Devil in a New Dress: Reframing as an Alternative Method of Motivated Reasoning

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Abstract

Much research has been conducted in the field of motivated reasoning, with most of this work focused on the tendency of motivated reasoners to reject counterarguments out of hand, the so-called disconfirmation bias. The objective of this work is markedly different. Borrowing from the prodigious body of work on framing, this investigation suggests an alternative route of motivated reasoning: when presented with a counterargument, subjects engage in motivated reasoning not by wholly rejecting the counter, but by reframing their attitudes so as to reduce the importance of the challenged belief. To this end, we conducted a series of experiments centered around challenging popular political beliefs and measuring the impact of the challenge on the receiver.

This was accomplished first by conducting surveys to uncover prevailing political beliefs around several topics ranging from gun control to the legalization of prostitution. With the most common beliefs clearly established, we then conducted an experiment in which these beliefs were challenged through the creation of specifically tailored and previously evaluated counterarguments. Experimental subjects were asked to provide their (positive or negative) attitude toward a given political topic, and then asked to rank and rate the four most common beliefs surrounding that topic – with the first ranked belief representing the one the subject felt was most important. This belief was then challenged, and after a period – a week in the first trial, and ten minutes in the second trial – the subjects were asked to repeat their rankings and ratings of the offered beliefs. The results showed virtually no attitude change resulting from these challenges, but a significant number of subjects lowered their first-ranked belief after having been challenged. We interpret this behavior as engaging in motivated reasoning via reframing. Further research to determine when individuals engage in motivated reasoning via

disconfirmation vs. reframing is needed, but these early results suggest that reframing is a legitimate alternative route through which individuals maintain their attitudes in the face of challenges.

Introduction

Reasoned argumentation has been a core aspect of political discourse since the time of Aristotle. Western society has long prided itself on its rich tradition of rational argument and persuasive rhetoric for hundreds of years – indeed, the United States Senate is referred to as the greatest deliberative body in the world. But is it true that human beings are so rational, and that argumentation is truly persuasive? Research has repeatedly shown that individuals are exceedingly unlikely to change an attitude in the face of a challenge (Taber et al., 2006, Kunda, 1990). This behavior has primarily been attributed to the phenomenon of motivated reasoning – the tendency of individuals to make decisions and reach conclusions not based on an evenhanded analysis of factual evidence, but rather from a desire to conform with currently-held attitudes.

Most research on political motivated reasoning has focused on one specific pathway – the disconfirmation bias (Taber et al. 2006). If a motivated reasoner is displaying this bias, she simply dismisses the presented evidence out of hand or seizes upon the slightest flaw to reject the evidence if it contradicts her previously held beliefs. Likewise, arguments and evidence that confirm previously held beliefs are accepted with little scrutiny. This certainly makes for easy cognition, but it is hardly the sole route through which an individual can engage in motivated reasoning. In this study we propose an alternative route through which motivated reasoning can occur, that of reframing.

Reframing, put simply, refers to the cognitive shifting of the lens through which a given issue, belief, or attitude object is viewed. When an individual reframes an attitude object, she changes the grounds on which she considers it. Quite simply, "a frame defines what an issue is about," (Nelson, 2019). Reframing, then, is the process through which an individual redefines an issue by shifting the criteria by which the issue is measured and interpreted.

It is in this shifting of contexts that the specter of motivated reasoning is raised. We present here an alternative route through which motivated reasoning may occur; instead of dismissing evidence outright, a motivated reasoner may instead shift her frame. It is easy to imagine how this can happen: an individual espouses the view that her support for a gubernatorial candidate is predicated on his devotion to Christian morals. Imagine, then, that this supporter is presented with evidence that her preferred candidate is not as quite as devout as she had originally believed. Rather than rejecting this information out of hand or turning her back on her preferred candidate, she can reframe her support – it is not about the candidate's religious convictions, but rather his economic policy. It is this reframing behavior that is the subject of this inquiry.

Literature Review

The fields of research in both the areas of framing and motivated reasoning are remarkable in their depth and breadth. It is important, however, to review some of the seminal texts upon which this investigation is built. In the domain of motivated reasoning we shall review the work of Lodge and Taber and Kunda, Likewise, we shall examine the work of Nelson, Chong, and Gamson. These authors form the backbone of this inquiry, and each will be paid their due.

Any investigation of motivated reasoning would be incomplete without the work of Lodge and Taber. First writing on the topic of motivated reasoning in 2006 with their paper entitled "Motivated Skepticism in the Evaluation of Political Beliefs," Lodge and Taber are at the forefront of motivated reasoning research. Their work continued in the book *The Rationalizing Voter,* which examined political behavior through a variety of experimental paradigms, including motivated reasoning. These two works will serve as the beginning of our exploration of motivated reasoning.

"Motivated Skepticism in the Evaluation of Political Beliefs" provides a model for how average citizens evaluate arguments. Lodge and Taber propose that we are biased processors of information – when information supports our previously held positions, we accept it without much thought. But when presented information that is contrary to our previously held beliefs, we express a higher degree of skepticism, seeking out possible issues and flaws in the information that can be leveraged against it (Lodge & Taber, 2006). Taken together, these predispositions form the basis of the disconfirmation bias, the most well-known route through which motivated reasoning occurs. Lodge and Taber also describe a confirmation bias – a tendency to actively seek out information which reinforces currently held beliefs. These biases, working in tandem, produce a polarizing effect on attitudes such that attitudes measured at time two are stronger than those at time one (Lodge & Taber, 2006). In other words, exposure to a mixed set of evidence does not moderate our opinions, as one might expect, but makes them even more extreme. These results, which were discovered through a pair of experiments that asked students to evaluate contemporary political issues, read over a series of arguments, and then re-evaluate those issues, suggest that we are not nearly as fair-minded as we pretend to be – that motivated reasoning has an outsized effect on political evaluation.

"Motivated Skepticism" is not Lodge and Taber's only foray into the realm of motivated reasoning. Their book *The Rationalizing Voter* explores unconscious political thinking and political evaluations through a variety of avenues – including motivated reasoning. They begin their discussion of motivated reasoning by recapitulating the results described in "Motivated Skepticism," but with a new twist: their motivated reasoning research is used now as a test of their John Q. Public (JQP) model (Lodge & Taber, 2013). The JQP model posits that political behavior and issue evaluation is nothing more than the end result of the conglomeration of untold subconscious processes – that conscious cognition and deliberative thought is just the "rationalization of the outputs of automatic affective and cognitive processing," (Lodge & Taber, pg 28, 2013). Put differently, political behavior is not the result of difficult conscious thought, but rather the mere expression of a jumble of thoughts and emotions. It is this morass of subconscious thoughts and feelings that drives us to engage in motivated reasoning. Lodge and Taber are quick to point out their findings on motivated reasoning do not suggest that we are consciously deceiving ourselves with hope of protecting previous beliefs, but rather that people engage in motivated reasoning unwittingly, driven by a desire to remain consistent with their previous positions.

Lodge and Taber, giants they may be, are far from the only scholars operating in the area of motivated reasoning. We turn now to the work of Kunda whose paper "The Case for Motivated Reasoning," was foundational to this exercise. Kunda, reviewing a vast swathe of the research on reasoning, concludes that the existence of "directional" motivated reasoning is extraordinarily strong. Motivated reasoning can take two forms: reasoning motivated by accuracy, or reasoning driven by directionality. Directionality, in this context, refers to an orientation toward a specific goal (Kunda 1990). In other words, when we engage in directional

motivated reasoning, we are reasoning in such a way that we strive to reach our desired conclusion, not the conclusion which is most accurate. This form of directionally motivated reasoning is the subject of this inquiry. According to Kunda, directional motivated reasoning operates using entirely different processes from reasoning toward accuracy. These processes are dominated and constrained by "motivational biases," psychological biases which unconsciously shape the stream of cognition in such a way that desired conclusion can be reached while a veneer of objectivity can be maintained (Kunda 1990). The evidence for this process – which Kunda draws from a variety of sources including cognitive dissonance research – suggests that these biases shape which memories, beliefs, and even self-characterizations are accessible to the reasoner at the time of their reasoning (Kunda 1990).

Kunda suggests that this process of drawing upon unconsciously curated cognitive resources arises out of the need to create justifications for beliefs – that there are limits to the extent to which an individual's reasoning can be directionally motivated (Kunda 1990). If, for instance, an individual has no resources with which she can create a justification for a belief, or their resources cannot adequately muster such a justification, directional reasoning will be constrained. It seems, then, that there is a limit to motivated reasoning.

Here, at the very precipice of motivated reasoning, is an excellent place to pivot our discussion to the framing research. We begin with the work of Gamson and Modigliani, specifically their paper "The Changing Culture of Affirmative Action." In "The Changing Culture," Gamson and Modigliani track the changing frames through which the debate on affirmative action was viewed. Opponents of affirmative action who once advocated against the measure on the grounds that it would be an "undeserved advantage" reframed their opposition to a position that there ought to be "no special treatment," (Gamson & Modigliani, 1989). The

factors behind this reframing are numerous, but Gamson and Modigliani argue that a combination of media behavior, resonance with cultural themes, and "sponsor activities" (the behavior of those individuals advancing a particular frame) drive this shifting of frames (1989). These three factors form the foundation of the authors' model of public discourse, which argues that the life of a frame – its popularity and endurance – is constrained by each factor in turn. In other words, frames are not set in stone, and those frames which are no longer viable are cast aside in favor of something new.

We turn now to the work of Chong and Druckman, who in their "Framing Theory" construct not only a definition of framing but an explanation of the effects of framing on public opinion (Chong & Druckman 2007). Chong and Druckman masterfully define both framing and framing theory, stating "the major premise of framing theory is that an issue can be viewed from a variety of perspectives and can be construed as having implications for multiple values or considerations. Framing refers to the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue," (Chong & Druckman, 2007, p.105). Undergirding this conception of framing is the so-called conventional expectancy value model of attitudes, in which an attitude is defined as the sum of all cognitions about an attitude object – if an individual has more positive than negative feelings about a given object, then she will display a positive attitude toward it (Chong & Druckman, 2007). Everyone has an internal logic which governs this calculation, and it is the boundaries of this logic which form his "frame in thought" (Chong & Druckman, 2007). For instance, if an individual is developing an attitude on a presidential candidate, he may weigh all the positive and negative features of the candidate equally – and his frame in thought would thus comprise an amalgamation of all those

features. If, however, the individual's frame in thought elevates a feature of the candidate above all others, that feature will be frame through which the candidate is viewed.

Frames in thought differ from frames in communication, which refer to the key aspects of a given event or object which are emphasized in a message (Chong & Druckman 2007). These latter frames are key to understanding the impact of framing on public opinion, as they directly shape the attitudes and behaviors of those individuals that receive and adopt them. For frames to have an effect, the beliefs upon which the frame is constructed must be available and accessible – meaning the given considerations must already exist in an individual's mind and must be retrievable from the depths of memory (Chong & Druckman, 2007). A belief that is both available and accessible is then subconsciously judged on its applicability, a measure that arises when an individual is sufficiently motivated (Chong & Druckman 2007). Framing effects can shape public opinion at each stage of the process – making beliefs available, making them accessible, or making them applicable (Chong and Druckman, 2007).

We conclude our examination of the current literature in framing with the work of Nelson. In his excellent "Emphasis Framing and Political Decision Making," Nelson describes a particular type of frame – an emphasis frame – which manipulates the importance of one aspect of an issue or attitude object to place it above all others (Nelson 2019). According to Nelson, emphasis frames are everywhere from the desks of journalists and the mouths of politicians to the bulletins of social movement groups (2019). Emphasis frames are both frames in communication and frames in thought – they manifest in both speech and cognition. As such, emphasis frames can have lasting political effects: shifting how an issue is interpreted, adjusting the relevance of different aspects of an issue, or opinions about an issue itself (Nelson 2019).

Emphasis frames are key pieces of the puzzle of understanding political beliefs, but Nelson sagely cautions us: they are not everything.

With the literature that was most influential to this exercise now fully reviewed, it is time to turn toward our own research. The work of scholars in the field of motivated reasoning tells us that individuals resist changing their opinions, and that this resistance often results from an unconscious motivation toward consistency with past beliefs. The motivated reasoning research tells us that individuals can only engage in motivated reasoning when they can justify their resistance to change, and that these justifications must be raised from the depths of memory. Until this point, the research on motivated reasoning has focused primarily on disconfirmation. But this investigation suggests a new path: reframing. The researchers working in the domain of framing tell us that frames shape how an individual thinks about an issue, and that frames can change as needed. Frames, it seems, can be conjured from the same depths of memory from which justifications can be drawn – even if these frames simply emphasize one aspect of an issue above another. Reframing an issue, presents an alternative pathway through which an individual may engage in motivated reasoning.

Hypothesis:

H1: When confronted with information that conflicts with a currently held belief, individuals will reframe the issue in contention so that the challenged belief is no longer emphasized.

H2: Participants' attitudes will remain unchanged, even when the beliefs that serve as the foundation of those attitudes have been challenged with credible information.

We conducted two experiments to test our hypothesis. Each experiment consisted of two parts. In the first part, participants' attitudes were assessed, along with the *reasons* for those

attitudes. In the second part, the reason that had been ranked as "most important" in part one was challenged with strong, credible information. We then measured participants' attitudes again along with the reasons for that attitude. We predicted that challenged participants would maintain the same attitude but reframe the issue by ranking a *different* reason as "most important" for their attitude.

This investigation comprises two studies. The first study, which occurred in the Fall of 2017 and the Fall of 2018, will be discussed here. The second study, which occurred in the Spring and Fall of 2019, will be discussed later.

Study One

Overview

Study One was conducted with the express purpose of measuring the reframing performed by subjects whose beliefs were challenged. This study took the form of a two-part experiment in which participants were surveyed to obtain their attitudes toward three political issues (gun control, capital punishment, and the construction of a wall on the southern border) and the most important beliefs (hereby referred to as reasons) undergirding that attitude. Participants were then sorted into two groups: an experimental group in which participant reasons were challenged by a specifically tailored argument, or a control group in which participants were provided with no further information. After receiving either the experimental treatment or the control treatment, participants were again asked for their opinions and most important reasons. Those individuals whose opinions did not change but whose most important reason did were interpreted as having reframed the issue – a statistically significant phenomenon in the border wall issue.

Methods

Design/Procedures

In the fall of 2017, participants were drawn from a pool of Ohio State Political Science students. All data was collected by electronic Qualtrics surveys sent via Ohio State email. The study began with a pre-test in which a separate sample of respondents from the same population were electronically surveyed for their opinions on a number of issues: capital punishment, gun control, legal immigration reduction, genetically modified organisms (GMOs), regulation to combat climate change, and the building of a wall on the southern U.S. border. Participants were asked to choose whether they support or oppose each issue. Those participants who expressed an opinion on an issue were asked to provide up to their top three reasons for their position. These reasons were then coded by hand into discrete categories, so that similar reasons were lumped together. These groups of reasons, then, became the basis of the experiment proper.

From the pretest, only the issues of gun control, capital punishment, and the border wall were used in the experiment. Once again, participants were drawn from a pool of Ohio State Political Science students, and the experiment was conducted electronically in the Fall of 2018. As before, all data was collected by electronic Qualtrics surveys sent via Ohio State email. At time one (henceforth T1) in the experiment, participants were asked to provide an opinion on each of the three issues and then rank four reasons, drawn from the pretest, with respect to their *importance* for their opinion – with the first ranked reason being the most important. Participant political knowledge need for cognition, and ideology data was also measured, but do not enter the analyses reported here. The bank of reasons which participants were instructed to rank was drawn directly from the coded data from the pre-test.

At T2, approximately one week after T1, participants were again surveyed electronically. Those participants assigned to the experimental condition for an issue were then presented with a brief argument a few sentences in length. Participants were randomly assigned to either an experimental or control condition. After receiving either the experimental or control treatments, participants were instructed to provide their opinion on each issue, as well as rank the four provided reasons, with the first-ranked reason reflecting the reason which participants felt was most important. Movement in these rankings – particularly downward movement in the first ranked reason – was interpreted as evidence that the first-ranked reason was no longer the most important consideration undergirding the participant attitude. Such movement, then, would suggest the use of reframing to uphold pre-existing attitudes.

Experimental treatments

Participants were randomly assigned to a treatment or control group. In the treatment condition, the reason selected as the most important at T1 was challenged by a specifically tailored pre-constructed argument generated by the investigators. These arguments employed a combination of real and fabricated statistics, experts, and studies to ensure the highest possible degree of strength was achieved. Example arguments follow. Those participants that were sorted into the control treatment received nothing at all – they simply moved along to the next survey question.

Argument Example 1

In response to the provided reason that "the death penalty is a successful deterrent of violent crime:" *A recent Harvard University study concluded that*

states with the death penalty have twice the rate of recidivism as those that do not. Interviews conducted for the background of this study revealed that many inmates did not consider the possibility of the death penalty when considering their crimes, and 24% said that they preferred death to life on the streets.

Argument Example 2

In response to the provided reason that "certain classes of firearms should be banned from civilian purchase:" *A recent study conducted by Everytown for Gun Safety concluded that assault weapons are used in less than one percent of all crimes, and that legislation centered around these firearms would be largely ineffective. The previous Assault Weapons ban of the Clinton administration resulted in a 500% increase in the use of these weapons in violent crimes.*

Argument Example 3

In response to the provided reason that the "construction of a wall on the Southern border of the United States would prevent the smuggling of drugs into the country:" *A recent report published by the Drug Enforcement Agency analyzed the trafficking of drugs in this country and revealed that over 3/4s of the drugs currently on the streets originated in the United States.*

Measures

The key variables examined in this investigation were: participant opinion, participant opinion strength and confidence, and participant reason importance. A key effect – treatment impact – was measured as well. Participant opinion in this context refers to the attitude expressed by the survey respondents on a given issue

area – these expressions took the form of responses to a survey question which asked participants if they supported or opposed a given measure. As such, participant opinion was measured through these responses, supporting opinions were coded as "pro" and opposing opinions were coded as "con," and a list of pre-selected possible reasons was provided on this basis.

The self-reported strength and confidence with which participants held their attitudes were measured in an identical manner. Participants were asked to rate each independently on a six-point scale, with the lowest end of scale (1) corresponding to "not at all strongly," and "not at all confident," respectively. The highest end of the scale (6) corresponded the greatest degree of strength and confidence – "extremely strongly" and "extremely confident," in turn.

Each participant, upon expressing an opinion that was either positive or negative on a given issue, was then presented with a list of possible reasons for this opinion. These reasons were specifically selected from the pre-test data as those which were most frequently offered and thus most likely to be applicable to the greatest number of participants. Participants were then asked to rank the provided reasons from one to four, with the first reason being the statement they feel is the most important. This first-ranked reason was then selected to be challenged by a specifically tailored counterargument.

The impact of the argument – the measure we are tracking to see if reframing is occurring – is the movement in the first ranked reason from T1 to T2. The greater the degree of movement, the greater the perceived reduction in reason

importance – in other words, a drop from rank one to rank four is a greater

reduction in importance than a drop from rank one to rank two.

Results

The first hypothesis guiding this investigation – that individuals presented with

information that conflicts with their currently held opinions will reframe their conception

of the issue so that the contested information is no longer important – suggests that we

should expect the individuals in the treatment condition to engage in motivated reasoning

through reframing in the face of the provided challenge. We expect that this reframing

would manifest in the data in the form of movement of the first ranked reason from T1 to

T2. We predicted greater movement among those in the treatment condition than among

those in the control group. This reduction in rank corresponds to a shifting of the

emphasis frame of the issue – the reason which was previously emphasized is no longer

being emphasized, and thus its rank collapses as a result.

As was previously mentioned, this first study covered three issues: gun control,

capital punishment, and the building of a wall on the southern border. Of these, only the

wall case produced statistically significant data. As such, the first two cases will not be

discussed further.

Table One: T1-T2 Attitude Stability (Treatment Group)

Time 1 Opinion	Time 2 Opinion		
	Favor	Oppose	Total
Favor	24 (83%)	5 (17%)	29 (100%)
Oppose	6 (8%)	69 (92%)	75 (100%)

Table Two: T1-T2 Attitude Stability (Control Group)

Time 1 Opinion	Time 2 Opinion		
	Favor	Oppose	Total
Favor	22 (92%)	2 (8%)	24 (100%)
Oppose	1 (2%)	79 (98%)	80 (100%)

In this study, 208 randomly assigned participants were evenly divided between the treatment and control groups. In both the treatment and control groups, the majority of participants expressed an anti-wall opinion. It is also apparent that the data supports hypothesis two – that participant attitudes will not change even if the reasons behind those attitudes are challenged. Indeed, in the treatment group 89% of respondents did not change their attitudes as a response to the challenge, compared to the 97% of respondents in the control group that did not change their attitudes. There is, of course, a difference between these groups --there is more stability in the control group than in the treatment group, indicating that some participants accepted the challenge and changed their attitudes – but the overwhelming majority in each case retained their original attitudes. From here we can shift to discuss another novel find in the data – the impact (or lack thereof) of the experimental treatment on strength and confidence.

Table Three: Treatment Group Strength and Confidence Change

Mean value Treatment group	How strong is their opinion? (the larger, the stronger)		How confident do you feel? (the larger, the stronger)	
	Time 1	Time 2	Time 1	Time 2
Change opinions	2.82	2.1	3.45	2.1
Remain opinions	4.20	4.13	4.29	4.11

Table Four: Control Group Strength and Confidence Change

Mean value Control group	How strong is their opinion? (the larger, the stronger)		How confident do you feel? (the larger, the stronger)	
	Time 1	Time 2	Time 1	Time 2
Change opinions	3.33	3.67	3.67	3.33
Remain opinions	4.32	4.40	4.51	4.51

Interestingly, the treatment condition was found to have no statistically significant effect on the strength and confidence variables. This is true both in cases where participants maintained their attitude in the face of a challenge and when they changed their attitude after the challenge. As we can see in tables four and five, there is no statistically significant difference between the control group and the treatment group in either case – the treatment did not have an effect on strength and confidence, regardless of attitude change. All the same, it is apparent that the few individuals who did change their opinions had expressed less confidence and strength in their opinions at T1 – a finding which is especially true of those in the treatment group. It is certainly possible that these lower scores help to explain why it is that these individuals changed their opinions – they felt less strength and confidence in their orginal opinion, and were more likely to simple change their opinion. With this surprising finding documented, we can proceed now to our most important finding: the impact of the experimental treatment on the ranking of the first-ranked reason.

Table Five: Change in Ranking of First-Ranked Reason, (Treatment vs. Control)

		Change in Ranking of First-Ranked Reason at T1 (Border Wall)				
		None	1→ 4	1→ 3	1→ 2	Total Changed
Condition	Treatment (N = 84)	37 (44%)	19	11	17	47 (56%)
	Control (N = 96)	56 (58%)	11	8	21	40 (42%)

Table five shows the degree of change in the rankings of the reasons that had been ranked

first at T1 for both the treatment and the control group. As a refresher, these first ranked reasons

are those which the participants identified as the most important reasons undergirding their

attitude toward a political issue – in this case, the construction of a wall on the southern border –

at time 1. We hypothesized that this ranking would fluctuate when challenged as the participant

engages in motivated reasoning – shifting the emphasis frame of the issue so that the first ranked

reason is no longer the most important. We expected significantly less movement in these first-

ranked reasons within the control group. A Welch two sample T Test (in which the difference

between the average change in the control and treatment groups is analyzed) revealed a striking

conclusion: in the case of the construction of a wall on the southern border, the treatment group

devalued their first-ranked reasons significantly more than the control group (p = .0155). In other words, the movement in rankings in the treatment group is non-random – suggesting that the participants were actively reframing their view on the issue of the wall.

Discussion

Study 1 provided evidence consistent with our reframing hypothesis. The suggestion that individuals engage in motivated reasoning not only by relying on the disconfirmation bias, but by reframing the issue in contention – a conclusion borne out by this research – is interesting not only for its implications for political science but for society at large. That participants manipulated their rankings – subconsciously or consciously – after having said ranks challenged is a suggestion as to the nature of motivated reasoning.

The viability of reframing as a means of motivated reasoning is not the only discovery unearthed by this study. The experimental data on the measures of strength and confidence – which shows that neither was directly affected by a challenge, regardless of the shifting in the underlying opinion – is a thought-provoking area for further exploration. Likewise, the discovery that the treatment and control groups were nearly equally unlikely to change their opinions was of great interest. This result was directly predicted by our second hypothesis, which contends that the participants will not change their underlying opinions in the face of a challenge.

This study, despite its promising suggestions about reframing as a means of motivated reasoning, is not without its limitations. There is, of course, the obvious problem that only one out of three issues was able to produce statistically significant data

– the explanation for which eludes us even now. It is possible that there is something unique about the wall and similar issues that makes it more likely for participants to engage in motivated reasoning, but the cause of this discrepancy is still yet unknown. Further research in this area – including the second study of this investigation – is needed to understand how, why, and when individuals choose to reframe issues to engage in motivating reasoning. At minimum, we need to replicate the "wall" findings with another issue.

There are several other limitations with this study, though none are quite as glaring as that which was previously mentioned. There is also the issue of the persuasiveness of the provided arguments. The arguments themselves are quite brief – a side effect of having to write dozens of them – so their effectiveness at inducing motivated reasoning may be hampered for this reason. What we perceive to be a strong argument may not actually be perceived as all that strong, further limiting the effectiveness of the treatment. It is also quite possible that an argument could be made that our experimental treatment does not measure what it purports to measure. It is possible that the act of merely asking those participants in the treatment condition to read material about a given issue caused them to re-evaluate their reasoning on the issue – regardless of the presence of a challenge. Because the participants in the control group were not provided any information at all, we have no evidence to refute that claim – a limitation addressed in study two. It is also possible that the length of time between T1 and T2 is simply too great – a week is a long time in the hectic life of a college student.

It is for these reasons that we decided to pursue a second study. We took careful steps – as will soon be apparent – to ensure that many of the limitations in this study were

not repeated. The results of the second study speak for themselves, but this first study represents an interesting – and somewhat novel – investigation into motivated reasoning.

Study 2

Overview

The objective of study two, as before in study one, was to attempt to uncover the usage of reframing as a form of motivated reasoning on the part of research participants that have had an attitude challenged. As before, this was a two-part experiment in which participants were asked to identify their attitude toward a given issue and choose which reason from a bank of reasons was most important to their attitude. After participants had responded to each of the three issues, they were then presented with a series of questionnaires that served as distractor tasks. Upon completion of the questionnaires, the participants were then randomly assigned to two conditions: treatment and control. Those in the treatment category received a specifically tailored challenge to their most important reason, while those in the control group were simply provided with information about the given political issue. The participants were again asked to provide their opinion and top-ranked reason for each issue area. Downward movement for first-ranked reasons in the treatment group was interpreted by the researchers as evidence for reframing.

Methods

Design

Much of the design for study two is like study one. The general contours of the study – a two-stage study that was electronically delivered – are the same. The length of time between T1 and T2 had been drastically shortened, down from one week to approximately ten minutes. This was done to reduce the risk of participants forgetting their original reason rankings. Otherwise, the experiments are much the same.

In the Spring of 2019, the investigators conducted a pre-test very similar to the one employed in study one. Participants, who were drawn from a body of Ohio State political science students, were asked to provide responses on the issues of legalized marijuana, legalized prostitution, expanded healthcare access, mandatory vaccines, affirmative action, and the so-called Green New Deal. Of these, marijuana legalization, prostitution legalization, and affirmative action all seemed promising enough to use in the experiment.

In a departure from study one, the counterarguments crafted during this study – which were specifically tailored to the reasons taken from the pre-test data – were assessed for their strength prior to their use in the experiment. This assessment in strength came in the form of a pre-test in which participants – drawn from a pool of political science students at Ohio State – provided their opinion on the issues of marijuana legalization, prostitution legalization, and affirmative action.

The experiment conducted is, by design, quite like the one conducted in study one. The largest difference – aside from the selection of three new issues – is the change in the span of time between T1 and T2. Whereas in study one this

gap was one week, in study two the gap amounted to the time taken to fill out a series of questionnaires that doubled as a distractor task. As before, participants drawn from a pool of Ohio State political science students were asked to provide their opinion on three issues. Participants could choose to support or oppose a given issue, there was no option to express "no opinion". Once a participant expressed an opinion, he or she was then asked to rank four possible reasons, drawn from the pretest. Once the reasons had been ranked (with the first-ranked reason being the most important to them) participants were then given a series of questionnaires to distract them – to take their minds off their previous answers.

Upon completing the questionnaires, research participants were then given either a specifically tailored challenge or given impartial information about the issue. Which treatment a participant received was randomly assigned – with the treatment group receiving the strength-tested and specifically tailored arguments, and the control group receiving the impartial information. This change – in which the control group receives neutral information instead of no information at all – was made to guard against the possible criticism that someone in the treatment condition, having been provided with any information (challenging or otherwise) would change his rank order, and thus be falsely perceived as engaging in motivated reasoning. Participants in both the challenged and unchallenged conditions were then asked to again provide their opinions and rank the given reasons.

Experimental treatments

The experimental conditions in this study were identical to those in the first study. Participants were again randomly assigned to either a treatment or control condition. In the treatment condition, the reason selected as the most important at T1 was challenged by a specifically tailored pre-constructed argument, which had been previously tested for strength, generated by the investigators. Those participants in the control condition received impartial information on the political issue. The arguments presented to the experimental group employed a combination of real and fabricated statistics, experts, and studies to ensure the highest possible degree of strength was achieved. Example arguments follow.

Example Argument Four

In response to the claim that "it is safer and easier to legalize prostitution:" *According to the 2018 FBI crime report, states with lesser penalties for prostitution experience significantly higher levels of human trafficking than those that stringently regulate prostitution. A 2017 report issued by the United Nations Human Rights Council found a similar relationship between decriminalization and human trafficking on a global level. Further, this report also concluded that legalization is harmful to sex workers, with the majority (68%) reporting that relaxing legal regulation resulted in higher disease risk, greater levels of violence, and more stress overall. Finally, a comparative study conducted by Columbia University revealed that 24% more women self-reported violence in legal prostitution area, when compared to areas in which prostitution is illegal.*

Example Argument Five:

In response to the claim that "the legalization of prostitution will increase sex trafficking:" *Officer Keegan O'Reilly, of the Irish Crime Bureau (the Irish equivalent of the Federal Bureau of Investigation) recently gave an impassioned speech on the topic of sex work to the United Nations Delegation on Women. In his speech, O'Reilly spoke at length about the many benefits of the legalization of sex work, paying special attention to the many tools this legalization has given him to combat human trafficking both at home and abroad. He emphasized that the legalization of prostitution in Ireland has been especially effective in preventing the trafficking of minors –arrests of child traffickers have more than quadrupled.*

 Example Argument Six

In response to the claim that "Affirmative Action is reverse racism:" *Affirmative action does not favor people of color over whites but ensures that they are considered equally. Even now, white college students are 40% more likely to get private scholarships than minorities, and although 62% of college students in America are white, these students receive 69% of all private scholarships. Someone with a "white sounding" name is 50% more likely to get a job call back than a person with an "ethnic" sounding name, according to a 2003 study. Caucasians still dominate the best universities, boards of the largest companies, the legal profession, the media and politics. White men are significantly more likely than other races to occupy senior-management roles in a company. Only 6.3% of trustees in the largest charities are from black, Asian or minority ethnic backgrounds. Affirmative action does not take anything away from anyone. Racial*

majority groups have systematic advantages in the education and application

systems. Affirmative action levels the playing field.

Measures

As before, the key variables examined in this investigation were: participant opinion, strength and confidence, and participant reason importance. Once again, the key measurement was treatment impact. Participant opinion again refers to the attitude expressed by the survey respondents on a given issue area – these expressions took the form of responses to a survey question which asked participants if they supported or opposed a given measure. Supporting opinions were coded as "pro" and opposing opinions were coded as "con," and a list of pre-selected possible reasons was provided on this basis.

Participant strength and confidence was measured by asking participants to rate each independently on a six-point scale, with the lowest end of scale (1) corresponding to "not at all strongly," and "not at all confident," respectively. The highest end of the scale (6) corresponded the greatest degree of strength and confidence – "extremely strongly" and "extremely confident," in turn.

Each participant, upon expressing an opinion that was either positive or negative on a given issue, was then presented with a list of possible reasons for this opinion. These reasons were specifically selected from the pre-test data as those which were most frequently offered and thus most likely to be applicable to the greatest number of participants. Participants were then asked to rank the

provided reasons from one to four, with the first reason being the statement they felt was the most important. This first-ranked reason was then selected to be challenged by a specifically tailored challenge.

The impact of the argument – the variable we are tracking to see if reframing is occurring – is the movement in the first ranked reason from T1 to T2. The greater the degree of movement, the greater the perceived reduction in reason importance – in other words, a drop from rank one to rank four is a greater reduction in importance than a drop from rank one to rank two.

Results

Once again, the first hypothesis guiding this investigation – that individuals presented with information that conflicts with their currently held opinions will reframe their conception of the issue so that the contested information is no longer important – suggests that we should expect the individuals in the treatment condition to engage in motivated reasoning through reframing in the face of the provided challenge. We still expect that this reframing would manifest in the data in the form of movement of the first ranked reason from T1 to T2, that those individuals that received the experimental treatment should, in theory, reduce the ranking of their first ranked reason after being challenged. We expect that this movement would be greater in the treatment group than in the control group. This reduction in rank once again corresponds to a shifting of the emphasis frame of the issue – the reason which was previously emphasized is no longer being emphasized, and thus its rank collapses as a result.

Like the first study, this second study also covered three issues– legal marijuana, legal prostitution, and affirmative action. Much like the first study, only one case, marijuana, produced statistically significant data. Once more, the latter two issues will not be discussed further.

Table Six: Attitude Change for Legalized Marijuana Issue

Legalization of Marijuana (Treatment and Control), N=111)	(T2) Favor	(T2) Oppose
(T1) Favor	98 (100%)	0 (0%)
(T1) Oppose	0 (0%)	13 (100%)

In this study, 111 participants were randomly assigned into either the treatment or control group. The treatment group was comprised of 60 individuals, and the control group 51. Table six shows an enlightening discovery – **none** of the participants in either condition changed their original opinions. This is certainly in line of the predictions of our second hypothesis, which holds that participants will not change their underlying opinions in the face of a credible challenge. We turn now to the most striking finding in this second study – the impact of the treatment on the first-ranked reasons.

Table Seven: Change in Ranking of First-Ranked Reason, (Treatment vs. Control)

		Change in Ranking of First-Ranked Reason at T1 (Marijuana)				
		None	1→ 4	1→ 3	1→ 2	Total Changed
Condition	Treatment (N = 60)	29 (48%)	13	10	8	31 (52%)
	Control (N = 51)	39 (76%)	6	3	3	12 (24%)

Table seven shows the amount of change in the 1st-ranked reason from T1 to T2, for the control and treatment groups. The greater the drop, the more the emphasis has shifted away from the attacked reason. As predicted, the treatment group showed greater movement than the control group. This discovery was found to be statistically significant with a p-value of 0.0. Larger movement, in this context, directly corresponds to a greater drop in the rankings for the first ranked reason – meaning that the treatment group devalued their first ranked reason more than the control group. This devaluation in the first ranked reason is direct evidence in the support of our hypothesis, and direct evidence that reframing is an alternative method of motivated reasoning.

Discussion

This study now provides us with a second piece of evidence that reframing serves as a valid alternative pathway for individuals engaging in motivated reasoning – this time, for an entirely different issue (legalizing marijuana). Individuals in the treatment

condition engage in a shifting of emphasis frames that is measurable in the data. This shift, which is represented in the data as a lowered ranking of the first-ranked reason, provides us with strong evidence that participants are reframing their attitudes so that the attacked reason is no longer emphasized. This shifting in emphasis allows the participants to preserve their core attitude – a classic case of directionally motivated reasoning.

This study also explores the durability of attitudes in the face of challenges. As was the case in study one, those participants that had their reasons challenged did not change their opinions – their core attitudes were unaffected by the attack on their most important reasons. In this study this conclusion is made more convincing by the fact that none of the participants changed their underlying opinions. The fact that no one in either the treatment or control group changed their opinion is striking. While it is certainly possible that some aspect of the experimental design – the short time interval between T1 and T2 seems a likely suspect – could be driving this peculiar data point, but the data nevertheless reveals that participants in the treatment group did not change their attitudes in the face of a strong challenge.

This finding is striking because it again adds to the ever-growing body of research on the topic of motivated reasoning – stretching the discipline to include new and novel considerations. This study builds on the work of study one and adds further evidence to the claim that reframing serves as a valid alternative method of motivated reasoning. Like study one before it, this study is not without its own problems. Again, only one of three issue areas produced a significant change in rankings, raising further questions about when and where reframing will occur. Another study with a larger sample size comprised of the general public would likely yield more interesting data. It is certainly possible that

a larger sample size would produce statistically significant data for some or all the other issue areas. It is also certainly possible that a study of the general public would reveal more data about the nature of reframing as a method of motivated reasoning – college students are homogeneous in their education levels – but it is important to note that there is nothing unique about college students in their capacity for motivated reasoning – everyone engages in it.

Conclusion

The conclusion of studies one and two leaves us at in an exciting place. We have solid, statistically significant data that suggests that reframing is an alternative method of motivated reasoning, but this conclusion is only true in two out of six cases. Similarly, we have data suggesting that participant opinions are resistant to change in the face of attacks on the reasons undergirding those opinions.

It is undeniable that reframing is a method of motivated reasoning. The data is clear on this point – and we have conducted two studies to support it. Each of these studies compared a treatment group in which the researchers attempted to induce motivated reasoning by challenging an important reason – a key belief underlying a political opinion – against a control group in which no challenge was given. In each study, the treatment group (for at least one issue area per study) produced a greater reduction in the ranking of their previously first-ranked reason than that which was seen in the control group. This devaluation in the ranking of the first-ranked reason in the treatment group seems to suggest a shifting of the emphasis thought frame in the mind of the participant. This shifting of the frame – in which a frame which was once considered important is now suddenly made unimportant – allows the participant to preserve her original political opinion in an unchanged form. This cognitive maneuver to maintain an opinion in the

face of a strong challenge is a textbook example of motivated reasoning, just in a form which has not been previously discussed.

For all the new ground that this investigation has covered, it is not without its drawbacks. The first and most glaring is that reframing has only been identified in 33% of the cases in which it has been tried. The factors underlying this unequal expression are not yet understood. It is not unlikely that some of blame for this peculiarity can be laid at the feet of the design of this experiment. Perhaps the challenges themselves were not sufficiently strong to arouse much motivated reasoning, or perhaps the challenges were more likely to elicit a disconfirmation bias response than a reframing response. Perhaps the sample sizes were too small, or the population from which the participants were drawn was unique in some way. All these possibilities present a great many avenues for exploration – but also point to limitations in this study. More participants and participants drawn from a broader swathe of the general public would both produce a more robust (and more representative) view of the potential of reframing to engage in motivated reasoning.

The counterarguments used in this study are relatively short and relatively shallow. Perhaps a better experiment would craft longer arguments that are more thoroughly developed but doing so also opens the door for more opportunities for participants to identify perceived flaws in the arguments and dismiss them out of hand. Better yet would be an experiment that forgoes the pre-tested bank of responses altogether, one that crafts a unique response to each participant's own most important reason. Such a program is certainly possible, but it is far beyond the capacity of this endeavor. An area of exploration which was briefly raised during this investigation – though never implemented in an experiment proper – is the usage of different types of arguments to challenge the participants. Rather than focusing solely on the sort of dry,

logical arguments offered in this investigation, perhaps one which relied on more emotional arguments may produce different or more robust results.

It is also possible that we have not yet struck the perfect balance of time between T1 and T2. A week may have been too long, and ten minutes too short. The temporal dimensions of reframing as a method of motivated reasoning are entirely unexplored – it is certainly possible that an interval well between those used here would produce better results than ours. At present such effects are entirely unknown.

So where do we go from here? This fusion of reframing and motivated reasoning is utterly unique in political psychology, meaning that a great many horizons of inquiry await those investigators who continue where we left off. Some of these horizons have been mentioned already – crafting larger and more representative experiments, introducing new styles of argumentation, or playing with the length of time between T1 and T2 – but the most fruitful and most challenging areas of inquiry are related to the mysterious nature of reframing as a method of motivated reasoning. Why is it that only some participants seem to engage in this form of motivated reasoning? Why is it that only two of the six issues explored produced good data? Examinations of moderating variables conducted by the research team produced little of note – these questions remain as baffling to us as the day they were raised. It is these two areas that suggest the greatest promise. It has been said that motivated reasoning has a limit (Kunda 1990). Is there a limit to reframing as motivated reasoning? Further, when does an individual engage in reframing over disconfirmation bias? Are our participants even aware that they are engaging in this form of emphasis reframing? This new fusion of the bodies of research in motivated reasoning and reframing has brought us to a new frontier of political psychology, but questions

abound. We hope that these questions can be answered, and that the kinks in our research design can be worked out.

The impact of this new form of motivated reasoning on the broader public is vast. Our new research suggests yet again that we, as *Homo sapiens,* are not terribly good at changing our minds. This has broad implications for nearly every facet of human life – our private, public, and political lives all rely on our ability to persuade each other. This new research suggests that this persuasion is even more difficult than we had previously assumed – we are far less likely to change our attitudes in the face of a challenge than we are to engage in some cognitive sleight of hand to ensure that our original attitudes are preserved. Perhaps most striking is the fact that it is not at all clear as to what degree the participants are aware that they have engaged in emphasis reframing. If so much of defensive cognitive behavior occurs beneath the conscious level, the task of persuading our friends, coworkers, and loved ones becomes all the more difficult. Whatever the broader implications of this investigation may be, it is now exceedingly clear that in the realm of motivated reasoning, reframing is the same devil – just wearing a brand-new dress.

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