



## King's Research Portal

DOI:

[10.1177/1948550617750737](https://doi.org/10.1177/1948550617750737)

*Document Version*

Peer reviewed version

[Link to publication record in King's Research Portal](#)

*Citation for published version (APA):*

Maher, P. J., Igou, E. R., & Van Tilburg, W. A. P. (2018). Brexit, Trump, and the Polarizing Effect of Disillusionment. *Social Psychological and Personality Science*, [194855061775073].  
<https://doi.org/10.1177/1948550617750737>

### **Citing this paper**

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

### **General rights**

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

### **Take down policy**

If you believe that this document breaches copyright please contact [librarypure@kcl.ac.uk](mailto:librarypure@kcl.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.

[This manuscript was accepted for publication in *Social Psychological and Personality Science*]

Brexit, Trump, and the Polarizing Effect of Disillusionment

Paul J. Maher & Eric R. Igou

University of Limerick, Ireland

Wijnand A. P. van Tilburg

King's College London, United Kingdom

Paul J. Maher, Department of Psychology, University of Limerick, Castletroy, Republic of Ireland. Eric R. Igou, Department of Psychology, University of Limerick, Castletroy, Republic of Ireland. Wijnand A. P. van Tilburg, Department of Psychology, King's College London, London, United Kingdom.

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. All authors consented to the submission of this manuscript. Correspondence concerning this article should be addressed to Paul J. Maher, Department of Psychology, University of Limerick, Republic of Ireland; Email: Paul.Maher@ul.ie

## Abstract

We investigate experiences of disillusionment as a source of political polarization. Disillusioning experiences motivate a search for meaning, and we propose that people respond by seeking reassurance in political ideologies, reflected in political polarization. We first tested this hypothesis in the context of two major political events: the EU membership referendum in the UK and the 2016 US presidential election. In Study 1, disillusionment stemming from the EU referendum outcome led ‘remain’ supporters to express more extreme political views. In Study 2, we measured political stance and disillusionment before and after the US presidential election. Political polarization occurred among Clinton supporters, and this was mediated by increased disillusionment levels. In Study 3, we manipulated disillusionment and found that disillusioned participants expressed stronger support for diverging forms of political activism. Consistent with our approach, this effect was mediated by epistemic motivations. Implications regarding the effect of political polarization in society are discussed.

*Keywords:* disillusionment, political polarization, meaning, emotion

### Brexit, Trump, and the Polarizing Effect of Disillusionment

Political polarization is on the rise (Abromovich & Saunders, 2008; Foa & Mounk, 2016). In the USA, the polarization of political attitudes and actions has increased among political elites (Hetherington, 2002), and among the public (Abromovich & Saunders, 2008; Pew, 2014). In Europe, support for radical policies on either side of the political spectrum is highest among those born since 1980 (Foa & Mounk, 2016). Polarization can reduce bipartisan communication (Barber & McCarty, 2013) and narrow the concentration of power away from legislative controls towards those in presidential roles (Howell, 2005). Clearly, it is important to explore factors that lead people to adopt more extreme political views. Our work addresses one potential source: the experience of disillusionment.

The Oxford English Dictionary defines disillusionment as a feeling resulting from “the discovery that something is not as good as one believed it to be.” Modern life may provide the ideal context for fostering such feelings. Social media echo chambers intensify impressions that one’s views are popular (Bessi, 2016), playing on tendencies towards unrealistic optimism (Taylor & Brown, 1988) and leaving people vulnerable to disillusionment when facing contradictory information. Indeed, discontent with governments is widespread (Pew, 2014), and belief in democratic systems is declining (Foa & Mounk, 2016). For some, discontent may stem from the advance of global warming, income inequality (Roth, Hahn, & Spinath, 2016) or from a decline in traditional or religious values (Gallup, 2015). The growth of apparent disillusionment attributed to these factors has accompanied an increasingly politically polarized society (McCarty, Poole, & Rosenthal, 2006). We examine a possible link between the two. In particular, we test the hypothesis that disillusionment in the political context breeds more extreme political views by first studying two landmark political events that took place in 2016: The EU referendum in the UK and the presidential election in the USA, followed by a controlled experimental test.

### **Disillusionment and Political Polarization**

Disillusionment is an affective-cognitive condition (Clore, Ortany, & Foss, 1987). Different from other affective states, disillusionment involves a focus on deeply held beliefs and expectations (Ortany, Clore, & Foss, 1987) that are falsified. The experience has been described as a state of “shattered assumptions” (Janoff-Bulman & Berg, 1998) and is triggered by acute forms of expectancy violation that run counter to treasured beliefs or assumptions. Disillusionment is distinct from states such as disappointment and sadness (Maher, Van Tilburg, & Igou, 2017). Specifically, disillusionment is more ‘epistemic’; it is more related to broad meaning frameworks (e.g., beliefs about the world), and understanding life in general. The epistemic nature of disillusionment links it to people’s desire to find meaning in life.

People have a strong motivation to understand the world and their place in it (Heine, Proulx, & Vohs, 2006; Kruglanski & Webster, 1996). Establishing a frame of orientation (Fromm, 1968) requires the construction of explanatory frameworks (e.g., worldviews) that guide one through life. These assumptive worlds (Janoff-Bulman, 1989) can be related to ideologies (e.g., Kay, Goucher, McGregor, & Nash, 2010; Norenzayan, Dar-Nimrod, Hansen, & Proulx, 2009). They connect people to the rest of the world, including each other, and provide a source of certainty, belonging, self-esteem, and control (Greenberg et al., 1992; Kay et al., 2010). Disillusionment involves a violation of treasured assumptions (Janoff-Bulman & Berg, 1998) that represents a threat to these meaning frameworks (Proulx & Heine, 2009) and motivates a desire to search for meaning and understanding (Janoff-Bulman & Berg, 1998; Maher, van Tilburg, & Igou, 2017)

Experiences that threaten meaning frameworks are likely to trigger defensive processes (e.g., Festinger, 1956; Jonas et al., 2014). These defensive processes often involve bolstering commitment to actions or groups that reinforce one’s worldview (e.g., Greenberg

et al., 1990; Maher, Van Tilburg, & Van Den Tol, 2013; Van Tilburg & Igou, 2011), which in turn helps to bolster meaning in life (Heine et al., 2006). Political ideologies are a key source of certainty and meaning (e.g., Greenberg et al., 1992; Jost, Fitzsimmons, & Kay, 2004) and serve as buffers in the face of meaning threats (e.g., Slegers, Proulx, & Van Beest, 2015; Van Tilburg & Igou, 2016). Given that disillusionment inspires efforts to search for meaning and understanding, we thus argue that people can find meaning by relying more strongly on political ideologies, resulting in political polarization.

Our argument rests on the notion that disillusionment is a state of epistemic affect (i.e., a state of affect associated with learning and knowledge; Ellsworth 2003; Tomkins, 1963) that triggers epistemic motivations. Epistemic states of negative affect can be distinguished from other affective states as they signal that the quality of one's knowledge is insufficient and motivate further knowledge acquisition (e.g., D'Mello, Lehman, Pekrun, & Graesser, 2014). For example, a challenging learning environment will foster feelings of *confusion* that can stimulate deeper understanding of learning material (D'Mello et al., 2014). Disillusionment arises when an event disrupts one's ability to explain the world or to feel connected to the world. Disillusioned people feel lost (Maher et al., 2017). Thus, disillusionment may trigger broad epistemic motivations related to meaning search, understanding, and guidance. Such epistemic motives can underlie ideological beliefs (Jost, Glaser, Kruglanski, & Sulloway, 2003)

Political ideologies have affective and motivational bases (Tomkins, 1963). Much research demonstrates that epistemic motivations to reduce uncertainty predict right-wing or conservative ideology (see Jost et al., 2003). Both left-wing and right-wing ideologies provide meaning in the form of guidance and understanding (Fernbach, Rogers, Fox, & Sloman, 2013). We thus argue that disillusionment regarding specific political events or outcomes motivates such a search for understanding and guidance; motivations that are

broader than a desire to reduce uncertainty. Indeed, compensatory political conviction in response to meaning violations can be based on any endorsed political ideology. Randles, Heine, Poulin, and Silver (2017) examined data from a three-year longitudinal study and found that in response to adverse life events, people affirm and polarize political attitudes on both sides of the political spectrum. Adverse life events trigger many affective responses, but, in general, the role of affect in compensatory meaning regulation is underdeveloped. We examine the role of disillusionment in this process by studying two events of major socio-economic significance: the EU referendum in the UK and the US presidential election of 2016, and then by manipulating the experience of disillusionment in an experimental study. Both political events involved supporters from different ends of the political spectrum heavily invested in one outcome over another. Thus, the results were likely to create disillusionment amongst the set of supporters whose political views were inconsistent with the outcome.

In Studies 1 and 2, we tested the hypothesis that disillusionment resulting from these political events would foster more extreme political views. In both studies, we measured disillusionment to test if these feelings explained political polarizations of attitudes as a result of each election outcome. In Study 3, we manipulated disillusionment, assessed political polarization in activism intentions, and tested whether epistemic motivations to search for meaning and understanding explained these effects.

### **Study 1: Brexit**

We examined reactions to the results of the 2016 EU referendum in the UK to test the impact of disillusionment on political polarization. The referendum asked whether or not the UK should remain part of the EU and had major implications for millions of people. Based on existing polling data (YouGov, 2016), we expected ‘remain’ (vs. leave) supporters to be more politically liberal (vs. conservative). We collected data the day that results were

announced and hypothesised that the result would cause one camp ('remain' supporters, as it turned out) to feel disillusioned and subsequently adopt a more extreme political stance.

## Method

**Participants.** The data were collected on June 24<sup>th</sup> 2016, the day of the referendum results. We aimed to recruit as many British participants as we could within 24 hours. We recruited 108<sup>1</sup> participants (60 women;  $M_{\text{age}} = 33.62$ ,  $SD = 12.02$ ; 77 remain, 31 leave) online through *Prolific Academic*. They received £1 for participation.

**Materials and Procedure.** Participants reported demographics and which side they supported in the referendum<sup>2</sup>. We measured disillusionment with three items ("I am feeling disillusioned *now*", "I am feeling disillusioned *today*", "I am feeling disillusioned *about the referendum result*"; 1 = *strongly disagree*, 7 = *strongly agree*;  $\alpha = .95$ ). We also measured anger and perceived meaning in life (Steger, Frazier, Oishi, & Kaler, 2006;  $\alpha = .94$ ). Important results relating to these variables are reported in supplementary materials.

We measured political stance with five items ( $\alpha = .78$ ); lower (higher) scores reflected a left- (right-) wing stance. Two of these items measured general political views (1 = *extremely liberal*, 7 = *extremely conservative*; 1 = *extremely left-wing*, 7 = *extremely right-wing*; Van Tilburg & Igou, 2017); three items measured specific views associated with either side of the political spectrum (e.g., Toner, Leary, Asher, & Jongman-Sereno, 2013; "The welfare system is too easy to abuse, and does not give people enough incentive to find work", "Laws designed to protect the environment pose too high a cost on businesses that contribute to the economy", "It is vital that our governments invest in sources of renewable energy to

---

<sup>1</sup> Post-hoc power analysis with  $\alpha = .05$  revealed that for the main effect of referendum support on disillusionment, power = .99 and for the indirect effect of referendum support on political views through disillusionment, power = .91

<sup>2</sup> A small number of other variables that were unrelated to this project were also measured

counteract the effects of global warming” [reversed]; 1 = *strongly disagree*, 7 = *strongly agree*).

## Results

Table 1 displays zero order correlations for referendum, disillusionment and political stance. Remain supporters felt significantly higher more disillusioned ( $M = 5.71$ ,  $SD = 1.31$ ), than leave supporters ( $M = 2.52$ ,  $SD = 1.59$ ),  $F(1, 106) = 115.63$ ,  $p < .001$ ,  $\eta_p^2 = .522$ . Remain supporters were overall liberal ( $M = 2.97$ ,  $SD = 1.25$ ) and leave supporters were more conservative ( $M = 4.23$ ,  $SD = 1.65$ ),  $F(1, 106) = 18.41$ ,  $p < .001$ ,  $\eta_p^2 = .148$ .

Table 1

*Zero order correlations of Study 1 measures*

	1	2	3
1 Referendum Support	-	.72**	-.37**
2 Disillusionment		-	-.47**
3 Political Stance			-

*Note:* \* $p = .05$ ; \*\* $p < .01$ ; Referendum Support is dummy coded (Remain = 1, Leave = 0); Lower scores indicate more left/liberal political views

**Mediation analysis.** We tested if disillusionment scores mediated the association between referendum support (dummy coded; *remain* = 1, *leave/neither* = 0) and political orientation using regression analysis (Preacher & Hayes, 2004). A ordinary least square mediation analysis (5,000 bias-corrected and accelerated bootstraps), indicated that remain supporters felt more disillusioned,  $B = 3.19$ ,  $SE = 0.299$ ,  $t(106) = 10.753$ ,  $p < .001$ , which in turn predicted more extreme left-wing views,  $B = -.212$ ,  $SE = 0.064$ ,  $t(105) = -3.291$ ,  $p = .001$ . Importantly, the indirect effect of referendum support on political orientation through disillusionment was significant,  $ab = -.677$ ,  $SE = .243$ , 95% CI [.237, 1.197]. Disillusionment plausibly mediated the association between referendum support and intensified political views.

## Discussion

As hypothesized, Study 1 found that disillusionment related to political polarization. Specifically, we found that disillusionment scores mediated the association between referendum support and political views. These findings suggest that the disillusionment experienced by those who supported ‘remain’ may have led them to express more liberal/left-wing views.

Given that variations in political orientation were captured in referendum support before the result of the vote was announced, it is not possible to determine how much political views shifted as a result of disillusionment stemming from the result. Study 2 was designed to address this issue by measuring political orientations before and after a potentially disillusioning event.

### Study 2: Trump

Study 2 focused on the 2016 US presidential election. We measured the political views of Donald Trump and Hillary Clinton voters before and after the election results. We anticipated that members of one group of supporters would experience disillusionment in the days following the election results and would subsequently adopt more extreme political views.

## Method

**Participants.** We calculated the minimum required sample size based on these assumptions: (a) Given the stability of political orientations across time (Jost, Nosek, & Gosling, 2008), we reasoned that any interaction effect across time between voting groups would be small ( $f(u) = .25$ ); (b)  $\alpha = .05$ ; (c) a-priori power equals 95%. Based on these assumptions, the required sample size was  $N = 212$ . We restricted the study to participants who voted for either Trump or Clinton, and with potential for drop-out over time we targeted 400 participants.

Time 1 (T1) data collection occurred from November 1<sup>st</sup> to 4<sup>th</sup> 2016—the week before the election. We recruited participants online using MTurk ([www.MTurk.com](http://www.MTurk.com)) ( $N = 406$ ; 212 women;  $M_{\text{age}} = 38.99$ ,  $SD = 13.14$ ). To correct for the over-representation of liberals in online samples we recruited 130 participants using a conservative-only filter. We retained only participants voting for Trump ( $N = 174$ ) or Clinton ( $N = 167$ ); 6 participants were excluded for failing an attention check, giving a total sample of 335 (177 women;  $M_{\text{age}} = 39.48$ ,  $SD = 13.09$ ) for T1.

We collected Time 2 (T2) data from November 9<sup>th</sup> (election results announced) through November 11<sup>th</sup>, 2016. Altogether, 243 participants took part in the follow-up. Three participants were removed for failing an attention check and 3 others submitted ID codes that could not be matched to T1 participants. This resulted in a total of 237 (132 women;  $M_{\text{age}} = 41.14$ ,  $SD = 12.93$ ) participants who had voted for either Trump ( $N = 119$ ) or Clinton ( $N = 118$ ).

**Materials and procedure.** At T1 participants gave informed consent, reported demographic information, reported being either liberal or conservative, identified which candidate they would vote for, estimated their candidate's chance of winning, and reported disillusionment on the three items used in Study 1 ( $\alpha = .85$ ). We also measured perceived meaning in life ( $\alpha = .96$ ) and anger. These variables test important assumptions of our overall model and results are reported in Supplementary Materials.

We measured political orientation using five items from Study 1 ( $\alpha = .89$ ); one environmental item was substituted for one on healthcare (“Healthcare should be provided/paid for by our government and accessible to all”; 1 = *strongly disagree*, 7 = *strongly agree*) as it is a topic that reflects liberal/conservative divisions in US politics (Pew, 2014). T2 featured the same measures as T1 except for voting intention and candidate winning chances.

## Results and Discussion

Table 2 presents zero order correlations of vote, disillusionment and political stance across both time points. Table 3 displays mean political stance and disillusionment levels across time points. A mixed-ANOVA with time as a within-subjects variable and vote as a between subjects revealed there was a statistically significant vote  $\times$  time interaction on disillusionment levels,  $F(1, 235) = 227.06, p < .001, \eta_p^2 = .49$ . The election results had the anticipated effect: Clinton voters became more disillusioned after the Trump victory was announced,  $F(1, 235) = 201.08, p < .001, \eta_p^2 = .46$ ; Trump voters, instead, reported lower disillusionment,  $F(1, 235) = 50.62, p < .001, \eta_p^2 = .17$ . Also, there was no significant difference in disillusionment experienced by Trump versus Clinton supporters levels at T1  $F(1, 235) = .28, p = .593, \eta_p^2 < .01$ , but there was at T2:  $F(1, 235) = 420.65, p < .001, \eta_p^2 = .64$ .

Table 2

*Zero order correlations of Study 2 measures*

	Time 1			Time 2		
	1	2	3	1	2	3
<b>1</b> Vote	-	.03	-.77**	-	.80**	-.78**
<b>2</b> Disillusionment		-	-.09		-	-.75**
<b>3</b> Political Stance			-			-

*Note.* \* $p = .05$ ; \*\* $p < .01$ ; Vote is dummy coded (Trump = 0, Clinton = 1); Lower scores indicate more left/liberal political views

**Political views before and after the election.** We ran a  $2 \times 2$  mixed ANOVA on political views with time as within-subjects variable and vote as a between-subjects variable. There was no significant main effect of time on political views  $F(1, 235) = 1.08, p = .300, \eta_p^2 = .005$ . Crucially, we found a significant vote  $\times$  time interaction,  $F(1, 235) = 7.32, p = .007, \eta_p^2 = .03$ . The political stance of Clinton supporters shifted significantly towards the left,

$F(1, 235) = 6.98, p = .009, \eta_p^2 = .05$ ; no change in political view was present for Trump supporters,  $F(1, 235) = 1.39, p = .24, \eta_p^2 = .006$ .

Table 3

*Means (SDs) of political stance and disillusionment levels of voter across time*

	Trump Voters		Clinton Voters	
	N = 119		N = 118	
	T1	T2	T1	T2
Disillusionment	3.16 (1.62)	1.88 (1.29)	3.28 (1.75)	5.83 (1.64)
Political Stance	5.23 (0.93)	5.29 (1.01)	2.61 (1.20)	2.48 (1.24)

*Note.* T1 is a 3 day time period that began 1 week before the election; T2 is the time period of 3 days after the election result.

**Mediation analysis.** We tested if the increased disillusionment of Clinton (vs. Trump) supporters after their vote accounted for their subsequent endorsement to more liberal views. We tested in a mediation model with vote (1 = *Clinton voter*; 0 = *Trump voter*) as predictor, changes in disillusionment (T2 – T1) as mediator, and political view at T2 as dependent variable; we also controlled for the association between T1 political stance and vote (Figure 1).

Clinton (vs. Trump) voters became more disillusioned,  $B = .616, SE = .072, p < .001$ , which in turn significantly predicted a more liberal political stance at T2 (controlling for stance at T1),  $B = -.076, SE = .027, p = .005$ . Accounting for disillusionment rendered the direct effect of vote on T2 political stance marginally significant,  $B = -.061, SE = .034, p = .075$ . Importantly, there was a significant indirect effect of vote on T2 political stance (controlling for T1) through changes in disillusionment,  $B = -.046, SE = .021, 95\% CI = [-.095, -.009]$  (5,000 bias-corrected bootstraps). The results of the election led to increased disillusionment levels among Clinton voters, which in turn predicted a shift toward a more left-wing political stance.

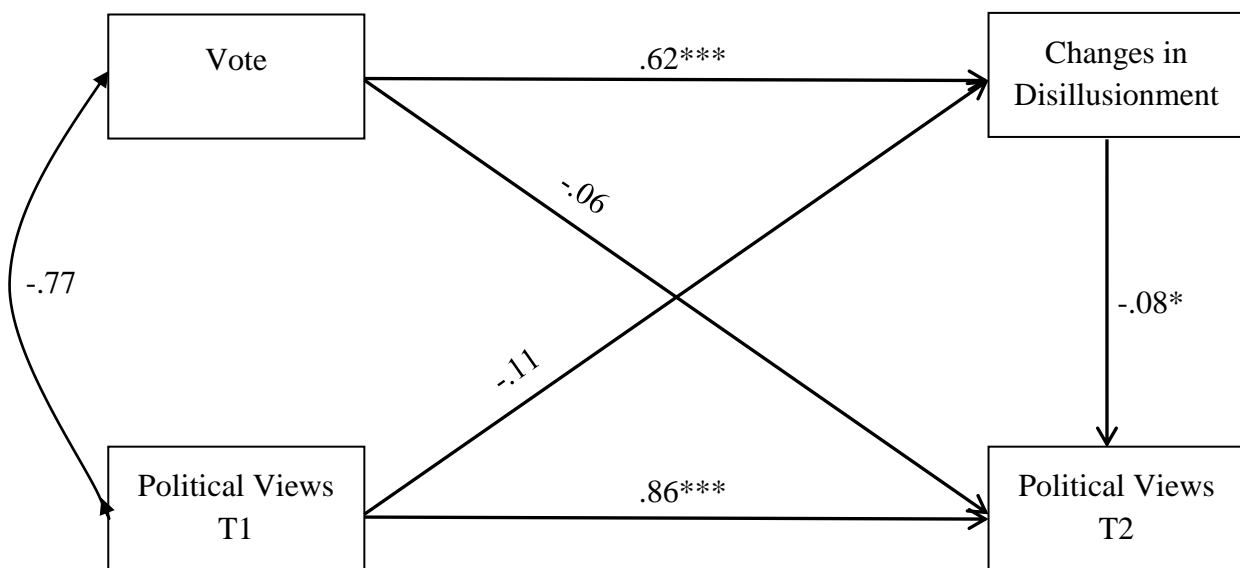


Figure 1. Study 2 path analyses with standardised coefficients testing the effect of vote choice on political stances through changes in disillusionment.

Study 2 supports the proposed relation between disillusionment and political polarization: disillusionment led to more polarized attitudes. We next examined political polarization as a function of disillusionment in Study 3 using a controlled experimental procedure, validated measures of political attitudes, and a test of the proposed psychological process that may cause disillusioned individuals to seek refuge in political extremes: the search for epistemic meaning (Van Tilburg & Igou, 2016).

### Study 3: The Role of Epistemic Meaning Search

Studies 1 and 2 indicated that disillusionment in response to political events predicted polarization, yet they did not conclusively test causal direction. To test if disillusionment indeed causes political polarization, Study 3 employed an experimental design in which we experimentally induced disillusionment. In Study 3, we also examined the role of epistemic meaning search, a motivated cognitive process, in linking disillusionment to political polarization. Furthermore, we tested the generalizability of the disillusionment effects by using an alternative indicator of political polarisation, namely political activism intentions.

To set up this study, we conducted 3 additional studies (reported in Supplementary Materials). The results of these studies show that (a) experimentally induced disillusionment increase political convictions (Study A), indicating that specific political disillusionment strengthens people's general political attitudes; (b) political views assessed in Studies 1 and 2, political convictions, and political activism intentions are positively correlated (Study B); and (c) experimentally induced disillusionment increases political activism intentions among the liberals and conservatives (Study C). These results indicate that political polarization, reflected in both attitude extremity and activism intentions, is in part based on specific disillusioning political experiences. Consistently, we predicted for Study 3 that disillusionment increases political activism intentions. Further, we tested that this effect was due to the epistemic nature of disillusionment to evoke a search for epistemic meaning.

## Method

**Participants.** As in Study 2, we aimed for a minimum sample of 212 participants. We recruited participants online using MTurk ( $N = 239$ ; 135 women;  $M_{\text{age}} = 38.45$ ,  $SD = 12.93$ ; 127 liberals, 112 conservatives). Five participants (2 liberal, 3 conservative) were removed from this sample for not adhering to the conditions of the study.<sup>3</sup>

**Materials and procedure.** Participants gave informed consent and reported demographic information before taking part in the disillusionment induction procedure. Participants were randomly assigned to the disillusioning condition or control. The disillusionment induction was modelled after a nostalgia induction (e.g., Van Tilburg, Igou, & Sedikides, 2013; Van Tilburg, Sedikides, & Wildschut, 2015). Participants in the disillusionment condition wrote about a disillusioning issue that affects the world; we instructed them: "Please think of a disillusioning issue that affects the world we live in.

---

<sup>3</sup> Three participants did not follow the instructions of the induction procedure, one participant completed the study in under 2 minutes and one participant gave the same response to 41 consecutive items

Specifically, try to think of a worldwide issue that makes you feel most disillusioned. Bring this disillusioning experience to mind. Immerse yourself in the disillusioning worldwide issue. How does it make you feel?” We asked participants to consider a worldwide issue to assure they would list issues with broad ranging implications as opposed to personal issues. After listing keywords that describe the disillusioning topic they described in detail how this topic made them feel and why it was disillusioning. Participants in control condition listed keywords and then described an ordinary event instead: “Please bring to mind an ordinary event in your life. Bring this ordinary experience to mind. Immerse yourself in the ordinary experience. How does it make you feel?”

Participants reported disillusionment on three items as in Study 1 and Study 2 ( $\alpha = .89$ ). Next, we measured epistemic meaning search with three items based on Maher and colleagues (2017) (“After the writing I did on a previous page, I have a desire to make better sense of the world”, “The writing gives me a need to understand the world better”, and “After the writing, I am motivated me to find more meaning”; 1 = *strongly disagree*, 7 = *strongly agree*;  $\alpha = .95$ ). We then assessed political activism intentions using the 35-item Activism Orientation Scale ( $\alpha = .98$ ; Corning & Myers, 2003). Participants who identified as liberal (conservative) completed the scale that referred to liberal (conservative) actions. This scale asks participants how likely it is that they will engage in political activities in the future (e.g., “Engage in an illegal act as part of a politically liberal [conservative] protest?”; 1 = *extremely unlikely*, 7 = *extremely likely*).

## Results and Discussion

**Manipulation checks.** Disillusionment scores were significantly higher among those in the disillusionment condition ( $M = 5.32$ ,  $SD = 1.38$ ) than those in the control condition ( $M = 2.63$ ,  $SD = 1.52$ ),  $F(1, 232) = 202.16$ ,  $p < .001$ ,  $\eta_p^2 = .46$ .

**Epistemic meaning search.** As predicted, participants in the disillusioned condition reported significantly higher epistemic meaning search ( $M = 4.68$ ,  $SD = 1.54$ ), than those in the control condition ( $M = 3.07$ ,  $SD = 1.66$ ),  $F(1, 232) = 59.18$ ,  $p < .001$ ,  $\eta_p^2 = .20$ .

**Diverging activism intentions.** As predicted, disillusioned participants reported more extreme political activism intentions ( $M = 3.14$ ,  $SD = 1.46$ ) than those in the control group ( $M = 2.73$ ,  $SD = 1.18$ ),  $F(1, 228) = 4.89$ ,  $p = .028$ ,  $\eta_p^2 = .02$ . To verify that the more political extreme political activism intentions that disillusionment caused were not restricted to only liberal or conservative participants, we entered activism orientation scores as dependent variable in a  $2 \times 2$  between subjects ANOVA with condition (disillusion vs. control) and political ideology (liberal vs. conservative) as independent variables. The condition  $\times$  political ideology interaction was non-significant,  $F(1, 226) = 2.01$ ,  $p = .158$ ,  $\eta_p^2 = .009$ , indicating that the magnitude of the impact of disillusionment on political activism intentions did not differ between liberals and conservatives.

**Mediation analysis.** We tested if epistemic meaning search mediated the effect of (manipulated) disillusionment on political activism intentions using an ordinary least square path analysis multiple mediation analysis (Preacher & Hayes, 2004; 5,000 bias-corrected and accelerated bootstraps). Disillusionment served as predictor (dummy coded; *control* = 0, *disillusionment* = 1); meaning search was the mediator; political activism intentions was the criterion variable. We found that disillusionment increased meaning search,  $B = .89$ ,  $SE = 0.117$ ,  $t(229) = 7.689$ ,  $p < .001$ , which in turn predicted a higher willingness to engage in political activism,  $B = .170$ ,  $SE = 0.072$ ,  $t(228) = 2.356$ ,  $p = .019$ . Importantly, the indirect effect of condition on political activism intentions through epistemic meaning search was significant,  $ab = .15$ ,  $SE = .071$ , 95% CI [.305, .024]; epistemic meaning search mediated the association between disillusionment and political activism intentions. The findings support

our proposition that polarization resulting from disillusionment reflects a process of meaning search (see also Van Tilburg & Igou, 2016).

### **General Discussion**

We designed Studies 1 and 2 around major political events of 2016: ‘Brexit’ and the USA Presidential Elections. In both cases the disillusionment felt by those on the losing side correlated with (Study 1), or anticipated (Study 2), more extreme political views. In both cases, the campaigns supported by conservative participants (‘leave’ in the UK, Trump in the US Election) proved victorious and supporters of the more liberal campaigns reported feeling disillusioned. This disillusionment, in turn predicted more ‘radically’ liberal views. In particular, Study 2 demonstrated a significant shift among Clinton supporters to a more liberal/left-wing stance from before the presidential election to after the election. This shift was mediated by changes in the levels of disillusionment from before to after the election. These findings are consistent with our hypothesis that feelings of disillusionment can drive polarization. Study 3, an experimental test of this effect, indicated that the search for epistemic meaning mediated the impact of disillusionment on political activism intentions. Furthermore, we found that disillusionment led to polarization among liberal and conservative participants. Overall, these studies convincingly demonstrate that disillusionment is a source of political polarization, driven by motivations to restore meaning and understanding in one’s life.

### **Implications and Contributions**

Our studies contribute to the literature in at least three ways. First, we found evidence of political polarization using a quasi-experimental design based around real-world events. Lab studies frequently demonstrated that people bolster political views in the face of threat to their meaning system (see Jonas et al., 2014). However, evidence from naturalistic data is less common (Randles et al., 2017) and has been focused on conservatives (Landau et al., 2004).

With the present study, we found polarization toward both sides of the political spectrum. Second, we establish for the first time the role of disillusionment in political polarization. With the exception of theories of uncertainty, the role of affect in epistemic threat/defence models has been limited and vague (Lambert et al., 2014). Many models propose that some form of aversive arousal precedes the compensatory responses that discrepancy based threats can trigger (Festinger, 1957; Proulx & Inzlicht, 2012). We presented evidence that disillusionment can form an epistemic threat that triggers defensive responses. The final contribution relates to our findings on meaning in life. To our knowledge, this is the first case of naturalistic data demonstrating that political events can influence one's sense of meaning in life and trigger meaning-regulation processes.

Our research is centred on important socio-political events. Polarization has potentially negative consequences at an individual and a societal level. From an individual perspective, it can lead to a rigidity in one's views, including belief superiority (Toner et al., 2013) and unjustified illusion of understanding (Fernbach et al., 2013), possibly more pronounced at conservative ends of the spectrum (e.g., Jost et al., 2003). At a societal level, tensions between groups may increase, stifling cooperation across ideological lines and providing a unique threat to democratic processes (Barber & McCarty, 2013). Indeed, the rise of political polarization in Western democracies has coincided with a loss of faith in democratic processes in the UK, the US, German, and Sweden (Foa & Mounk, 2016) where more citizens are adopting views typically confined to the extremes of the political spectrum.

### **Limitations and Future Directions**

Study 1 featured a correlational design and causation cannot be definitely inferred. In addition, operationalising political views as either left wing/liberal versus right wing/conservative may not be fine-grained enough (Jost, Federico, & Napier, 2009; Van der Brug & Van Spanje, 2009). For example, in Study 1 we classified those who supported

‘remain’ as liberal and those who opposed as conservative. On average, this classification fits but there were people with a range of political views supporting either side. Future research may wish to examine the bolstering of political views in response to disillusionment at a more nuanced level. For example, the results may be more pronounced in political views that are socio-cultural, as opposed to economic (Van der Brug & Van Spanje, 2009).

On a collective level, disillusionment shares features with anomie and political alienation (Citrin, McClosky, Shanks, & Sniderman, 1975; McClosky & Shaar, 1965; Teymoori, Bastian, & Jetten, 2016). Anomie is loss of leadership and moral guidance that results from some level of social, economic or political disruption. Like disillusionment, anomie is associated with meaninglessness (Thorlindsson & Bernburg, 2004) and Teymoori et al. (2016) suggest that it can lead to the adoption of authoritarian political systems. Unlike disillusionment, anomie is only viewed at a collective level and cannot be experienced by individuals. However, it is possible that anomie at a collective level may lead to the adoption of politically extreme views by triggering disillusionment among individuals. Future research should explore how anomie at a macro level can lead to disillusionment among individuals.

### **Conclusion**

Our research provides evidence of disillusionment-induced political polarization, using naturalistic quasi-experimental and experimental designs. These intriguing findings advance insights into the effects of disillusionment and the important practical implications of this experience. Disillusionment may, for example, inspire cumulative political polarization, in which different manifestations of polarizations interact and worsen divisions in political and social contexts. To halt the slide into cumulative polarization, the underlying causes of mass disillusionment should be addressed.

## References

- Abramowitz, A. I., & Saunders, K. L. (2008). Is polarization a myth? *Journal of Politics*, *70*, 542–555. doi:10.1017/s0022381608080493
- Barber M., & McCarty N. (2013). Causes and consequences of polarization. In J. Mansbridge, C. J. Martin (Eds.), *Negotiating agreement in politics* (Vol. 19, pp. 19–53). Washington, DC: American Political Science Association.
- Bessi, A. (2016). Personality traits and echo chambers on Facebook. *Computers in Human Behavior*, *65*, 319-324. doi:10.1016/j.chb.2016.08.016
- Citrin, J., McClosky, H., Shanks, J. M., & Sniderman, P. M. (1975). Personal and political sources of political alienation. *British Journal of Political Science*, *5*, 1-31.
- Clore, G. L., Ortony, A., & Foss, M. A. (1987). The psychological foundations of the affective lexicon. *Journal of personality and social psychology*, *53*, 751.
- Ellsworth, P. C. (2003). Confusion, concentration, and other emotions of interest: Commentary on Rozin and Cohen (2003). *Emotion*, *3*, 81–85. doi:10.1037/1528-3542.3.1.81
- Fernbach, P. M., Rogers, T., Fox, C. R., & Sloman, S. A. (2013). Political extremism is supported by an illusion of understanding. *Psychological Science*, *24*, 939–946. doi:10.1177/0956797612464058
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Foa, R. S., & Mounk, Y. (2016). The signs of deconsolidation. *Journal of Democracy*, *28*, 5-15. doi:10.1353/jod.2017.0000
- Fromm, E. (1968). *The revolution of hope, toward a humanized technology*. Vol. 38. New York, NY: Harper & Row.
- Gallup (2015). *Confidence in Religion at New Low, but Not Among Catholics*.

- Retrieved from [http://www.gallup.com/topic/category\\_religious\\_institutions.aspx](http://www.gallup.com/topic/category_religious_institutions.aspx)
- Greenberg, J., Pyszczynski, T., Burling, J., Simon, L., Solomon, S., Rosenblatt, A., . . . Pinel, E. (1992). Why do people need self-esteem: Converging evidence that self-esteem serves an anxiety-buffering function. *Journal of Personality and Social Psychology, 63*, 913-922.
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S. and Lyon, D. (1990). Evidence for terror management theory 11: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology, 58*, 308-318. doi:10.1037/0022-3514.58.2.308
- Heine, S. J., Proulx, T., & Vohs, K. D. (2006). Meaning maintenance model: On the coherence of human motivations. *Personality and Social Psychology Review, 10*, 88-110. doi:10.1207/s15327957pspr1002\_1
- Hetherington, M. (2002). Resurgent mass partisanship: The role of elite polarization. *American Political Science Review, 95*, 619–631. doi:10.1017/S0003055401003045
- Hogg, M. A. (2007). Uncertainty–identity theory. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 39, pp. 69-126). San Diego, CA: Academic Press.
- Howell, W. G. (2005). Unilateral powers: A brief overview. *Presidential Studies Quarterly, 35*, 417-439. doi:10.1111/j.1741-5705.2005.00258.x
- Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition, 7*, 113– 136.
- Janoff-Bulman, R., & Berg, M. (1998). Disillusionment and the creation of value: From traumatic losses to existential gains. In J. Harvey (Ed.), *Perspectives on loss: A sourcebook* (pp. 35-44). Washington, DC: Taylor & Francis.
- Jonas, E., & Greenberg, J. (2004). Terror management and political attitudes: The

- influence of mortality salience on Germans' defence of the German reunification. *European Journal of Social Psychology*, *34*, 1-9. doi:10.1002/ejsp.178
- Jonas, E., McGregor, I., Klackl, J., Agroskin, D., Fritsche, I., Holbrook, C., Nash, K., Proulx, T., & Quirin, M. (2014). Threat and defense: From anxiety to approach. In J. M. Olson & M. P. Zanna (Eds.), *Advances in Experimental Social Psychology* (Vol. 49, pp. 219–286). San Diego, CA: Academic Press.
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual review of psychology*, *60*, 307-337. doi:110707.163600
- Jost J.T., Fitzsimons G., Kay A.C. (2004). The ideological animal: A system justification view. In Greenberg J., Koole S.L., Pyszczynski T. (Eds.), *Handbook of experimental existential psychology* (pp. 263–283). New York, NY: Guilford.
- Jost J.T., Glaser J., Kruglanski A. W., Sulloway F. (2003). Exceptions that prove the rule: Using a theory of motivated social cognition to account for ideological incongruities and political anomalies. *Psychological Bulletin*, *129*, 383–393. doi:10.1037/0033-2909.129.3.339
- Jost, J. T., Nosek, B. A., & Gosling, S. D. (2008). Ideology: Its resurgence in social, personality, and political psychology. *Perspectives on Psychological Science*, *3*, 126-136. doi:10.1111/j.1745-6916.2008.00070.x
- Kay, A. C., Gaucher, D., McGregor, I., & Nash, K. (2010). Religious conviction as compensatory control. *Personality and Social Psychology Review*, *14*, 37-48. doi:10.1177/1088868309353750
- Kruglanski, A. W., Pierro, A., Mannetti, L., & De Grada, E. (2006). Groups as epistemic providers: Need for closure and the unfolding of group centrism. *Psychological Review*, *113*, 84-100. doi:10.1037/0033-295X.113.1.84

- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: "Seizing" and "freezing". *Psychological Review*, *103*, 263-283.
- Lambert, A. J., Eadeh, F. R., Peak, S. A., Scherer, L. D., Schott, J. P., & Slochower, J. M. (2014). Toward a greater understanding of the emotional dynamics of the mortality salience manipulation: Revisiting the "affect-free" claim of terror management research. *Journal of Personality and Social Psychology*, *106*, 655-678.  
doi:10.1037/a0036353
- Landau M.J., Solomon S., Greenberg J., Cohen F., Pyszczynski T., & Arndt J. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, *30*, 1136–1150. doi:10.1177/0146167204267988
- Maher, P. J., Van Tilburg, W. A. P., & Igou, E. R. (2017). Lost and found: Identifying and distinguishing forms of epistemic negative affect. *Manuscript submitted for publication*.
- Maher, P. J., Van Tilburg, W. A. P., & Van Den Tol, A. J. M. (2013). Meaning in music: Deviations from expectations in music prompt outgroup derogation. *European Journal of Social Psychology*, *43*, 449-454. doi:10.1002/ejsp.1969
- McCarty, N., Poole K. T., & Rosenthal, H. (2006) *Polarized America: The dance of ideology and unequal riches*. Cambridge, MA: MIT Press.
- McClosky, H., & Schaar, J. H. (1965). Psychological Dimensions of Anomy. *American Sociological Review*, *30*, 14-40. doi:10.2307/2091771
- Norenzayan, A., Dar-Nimrod, I., Hansen, I. G., & Proulx, T. (2009). Mortality salience and religion: Divergent effects on the defense of cultural worldviews for the religious and the non-religious. *European Journal of Social Psychology*, *39*, 101-113.  
doi:10.1002/ejsp.482

- Ortony, A., Clore, G. L., & Foss, M. A. (1987). The referential structure of the affective lexicon. *Cognitive Science*, *11*, 341-364.
- Pew Research Centre (2014), *Political polarization in the American public*. Retrieved from <http://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/>
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, *36*, 717-731. doi:10.3758/BF03206553
- Proulx, T., & Inzlicht, M. (2012). The five "A"s of meaning maintenance: Finding meaning in the theories of sense-making. *Psychological Inquiry*, *23*, 317-335. doi:10.1080/1047840x.2012.702372
- Randles, D., Heine, S. J., Poulin, M., & Silver, R. C. (2017). Experienced adversity in life is associated with polarized and affirmed political attitudes. *Social Psychological and Personality Science*, Advance online publication. doi:10.1177/1948550616675668
- Roth, B., Hahn, E., & Spinath, F. M. (2016). Income inequality, life satisfaction, and economic worries. *Social Psychological and Personality Science*, *8*, 133-141. doi:10.1177/1948550616664955
- Slegers, W. W., Proulx, T., & van Beest, I. (2015). Extremism reduces conflict arousal and increases values affirmation in response to meaning violations. *Biological Psychology*, *108*, 126-131. doi:10.1016/j.biopsycho.2015.03.012
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: a social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193-210.
- Teymoori, A., Bastian, B. and Jetten, J. (2016). Towards a psychological analysis of anomie. *Political Psychology*. doi:10.1111/pops.12377

- Thorlindsson, T., & Bernburg, J. G. (2004). Durkheim's theory of social order and deviance: A multi-level test. *European Sociological Review*, *20*, 271–285.
- Tomkins, S. S. (1963). Left and right: A basic dimension of ideology and personality. In R. W. White (Ed.), *The study of lives* (pp. 388—411). Chicago: Atherton
- Toner, K., Leary, M. R., Asher, M. W., & Jongman-Sereno, K. P. (2013). Feeling superior is a bipartisan issue extremity (not direction) of political views predicts perceived belief superiority. *Psychological Science*, *24*, 2454 – 2462.  
doi:10.1177/0956797613494848.
- Van der Brug, W., & Van Spanje, J. (2009). Immigration, Europe and the ‘new’ cultural dimension. *European Journal of Political Research*, *48*, 309–34.  
doi:10.1111/j.1475-6765.2009.00841.x
- Van Tilburg, W. A. P., & Igou, E. R. (2011). On boredom and social identity: A pragmatic meaning-regulation approach. *Personality and Social Psychology Bulletin*, *37*, 1679–1691. doi:10.1177/0146167211418530
- Van Tilburg, W. A. P., & Igou, E. R. (2016) Going to political extremes in response to boredom. *European Journal of Social Psychology*, *46*, 687-699.  
doi:10.1002/ejsp.2205.
- Van Tilburg, W. A. P., Igou, E. R., & Sedikides, C. (2013). In search of meaningfulness: Nostalgia as an antidote to boredom. *Emotion*, *13*, 450-461. doi:10.1037/a0030442
- Van Tilburg, W. A. P., Sedikides, C., & Wildschut, T. (2015). The mnemonic muse: Nostalgia fosters creativity through openness to experience. *Journal of Experimental Social Psychology*, *59*, 1-7. doi: <https://doi.org/10.1016/j.jesp.2015.02.002>
- YouGov (2016). EU Referendum on the day poll. Retrieved from <https://yougov.co.uk/publicopinion/archive/?page=35>.