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Sirois, F. [orcid.org/0000-0002-0927-277X](https://orcid.org/0000-0002-0927-277X) and Iyer, A. [orcid.org/0000-0001-7788-6709](https://orcid.org/0000-0001-7788-6709) (2018) “At least David Cameron resigned”: the protective effects of just-world beliefs for counterfactual thinking after Brexit. *Personality and Individual Differences*, 121 (15). pp. 25-30. ISSN 0191-8869

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"At Least David Cameron Resigned": The Protective Effects of Just-World Beliefs for  
Counterfactual Thinking After Brexit

Fuschia M. Sirois, B.Sc., Ph.D.

Aarti Iyer, Ph.D.

Department of Psychology, University of Sheffield, United Kingdom

Correspondence concerning this article should be addressed to Fuschia M. Sirois,  
PhD, Department of Psychology, the University of Sheffield, 1 Vicar Lane., Sheffield, United  
Kingdom S1 2LT; tel: +44 (0) 114 222 6552; Email: [f.sirois@sheffield.ac.uk](mailto:f.sirois@sheffield.ac.uk)

### **Abstract**

Following an unexpected geo-political event, such as the United Kingdom's June 2016 referendum vote to leave the European Union ("Brexit"), people will make counterfactuals that mentally undo the outcome and imagine what might have been had the outcome gone in the predicted direction. Yet little is known about how such counterfactuals may impact well-being, or the individual differences that might protect individuals from making potentially distressing upward counterfactuals. We examined the extent to which individual differences in enduring just-world beliefs shape the number of upward counterfactuals generated by British "Remain" voters, and the resulting effects on vote-related well-being. Participants who were directed to make counterfactuals reported the same levels of vote-related well-being as those who were not directed to make counterfactuals. Among those who made counterfactuals, making more upward counterfactuals was associated with reduced well-being. However, holding just-world beliefs limited the number of upward counterfactuals that were made and thus protected individuals from this distress. Our findings demonstrate that individual differences in enduring beliefs about the fairness of a vote may protect voter well-being when there will not be a second vote.

**KEYWORDS:** Just-world beliefs; Counterfactual thoughts; Brexit; Well-being

## Introduction

Unexpected reversals in political events, such as a predicted narrow victory turning into defeat, can leave people feeling incredulous and helpless, with detrimental effects on well-being. Many people cope with these feelings by trying to regain control and make sense of the event. For example, people might mentally undo the outcome, and imagine what might have been had events gone in the predicted direction, whereas others might imagine how things could have been worse and accept the outcome (see Gleicher et al., 1995; Markman & Miller, 2006). These mental simulations, known as counterfactual thoughts, are central to human thinking and emotion (Epstude & Roese, 2008), and most often focus on better alternative outcomes (upward counterfactuals) to an event that did not turn out as hoped for. Pondering how things could have been better can make people feel worse about the actual outcome, yet also highlight corrective actions that can help avoid similar negative outcomes in the future (Epstude & Roese, 2008). However, this functionality can only be realized when events are both likely to occur again, and perceived to be under the individual's control (Markman, Gavanski, Sherman, & McMullen, 1993).

The functionality of counterfactuals is undermined for singular events that are outside individuals' control, such as a national referendum vote on a political issue. In such cases, generating upward counterfactuals may have adverse consequences for individuals' well-being. However, certain individual differences may limit the number of distressing counterfactuals people make. To investigate these propositions, we examine the negative effects of generating upward counterfactuals on vote-related well-being among those who voted "Remain" in the United Kingdom's (UK) 2016 European Union (EU) Referendum, and the extent to which enduring justice beliefs reduce a tendency to make distressing upward counterfactuals.

To our knowledge, few studies have considered the role of counterfactual thinking in

the political domain, or how individual differences may influence these thoughts. For instance, research shows that exposure to counterfactuals influences intentions to support a political party after an electoral defeat (Milesi & Catellani, 2011). Yet little is known about the extent to which counterfactuals might be used to help manage well-being after a disappointing political outcome, or the role of individual differences in shaping counterfactual thinking in such circumstances.

### **Just World Beliefs and Geo-Political Events**

People experience a “justice motive,” such that they are concerned with achieving justice and fairness even in contexts in which they do not explicitly articulate these principles (Lerner, 1980). According to this perspective, people tend to believe that the world is just and fair; the use of such an organising principle creates a sense of order and control in an otherwise unpredictable world.

Subsequent work has investigated individual differences in just-world beliefs (JWB; Dalbert, 2009), and has organised these beliefs along two key dimensions. The first is type of justice principle (Dalbert, 2009): distributive (which emphasises outcomes, such that everyone gets what they deserve) versus procedural (which emphasises process and relationships, such that procedures are fair and everyone is respected; Tyler & Smith, 1988). The second is self-other focus (Lucas, Zhdanova, & Alexander, 2011), which differentiates between individuals’ beliefs about justice for themselves and justice for others. Together these two dimensions produce four types of enduring justice beliefs, each of which reflects a particular social value orientation (proself versus prosocial) and identity (personal versus social) (Lucas et al., 2011).

Individuals’ JWB have important consequences for social and political attitudes (Tyler & Smith, 1988), particularly when the JWB are other-focused. For example, higher levels of distributive JWB towards others predict negative attitudes towards low-status

groups who are perceived to deserve their negative (Lucas et al., 2011). In contrast, higher levels of procedural JWB predict more positive social attitudes, such as increased rights for low-status groups, to ensure fair treatment for all (Nacoste, 1990). Given the relevance of JWB to social and political issues, it seems likely that they would also shape individuals' responses to political events. Because people with other-focused JWB believe that the world is generally just and fair (Dalbert, 2009), they may not question the status quo, and thus be more accepting of the outcomes of unexpected political events.

### **Affective Consequences of Counterfactual Thinking**

The negative feelings that arise from undesired outcomes tend to activate counterfactual thinking, but counterfactual thinking itself can have consequences for affective states. *Upward counterfactuals*, which focus on contrasting actual and ideal states, tend to increase negative states such as regret (Markman et al., 1993), which can motivate actions to improve future outcomes (Epstude & Roese, 2008; Smallman & Roese, 2009). However, this preparative function is limited when the undesired outcome is controlled by others and/or the event is unlikely to occur again. In such cases, upward counterfactuals increase negative affect because the causal insights between actions and outcome afforded by the counterfactual cannot be implemented. Indeed, research on counterfactual responses to traumatic life events, which are beyond one's control, consistently finds that people who generate more upward counterfactuals in an attempt to regain a sense of control and cope with the event, instead experience increased psychological distress (Davis, Lehman, Wortman, Silver, & Thompson, 1995).

In contrast, *downward counterfactuals*—which focus on how a negative outcome could have been much worse but actually was not—can provide relief from the disappointment of undesired outcomes (Markman et al., 1993). Accordingly, downward counterfactuals can be strategically used to improve mood (Sirois, 2004). When the negative

event is controllable, a preference for downward counterfactuals in response to a negative event can be dysfunctional because the affect regulation function supersedes attempts to correct future behaviour (Roese, 1994; Sirois, 2004). When the negative outcome is uncontrollable and not likely to be repeated—such as a referendum vote—downward counterfactuals may be adaptive because they can protect against the negative feelings, and sense of helplessness associated with an unexpected negative outcome. JWB is one individual difference that has demonstrated links with making fewer upward counterfactuals and a greater number of downward counterfactuals (Kasmati & Wells, 1995), and may therefore be adaptive in this context.

### **The Current Study**

We investigated the role of JWB in predicting the generation of counterfactuals, and the impact on voter well-being following the outcome of the 26 June 2016 EU referendum vote. The “Brexit” vote was a one-off national vote, which advance polls suggested would favour the “Remain” voters, but instead ended with a close (52 to 48 percent) vote in favour of “Leave”. This unexpected turn of a singular uncontrollable event offers an ideal real-world political context to investigate the role of JWB in shaping counterfactual thinking and well-being.

Using an experimental design, individuals who voted “remain” were randomly assigned either to a counterfactual condition (instructions to generate counterfactuals) or a control condition (no mention of counterfactuals). We expected that participants in the counterfactuals condition who make more upward (relative to downward) counterfactuals would experience lower vote-related well-being relative to the control group. Following previous work (Diener, Suh, Lucas, & Smith, 1999), we assessed vote-related well-being along two dimensions: negative mood and vote-related dissatisfaction with both the conduct and the outcome of the vote.

We examined the extent to which JWB protect individuals from upward counterfactuals and the resulting negative implications for well-being. Given that self-related JWB are negatively associated with making upward counterfactuals and positively associated with making downward counterfactuals (Kasimatis & Wells, 1995), and that those with other-focused JWB may view political outcomes as fair and thus experience less vote-related regret, we hypothesised that those who held other-related JWB (either procedural or distributive) would make more downward relative to upward counterfactuals. This, in turn, would explain their lower levels of negative mood and dissatisfaction with the vote conduct and outcome, respectively.

## Methods

### Participants

Following clearance from the university research ethics board, 537 UK residents were recruited via advertisements on the University volunteers list, online classified ads, and social media between 12 and 35 days after the UK referendum vote (July 5-28 2016). Given that a sufficient sample of people voting “Remain” was required, and that it was expected that some individuals may not generate counterfactuals, a minimum sample size of 500 was sought to obtain at least 200 participants per condition, to ensure sufficient sample size for the within-subjects analysis.

Informed consent was implied through submission of the online survey and participation was anonymous. Participants were given the chance to win a £25 gift certificate. Data were excluded from: 6 participants who failed to generate counterfactuals as instructed, 34 participants who indicated that they did not vote, 1 participant who did not complete the JWB measure, and 55 participants who voted “leave” or did not specify their vote. The final sample included 441 people ( $M_{age} = 30.36$ ,  $SD = 11.57$ , range = 18 to 68 years, 67.9% female). Just over half of the participants were students (54.3%), and 3.6 percent had a high school education, 56.1 percent had an undergraduate university education, and 40.3 percent

had a post-graduate education level.

### **Procedure and Design**

All participants first completed baseline measures of JWB, affect, voting behaviour and attitudes regarding the UK referendum, and vote-related well-being. Participants then read a description of the events leading up to the UK referendum vote and its outcome, which highlighted aspects of the event that may have turned out differently, and its potential negative aspects. This type of presentation is commonly used to elicit counterfactual generation (e.g., Sirois, Monforton, & Simpson, 2010).

Participants were randomly assigned to either a counterfactual generation condition or a “facts only” control condition. In the counterfactual condition, participants were instructed to write down any “if only” or “at least” thoughts that they had in response to the description of the UK referendum vote, closely following instructions used in previous research (Sirois et al., 2010). Participants in the control condition wrote about the factual details pertaining to when and how they found out about the outcome of the referendum vote. Following these tasks, all participants again rated their vote-related well-being.

### **Materials**

Descriptive statistics and internal reliability for all measures appear in Table 1.

#### **Baseline Measures**

**Just-world beliefs, others.** The 8-item Procedural and Distributive Just-World Beliefs Scale, Others (Lucas et al., 2011), assessed dispositional tendencies to perceive distributions and procedures as being deserved by others. The 4-item *procedural just-world beliefs for others (PJWB)* subscale assesses beliefs about the deservedness of rules, processes and treatment toward others (e.g., “Other people are generally subjected to processes that are fair”), whereas the 4-item *distributive just-world beliefs for others (DJWB)* measure beliefs about the deservedness of outcomes for others (e.g., “Other people usually receive outcomes

that they deserve”). Items are rated on a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with the subscale scores created from the mean score of the four items within each subscale. Higher scores reflect a stronger belief in justice for others. Both subscales have demonstrated good internal consistency previously (PJWB, alphas from .79 to .93; DJWB, alphas from .85 to .87; Lucas et al., 2011).

**Positive and negative affect.** A 10-item visual analog scale (VAS) version of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) assessed general positive and negative affective states. The VAS PANAS consists of 10 adjectives reflecting different feelings (e.g., happy, upset), with 5 items for each of the positive and negative affect scales. Participants rated the degree to which they experienced of each of the feelings listed on a 7-point Likert scale ranging from 1 for *not at all* \_\_\_\_\_ to 7 for *extremely* \_\_\_\_\_, with each adjective inserted after the anchor. Psychometric properties for the full PANAS include good discriminant and internal reliability (alpha = .88)(Crawford & Henry, 2004); in the current study, reliabilities for the two subscales were adequate.

**Referendum vote attitudes and behaviours.** Two questions assessed whether or not participants voted in the EU Referendum (*Yes, No, prefer not to answer*), and how they voted (*Remain, Leave, prefer not to answer*). The likelihood that there would be a second Referendum vote was rated on a 7-point scale ranging from 1 (*not at all likely*) to 7 (*extremely likely*) to assess the assumption that the Referendum vote was viewed as a non-repeatable event.

### **Vote-Related Well-Being**

**Negative mood.** Momentary mood before and after the referendum task was assessed with a single item that displayed six circle faces with expressions ranging from very happy to very unhappy. Participants chose the face that reflected their current mood, with higher scores reflecting more negative mood.

**Dissatisfaction with conduct and outcome of UK referendum vote.** Two questions assessed dissatisfaction before and after the experimental task. “How satisfied are you with the way in which the UK Referendum was conducted?” and “How satisfied are you with the outcome of the UK Referendum?” were each rated on a 7-point scale ranging from 1 (*very dissatisfied*) to 7 (*very satisfied*). Higher scores reflected greater dissatisfaction.

### **Counterfactual Coding**

**Counterfactual Direction.** The direction of the generated counterfactuals (upward versus downward) were reviewed by two independent coders who received prior training and practice. Statements featuring outcomes that could have been better (e.g., “if only...”) were coded as upward counterfactuals, and those referring to outcomes that could have been worse (e.g., “at least...”) were coded as downward counterfactuals. Statements with no reference to possible alternative outcomes were coded as not being counterfactuals and were removed from the analysis. Disagreements were settled by a third coder (the first author) with extensive experience in coding counterfactuals.

An *index of counterfactual direction* was created by calculating the difference between the number of upward and downward counterfactuals made. Higher values indicated a tendency to make more upward relative to downward counterfactuals. This approach is consistent with previous research on individual differences and counterfactual thinking (Markman & Miller, 2006; Sirois, 2004; Sirois et al., 2010).

**Counterfactual Controllability.** To ensure that participants viewed the UK referendum vote as an event that was not under their direct control, the upward counterfactuals were coded as being controllable or not. Counterfactuals that were other- rather than self-referent were coded as being uncontrollable.

## **Results**

### **Counterfactual Coding**

Agreement for coding of direction for the statements was high (97.34%, Cohen's kappa = .923) and for coding of controllability was unanimous. Of the 974 generated counterfactuals, 758 (77.8%) were coded as upward counterfactuals, and all upward counterfactuals were coded as uncontrollable

### **Descriptive Analyses**

There were no differences between the two conditions with respect to age, sex, or student status. Participants in the counterfactual condition generated statements about different aspects of the referendum vote (see Supplemental Table 1 for examples). A clear majority of participants (92.1%) believed that a second referendum vote was slightly, moderately or extremely unlikely (see Figure 1).

Correlations between baseline variables (collapsing across conditions) showed PJWB to be positively associated with positive affect, and negatively associated with measures of vote-related well-being: negative mood, and dissatisfaction with both the conduct and the outcome of the vote (see Table 1). DJWB was negatively associated with negative affect and dissatisfaction with the vote conduct. Consistent with previous research, PJWB and DJWB were moderately and positively correlated (Lucas et al., 2011).

*T*-tests for the baseline variables found that both conditions were comparable for all variables except for negative mood, which was significantly higher in the counterfactual condition group ( $n = 209$ ) compared to the control group ( $n = 232$ ; see Table 2).

### **Main Analyses**

**Tests of experimental effects.** Three two-way mixed ANOVAs examined the effect of counterfactual generation (versus control) on the three pre-post measurements of vote-related well-being. For *dissatisfaction with the conduct of the vote*, there was a significant main effect of reading about the referendum on dissatisfaction,  $F(1,440) = 4.28, p = .039$ , such that negative mood was significantly higher after reading the text. Neither the main

effect of counterfactual condition,  $F(1,440) = 0.00, p = .952$ , nor the interaction,  $F(1,440) = 0.12, p = .657$ , were significant.

In contrast, *dissatisfaction with the outcome of the vote* was not influenced by reading about the Brexit vote,  $F(1,440) = 0.06, p = .812$ , counterfactual condition,  $F(1,440) = 1.15, p = .285$ , or their interaction,  $F(1,440) = 0.40, p = .529$ . For *negative mood*, the main effect of reading about the referendum was significant,  $F(1,440) = 5.96, p = .015$ , with mood becoming more negative after reading the Brexit vote description. The main effect of counterfactual condition was significant,  $F(1,440) = 6.42, p = .012$ , such that the average of pre-post negative mood was higher in the counterfactual condition compared to the control. The interaction of condition by pre-post reading about Brexit was not significant,  $F(1,440) = 0.56, p = .457$ .

**Mediation analyses.** We considered whether DJWB served to protect participants against low vote-related well-being, by reducing the number of upward counterfactuals (relative to downward counterfactuals). This analysis includes only those participants who generated counterfactuals (i.e., those in the counterfactuals experimental condition). Table 3 presents the bivariate correlations between these variables. We tested this mediation model using estimates based on 5,000 bootstrapped resamples (Preacher & Hayes, 2008) with the PROCESS macro (Hayes, 2013).

The first set of analyses tested the indirect effects of DJWB via the Counterfactuals Index on the three measures of vote-related well-being post counterfactuals: Dissatisfaction with Conduct of the Vote, Dissatisfaction with Outcome of the Vote, and Negative Mood (all coefficients presented in Table 4). Across all three analyses, DJWB were a significant negative predictor of the Counterfactuals Index (Path a), indicating that higher DJWB were associated with participants making a fewer number of upward (relative to downward) counterfactuals. The Counterfactuals Index in turn was a significant positive predictor of all

three outcome variables (Path b): Making a greater number of upward (relative to downward) counterfactuals was associated with higher levels of dissatisfaction with the conduct of the vote, dissatisfaction with the outcome of the vote, and negative mood. The indirect effects of DJWB on each outcome variable was significant and negative (see Table 4), indicating that higher DJWB were associated with lower levels of dissatisfaction with the conduct of the vote, dissatisfaction with the outcome of the vote, and negative mood, via a lower number of upward (relative to downward) counterfactuals.

The next set of analyses tested the indirect effects of PJWB via the Counterfactual Index on the three post-counterfactual vote-related well-being measures: Dissatisfaction with Conduct of the Vote, Dissatisfaction with Outcome of the Vote, and Negative Mood (all coefficients presented in Table 5). Only for the Dissatisfaction with Conduct of the Vote outcome did a significant indirect effect of PJWB emerge (see Table 5): PJWB were associated with making a lower number of upward (relative to downward) counterfactuals (Path a), and upward counterfactuals were associated with higher levels of dissatisfaction with the conduct of the vote (Path b). There was no significant indirect effect of PJWB on the other two outcome variables: Dissatisfaction with the Outcome of the Vote and Negative Mood (see Table 5).

## **Discussion**

We examined the protective role of enduring JWB in reducing the potentially harmful effects of upward counterfactuals on vote-related well-being following a significant geopolitical event. While voters tended to generate more upward than downward counterfactuals, doing so did not increase negative mood or dissatisfaction with the vote more than it did for those who did not make counterfactuals. However, we did find some support for the predictions that PJWB and DJWB would be associated with making fewer upward counterfactuals relative to downward counterfactuals, and that this would partly explain their

higher levels of vote-related well-being. The findings were consistent for DJWB across the three voter well-being indicators; for PJWB, the protective effect only emerged for one indicator: dissatisfaction with the conduct of the vote.

To our knowledge, no research has examined the role of JWB in shaping individuals' reactions to a national vote with geo-political consequences. As such, the current research makes important contributions to the literatures on the role of enduring JWB in responses to political events (Tyler & Smith, 1988), the role of counterfactuals in responses to political events (e.g., Milesi & Catellani, 2011), and the affective consequences of counterfactuals (Markman et al., 1993; Sirois et al., 2010). Our findings also extend earlier work linking self-related general JWB to the direction of counterfactuals (Kasmati & Wells, 1995), by showing that holding other-related distributive and procedural JWB also influences the direction of counterfactuals. Importantly, results further indicate that for individuals holding other-related JWB, and especially DJWB, making fewer upward relative to downward counterfactuals may protect against the negative mood and vote-related dissatisfaction that is experienced following a disappointing geo-political event such as Brexit.

The differential links of DJWB and PJWB to vote-related well-being may be best understood in terms of the different principles each represents. For example, DJWB towards others has been linked with efforts to rationalise the status quo (e.g., victim derogation, as s/he deserved bad outcome in some way) (Lucas et al., 2011). Thus, it is unsurprising that DJWB was linked to making fewer upward counterfactuals in response to Brexit: such counterfactuals represent an effort to (cognitively) challenge the status quo, which would violate JWB principles. Instead, individuals high in DJWB may make managing immediate well-being a higher priority and thus make relatively more downward counterfactuals.

In contrast, PJWB are associated with efforts to improve treatment of low-status or marginalised groups (Nacoste, 1990); this indicates a commitment to changing the situation

where possible. Given that the UK referendum vote was a one-off event that was out of participants' control, such change would be viewed as not being realistic or possible. However, there was no evidence at the time of the vote or shortly thereafter that the procedures surrounding the referendum were problematic. This is one possible explanation for why PJWB only had indirect effects via fewer upward counterfactuals for lower dissatisfaction with the conduct of the vote, but not for mood or dissatisfaction with the outcome of the vote.

Our findings, though novel, should be considered in light of several limitations. First, roughly half the sample were students, which can limit the generalisability of the findings. However, this specificity was unavoidable given that our research question required us to focus on the "Remain" voters who would be unhappy with the outcome of the referendum: the majority of remain voters tended to be younger adults (British Broadcasting Corporation, 2016).

Second, we assessed vote-related well-being indicators with single items rather than composite scales, which arguably limited the measurement reliability. However, research has demonstrated that single-item measures of well-being and satisfaction have predictive validity and reliability that is comparable to their multi-item counterparts (Bergkvist & Rossiter, 2007; Zimmerman et al., 2006), supporting the adequacy of the single-items for assessing these constructs.

Third, ceiling effects may explain why the counterfactual manipulation did not influence vote-related well-being variables: all participants reported high levels of negative mood and dissatisfaction with the referendum vote at baseline. This left very little variance to be explained by our manipulation, despite the fact that the counterfactual index correlated with all three indicators of well-being among those in the experimental condition, and that overall people made a large number of upward relative to downward counterfactuals. Given

that the study was conducted within weeks of the referendum vote, and those who voted Remain were still trying to come to terms with the outcome, the low levels of vote-related well-being are not surprising. Nonetheless, the timing of the study afforded a unique opportunity to capture people's real-time experiences in the immediate aftermath of a disappointing political event/outcome. Our findings with respect to JWB suggest that not questioning the status quo (i.e., higher levels of JWB) lead to making fewer upward counterfactuals about a disappointing political outcome, and consequently buffer the detrimental potential effects of these counterfactuals on well-being.

Further work is needed to investigate various new questions raised by the current findings. For example, to what extent are the protective effects of JWB on vote-related well-being enduring over time? What effects would be documented for DJWB and PJWB on counterfactuals and well-being when the political event is repeatable and therefore the original outcome subject to change? Longitudinal work in the aftermath of different types of political events would be well-positioned to address these questions.

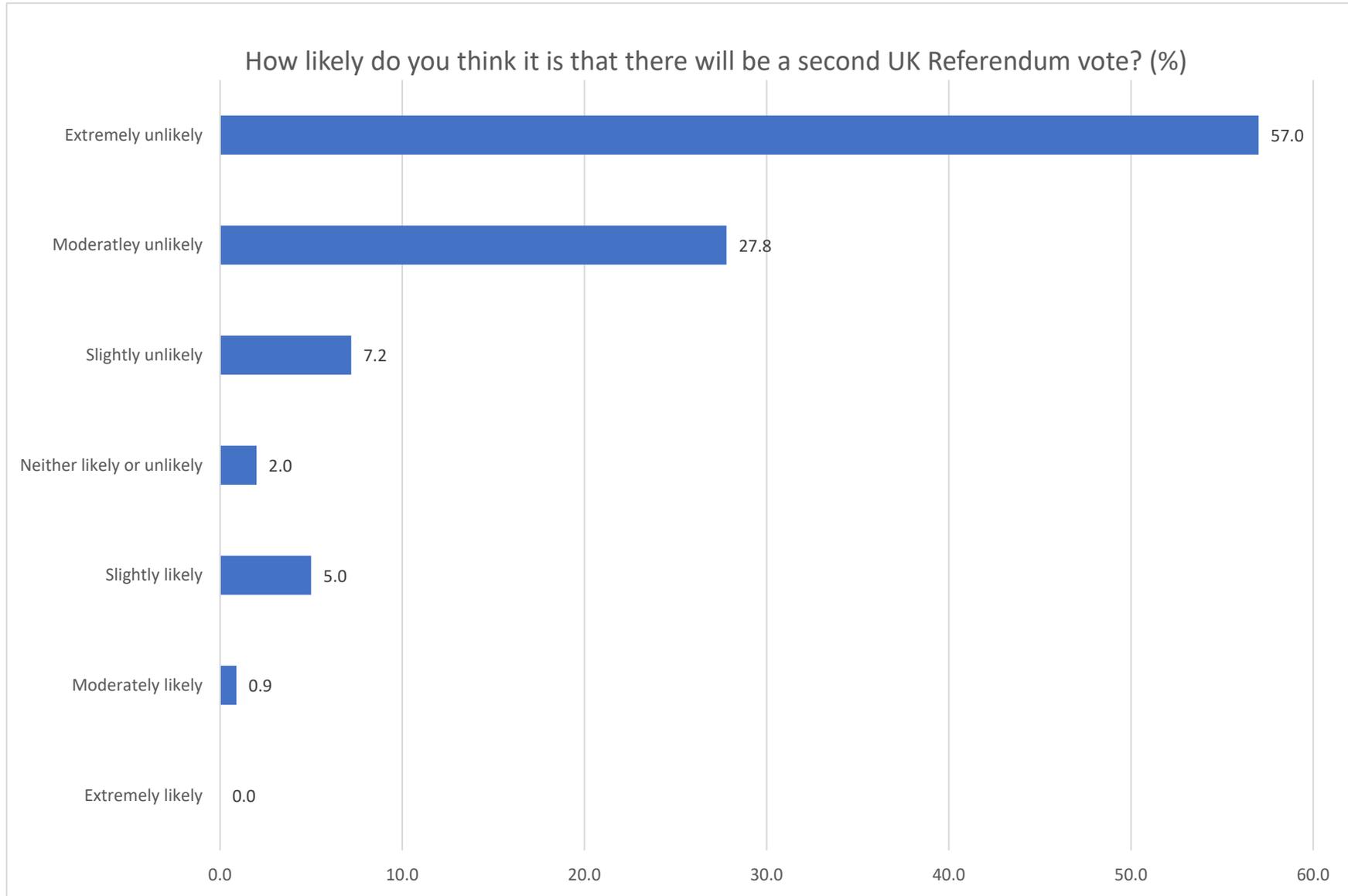
Now more than ever, citizens in democratic societies are invested in, and affected by, the outcomes of political events in their nation. When people experience a disappointing outcome to a vote with important geo-political implications, it is important to understand their spontaneous thoughts about other possible outcomes that might further increase negative mood and dissatisfaction, and the types of enduring beliefs that are protective against such thoughts. In contexts where a geo-political event is not repeated, our results demonstrate that individual differences in beliefs about the fairness of the vote shape individuals' tendency to cognitively challenge the outcome by making more upward counterfactuals, and thus may be protective against negative mood and dissatisfaction with the vote.

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*Figure 1:* Descriptive results for the perceived likelihood of there being a second UK referendum vote.

Table 1.

*Bivariate Correlations Among the Study Variables at Baseline (N = 441).*

Variable	1	2	3	4	5	6	7
1. PJWB	---						
2. DJWB	.531**	---					
3. Negative Affect	-.09	-.109*	---				
4. Positive Affect	.138**	-.089	-.178**	---			
5. Dissatisfaction with conduct of vote	-.104*	-.180**	.133**	-.064	---		
6. Dissatisfaction with outcome of vote	-.116*	-.061	.310**	-.327**	.319**	---	
7. Current mood	-.171**	-.210**	.296**	-.245**	.142**	.223**	---
Mean	3.57	3.53	3.91	2.52	6.17	6.71	4.21
Standard deviation	1.17	1.44	0.98	0.89	0.76	0.76	1.24
Cronbach's alpha	0.94	0.91	0.63	0.66	---	---	---

*Note:* \* $p < .05$ ; \*\* $p < .01$ ; PJWB = Procedural Just World Beliefs, DJWB = Distributive Just World Beliefs.

Table 2

*T-tests Comparing the Counterfactual and the Control Conditions on the Study Variables at Baseline.*

Variable	Counterfactual condition ( <i>n</i> = 209)		Control condition ( <i>n</i> = 232)		<i>t</i> ( 440 )	95% <i>CI</i>	<i>p</i>
	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )			
PJWB	3.58	(1.10)	3.56	(1.24)	0.27	[-.19, .25]	.789
DJWB	3.41	(1.42)	3.30	(1.46)	0.79	[-.16, .38]	.430
Negative Affect	3.89	(0.92)	3.92	(1.03)	-0.22	[-.20, .16]	.830
Positive Affect	2.54	(0.93)	2.49	(0.86)	0.59	[-.12, .22]	.553
Dissatisfaction with conduct of vote	6.16	(1.41)	6.18	(1.38)	-0.15	[-.28, .24]	.883
Dissatisfaction with outcome of vote	6.74	(0.76)	6.68	(0.75)	0.86	[-.08, .20]	.390
Current mood	4.36	(1.23)	4.09	(1.24)	2.31	[.04, .50]	.021

Note: CI = confidence interval; PJWB = Procedural Just World Beliefs, DJWB = Distributive Just World Beliefs.

Table 3.

*Bivariate Correlations among Just World Beliefs, Counterfactual Index, Dissatisfaction with Vote, and Negative Mood among Participants in Counterfactual Condition (N = 209).*

Variable	1	2	3	4	5	6
8. PJWB	---					
9. DJWB	.43**	---				
10. CFT Index	-.14*	-.16*	---			
11. Dissatisfaction with conduct	-.19**	-.18**	.23**	---		
12. Dissatisfaction with outcome of vote	-.13	-.07	.26**	.21**	---	
13. Current mood	-.16*	-.24**	.24**	.24**	.33**	---

*Note:* \* $p < .05$ ; \*\* $p < .01$

PJWB = Procedural Just World Beliefs, DJWB = Distributive Just World Beliefs, CFT Index = Counterfactual Index: higher values indicate more upward relative to downward counterfactuals.

Table 4.

*Indirect Effects of Distributive Justice World Beliefs (DJWB) via Counterfactual Index (CFT Index) on Vote-Related Well-Being Outcomes: Dissatisfaction with Conduct of Vote (DCV), Dissatisfaction with Outcome of Vote (DOV), Negative Mood (Mood).*

Path	B (SE)	<i>t</i>	BCA CIs	Model $R^2$	<i>F</i> ( <i>df</i> )
<b><i>Panel A: DCV</i></b>					
DJWB – CFT Index (a)	-.24 (.10)	-2.34*			
CFT Index – DCV (b)	.13 (.04)	3.03**			
Total effect: DJWB – DCV (c)	-.18 (.07)	-2.28**		.04	7.54** (1, 206)
Direct effect: DJWB – DCV (c')	-.15 (.07)	-2.28*			
Indirect effect: DJWB – DCV	-.03 (.01)		[-.07, -.01]		
<b><i>Panel B: DOV</i></b>					
DJWB – CFT Index (a)	-.24 (.10)	-2.31*			
CFT Index – DOV (b)	.08 (.02)	3.69**			
Total effect: DJWB – DOV (c)	-.04 (.04)	-1.10		.01	1.21 (1, 205)
Direct effect: DJWB – DOV (c')	-.02 (.03)	-.53			
Indirect effect: DJWB – DOV	-.02 (.01)		[-.05, -.01]		
<b><i>Panel B: Mood</i></b>					
DJWB – CFT Index (a)	-.24 (.10)	-2.34*			

CFT Index – Mood (b)	.12 (.04)	3.03**		
Total effect: DJWB – Mood (c)	-.20 (.06)	-3.43**	.05	11.75** (1, 206)
Direct effect: DJWB – Mood (c')	-.17 (.06)	-2.96**		
Indirect effect: DJWB – Mood	-.03 (.01)		[-.06, -.01]	

*Note:* BCA CI = Bias corrected and accelerated 95 percent confidence intervals; Boot strapping analysis was conducted with 5,000 resamples; all effects are unstandardized; \* $p < .05$ , \*\* $p < .01$ .

Table 5.

*Indirect Effects of Procedural Justice World Beliefs (PJWB) via Counterfactual Index (CFT Index) on Vote-Related Well-Being Outcomes: Dissatisfaction with Conduct of Vote (DCV), Dissatisfaction with Outcome of Vote (DOV), Negative Mood (Mood).*

Path	B (SE)	<i>t</i>	BCA CIs	Model $R^2$	<i>F</i> (df)
<b><i>Panel A: DCV</i></b>					
PJWB – CFT Index (a)	-.27 (.14)	-1.98*			
CFT Index – DCV (b)	.13 (.04)	3.08**			
Total effect: PJWB – DCV (c)	-.24 (.09)	-2.81**		.04	7.92** (1, 206)
Direct effect: PJWB – DCV (c')	-.21 (.09)	-2.42*			

Indirect effect: PJWB – DCV	-.04 (.02)				[-.08, -.01]
<hr/>					
<b><i>Panel B: DOV</i></b>					
PJWB – CFT Index (a)	-.26 (.14)	-1.87*			
CFT Index – DOV (b)	.08 (.02)	3.62**			
Total effect: PJWB – DOV (c)	-.09 (.05)	-1.92	.02	3.67 (1, 205)	
Direct effect: PJWB – DOV (c')	-.07 (.04)	-1.49			
Indirect effect: PJWB – DOV	-.02 (.01)				[-.05, .00]
<hr/>					
<b><i>Panel B: Mood</i></b>					
PJWB – CFT Index (a)	-.27 (.14)	-1.98*			
CFT Index – Mood (b)	.13 (.04)	3.22**			
Total effect: PJWB – Mood (c)	-.17 (.08)	-2.23*	.02	4.98* (1, 206)	
Direct effect: PJWB – Mood (c')	-.14 (.08)	-1.82			
Indirect effect: PJWB – Mood	-.03 (.02)				[-.08, .00]

*Note:* BCA CI = Bias corrected and accelerated 95 percent confidence intervals; Boot strapping analysis was conducted with 5,000 resamples; all effects are unstandardized; \* $p < .05$ , \*\* $p < .01$ .

Supplemental Table 1.

*Examples of Upward and Downward Counterfactuals Generated in the Counterfactual Condition in Response to the Brexit Vote.*

Upward counterfactuals	Downward counterfactuals
<i>If only 16-17 year olds had been given a say, as per the Scottish independence referendum.</i>	<i>At least the way of voting was democratic.</i>
<i>If only consecutive governments hadn't allowed the alienation of large numbers of society through pursuit of neoliberal policies and "trickle down" economics.</i>	<i>At least the leaders of the leave campaign are gone.</i>
<i>If only people had looked carefully into the promises of the campaigns...</i>	<i>At least the actions of those in the Leave campaign following the result show the absurdity of the referendum.</i>
<i>If only the referendum was won by the remain camp.</i>	<i>At least a high number of people voted.</i>
<i>If only the media and leave campaign had been less inclined to lie and deceive during the campaign.</i>	<i>At least the majority of people are appalled by the outbursts of racism which have followed the vote which might prevent the focus on immigration descending into hatred.</i>
<i>If only the Brexit campaign leaders hadn't been out to line their own pockets at the expense of a nation</i>	<i>At least Theresa May seems competent and will provide stability in the short term.</i>
<i>If only David Cameron had thought more carefully about the consequences we might not have had a referendum on such an important subject.</i>	<i>At least we will not leave immediately.</i>