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Changing "us" and hostility towards "them"—Implicit theories of national identity determine prejudice and participation rates in an anti-immigrant petition

Christina Anna Bauer [iD] | Bettina Hannover

Department of Educational Science and Psychology, Freie Universität Berlin, Berlin, Germany

Correspondence
Christina Anna Bauer, Department of Educational Science and Psychology, Freie Universität Berlin, Habelschwerdter Allee 45, Raum JK 24/222e, 14195 Berlin, Germany.
Email: christina.bauer@fu-berlin.de

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Abstract

National identity definitions determine who belongs to the national ingroup (e.g., "us Germans") versus the "foreign" outgroup prone to hostile outgroup bias. We conducted five studies in two countries investigating if viewing the ingroup's national identity as fixed exacerbates the perceived divide between ingroup and outgroup and thus increases anti-immigrant hostility, while a malleable view blurs the divide and reduces anti-immigrant hostility. In a Prestudy (58 participants), an Implicit Theory of National Identity Scale was developed. In Studies 1 (154 participants) and 2 (390 participants), our scale predicted individuals' prejudice and participation rates in a hypothetical referendum and a real petition against immigrants. In Studies 3 (225 participants) and 4 (225 participants), experimental evidence was obtained. Leading participants to believe that the definition of "a true compatriot" changes over time (rather than remaining the same) resulted in lower levels of prejudice and participation rates in an anti-immigrant petition.

KEYWORDS

anti-immigrant hostility, implicit theories, intergroup relations, outgroup bias, prejudice, theories about national identity

Swedes are white and our country is ours—Song promoted by the right-wing populist party "Sverigedemokraterna", Sweden (Grandlund, Svensson, & Nygren, 2018).

Over centuries, our identity has developed from Christian traditions. [...] Islam, in contrast, does not belong to our identity.—*Party program of the right-wing populist party "Alternative für Deutschland" (2016), Germany.*

1 | INTRODUCTION

A rise in anti-immigrant hostility can currently be observed in Europe. The anti-immigrant movement of the "Patriotic Europeans against the Islamization of the West" (short PEGIDA) has attracted thousands of participants to its demonstrations. Founded 2014 in Germany, PEGIDA is now spreading across Europe (Wolf & Alexe, 2016). The rising anti-immigrant sentiment has also found its way off the streets and into politics. Populist parties, like the above quoted "Sverigedemokraterna" and the "Alternative für Deutschland", are gaining more and more popularity and seats in parliaments on both the national and the European level.

The above quotations demonstrate one commonality that can be observed in anti-immigrant movements across Europe: a rhetoric about national identity (e.g., "us Swedish/German people") which excludes immigrants (e.g., Non-Whites and Muslims not being considered true Swedes/Germans) on the basis of fixed and descent-focused characteristics (e.g., longstanding ethnic or religious roots).

Research on intergroup processes indicates that this rhetoric may not just be a mere byproduct of anti-immigrant hostility. Instead, this rhetoric, which portrays immigrants as distinct outgroups, may itself actively contribute to increased hostility against immigrants.

In this article, we introduce the concept of implicit theories regarding the fixedness versus malleability of the ingroup's national identity definition (in short: *implicit theories of national identity*). We hypothesize that the hostility-inducing perceived divide between people who are considered "true compatriots" and those who are not can be exacerbated or blurred by portraying national identity definitions (i.e., the definition of what makes someone a "true compatriot") as fixed or malleable. Viewing the ingroup's national identity definition as fixed (i.e., thinking that a "true German" was always and will always be defined by ethnicity, for example) should exacerbate the perception of a rigid and clear-cut divide. At any given time, it is very clear who belongs to the national in- or outgroup and who will do so in the future. This intensified perception of a national ingroup-outgroup is expected to increase hostility toward immigrants. In contrast, a malleable perception of national identity definitions implies that what it means to be a "true compatriot" can change over time. For example, a person who acknowledges the malleability of national identity definitions could think that "true Germans", who used to be defined by ethnicity, are now defined by cultural characteristics like individuals' fluency in German, and might in the future be defined by other content still. A change in national identity definition implies that a different set of people is included in the national ingroup. Correspondingly, under a malleable view of national identity definitions, no clear-cut lines dividing in- and outgroup exist: since the defining boundaries of the national ingroup are thought to change, this implies that immigrants (and others) who may have been considered foreign outgroup members in the past may still be considered ingroup members in the future.

Our hypotheses are based on two lines of research: (a) Social Identity Theory (SIT; Tajfel & Turner, 1979), and (b) the concept of malleable versus fixed implicit theories (Dweck, 2008; Dweck & Leggett, 1988).

1.1 | Social identity theory and its explanation of outgroup-hostility

According to SIT (Brown, 2000; Tajfel & Turner, 1979), the mere activation of group memberships can increase hostility towards outgroups—a process called outgroup bias (for a review, see Hewstone, Rubin, & Willis, 2002). The theory rests on the assumption that (a) people generally strive for a positive self-image and (b) the ingroup (e.g., "us Germans") is seen as a part of the self. By devaluing outgroups (e.g., immigrants), individuals' ingroup and by extension their overall self-image can be improved on a relative basis. The resulting outgroup bias could be shown using as diverse range of group categorizations and even random assignment to fictitious groups (Hewstone et al., 2002; Mullen, Brown, & Smith, 1992). Among the many categories humans can use to sort others, national identity—together with other

demographics like race and sex—constitutes one of the most commonly used organizing schemes. This may lead to especially pervasive effects of national identity-based outgroup bias.

Previous research has indeed used SIT to explain covariations between how individuals define their national ingroup and their anti-immigrant hostility. Work in this area has focused on the *contents* and, by implication, the width of national ingroup definitions. It was shown that people who exclude immigrants with a narrow definition of the national "us" (e.g., Germans defined by contents like ethnicity or inherited culture) exhibit more hostility toward immigrants than individuals who define national identity more inclusively (e.g., Germans defined by contents such as shared values). This relation has been shown in both cross-sectional as well as longitudinal studies including diverse populations from over 30 countries and all four populated continents (e.g., Billiet, Maddens, & Beerten, 2003; Ha & Jang, 2015; Jones, 1997, 2000; Maddens, Billiet, & Beerten, 2000; Meeus, Duriez, Vanbeselaere, & Boen, 2010; Pehrson, Brown, & Zagefka, 2009; Pehrson, Vignoles, & Brown, 2009).

Wakefield et al. (2011) have tested the link between the inclusiveness of the criteria that define national identity (narrow ethnic vs. broader formality-based criteria) and intergroup relations in an experimental setting. This study focused on a specific form of intergroup relationships, with positive attitudes and supportive behaviors towards Asian Scottish individuals as outcome variables. They found the induction of an inclusive national identity definition to improve Scottish participants' supportive behaviors, but not participants' liking of an Asian Scottish confederate. It is unclear, however, whether effects found in this study regarding positive and supportive attitudes toward Asian minorities, which are often considered a particularly successful minority group, can be applied to attitudes toward other immigrant groups (i.e., *hostile* attitudes regarding the larger group of *immigrants* in general, or less favorably viewed immigrant subgroups). Also, the exact mechanisms of the link between narrow national identity definitions and anti-immigrant hostility are still under investigation. While Pehrson and Green (2010) found evidence for a moderation model in which more exclusive definitions of national identity strengthened the negative effect of a strong sense of national attachment on anti-immigrant hostility, findings by Meeus et al. (2010) supported a mediation model in which more narrow national identity definitions mediated the relationship between attachment and anti-immigrant hostility.

With our research, we aim to explore a new dimension of national identity definitions. While previous research has investigated which kinds of contents are used to define national identity, our research on perceived malleability describes whether people think that these contents (be it, e.g., narrow ethnic, or broader value-based definitions) change over time. Thus, our research takes on a meta-theoretical perspective: Instead of investigating individuals' content theories ("what makes a true compatriot?"), we investigate the perceived malleability of individuals' content theories ("Is the definition of 'what makes a true compatriot' malleable?").

1.2 | Implicit theories about malleability versus fixedness

People differ in their implicit theories about the malleability versus fixedness of diverse matters like attributes of the world, conflict, emotions, and abilities (Cohen-Chen, Halperin, Crisp, & Gross, 2014; Tamir, John, Srivastava, & Gross, 2007; Yang & Hong, 2010)—with multiple implications for motivation, wellbeing, and interpersonal relationships (e.g., Dweck, Chiu, & Hong, 1995). A major part of the research on implicit theories has focused on the perceived malleability of human attributes.

The first studies on implicit theories regarding human attributes specifically focused on attributes of the *self* like a person's own intelligence or skills (Dweck, 2008; Dweck & Leggett, 1988). It was shown that viewing those self-attributes as malleable rather than fixed resulted in more adaptive judgements and behaviors: Failures, for example, were more likely to be seen as an opportunity to learn instead of seeing them as evidence for lack of intellectual potential (Dweck et al., 1995). As a result, individuals who believe that attributes like intelligence are malleable show improved academic results (e.g., Blackwell, Trzesniewski, & Dweck, 2007).

More recently, research on the malleability of human attributes has turned to the perceived malleability of attributes of *other* people and groups and the resulting judgements of those others. By aiming to investigate the usefulness of the malleability framework for the improvement of interpersonal and intergroup relationships, it could, for instance, be shown that the perceived malleability of people was linked to more adaptive attribution patterns: Individuals who were led to believe that people can change regarding their personality and moral character were less likely to attribute other people's negative behaviors to unchangeable, fixed traits, and more likely to see wrongdoing as a result of other factors like people's temporary thoughts and feelings or situational factors (Chiu, Hong, & Dweck, 1997; Levy, Plaks, Hong, Chiu, & Dweck, 2001). As a result, a malleable rather than a fixed view of other people also improved individuals' attitudes in cases of conflict. For instance, it was shown that both Israeli and Palestinian participants were more ready to compromise for peace when they were led to view characteristics of groups as inherently malleable rather than fixed (Halperin, Russell, Trzesniewski, Gross, & Dweck, 2011). While a fixed view of groups who may be considered aggressive and evil implies that these groups keep their (detested) attributes, a malleable view implies that groups could become better in the future. Together, these findings suggest that a malleable rather than a fixed view of other people results in more adaptive attribution patterns, attitudes, and behaviors in situations of conflict.

In our research, we use the concept of implicit theories to show that a fixed view of the ingroup's national identity definition increases outgroup hostility, whereas a malleable view decreases these negative attitudes as it implies that the boundaries separating in- and outgroup can change. While previous research on implicit theories of human attributes has highlighted the benefits of a malleable view regarding *individuals*, we investigate the effects of implicit theories of a *social category*, namely of the national ingroup category "true compatriots". Note that if the definition of the national ingroup category changes over time (e.g., from an ethnic to a value focus), this does not necessarily imply that the individuals themselves change regarding their personalities and behaviors; rather, a malleable national identity implies a change in the defining "entry criteria" that determine who may cross the line and be considered part of the national ingroup category. Instead of focusing on the changeability of individuals' personal characteristics, we thus focus on the malleability of the categorizing, group-dividing boundaries. We specifically hypothesized that, while a fixed view on these categorizing boundaries exacerbates the perceived divide between "us" and "them" and thus increases anti-immigrant hostility, a malleable view blurs this divide and thus reduces anti-immigrant hostility.

1.3 | Conceptually related constructs

To investigate our new constructs' convergent and discriminant validity, we included measures of other related constructs in our studies. In particular, we expected implicit theories of national identity to be moderately correlated with measures of perceived group malleability (as discussed above), essentialism, and historical tolerance. As our outcome variables measuring anti-immigrant hostility are expected to be strongly correlated with right-wing political orientation (Prezza, Zampatti, Pacilli, & Paoliello, 2008) and a strong sense of national attachment (e.g., Ditlmann & Kopf-Beck, 2019; Leyens et al., 2003), we additionally included measures of both variables as controls.[1]

1.3.1 | Essentialism

According to Bastian and Haslam (2008), essentialism describes the belief in a biological essence within humans that determines their behavior. More specifically, essentialism consists of three components: biological basis, discreteness, and informativeness. Individuals with an essentialist belief system tend to think that (a) people's behaviors are determined by their biological make-up (biological basis), (b) there are clear-cut boundaries between different "types" of people (discreteness), and (c) learning about individuals' traits enables accurate predictions about their future behavior (informativeness). Like narrow national identity definitions (based on, for instance, shared ethnicity), essentialism has been associated with worse intergroup-relations (e.g., Bastian & Haslam, 2008; Roets & Van Hiel, 2011).

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[1]As can be seen in Table S3 in the Appendix S1, demographic variables (age, education, gender) would not have added consistent predictive value to our analyses. This supports our reasoning that our control variables are more closely related to the dependent variables and the predictive power of demographics is already summarized in our controls.

It seems plausible that—like narrow national identity definitions—essentialism may also heighten the degree to which individuals perceive ingroup–outgroup divides, which may in turn spark outgroup hostility. In contrast to essentialism, our implicit theory concept focuses on the perceived malleability or fixedness of national identity. While perceived fixedness of national identity may be empirically related to essentialist beliefs, our concept does not imply a belief in a biological essence to national identity, in the discreteness of national group boundaries, or in the predictability of individuals' behavior based on their national identity.

1.3.2 | Historical tolerance

Some research outside the SIT-framework has investigated whether hostility can also be decreased by making pro-immigrant values like tolerance a defining feature of ingroup membership (irrespective of the width of national ingroup definitions). Specifically, Smeekes, Verkuyten, and Poppe (2012) showed that individuals who were led to see religious tolerance as an important part of their national identity exhibited less hostile (and more tolerant) attitudes toward Muslims. These findings can best be explained by assimilation processes, as described by self-categorization theory (SCT, Turner, 2010), rather than by SIT-based ingroup-outgroup processes: the description of one's own national group as tolerant leads individuals to self-stereotype and assimilate to be more tolerant, too. Despite these differences in targeted processes, implicit theories of national identity and historical tolerance may both affect similar outcomes like anti-immigrant hostility.

1.3.3 | National attachment and political orientation

As mentioned, we included measures of political orientation and national attachment as controls. Two major forms of individuals' sense of national attachment are national identification and nationalism. National identification constitutes a rather general operationalization of national attachment (which we used as a control in our Prestudy). In contrast, nationalism (which we used in all other studies) is a form of national attachment that specifically "reflects apperception of national superiority" (Kosterman & Feshbach, 1989, p. 271) and is even more predictive of anti-immigrant hostility than general national attachment measures (Blank & Schmidt, 2003; Kosterman & Feshbach, 1989; Wagner, Becker, Christ, Pettigrew, & Schmidt, 2010).

1.4 | The present research

As outlined, we introduce the concept of implicit theory of national identity, aiming to extend research both on SIT-based outgroup hostility and on malleable versus fixed implicit theories.

We chose Germany and England to conduct our studies for two reasons: Firstly, both Germany and England have witnessed a recent rise of right-wing populism. Our research topic is thus of great societal importance in both countries. Secondly, as in other nations with a long and ethnically rather homogeneous history, national identity is primarily defined over narrow culture-based contents in both Germany and England (Ditlmann, Purdie-Vaughns, & Eibach, 2011; Stokes, 2017). Germany and England thus constitute good exemplars with which to investigate effects of national identity perceptions in Europe.

To test our hypotheses, we conducted five studies with independent samples. In our Prestudy, we created a scale to measure individuals' views about the malleability versus fixedness of their own national identity. In Studies 1 and 2, we tested if our scale predicted self-reported prejudice and behavioral measures of anti-immigrant hostility (participation rates in a hypothetical anti-immigrant referendum in Study 1 and a real anti-immigrant petition in Study 2) in Germany and England—taking related variables into account (essentialism, historical tolerance, perceived group malleability, sense of national attachment, and political orientation). In Studies 3 and 4, we obtained experimental evidence for the proposed relationships. In Study 3, we tested the effect of an experimental manipulation of a malleable versus a fixed view of national identity. Study 4 served as a replication and additionally included a control condition.

To capture anti-immigrant hostility comprehensively, we chose to assess (a) prejudice as a mental and affective form of hostility as well as (b) behavioral forms of hostility. With regard to the latter, we assessed individuals' willingness to participate in a hypothetical referendum on the tightening of immigration restrictions in Study 1. In Studies 2–4, individuals were given the option to participate in a real anti-immigrant petition arguing for the deportation of refugees. Refugees constitute a subgroup of mostly Muslim immigrants, who flee from violence or other threats in their home country. Arguing for their deportation can be seen as a rather extreme form of anti-immigrant hostility, which we aimed to capture with this measure.

Materials (original German material and English translations) as well as data from all studies are available on the Open Science Framework: https://osf.io/c4yt7/?view_only=673e48bf5355431 08379e7a2366ce589. For efficiency reasons, we collected data for another research project in the second half of the surveys. A complete list of these variables is included in the material documents. Correlation tables for all studies are included in the Appendix S1.[2]

2 | PRESTUDY

The aim of the Prestudy is to create and validate a self-report measure of individuals' implicit theories of national identity. To test the

scale's convergent validity via correlational analyses, we included political orientation and a measure of national attachment as two related variables. We expected a fixed view of national identity to be connected to a more right-leaning political self-description and stronger national attachment.

2.1 | Participants and procedure

Participants were recruited through German-speaking groups on the social media platform Facebook. Facebook users were told that researchers were looking for German participants to investigate opinions on German national identity. No incentives were given. Fifty-eight participants (30 male, 23 female, 2 other, 3 non-responders) completed our online questionnaire. The mean age was $M = 25.3$, $SD = 7.3$. Six participants (10%) reported having a migration background (i.e., they agreed to the question "Did your family immigrate to Germany after 1949?"—a question commonly used in Germany as a replacement for questions about race and ethnicity; e.g., German Federal Statistical Office, 2005). Sixty-seven percent of participants were students while 24% had a job. Fifty-two percent of participants held a university degree.

2.2 | Measures

2.2.1 | Implicit theory of national identity

Using previous measures of perceived malleability (Blackwell et al., 2007; Chiu & Hong, 1999), we generated a pool of 14 items describing malleability beliefs of national identity (e.g., "True Germans are characterized by certain cultural attributes that will always remain as they are", "Different generations may do things differently, but there are certain cultural characteristics that true Germans will always share"). Participants rated all items on a scale from 1 ("totally disagree") to 6 ("totally agree").

2.2.2 | Political orientation

Political orientation was assessed with the following item adapted from Green (2009): "How would you describe your overall political orientation?" with responses ranging from 1 to 6 ("extremely left", "left", "slightly left", "slightly right", "right", and "extremely right").

2.2.3 | National attachment

We used 2 items, adapted from Pehrson, Vignoles, et al. (2009): "How proud are you to be German?", with responses ranging from 1 ("not proud at all") to 4 ("very proud"), and "How close do you feel to Germany?" (1 = "not close at all", 4 = "very close"; $\alpha = 0.87$).

2.3 | Results and discussion

In selecting our final items from the item pool, we considered results from factor analyses, item-total correlations, and internal reliability. A detailed description of the item selection can be found in the Supplemental Material. The resulting Implicit Theory of National Identity Scale consists of 6 items ($\alpha = 0.95$). Items and factor loadings are shown in Table 1. In line with previous implicit theory scales (e.g., implicit theories of intelligence, Hong, Chiu, Dweck, Lin, & Wan, 1999; implicit theories of personality, Chiu et al., 1997; implicit theories of groups, Halperin et al., 2011), our scale only includes items that endorse a fixed view of individuals' in-group national identity. As has been previously discussed (e.g., Chiu et al., 1997; Levy, Stroessner, & Dweck, 1998), malleability items are rather universally endorsed and thus less helpful in distinguishing individuals with malleable and fixed implicit theories. Furthermore, evidence was obtained indicating that disagreement with the fixedness items can be interpreted as endorsement of malleability views (Levy & Dweck, 1996).

Items were reversed, so that higher scores represent a greater perceived malleability of national identity. A factor analysis revealed one factor that explained 77% of the variance. For each participant, we calculated a mean score across all items. Descriptive statistics ($M = 2.37$, $SD = 1.27$, $range = 1.00$–6.00) indicated that participants overall tended to lean towards a fixed view of national identity, while there was considerable variance between individuals. As expected, individuals' implicit theory of national identity was significantly correlated with both political orientation ($r = -.52$, $p < .001$) and national attachment ($r = -.53$, $p < .001$), indicating good convergent validity. Descriptive statistics of both variables are summarized in Table 2.

TABLE 1 Items and factor loadings of the "Perceived Implicit Theory of National Identity Scale"

Item		Factor loading
1	True Germans are characterized by certain cultural attributes that will always remain as they are.	0.89
2	Different generations may do things differently, but there are certain cultural characteristics that true Germans will always share.	0.91
3	True Germans share certain cultural characteristics that will always stay the same.	0.93
4	There is something about the culture and heritage true Germans share that you just can't really change.	0.73
5	There are certain cultural characteristics that define a true German and that will always remain the same.	0.92
6	When I think of true Germans, I think of people with cultural characteristics that will remain the same even over generations.	0.86

TABLE 2 Descriptive statistics for participants' political orientation and national attachment

	Political orientation			National attachment	
	M	SD	% right	M	SD
Prestudy	3.69	0.93	63%	3.11	0.77
Study 1	3.34	0.74	42%	3.69	1.19
Study 2	3.02	1.00	31%	2.89	0.98
Study 3	3.12	0.81	30%	3.24	1.34
Study 4	3.27	0.86	39%	3.35	1.49

Note: % right = percentage of participants who self-identified as politically right-wing. To assess national attachment, a national identification scale was used in the Prestudy, and nationalism scales were used in all other studies.

3 | STUDY 1

Study 1 aimed at testing the relationship of our Implicit Theory of National Identity Scale with anti-immigrant hostility. Besides a measure of prejudice, we also used a behavior-related measure of anti-immigrant hostility: whether or not individuals would participate in a hypothetical anti-immigrant referendum. We hypothesized that our scale would predict both measures of anti-immigrant hostility.

3.1 | Participants and procedure

Recruiting procedures were equivalent to the ones used in our Prestudy. From the results of previous studies in related fields (e.g., Halperin et al., 2011), we expected a small to medium effect size of partial R^2 = .05 and OR = 0.3 for our analyses. With a target of 80% statistical power, we aimed to recruit 152 participants, based on power analyses using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009). In the end, 154 participants (67 male, 83 female, 1 other, 3 non-responders) completed the online questionnaire. The mean age was *M* = 31.29, *SD* = 11.38. Fourteen individuals (9%) reported having a migration background. Fifty-five percent of the participants had a job while 32% were students. Forty-nine percent of our sample had obtained a university degree.

3.2 | Measures

3.2.1 | Implicit theory of national identity and political orientation

These variables were measured respectively by the same 6 items (*α* = 0.96) and the same single item as in our Prestudy.

3.2.2 | National attachment

We used the following two items adapted from Wagner et al. (2010), who have demonstrated the scale's validity in a German

population: "I am proud about Germany's history", and "I am proud to be German" (1 = "strongly disagree", 6 = "strongly agree"; *α* = 0.71).

3.2.3 | Prejudice

We used a 2-item scale adapted from Velasco González, Verkuyten, Weesie, and Poppe (2008), consisting of a social distance item ("Imagine that your neighbors are moving and new people come to live next door. How positive or negative would you feel about having immigrants as neighbors?"; 1 = "very negative", 5 = "very positive") and a "feeling thermometer", where participants had to indicate a temperature between 0 and 40 degrees Celsius to describe their feelings toward immigrants. Both items were reversed, so that higher values represent higher levels of prejudice. Scale values were obtained by averaging the *z*-standardized values of both items (*α* = 0.73).

3.2.4 | Participation in a hypothetical anti-immigrant referendum

We asked individuals about their willingness to participate in an anti-immigrant referendum that argued for "the tightening of immigration restrictions which is expected to cause a decrease in the number of migrants". Participants could choose to vote for or against the proposal ("I would vote for [/against] the proposal") or to abstain from the vote ("I would not vote"). Since our SIT-based hypothesis only allows for predictions regarding *negative* attitudes toward immigrants,[3] responses were dummy-coded, so that supporting the anti-immigrant referendum was counted as 1 (indicating anti-immigrant hostility), and not supporting the proposal (by supporting the pro-immigrant version or abstaining from participation) was counted as 0.

3.3 | Results and discussion

To test if individuals' implicit theory of national identity predicts levels of prejudice and individuals' hypothetical participation in the anti-immigrant petition, we conducted a linear and a logistic regression, respectively, controlling for national attachment and political orientation. As is evident from the regression information in Table 3, individuals' implicit theory of national identity significantly predicted levels of prejudice, *β* = −0.47, *p* < .001. The more participants thought that national identity was malleable rather than fixed, the less prejudice they reported.

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[3]Our research on implicit theories of national identity focusses on the manipulation of *negative* outgroup bias by exacerbating versus blurring the lines between in- and outgroup. As shown by Pehrson, Brown, et al. (2009) in a study on essentialism, reducing negative attitudes is not the same as increasing positive attitudes. In longitudinal cross-lagged analyses, essentialism was linked to negative, but not positive, attitudes toward immigrants (measured, among others, as individuals' willingness to sign pro- or anti- immigrant petitions).

TABLE 3 Summary of Linear Regression Model predicting levels of prejudice in Study 1

Variable	Model 1			Model 2		
	β	$SE\,\beta$	p	β	$SE\,\beta$	p
Implicit theories of NI	−0.50	0.05	<.001	−0.47	0.06	<.001
National attachment				−0.03	0.07	.61
Political orientation				0.33	0.09	<.001
R^2	.25			.32		
F for change in R^2	51.0***			23.29***		

***p < .001.

TABLE 4 Summary of binary logistic regression model predicting participation in a hypothetical referendum in Study 1

Variable	Model 1				Model 2			
	OR	B	SE B	p	OR	B	SE B	p
Implicit theories of NI	0.40	−0.92	0.18	<.001	0.45	−0.81	0.21	<.001
National attachment					1.28	0.25	0.22	.26
Political orientation					3.10	1.13	0.31	<.001
Cox-Snell R^2		.21				.30		
$\Delta\chi^2$		36.03***				19.70***		

Abbreviation: NI, national identity.

***p < .001.

Similar relationships were obtained for the behavior-related measure of prejudice. Overall, 39.6% of participants indicated they would vote for tighter immigration restrictions in a referendum (while 46.1% wanted to vote against it and 14.3% would not vote). As can be seen in Table 4, a binary logistic regression revealed that individuals' implicit theory of national identity significantly predicted hypothetical referendum participation, with an odds ratio coefficient for perceived malleability of OR = 0.45, p = <.001. That is, the more participants thought that national identity was fixed, the more likely they would be to vote for tighter immigration restrictions, and the more they thought national identity was malleable, the less likely they would be to vote for a tightening of immigration restrictions. Above and beyond national attachment and political orientation, individuals' implicit theory of national identity thus seems to be a relevant predictor for prejudiced attitudes as well as behavioral intentions hostile toward immigrants. A mediation analysis following Preacher and Hayes (2004) further revealed that the effect of perceived malleability on referendum participation was mediated by prejudice, with a significant indirect effect, ab = -0.61, SE = 0.29, 95% CI = [−1.39, −0.26], remaining direct effect, c' = −0.51, SE = 0.27, 95% CI = [−1.03, 0.01]. Implicit theories of national identity seem to affect the likelihood that individuals would participate in the anti-immigrant referendum by changing their prejudice levels.

4 | STUDY 2

This study aimed to (a) test the generalizability of our findings in another cultural context (England) and (b) test in how far the construct of implicit theory of national identity relates to and differs from other similar constructs: essentialism, historical tolerance, and group malleability. Also, instead of asking participants how they *would* vote in a *hypothetical* anti-immigrant referendum, in Study 2 participants could choose to participate in a *real* anti-immigrant petition. Since the threshold for casting a vote is higher than for merely saying one would vote, we reasoned that our new measure would be better able to capture strong forms of anti-immigrant hostility that play out on the level of individuals' behaviors.

4.1 | Participants and procedure

With a conservative estimate of our effect size based on Study 1 (partial R^2 = .02, OR = 0.45), and aiming for 80% statistical power, we aimed to recruit 390 participants (power analyses indicated that 387 participants would be required). Participants were recruited through Prolific—an online recruiting tool based in England. By the use of a filter on the platform, only participants with British citizenship could participate. Prolific users were told that we aimed to investigate their opinions about current political topics. Three hundred and ninety participants (286 female, 103 female, 1 other) completed our online questionnaire and were rewarded with £1.70 ($2.15) each. The mean age was M = 35.60, SD = 12.40. Regarding race, 92% of participants reported to be White, 3% Asian, 2% Black, 1% Middle Eastern. Seventy percent of participants had a job while 12% were students. Fifty-two percent of participants had obtained a university degree.

4.2 | Measures

If not otherwise noted, measures were rated on a scale from 1 ("strongly disagree") to 6 ("strongly agree"). Political orientation, implicit theory of national identity ($\alpha = 0.96$) and prejudice ($\alpha = 0.85$) were measured exactly as in Study 1.

4.2.1 | New control variables

To measure national attachment in the British context, we adapted a *nationalism* scale from Kosterman and Feshbach (1989) containing 8 items (e.g., "Generally, the more influence England has on other nations, the better off they are"). *Historical tolerance* was assessed with two items (e.g., "England has a long history of religious tolerance") adapted from Smeekes et al. (2012). *Perceived group malleability* was assessed with a 4-item scale ("Groups can do things differently, but the important parts of who they are can't really be changed") developed by Halperin et al. (2011). *Essentialism* was assessed with a 15-item scale of Bastian and Haslam (2008) containing the three factors discreteness (e.g., "The boundaries that define the differences between people are clear-cut"), informativeness ("Generally speaking, once you know someone in one or two contexts it is possible to predict how they will behave in most other contexts"), and biological basis (e.g., "The kind of person someone is can be largely attributed to their genetic inheritance").

4.2.2 | Participation in the anti-immigrant petition

Participants had the option to vote in favor of a real anti-immigrant petition arguing for the deportation of recent refugee migrants in England. To prevent individuals from viewing our survey as politically biased, we also offered the option to vote for a pro-immigrant petition, arguing that refugees should not be deported. As a third option, participants could choose to support none of the petitions. Participants who chose a petition were directed to the webpage of the respective petition where they could finalize their vote by entering their name and email address. Responses were dummy-coded. Support of the deportation petition was counted as 1 and not participating in this petition (by supporting the no-deportation petition or no petition at all) as 0.

4.3 | Results and discussion

4.3.1 | Correlations and factor analyses

To test the hypothesis that individuals' implicit theory of national identity is distinct from other related constructs, we conducted correlational analyses and confirmatory factor analyses. As evident in Table 5, correlations between our scale and other tested constructs ranged between $|r| = .28$ and $|r| = .60$. This can be seen as a first indication in support of our assumption that our scale is related to, but distinct from, similar constructs as they have been measured in previous studies. Confirmatory factor analyses provided further support: Results indicated that the 6-factor model including individuals' implicit theory of national identity, historical tolerance, perceived group malleability, and the three dimension of essentialism fitted the data well, $\chi^2 (309, N = 390) = 573.75$, $p < .001$, CFI = 0.96, TLI = 0.96, RMSEA = 0.047. Results further confirmed that this 6-factorial model had a better fit than five-factorial models in which implicit theory of national identity would load on the same factor as historical tolerance, $\chi^2 (314, N = 390) = 800.62$, $p < .001$, $\Delta \chi^2 (5, N = 390) = 226.87$, $p < .001$, perceived group malleability, $\chi^2 (314, N = 390) = 1,053.73$, $p < .001$, $\Delta\chi^2 (5, N = 390) = 479.98$, $p < .001$, discreteness, $\chi^2 (314, N = 390) = 1,586.91.73$, $p < .001$, $\Delta\chi^2 (5, N = 390) = 1,013.2$, $p < .001$, informativeness, $\chi^2 (314, N = 390) = 1,104.28$, $p < .001$, $\Delta\chi^2 (5, N = 390) = 530.52$, $p < .001$, or biological basis, $\chi^2 (314, N = 390) = 1,402.34$, $p < .001$, $\Delta\chi^2 (5, N = 390) = 828.59$, $p < .001$.

4.3.2 | Regression analyses predicting anti-immigrant hostility

To test if individuals' implicit theory of national identity predicts levels of prejudice and individuals' petition participation above and beyond the additional variables we accounted for (nationalism, political orientation, perceived group malleability, historical tolerance, essentialism),

TABLE 5 Correlations between variables of Study 2

Variable	1	2	3	4	5	6	7
1 Prejudice		−0.41**	0.38**	0.50**	−0.33**	0.34**	0.10
2 Implicit theories of NI			−0.33**	−0.59**	0.39**	−0.60**	−0.28**
3 Political orientation				0.47**	−0.21**	0.26**	0.20**
4 Nationalism					−0.36**	0.52**	0.34**
5 Group malleability						−0.51**	−0.17**
6 Essentialism							0.21**
7 Historic tolerance							

Abbreviation: NI, national identity.

**p < .01, two-tailed.

TABLE 6 Summary of Linear Regression Model predicting levels of prejudice in Study 2

Variable	Model 1			Model 2		
	β	$SE\,\beta$	p	β	$SE\,\beta$	p
Implicit theories of NI	−0.41	0.04	<.001	−0.13	0.05	.03
Nationalism				0.32	0.06	<.001
Political orientation				0.18	0.05	<.001
Essentialism				−0.001	0.08	.99
Group malleability				−0.15	0.05	.003
Historic tolerance				−0.11	0.04	.02
R^2	.16			.32		
F for change in R^2	75.91***			29.77***		

Abbreviation: NI, national identity.

***p < .001.

TABLE 7 Summary of Binary Logistic Regression Model predicting participation in an anti-immigrant petition in Study 2

Variable	Model 1				Model 2			
	OR	B	$SE\,B$	p	OR	B	$SE\,B$	p
Implicit theories of NI	0.36	−1.02	0.20	<.001	0.45	−0.81	0.28	.004
Nationalism					1.60	0.47	0.25	.07
Political orientation					1.32	0.28	0.21	.19
Essentialism					0.69	−0.37	0.36	.30
Group malleability					0.91	−0.10	0.25	.69
Historic tolerance					1.04	0.04	0.19	.86
Cox-Snell R^2		.08				.09		
$\Delta\chi^2$		30.30***				9.18		

Abbreviation: NI, national identity.

***p < .001.

we conducted linear and logistic regressions. Results are depicted in Tables 6 and 7. As expected, individuals' implicit theory of national identity significantly predicted levels of prejudice, β = −0.13, p = .03, even after related constructs had been taken into account. Similar relationships were obtained for petition participation. Overall, 9.7% of individuals participated in the anti-immigrant petition (while 38.2% supported the pro-immigrant petition and 52.1% did not participate in any petition). In the logistic regression, individuals' implicit theory of national identity predicted petition participation significantly, OR = 0.45, p = .004. That is, the more participants thought that national identity could change, the less likely it was that they voted for the deportation of refugees. As in Study 1, a mediation analysis further indicated that the effect of perceived malleability on petition participation was mediated by prejudice, indirect effect, ab = −0.16, SE = 0.07, 95% CI = [−0.32, −0.05]. Taking this indirect effect into account reduced the direct effect of implicit theories on petition participation to a non-significant level, c' = −0.01, SE = 0.23, 95% CI = [−0.45, 0.46]. Individuals' implicit theory of national identity seems to affect their likelihood to participate in the anti-immigrant petition by changing their prejudice levels. Overall, results indicate that implicit theories of national identity predict prejudice and thus hostile behaviors above and beyond what can be predicted by similar related constructs.

5 | STUDY 3

Building on the findings of Study 1 and 2, we conducted an experiment to test the causal relationship between individuals' implicit theory of national identity and anti-immigrant hostility in Study 3.

5.1 | Participants

From the effects of our correlational studies as well as previous experimental studies in the field (e.g., Halperin et al., 2011), we expected an effect size of partial R^2 = .05 and OR = 0.40. With the goal of reaching 80% statistical power, we recruited 225 participants, as planned. Participants were recruited online through German-speaking groups on Facebook and a student mailing list in Berlin. Facebook users and subscribers to the mailing list were told that researchers were looking for German participants to investigate Germans' opinions about current political topics. As an incentive, participants could win one out of 5 Amazon vouchers worth €5. In addition, students could receive course credit. At the end of the survey, participants were directed to a separate page to enter their email address for the lottery and a personal identification code for

course credit, so that participants' survey data could not be linked to their identity. Two hundred and twenty-five German participants (88 male, 135 female, 2 other) completed our online questionnaire. The mean age was M = 30.33, SD = 11.51. Nineteen percent of individuals reported having a migration background. Forty-five percent of participants were students while 47% had a job. Forty-eight percent of participants held a university degree.

5.2 | Procedure and experimental manipulation

After giving informed consent, participants were randomly assigned to one of two conditions in a between-subjects design: a malleable and a fixed condition (a control condition was to be included later, in Study 4). To manipulate individuals' implicit theory of national identity, participants in both conditions read and responded to an alleged research article. The manipulation was created based on the content of our Implicit Theory of National Identity Scale and the structure of previous manipulations that included research articles (e.g., Walton & Cohen, 2007). The research article described the work of an ostensible research team in Munich which has conducted surveys on Germans' definition of national identity every year since 1951. In the malleability condition, the article went on to explain how the definition of national identity was found to change over time, as evidenced by the fact that new answers emerged in the surveys every year. In contrast, the fixed condition stated that the research found identity definitions to remain the same at their core. Only the parts of the text relating to individuals' implicit theory of national identity differed between conditions. For example, the first sentence of the article read: "Researchers at the University of Munich have shown that the attributes that characterize Germans are very dynamic (vs. stable) and develop in an ongoing process (vs. stay the same over time)".

After reading the article, participants were asked to take an active part in the manipulation by finding explanations for the findings presented in the research article. This so-called saying-is-believing task (Higgins & Rholes, 1978) is a commonly used technique that leads participants to repeat the manipulation in their own words and link it to their own experiences whereby the manipulation message can be processed more deeply. Following this task, participants filled in our questionnaire including our dependent variables, demographic information, and our Implicit Theory of National Identity Scale.

5.3 | Measures

5.3.1 | National attachment, political orientation, implicit theory of national identity, and prejudice

National attachment (α = 0.78), political orientation, prejudice (α = 0.85), and implicit theory of national identity (α = 0.96) were measured as in Study 1. To unify response scales, this time we used

6-point Likert scales for all variables (1 = "very negative", 6 = "very positive").

5.3.2 | Participation in the anti-immigrant petition

Participants had the option to vote for a German anti-immigrant petition similar to the one used in Study 2. The petition specifically argued for the deportation of Syrian refugees. Alternatively, participants could vote for a pro-immigrant petition calling on the federal government to suspend deportations or abstain from both petitions. Participants who chose a petition were directed to the webpage of the respective petition where they could finalize their vote. Responses were again dummy-coded.

5.4 | Results

5.4.1 | Implicit theory of national identity

To test if our manipulation successfully changed individuals' implicit theory of national identity, we conducted an ANCOVA on our Implicit Theory of National Identity Scale, controlling for national attachment and political orientation. We found a significant difference between malleable and fixed condition, $F(1, 221)$ = 5.70, p = .018, η^2 = 0.03, showing that the malleable condition has led participants to view national identity as more malleable (M_{adj} = 4.08) than the fixed condition (M_{adj} = 3.74).

5.4.2 | Prejudice

To test if our manipulation was successful in changing participants' levels of prejudice, we conducted an ANCOVA, controlling for national attachment and political orientation. We found a significant difference between malleable and fixed condition, $F(1, 221)$ = 5.66, p = .018, η^2 = 0.03. As expected, participants in the malleable condition reported lower levels of prejudice (M_{adj} = −0.12) than participants in the fixed condition (M_{adj} = 0.12). Results confirm that leading participants to view national identity as malleable resulted in significantly lower levels of prejudice compared to the fixed condition.

5.4.3 | Participation in an anti-immigrant petition

In line with the sample's left-bias in political orientation with only 30% describing themselves as politically right (see Table 2), the overall endorsement rate for the anti-immigrant petition was rather low. Only 10% of participants voted for the deportation of refugees (28% voted for the pro-refugee petition and 62% participated in neither petition). While 7% of participants advocated deportation in the malleable condition, 13% did so in the fixed condition. This difference amounts to an 86% increase of endorsement rates in the predicted

direction. To test the condition effect, a binary logistic regression was conducted, controlling for national attachment and political orientation. Results are depicted in Table 8. Contrary to our expectations, the effect of the condition was not significant, OR = 0.55, p = .27. Despite the 86% difference between conditions, the effect did not reach a significant level.

5.4.4 | Mediation analyses

Mediation analyses using the SPSS macro following Preacher and Hayes (2004) indicated that our manipulation had an indirect effect on petition participation through prejudice, indirect effect, ab = 0.27, SE = 0.18, 95% CI = [0.02, 0.71]. Taking this indirect effect into account reduced the direct effect of our manipulation on petition participation to a non-significant level, c' = 0.46, SE = 0.57, 95% CI = [−0.65, 1.57]. Leading participants to view national identity as malleable rather than fixed seemed to result in lower levels of prejudice and thus prevented individuals from taking part in an anti-immigrant petition.

5.5 | Discussion

In Study 3, we implemented an experimental manipulation that successfully changed participants' view of the malleability versus fixedness of national identity. As a result, significant differences in levels of prejudice were found. Participants who were led to believe that national identity is fixed showed more prejudice than participants who were led to believe that national identity was malleable.

A similar but not consistently significant pattern emerged for the behavioral measure of anti-immigrant hostility. Only about half as many individuals voted in favor of the anti-immigrant petition in the malleable than the fixed condition—thus replicating the pattern of behavioral measures in Studies 1 and 2)and experimental condition had a significant indirect effect on petition participation through prejudice. In contrast, logistic regression analyses did not reach statistical significance. Compared to the overall endorsement of the referendum for tighter immigration laws in Study 1 (39.6%), pro-votes for the petition on the deportation of refugees in Study 2 (9.7%) and Study 3 (10%) were very low. This indicates that we were successful in capturing a rather extreme form of anti-immigrant hostility with the petitions of Studies 2 and 3. However, on a statistical level, low baseline rates are known to lead to overly conservative significance tests and thus limit the sensitivity of logistic regressions (Peduzzi, Concato, Feinstein, & Holford, 1995). It is thus likely that the low baseline participation rates stemming from a politically left-leaning sample contributed to the non-significant and overall inconclusive results.

In sum, Study 3 provided first experimental evidence for a causal relationship between individuals' implicit theory of national identity and self-reported anti-immigrant hostility. The inconsistent results regarding the behavioral measure of anti-immigrant hostility were further investigated in Study 4.

6 | STUDY 4

The goal of Study 4 was threefold: We aimed to (a) replicate the findings of Study 3, (b) add a control group, and (c) clarify the rather inconclusive results of the manipulation effect on petition participation. For the latter goal, we aimed to recruit a politically more right-leaning sample with a higher baseline participation rate in the anti-immigrant petition that is more adequate for logistic regression analysis.

6.1 | Participants

Assuming that by recruiting a less politically left-leaning sample, our effect size would be slightly higher than in Study 3, we expected an effect size of partial R^2 = .04 and OR = 3.5. With the goal of reaching 80% statistical power, we aimed to recruit 235 participants. Participants were again recruited through German-speaking groups on Facebook and, in addition, via mailing lists of a right-leaning party (Christian Democratic Union, CDU) to increase the share of right-wing participants. Facebook users and subscribers to the mailing lists were told that researchers were looking for German participants to investigate their opinions about current political topics. Participants could win one out of 8 Amazon vouchers worth 5 Euros. At the end of the survey, participants were directed to a separate page to enter their email-address for the lottery, so that participants' survey data could not be linked to their email-address. Two hundred and twenty-five participants (121 male, 99 female, 3 other, 2 non-responders) completed our online questionnaire. Nineteen individuals (8%) reported having a migration background. Forty-one percent of participants had a job while 45% were students. Twenty-nine percent of participants had obtained a university degree.

6.2 | Procedure and experimental manipulation

Procedure and experimental manipulation were the same as in Study 3, with the exception that a control group was added. For the control condition, another ostensible research article was created. Instead of the malleability or fixedness of national identity definitions, the control article discussed German farming methods for strawberries. Overall, the article was written in a similar manner to the two articles about national identity. For example, all three articles presented results of surveys that were repeatedly conducted since 1951 by a German research team.

6.3 | Measures

National attachment (α = 0.79), political orientation, implicit theory of national identity (α = 0.97), prejudice (α = 0.79), and the behavioral measure of anti-immigrant hostility were measured as in Study 3, with the only exception that we used a 5-point Likert response format for the first item of the prejudice measure. This allowed us to test if the results would replicate using the original response scale

TABLE 8 Summary of Binary Logistic Regression Model predicting petition participation in Study 3

	Model 1				Model 2			
Variable	OR	B	SE B	p	OR	B	SE B	p
Condition: Fixed versus malleable	0.50	−0.69	0.47	.14	0.55	−0.60	0.54	.27
National attachment					3.53	1.26	0.35	<.001
Political orientation					2.06	0.72	0.43	.10
Cox-Snell R^2			.01				.19	
$\Delta\chi^2$			2.27				44.62***	

***$p < .001$.

used by Velasco González et al. (2008), instead of the 6-point Likert scale adaptation which was used Study 3.

6.4 | Results

As shown in Table 2, we were able to increase the percentage of people who self-described as politically right-leaning ("rather right", "right", or "extremely right") to 39% (compared to 30% in Study 4). This increase in right-leaning participants is also evident in a higher overall endorsement rate in the anti-immigrant petition. Compared to 9.7 and 10% in Studies 2 and 3, 15% of the participants voted for the deportation of refugees (while 27% voted for the pro-refugee petition, and 58% voted for neither petition).

6.4.1 | Implicit theory of national identity

We conducted an ANCOVA on the Implicit Theory of National Identity Scale, controlling for national attachment and political orientation. We found a significant overall effect of condition, $F(2, 220) = 7.80$, $p = .001$, $\eta^2 = 0.07$. To examine the differences between the respective groups, we conducted pairwise post-hoc tests using Bonferroni-corrected alpha-values and computed 95% confidence intervals for the mean differences (M_{diff}). Post-hoc tests revealed a significant difference between fixed and malleable condition, $M_{diff} = 0.51$, 95% CI [0.10; 92], $p = .01$, with participants showing a more malleable view of national identity in the malleable ($M_{adj} = 3.91$) than the fixed ($M_{adj} = 3.40$) condition. There was also a significant difference between the fixed and the control condition, $M_{diff} = 0.66$, 95% CI [0.23; 1.09], $p = .001$, showing that national identity was viewed as less malleable in the fixed ($M_{adj} = 3.40$) than the control condition ($M_{adj} = 4.07$). The difference between the malleable and control condition was not statistically significant, 95% CI [−0.27; 0.57], $p > .99$.

6.4.2 | Prejudice

We conducted an ANCOVA on prejudice, again controlling for national attachment and political orientation. Analyses revealed a significant overall effect of experimental condition, $F(2, 220) = 3.13$, $p = .046$, $\eta^2 = 0.03$. Pairwise post-hoc tests using Bonferroni-corrected alpha-values revealed a significant difference between the fixed and malleable condition, $M_{diff} = 0.30$, 95% CI [0.01; 59], $p = .043$, with participants showing higher levels of prejudice in the malleable ($M_{adj} = −0.13$) than the fixed ($M_{adj} = 0.16$) condition. The control condition ($M_{adj} = 0.06$) did not differ significantly from neither the fixed, 95% CI [−0.19; 0.41], $p > .99$, nor the malleable condition, 95% CI [−0.48; 0.11], $p = .37$.

6.4.3 | Participation in anti-immigrant petition

We conducted a binary logistic regression, again controlling for national attachment and political orientation. As can be seen in Table 9, results showed that the fixed condition significantly increased deportation-endorsement rates compared to the malleable condition, unstandardized $b = 1.16$, OR = 3.12, $p = .046$, and to the control condition, unstandardized $b = 1.64$, OR = 5.16, $p = .011$. There was no significant difference between the malleable and the control condition, unstandardized $b = 0.48$, OR = 1.61, $p = .468$. The odds ratios showed that chances to endorse deportation were 5.16 and 3.12 times higher for participants who were led to believe that national identity was fixed than for participants in the control and malleable condition, respectively. While in the control and malleable condition, respectively 11% and 13% of participants voted for the deportation referendum, endorsement rates in the fixed condition rose to 21%. Compared to the control and malleable condition, respectively 85% and 66% more individuals were in favor of the deportation of refugees when they were led to view national identity as fixed.

6.4.4 | Mediation analyses

Mediation analyses using the SPSS macro following Preacher and Hayes (2004) were conducted to test whether our manipulation effects were explained by prejudice. The condition variable was dummy-coded in two separate variables (malleable vs. fixed; fixed vs. control). Results revealed that the effect of the malleable versus

fixed condition on petition participation was mediated by prejudice, indirect effect, *ab* = 0.28, *SE* = 0.18, 95% CI = [0.02, 0.71]. Taking this indirect effect into account reduced the direct effect of our manipulation on petition participation to a non-significant level, *c* = 0.87, *SE* = 0.61, 95% CI = [−0.33, 2.06]. Leading participants to view national identity as fixed rather than malleable seemed to increase levels of prejudice and thus led people to participate in the anti-immigrant petition. In contrast, the indirect effect of the fixed versus control condition did not reach a significant level, *ab* = 0.10, *SE* = 0.16, 95% CI = [−0.19, 0.45], remaining direct effect, *c′* = 1.62, *SE* = 0.68, 95% CI = [0.29, 2.95].

6.5 | Discussion

The experimental manipulation with three conditions led to a significant change in both self-reported prejudice and endorsement rates in an anti-immigrant petition. Compared to the malleable condition, fixed views of national identity increased levels of prejudice and the likelihood that participants voted for the deportation of refugees.

While the political left was clearly overrepresented in the sample of Study 2 and 3, the share of participants with more right-wing views was larger in Study 4. This increase in right-leaning participants corresponded to a 50% increase of the overall participation rate in the anti-immigrant petition which enabled more sensitive logistic regression analyses (Peduzzi et al., 1995) that confirmed our hypotheses. Leading participants to view the ingroup's national identity as fixed rather than malleable approximately led to a 66% increase in endorsement rates in the anti-immigrant petition. This effect is in line with the significant predictive effect of individuals' implicit theory of national identity on referendum votes and petition participation we found in Study 1 and 2. The fact that we found consistently significant effects in both studies with high petition/referendum participation rates (Studies 1 and 4), but mixed effects in the studies with low participation rates (Studies 2 and 3), is in line with research showing that low participation rates decrease the

sensitivity of logistic regressions (Peduzzi et al., 1995). It seems likely that low baseline participation rates contributed to the nonsignificant result of Study 3.

As expected, all results of the control condition lie roughly between the levels of both national identity conditions. This is important, because it rules out the possibility that both national identity manipulations may inadvertently have increased anti-immigrant hostility simply by activating a sense of shared national identity which unites all "true Germans" and distinguishes them from other outgroups. The control condition clearly shows that this was not the case and only the fixed national identity condition (and not the malleable condition) increased anti-immigrant hostility. The fact that the control condition differed significantly from the fixed, but not from the malleable, condition regarding the implicit theory scale and main outcomes indicates that our fixed condition was more successful in altering individuals' implicit theory than the malleable condition.

7 | GENERAL DISCUSSION

National identity definitions draw a dividing line between national in- (e.g., "us Germans") and "foreign" outgroups, with the latter being prone to hostile outgroup bias. In five studies with a total sample of over 1,000 participants, we found evidence that viewing the ingroup's national identity as fixed exacerbates the perceived divide between in- and outgroup and thus increases anti-immigrant hostility, while a malleable view may blur the divide and reduce anti-immigrant hostility.

After developing the Implicit Theory of National Identity Scale in a Prestudy, Study 1 and 2 showed that, both in Germany and England, individuals' implicit theory of national identity was a reliable predictor of prejudiced attitudes and behavior (i.e., participation rates in an anti-immigrant referendum/petition)—even when taking several related constructs into account. In Studies 3 and 4, we extended these findings with experimental evidence. We specifically showed that leading participants to view their ingroup's

TABLE 9 Summary of Binary Logistic Regression Model predicting petition participation in Study 4

Variable	Model 1				Model 2			
	OR	*B*	*SE B*	*p*	OR	*B*	*SE B*	*p*
Condition								
Fixed versus malleable	1.84	0.61	0.44	.17	3.20	1.16	0.58	.046
Fixed versus control	2.07	0.73	0.47	.12	5.16	1.64	0.64	.011
Malleable versus control	1.12	0.12	0.51	.82	1.61	0.48	0.66	.47
National attachment					2.08	0.73	0.23	.001
Political orientation					8.40	2.13	0.49	<.001
Cox-Snell R^2		.014				.31		
$\Delta\chi^2$		3.09				80.78***		

***p* < .001.

national identity as fixed resulted in higher levels of prejudice towards immigrants, as well as hostile behaviors towards refugees, than leading participants to view national identity as malleable. Compared to the malleable condition, participants in the fixed condition were 66% more likely to vote for the deportation of refugees in a real petition. While the threshold to really participate in a petition is high (as evidenced by the fact that the majority of participants did not participate in either petition), we could show that implicit theories can change these rather strong forms of anti-immigrant hostility, too.

We think that this research makes important contributions to both theory and practice in several ways. Firstly, we were able to identify and highlight the importance of a previously overlooked dimension of national identity: its perceived malleability or fixedness. Previous research on national identity has focused almost exclusively on contents (e.g., narrow ethnic or broader value-based contents) that individuals use to define their national ingroup (e.g., Brubaker, 1992; Ditlmann et al., 2011; Kohn, 1944; Reeskens & Hooghe, 2010). We show that it is not only important to look at how people define national identities at a given time, but also whether or not they think these definitions can change over time. This perspective can help us reach a more complete picture of the complex way individuals think about national identities.

Since results from our second study showed implicit theories to predict anti-immigrant hostility beyond essentialism, historical tolerance and group malleability, we could further show that these variables and our scale seem to be related, but distinct, constructs. Merely believing in the fixedness of the ingroup's national identity—without necessarily endorsing biological essentialism, low group malleability or low historical tolerance—can increase individuals' anti-immigrant hostility. While believing in the fixedness of national identity is related to essentialist beliefs, it does not necessarily imply the belief that there is a biological essence to national identity. And while perceived malleability of national identity is associated with perceived group malleability and historical tolerance, it does not necessarily imply endorsement of these concepts.

Furthermore, this research extends the literature on implicit theories. While previous research on implicit theories has highlighted the beneficial effects of the perception that individuals or groups of individuals can change, our findings suggest that implicit theories also matter on the more abstract level of social categories. Social categories divide individuals into different groups, and specifically into ingroups and outgroups, which can lead to intergroup biases. Our results suggest that viewing categories—and their defining contents—as malleable or fixed can change such intergroup biases. While we specifically investigated national categories, a promising path for future research may lie in the implicit theories of other social categorizations. A corresponding experimental manipulation may as well prove effective in decreasing biases against other disadvantaged outgroups when applied to ethnicity, social class, gender, or other social categories. Furthermore, it would be interesting to investigate if biases against different disadvantaged groups could be simultaneously manipulated with a single manipulation that leads

participants to view group categories *in general* (rather than a specific category) as malleable or fixed.

We hope that our findings also make an important contribution to practice. With the recent refugee influxes in the western world, a rise in both anti-immigrant sentiment and discussions about majority members' own national identities can be observed. Our research shows that these discourses may be connected. On the one hand, prominent discourses about longstanding, fixed national identities such as the discussion about a historic German "Leitkultur" (German for "guiding culture"; Connolly, 2017) may indeed contribute to the rise in anti-immigrant hostility. On the other hand, rethinking national identity in a dynamic way may help dismantle rigid in- and outgroup divides and thus constitute one potential remedy against anti-immigrant hostility.

7.1 | Limitations and future research

While we think that our research makes important contributions, it is not without limitations. The size of the effect our experimental manipulation had on individuals' implicit theory of national identity was rather small, suggesting that our stimulus material was limited in its persuasiveness. The small effect translated into similarly small effects on prejudice and a larger effect on the participation rates in the anti-immigrant petitions. Hence, while our manipulation has been rather weak, the change it did cause in participants' implicit theory of national identity has thus still transferred quite well into a change in prejudiced attitudes and behavior. To this end, future research should develop more persuasive manipulations, for example, by increasing the dosage and by implementing more engaging materials (e.g., multimedia videos, which have successfully been used in experiments by Crum, Salovey, & Achor, 2013).

Furthermore, our malleable condition manipulation in Study 4 was not successful in changing implicit theories of national identity as compared to the control condition (while the differences between fixed vs. control and fixed vs. malleable were significant). This may at least in part be due to our sample in Study 4, which already tended to lean toward a malleable view of national identity at baseline. Our manipulation was not strong enough to move participants further in the direction of a malleable view. As a result, while we could show that a more fixed view of national identity increases baseline levels of anti-immigrant hostility, we could not test whether an increase in individuals' malleable view of national identity would decrease baseline levels of anti-immigrant hostility. This remains to be verified in future research. In doing so, future research should improve on the manipulation content (as discussed above), and recruit a more politically conservative and fixed-leaning sample.

Another limitation concerns the generalizability of our findings. While our samples were quite diverse in terms of occupation, political orientation, and gender, our participants were quite young on average (means varied between 30 and 36 years), quite highly educated (most participants either held a university degree or were currently enrolled in higher education programs) and from two European

countries (Germany and England). Future research should replicate our manipulation with more diverse samples and in even more countries. Since our manipulation works to lift SIT-based outgroup bias against immigrants, our manipulation should be most effective in populations where immigrants are prone to be seen as outgroups according to national identity definitions. Results of the Pew Research Center (Stokes, 2017) on cross-country differences in national identity definitions suggest that in all 14 countries surveyed on four continents, a majority of individuals endorse heritage-based contents. The basic effect of our manipulation should thus replicate in all of these countries, while the magnitude of the effect should be greatest in populations with the strongest endorsement of exclusive definitions (e.g., Hungary which shows the highest endorsement rates on exclusive contents).

Future research needs to empirically investigate the psychological processes underlying the effectiveness of our manipulation. We reasoned that our manipulation could change hostile outgroup bias by making the lines between in- and outgroup more or less clear and thus altering the extent to which individuals perceive others as distinct in- and outgroup members. Since self-report measures are unable to capture such categorization processes, we did not include any potentially mediating process variables in our questionnaire studies. Still, non-reactive methods like the "Who said what?"-paradigm (Taylor, Fiske, Etcoff, & Ruderman, 1978) or the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) could help researchers to investigate the underlying processes. These methods can be used to assess the extent to which participants implicitly categorize people as national in- or foreign outgroup members without invoking reactive responses (since participants are not aware of the assessment goal). Specifically, it could be tested whether participants who are led to view national identity as malleable or fixed would change the degree to which they see immigrants as foreign outgroup members and whether this effect would mediate effects on anti-immigrant hostility measures.

7.2 | Conclusion

The International Organization for Migration (2018) estimates that there are about 244 million migrants worldwide. An increasing share of those migrants is coming to Europe. In 2016 alone, 4.3 million migrants emigrated to one of the EU member countries (Eurostat, 2018). Although these migrants have long crossed geographical borders, mental borders of rigid national identity definitions still work to maintain a divide between residents and immigrants. Our research invites us to rethink the lines that are being drawn between the national in- and outgroup. Embracing a dynamic way to think about these lines may be a promising new way to overcome rigid divides between "us" and "them" and improve residents' relationships with newly arrived immigrants.

ORCID

Christina Anna Bauer 🄳 https://orcid.org/0000-0002-9042-2965

REFERENCES

Alternative für Deutschland (2016). *Wahlprogramm [election program].* Retrieved from https://www.sachsen-anhalt-waehlt.de/fileadmin/LTW2016/Wahlprogramme/wahlprogramm_afd.pdf.

Bastian, B., & Haslam, N. (2008). Immigration from the perspective of hosts and immigrants: Roles of psychological essentialism and social identity. *Asian Journal of Social Psychology*, 11(2), 127–140. https://doi.org/10.1111/j.1467-839x.2008.00250.x

Billiet, J., Maddens, B., & Beerten, R. (2003). National identity and attitude toward foreigners in a multinational state: A replication. *Political Psychology*, 24(2), 241–257. https://doi.org/10.1111/0162-895X.00327

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78(1), 246–263. https://doi.org/10.1111/j.1467-8624.2007.00995.x

Blank, T., & Schmidt, P. (2003). National identity in a united Germany: Nationalism or patriotism? An empirical test with representative data. *Political Psychology*, 24(2), 289–312. https://doi.org/10.1111/0162-895X.00329

Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology*, 30(6), 745–778. https://doi.org/10.1002/1099-0992(200011/12)30:6<745:aid-ejsp24>3.0.co;2-o

Brubaker, R. (1992). *Citizenship and nationhood in France and Germany.* Cambridge: Harvard University Press.

Chiu, C. Y., & Hong, Y. Y. (1999). Social identification in a political transition: The role of implicit beliefs. *International Journal of Intercultural Relations*, 23(2), 297–318. https://doi.org/10.1016/s0147-1767(98)00040-6

Chiu, C. Y., Hong, Y. Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology*, 73(1), 19. https://doi.org/10.1037//0022-3514.73.1.19

Cohen-Chen, S., Halperin, E., Crisp, R. J., & Gross, J. J. (2014). Hope in the Middle East: Malleability beliefs, hope, and the willingness to compromise for peace. *Social Psychological and Personality Science*, 5(1), 67–75.

Connolly, K. (2017). Shake hands and read Goethe: Attempt to define German values draws ire. *The Guardian*. Retrieved from https://www.theguardian.com/world/2017/may/05/german-minister-resurrects-wary-debate-over-countrys-values

Crum, A. J., Salovey, P., & Achor, S. (2013). Rethinking stress: The role of mindsets in determining the stress response. *Journal of Personality and Social Psychology*, 104(4), 716. https://doi.org/10.1037/a0031201

Ditlmann, R. K., & Kopf-Beck, J. (2019). The meaning of being german: An inductive approach to national identity. *Journal of Social and Political Psychology*, 7(1), 423–447.

Ditlmann, R. K., Purdie-Vaughns, V., & Eibach, R. P. (2011). Heritage- and ideology-based national identities and their implications for immigrant citizen relations in the United States and in Germany. *International Journal of Intercultural Relations*, 35(4), 395–405. https://doi.org/10.1016/j.ijintrel.2010.07.002

Dweck, C. S. (2008). *Mindset: The new psychology of success*. New York, NY: Random House.

Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological Inquiry*, 6(4), 267–285. https://doi.org/10.1207/s15327965pli0604_1

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256. https://doi.org/10.1037/0033-295x.95.2.256

Eurostat (2018). *Migration and migrant population statistics*. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics#Migration_flows:_2_million_non-EU_immigrants.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. https://doi.org/10.3758/brm.41.4.1149

German Federal Statistical Office (2005). *Bevölkerung und Erwerbstätigkeit: Bevölkerung mit Migrationshintergrund—Ergebnisse des Mikrozensus 2005 [Population and employment: population with a migration background—results of the Microcensus 2005]*. Wiesbaden, Germany: German Federal Statistical Office.

Grandlund, J., Svensson, O., & Nygren, S. (2018). *SD-kvinnans länk på Facebook: "Svenskar är vita" [Facebook link of Sweden Democrat member: "Swedens are white"]*. Aftonbladet. Retrieved from https://www.aftonbladet.se/nyheter/samhalle/a/l1jjOk/sd-kvinnans-lank-pa-facebook-svenskar-ar-vita

Green, E. G. (2009). Who can enter? A multilevel analysis on public support for immigration criteria across 20 European countries. *Group Processes & Intergroup Relations*, 12(1), 41–60. https://doi.org/10.1177/1368430208098776

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464. https://doi.org/10.1037//0022-3514.74.6.1464

Ha, S. E., & Jang, S. J. (2015). Immigration, threat perception, and national identity: Evidence from South Korea. *International Journal of Intercultural Relations*, 44, 53–62. https://doi.org/10.1016/j.ijintrel.2014.12.001

Halperin, E., Russell, A. G., Trzesniewski, K. H., Gross, J. J., & Dweck, C. S. (2011). Promoting the peace process by changing beliefs about group malleability. *Science*, 333, 1767–1769. https://doi.org/10.1126/science.1202925

Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, 53(1), 575–604. https://doi.org/10.1146/annurev.psych.53.100901.135109

Higgins, E. T., & Rholes, W. S. (1978). "Saying is believing": Effects of message modification on memory and liking for the person described. *Journal of Experimental Social Psychology*, 14(4), 363–378. https://doi.org/10.1016/0022-1031(78)90032-x

Hong, Y. Y., Chiu, C. Y., Dweck, C. S., Lin, D. M. S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, 77(3), 588. https://doi.org/10.1037/0022-3514.77.3.588

International Organization for Migration (2018). *World migration report 2018*. Retrieved from www.iom.int/wmr/world-migration-report-2018

Jones, F. L. (1997). Ethnic diversity and national identity. *The Australian and New Zealand Journal of Sociology*, 33(3), 285–305. https://doi.org/10.1177/144078339703300302

Jones, F. L. (2000). Diversities of national identity in a multicultural society: The Australian case. *National Identities*, 2(2), 175–186. https://doi.org/10.1080/713687690

Kohn, H. (1944). *The idea of nationalism: A study in its origins and background*. London, UK: Macmillan.

Kosterman, R., & Feshbach, S. (1989). Toward a measure of patriotic and nationalistic attitudes. *Political Psychology*, 10, 257–274. https://doi.org/10.1111/0162-895x.00329

Levy, S. R., & Dweck, C. S. (1996). *The relation between implicit person theories and beliefs in stereotypes*. Paper presented at the eighth annual convention of the American Psychological Society, San Francisco.

Levy, S. R., Plaks, J. E., Hong, Y. Y., Chiu, C. Y., & Dweck, C. S. (2001). Static versus dynamic theories and the perception of groups: Different routes to different destinations. *Personality and Social Psychology Review*, 5(2), 156–168. https://doi.org/10.1207/s15327957pspr0502_6

Levy, S. R., Stroessner, S. J., & Dweck, C. S. (1998). Stereotype formation and endorsement: The role of implicit theories. *Journal of Personality and Social Psychology*, 74(6), 1421–1436. https://doi.org/10.1037/0022-3514.74.6.1421

Leyens, J.-P., Cortes, B., Demoulin, S., Dovidio, J. F., Fiske, S. T., Gaunt, R., ... Vaes, J. (2003). Emotional prejudice, essentialism, and nationalism The 2002 Tajfel Lecture. *European Journal of Social Psychology*, 33(6), 703–717. https://doi.org/10.1002/ejsp.170

Maddens, B., Billiet, J., & Beerten, R. (2000). National identity and the attitude towards foreigners in multi-national states: The case of Belgium. *Journal of Ethnic and Migration Studies*, 26(1), 45–60. https://doi.org/10.1080/136918300115633

Meeus, J., Duriez, B., Vanbeselaere, N., & Boen, F. (2010). The role of national identity representation in the relation between in-group identification and out-group derogation: Ethnic versus civic representation. *British Journal of Social Psychology*, 49(2), 305–320. https://doi.org/10.1348/014466609x451455

Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology*, 22(2), 103–122. https://doi.org/10.1002/ejsp.2420220202

Peduzzi, P., Concato, J., Feinstein, A. R., & Holford, T. R. (1995). Importance of events per independent variable in proportional hazards regression analysis II. Accuracy and precision of regression estimates. *Journal of Clinical Epidemiology*, 48(12), 1503–1510. https://doi.org/10.1016/0895-4356(95)00048-8

Pehrson, S., Brown, R., & Zagefka, H. (2009). When does national identification lead to the rejection of immigrants? Cross-sectional and longitudinal evidence for the role of essentialist in-group definitions. *British Journal of Social Psychology*, 48(1), 61–76. https://doi.org/10.1348/014466608x288827

Pehrson, S., & Green, E. G. (2010). Who we are and who can join us: National identity content and entry criteria for new immigrants. *Journal of Social Issues*, 66(4), 695–716. https://doi.org/10.1111/j.1540-4560.2010.01671.x

Pehrson, S., Vignoles, V. L., & Brown, R. (2009). National identification and anti-immigrant prejudice: Individual and contextual effects of national definitions. *Social Psychology Quarterly*, 72(1), 24–38. https://doi.org/10.1177/019027250907200104

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(4), 717–731. https://doi.org/10.3758/BF03206553

Prezza, M., Zampatti, E., Pacilli, M. G., & Paoliello, A. (2008). Territorial sense of community, ethnic prejudice and political orientation. *Journal of Community & Applied Social Psychology*, 18(4), 315–332. https://doi.org/10.1002/casp.927

Reeskens, T., & Hooghe, M. (2010). Beyond the civic–ethnic dichotomy: Investigating the structure of citizenship concepts across thirty-three countries. *Nations and Nationalism*, 16(4), 579–597. https://doi.org/10.1111/j.1469-8129.2010.00446.x

Roets, A., & Van Hiel, A. (2011). The role of need for closure in essentialist entitativity beliefs and prejudice: An epistemic needs approach to racial categorization. *British Journal of Social Psychology*, 50(1), 52–73. https://doi.org/10.1348/014466610x491567

Smeekes, A., Verkuyten, M., & Poppe, E. (2012). How a tolerant past affects the present: Historical tolerance and the acceptance of Muslim expressive rights. *Personality and Social Psychology Bulletin*, *38*(11), 1410–1422. https://doi.org/10.1037/e513092012-001

Stokes, B. (2017). *What it takes to truly be "One of Us"*. Pew Research Center, 1. Retrieved from http://www.pewglobal.org/2017/02/01/what-it-takes-to-truly-be-one-of-us/

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33–47). Monterey, CA: Brooks/Cole.

Tamir, M., John, O. P., Srivastava, S., & Gross, J. J. (2007). Implicit theories of emotion: Affective and social outcomes across a major life transition. *Journal of personality and social psychology*, *92*(4), 731.

Taylor, S. E., Fiske, S. T., Etcoff, N. L., & Ruderman, A. J. (1978). Categorical and contextual bases of person memory and stereotyping. *Journal of Personality and Social Psychology*, *36*(7), 778–793. https://doi.org/10.1037//0022-3514.36.7.778

Turner, J. C. (2010). Social categorization and the self-concept: A social cognitive theory of group behavior. In T. Postmes & N. R. Branscombe (Eds.), *Key readings in social psychology. Rediscovering social identity* (pp. 243–272). New York, NY: Psychology Press.

Velasco González, K., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, *47*(4), 667–685. https://doi.org/10.1348/014466608x284443

Wagner, U., Becker, J. C., Christ, O., Pettigrew, T. F., & Schmidt, P. (2010). A longitudinal test of the relation between German nationalism, patriotism, and outgroup derogation. *European Sociological Review*, *28*(3), 319–332. https://doi.org/10.1093/esr/jcq066

Wakefield, J. R., Hopkins, N., Cockburn, C., Shek, K. M., Muirhead, A., Reicher, S., & van Rijswijk, W. (2011). The impact of adopting ethnic or civic conceptions of national belonging for others' treatment. *Personality and Social Psychology Bulletin*, *37*(12), 1599–1610. https://doi.org/10.1177/0146167211416131

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, *92*(1), 82–96. https://doi.org/10.1037/0022-3514.92.1.82

Wolf, U., & Alexe, T. (2016). *Wie sich Pegida in Europe vernetzt [How PEGIDA is spreading in Europe]*. Süddeutsche Zeitung. Retrieved from https://www.sz-online.de/sachsen/wie-sich-pegida-in-europa-vernetzt-3314860.html

Yang, Y. J., & Hong, Y. Y. (2010). Implicit theories of the world and implicit theories of the self as moderators of self-stereotyping. *Social Cognition*, *28*(2), 251–261. https://doi.org/10.1521/soco.2010.28.2.251

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