguistic features that are most closely associated

with conversational receptiveness. Conversational receptiveness consists of positive features—behaviors that increase the receptiveness score and counterpart evaluations—and negative features—behaviors that decrease the receptiveness score and counterpart evaluations. Both belief change conditions successfully increased the use of positive features (Acknowledgement, Agreement, Hedges, Subjectivity, and Positive Emotion) from baseline. However, they failed to have any consistent effect on the use of negative features (Negative emotion, Disagreement, Adverb limiters, and Negation). By contrast, the behavior change treatment both suppressed negative features, and had a larger effect size on the key positive features, including Acknowledgement and Agreement. These results suggest that (a) the two belief change interventions may have similar psychological profiles, and (b) that the behavior change intervention may have had a bigger effect on participant evaluations because of its impact on the use of conversational receptiveness.

General Discussion

Our additional analyses of Santos et al. offer greater insight into the process via which increasing participants' BCPE lead to changes in counterpart evaluations. Specifically, higher BCPE lead to greater use of conversational receptiveness, and particularly a greater tendency to verbally acknowledge opposing views. Study 2 shows that a more general intervention urging participants to change their beliefs has similar effects on language to the Santos et al. intervention, and that both belief-based interventions lead to smaller effects than intervening on language directly. Together, these results offer insights into different approaches for quelling conflict.

Our work speaks to a broader tension—to improve interactions, should we target participants' beliefs, or behaviors? (Paluck et al., 2021; Hartman et al., 2022). Targeting beliefs may have limitations—such interventions are indirect, and people may not know how to express their changed mindsets due to broken mental models (Yeomans, Brooks & Schweitzer, 2022). But targeting behavior may also have limitations—the behavior may be enacted insincerely, and behavioral expression may need to be tailored to the context or audience. Of course, more effective intervention strategies might target both beliefs (to motivate change) and behavior (to help people enact it).

Our results are not a definitive comparison of these approaches. Different variations on the empathy intervention may be more successful or impactful in different contexts. And both interventions partly rely on demand effects to produce the intended response from the writers (though, importantly, the raters are always blind to condition). We also recognize that the set of nine primary linguistic features analyzed here may be incomplete—there could be other ways in which the treatments change people's conversational behavior, that also improve their cross-partisan interactions. Such a gap in our measurement would only underscore the importance of pairing controlled experiments with detailed measurement of the linguistic data generated.

Finally, we acknowledge that while the focal studies here measure how people treat one another, often belief change itself is the goal (e.g., Voelkel et al., 2022). Though these often vary together, they can diverge. And when they do, we must decide whether what we think about a given group is more or less important than how we treat them. Furthermore, the current studies only evaluate short-term behavior change. However, the true goal of conflict interventions is to create lasting impact, beyond behavior in a single-session study. We hope that through carefully and completely understanding the beliefs and behaviors that our interventions produce in the short run we, and other scholars, can foster long-term change.

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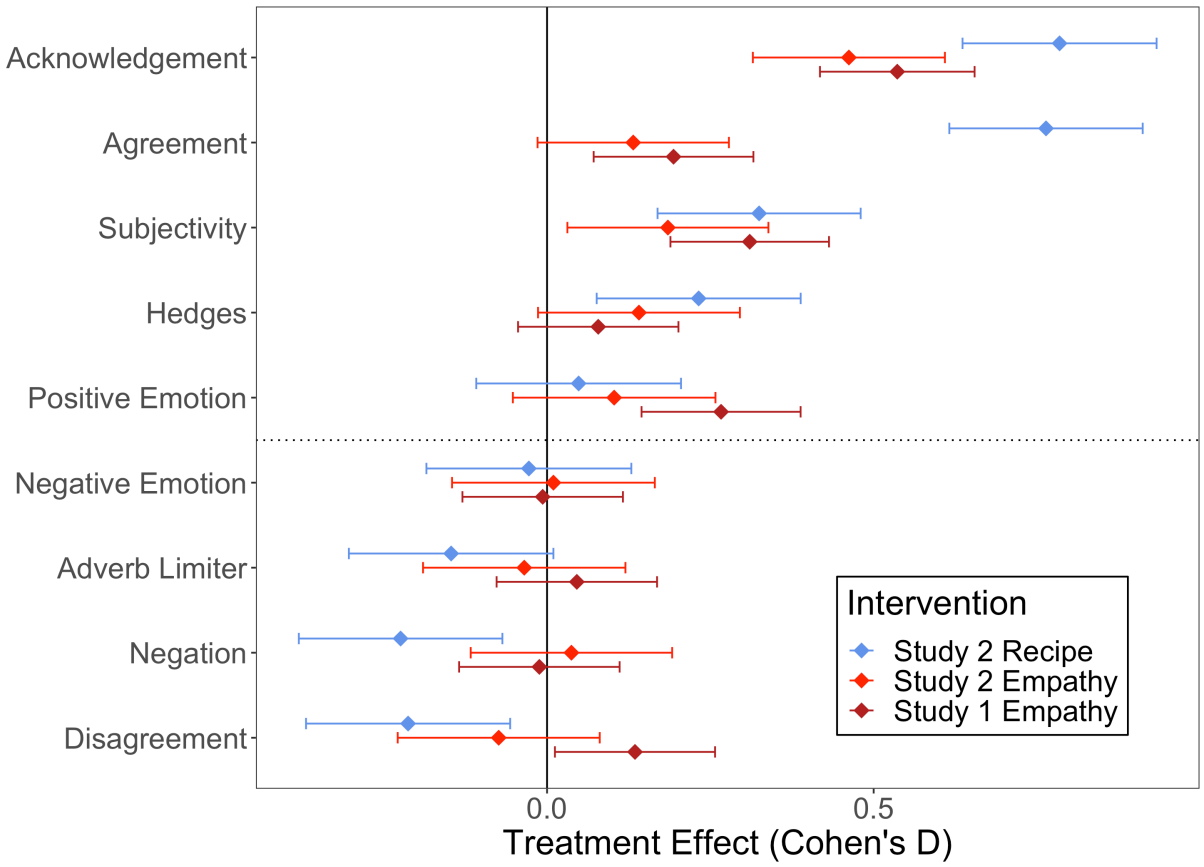
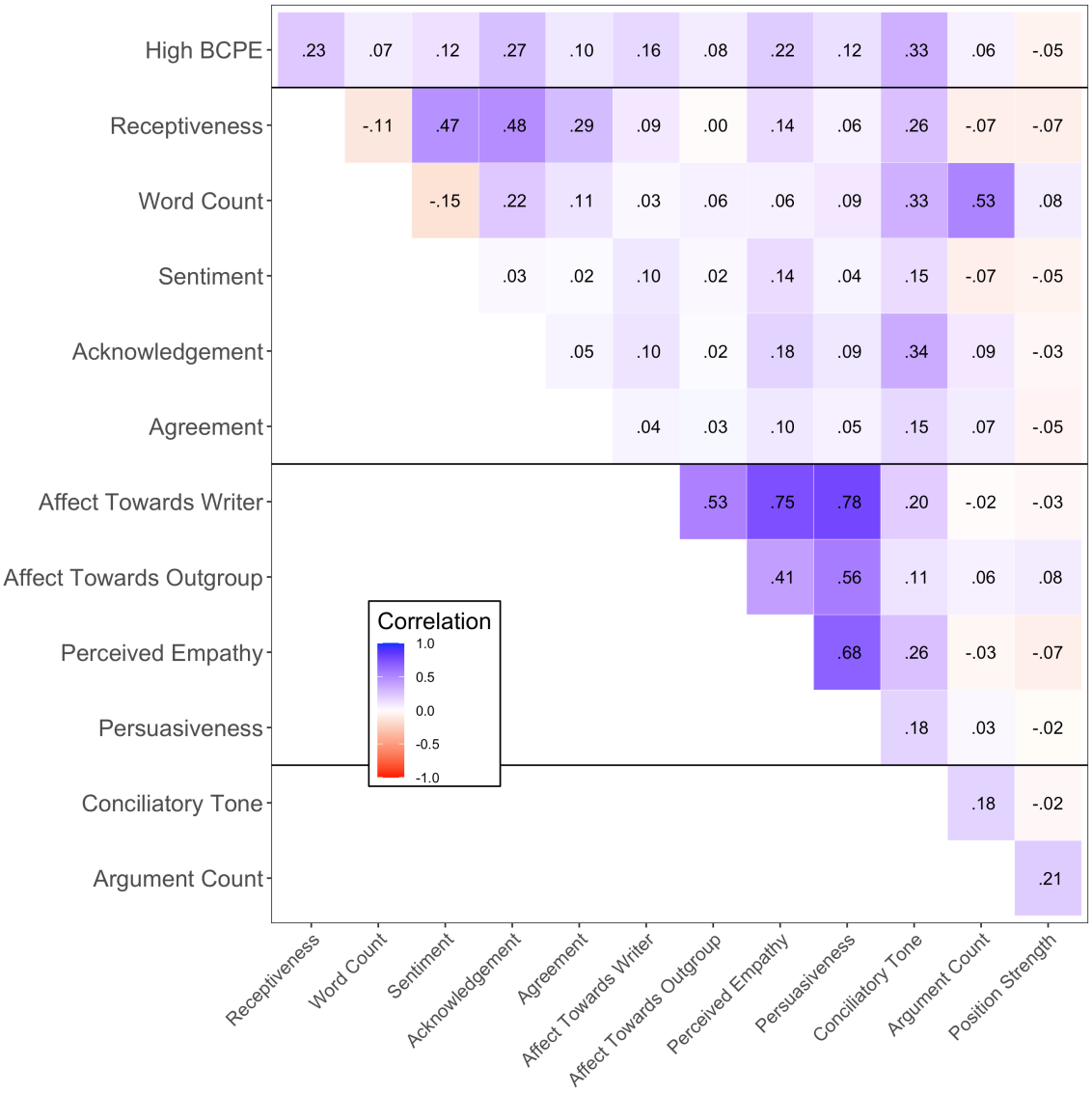
Figure 1

The effect of the interventions in Studies 1 & 2 on writers' use of the linguistic features of conversational receptiveness. All points represent an individually-estimated standardized effect size estimate (and 95% CI).



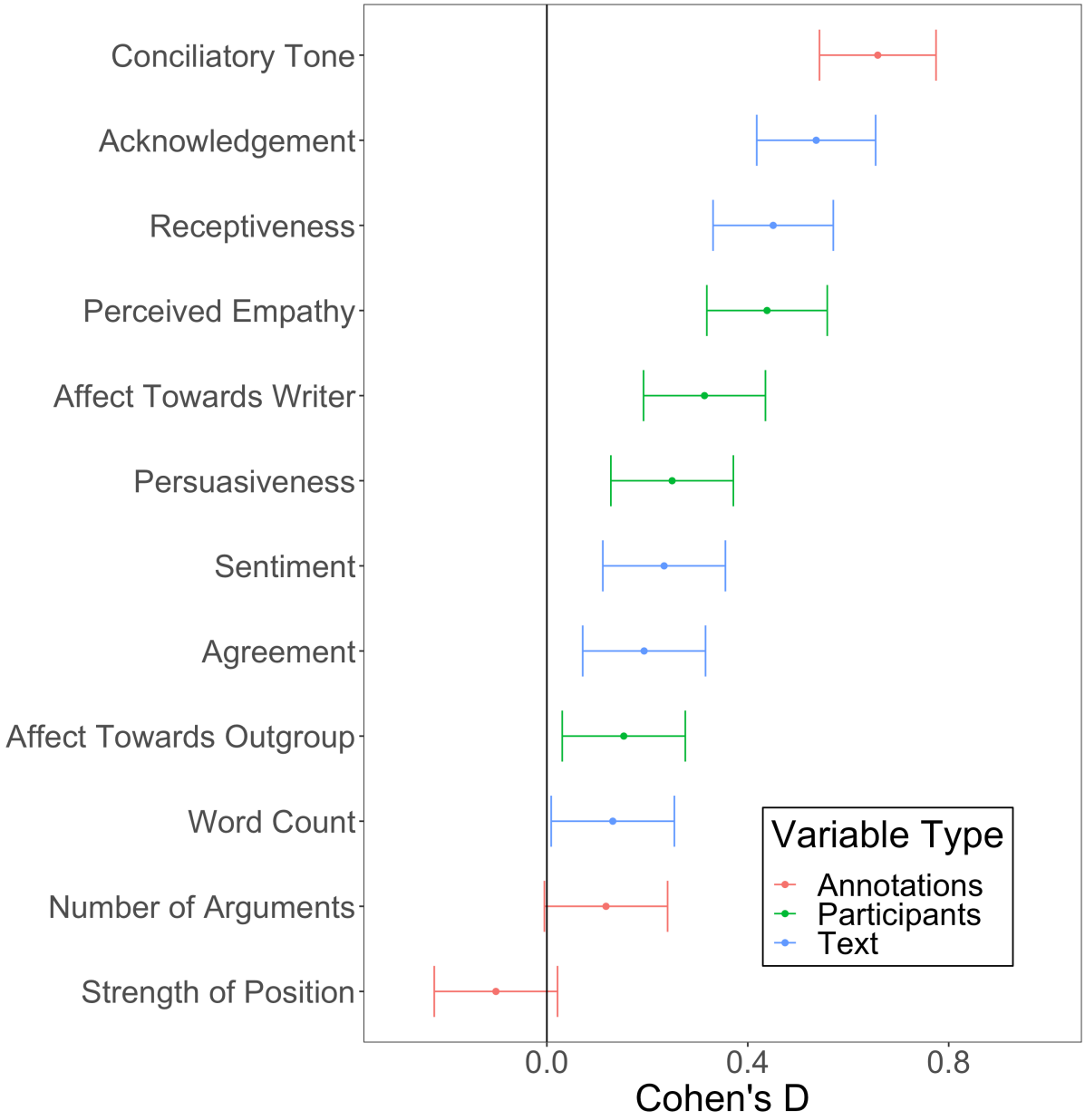
Online Appendix A - Correlation Matrix from Study 1

This heat map shows the complete set of Pearson correlations between several sets of measures in Study 1: the condition assignment ("High BCPE"), five linguistic measures, four ratings from participants in Santos et al., and three annotations from trained RAs in Santos et al. For visual clarity we do not report confidence intervals as the sample size for every coloration is the same. However, as a general guide, we note that all correlations greater than 0.065 are significant at a $p < .05$ level.



Online Appendix B - Comparison of Effect Sizes from Study 1

This plot shows standardized effect sizes of the BCPE manipulation in Study 1 on several outcomes. Some were calculated directly from the writers' text using NLP, some were annotated by trained research assistants, and some were rated by crowdsourced participants. All points reflect an estimate from a standardized regression and 95% confidence interval.



Appendix C - Full text of all interventions

High Utility Condition - from Study 1 (Santos and colleagues)

Is Empathy Underrated? New Research Examines the Impact of Empathy on Persuasiveness

Think about the last time you debated someone on an issue you care about. While you tried to convince them of your point of view, how did you frame your position? Did you try to take the opposing perspective? In negotiation contexts like the one you just envisioned, you may think that feeling empathy toward the other side would be impractical. After all, it could make you seem naive or weak. If so, recent research on the subject suggests that your intuitions about empathy are wrong. Experts in persuasion have found that empathy can, in fact, enhance our judgments and make us better negotiators. They state that, by taking the perspective of others, those motivated to feel empathy are more equipped to successfully navigate debates and persuade others than their less empathic counterparts. "Negotiation is all about trying to understand other people's point of view" psychologist Mark Williams argues, "Once people feel heard and understood, they are more likely to agree on compromises."

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Moreover, Williams believes that empathizing helps people to see the bigger picture. "Sometimes, it can be easy to think too narrowly because we are preoccupied with our own perspective. However, it is important to take a step back and understand that there are many reasonable ways of seeing the same issue." This argument is especially pertinent when it comes to political discussions. "The best way to resolve conflicting positions is to put yourself in the other person's shoes" says Williams, "If you approach a debate with an open-mind you will be surprised with the solutions you can come up with together. In our studies, we find that those who report wanting to feel empathy toward their political outgroup are more likely to reach agreements that benefit their parties than those who were less empathy-driven."

[PAGE BREAK]

Now, we would like you to write a persuasive argument (2-3 paragraphs) aimed at convincing [Democrats/Republicans] who support [less strict/stricter] gun laws of why they should be in favor of [stricter/less strict] gun laws. Note: in a follow-up study, we will in fact present your message to [Democrats/Republicans] who support [less strict/stricter] gun laws to see if they are persuaded by your argument.

Low Utility Condition - from Study 1 (Santos and colleagues)

Is Empathy Overrated? New Research Examines the Impact of Empathy on Persuasiveness

Think about the last time you debated someone on an issue you care about. While you tried to convince them of your point of view, how did you frame your position? Did you try to take the opposing perspective? In negotiation contexts like the one you just envisioned, you may think that feeling empathy

toward the other side could be useful. After all, it could make you seem reasonable or fair-minded.If so, recent research on the subject suggests that your intuitions about empathy are wrong. Experts in persuasion have found that empathy can, in fact, impede our judgments and make us worse negotiators. They state that, by absorbing the feelings of others, those motivated to feel empathy are less equipped to successfully navigate debates and persuade others than their less empathic counterparts."Negotiation is all about being determined and standing up for what you believe in" psychologist Mark Williams argues, "Once people sense one's tendency to compromise, they are less likely to agree to change."

[PAGE BREAK]

Moreover, Williams believes that empathizing hinders people's ability to see the bigger picture. "Sometimes, it can be easy to think too narrowly, because we are preoccupied with what others think. However, it is important to take a step back and understand that excessive focus on someone else's perspective we can lead us to lose track of our own ideals." This argument is especially pertinent when it comes to political discussions. "The best way to resolve conflicting positions is to authentically argue for what you value" says Williams, "If you approach a debate with determination you will be surprised with the solutions you can come up with. In our studies, we find that those who report wanting to feel empathy toward their political outgroup are less likely to reach agreements that benefit their parties than those who were less empathy-driven."

[PAGE BREAK]

Now, we would like you to write a persuasive argument (2-3 paragraphs) aimed at convincing [Democrats/Republicans] who support [less strict/stricter] gun laws of why they should be in favor of [stricter/less strict] gun laws. Note: in a follow-up study, we will in fact present your message to [Democrats/Republicans] who support [less strict/stricter] gun laws to see if they are persuaded by your argument.

Empathy Condition - from Study 2 (new data)

In our previous study we identified the following four "keys" to receptiveness. If you are trying to thoughtfully consider the other person's perspective you should do the following things:

1. Take the other person's perspective. For example, you should think about the situation from their point of view and consider the evidence that led them to have their opinion.
2. Exercise intellectual humility. Consider reasons why you may be wrong or the potential flaws in your own arguments.
3. Try to feel empathy for the other person. Imagine what it would feel like to be in their shoes and have their lived experience.
4. Think like a scientist, not a lawyer. Think of the goal of the conversation as being the discovery of accurate information, not as proving that you are right.

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In a previous survey, we asked about your opinion on the following statement:

"In order to increase the representation of women in math, sciences and engineering, female graduates with relevant degrees should be given priority in hiring decisions over men."

On the next page, is a statement by a person who disagrees with you on this issue.

Please read the statement carefully and write a response to this person. Imagine you are talking to this person about this topic and they just said this to you. What would you say in response?

Please read the statement carefully and write a response to this person. In considering your response, try as hard as possible to be receptive by using the strategies you learned about earlier in this survey.

Recipe Condition - from Study 2 (new data)

In our previous study we identified the following four "clues" to receptiveness. If you are trying to show that you are thoughtfully considering the other person's perspective you should do the following things:

1. Actively acknowledge the other perspective. For example: "I understand that...," or "I see your point," or "What I think you are saying is..." Acknowledging helps to show that you've been listening.
2. Hedge your claims. You can say "I think it's possible that..." rather than "This will happen because..." Phrases like "I believe that sometimes" or "Some people might think…" also help. Others appreciate hedging because it shows that you understand the complexity of the issue. Avoid reciting explanations or facts, which can sound argumentative and condescending. Don't suggest things are so obvious - avoid words like "just," "simply," or "only."
3. Phrase arguments in positive versus negative terms. "I think it's helpful to…" works better than "You should not be…" Or "I really like it when people…" is better than "I really hate it when people…" Try not to contradict the perspectives or beliefs of others.
4. Highlight areas of agreement, no matter how small or obvious. For example, "I agree that..." Or "you're right about" Even when people passionately disagree, they usually have some shared values or common beliefs.

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In a previous survey, we asked about your opinion on the following statement:

"In order to increase the representation of women in math, sciences and engineering, female graduates with relevant degrees should be given priority in hiring decisions over men."

On the next page, is a statement by a person who disagrees with you on this issue.

Please read the statement carefully and write a response to this person. Imagine you are talking to this person about this topic and they just said this to you. What would you say in response?

Please read the statement carefully and write a response to this person. In considering your response, try as hard as possible to be receptive by using the strategies you learned about earlier in this survey.

Control Condition - from Study 2 (new data)

Donald Stewart's efforts to reclassify a giant Amazonian fish as representing several distinct species, rather than just one, are still ongoing.

Stewart's latest work has just been published in a scientific journal, and marks official identification of Arapaima leptosoma, the first entirely new species of arapaima - a giant Amazonian fish - since 1847.

Among the world's largest freshwater fish, arapaimas, live in South America (Brazil and Guyana). They can grow up to 3 meters long and weigh 200 kilograms. They breathe air through a primitive lung, and tend to live in oxygen-poor backwaters.

Arapaimas have long been an important food source for Amazonian peoples. They continue to be hunted and biologists have concerns about their status, although they are not endangered.

Getting the new species named is important "because it brings attention to the diversity of arapaimas that is out there and that need to be collected and studied," said Stewart.

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For a century and a half, the prevailing view among scientists had been that there was only one species of arapaima, but Stewart has shown that there are actually at least five. In March, 2014 he published a paper that renamed a species of arapaima that had been suspected in the 1800s, before scientists decided to roll it up into one species.

The newest species, Arapaima leptosoma, had not been suspected before. It is more slender than other arapaimas. Its name, leptosome, is a reference to its characteristic of slenderness. Stewart explained that the new species also has a horizontal black bar on the side of its head, which is a unique series of sensory organs.

The new species was described from a specimen kept at the Instituto Naciaonal de Pesquisas de Amazonia in Manaus, Brazil. That animal had been collected in 2001 near the confluence of the Solimoes and Purus rivers in Amazona State, Brazil.

Now that you have read and considered one type of communication, we would like you to read and consider another type of communication. Specifically, communication in the context of opposing views.

[PAGE BREAK]

In a previous survey, we asked about your opinion on the following statement:

"In order to increase the representation of women in math, sciences and engineering, female graduates with relevant degrees should be given priority in hiring decisions over men."

In this next part of the survey, we are interested in how people interact with each other when discussing current "hot-button" policy and social topics. On the next page, is a statement by a person who disagrees with you on one of these issues.

Please read the statement carefully and write a response to this person. Imagine you are talking to this person about this topic and they just said this to you. What would you say in response?