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How victim sensitivity affects our attitudes and behaviour towards immigrants

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Abstract

Three studies explore the relation between victim sensitivity—the sensitivity to being a victim of injustice – and anti-immigration attitudes and behaviour. Based on theoretical considerations and prior research, we hypothesized that victim sensitivity positively predicts anti-immigration attitudes and behaviour over and above political orientation and ideology. Results from a longitudinal study (Study 1; $N = 1038$), a computerized online experiment (Study 2; $N = 299$), and a laboratory experiment (Study 3; $N = 178$) provide support for this hypothesis. Studies 2 and 3 indicate that a heightened fear of exploitation mediates the effect of victim sensitivity on anti-immigration attitudes and behaviour even though attempts to scrutinize this mechanism by 'switching off' the psychological process were unsuccessful. We discuss methodological and theoretical implications and possible avenues for future research.

KEYWORDS

anti-immigration attitudes, anti-social behaviour, exploitation, justice sensitivity, victim sensitivity

BACKGROUND

Displaced populations in countries around the world have grown and so has an extensive literature on 'host' populations' attitudes towards immigration. Research shows that anti-immigration sentiments have played a key role in the increase of right-wing radicalization since the onset of the Refugee Crisis in 2015 (Winograd, 2021). Anti-immigration attitudes can be defined as a tendency to respond in a consistently unfavourable manner with respect to immigration (EduNet, 2021). Empirically, past research has distinguished between attitudes concerning the process of immigration (e.g., Billiet & Meuleman, 2012) and perceptions of immigrants as a social category (e.g., Esses et al., 1998). Both attitudes towards the

process of immigration and perceptions of immigrants are highly relevant for a successful integration of immigrants into host communities (e.g., Canetti et al., 2016; Esses, 2021; Facchini & Mayda, 2008).

Antecedents of anti-immigration attitudes range from xenophobia and racism (e.g., Billiet & de Witte, 2008; Jolly & DiGiusto, 2014) to ideological attitudes, such as Right-Wing Authoritarianism (RWA) or fundamental social beliefs, such as Social Dominance Orientation (SDO; Thomsen et al., 2008). Research also indicates that perceptions of justice and fairness influence people's attitudes towards immigrants and immigration. Different perceptions of justice come into play when people expect competition with immigrants. For instance, members of host communities may perceive immigrants negatively due to the feeling that their in-group is unfairly deprived of desirable goods in comparison with the immigrant population (e.g., Jetten et al., 2015; Meuleman et al., 2020) – a perception that has been referred to as 'Group Relative Deprivation' (GRD; Pettigrew et al., 2008). In addition, this perception is also associated with 'zero-sum thinking', that is, the belief that one party's gains can only be obtained at the expense of another party's losses – a belief that is also related to anti-immigration attitudes (Davidai & Ongis, 2019; Ongis & Davidai, 2021).

The relation between relative deprivation and anti-immigration attitudes is closely associated with perceptions of economic conditions and assumptions regarding distributions of public resources. As the concept of Group Relative Deprivation is based on the premise that the in-group is *unfairly* disadvantaged, the extent to which unfair resource distributions are expected should influence perceived relative deprivation and subsequently negative perceptions of competing out-groups, such as immigrants. Perceived disadvantage can follow from an ostensibly unfair 'system' ('my piece of cake will be smaller when immigrants get a piece'; Ongis & Davidai, 2021). Another possibility is that the perceived disadvantage can be a consequence of the target group's unfair behaviour in the system ('my piece of the cake will be smaller because immigrants don't contribute to the size of the cake'). In economic research, the latter explanation is also referred to as the 'free-rider problem': the notion that 'free-riders' may contribute little or nothing towards the cost of a public good, while enjoying its benefits as fully as any other member of the group (Kim & Walker, 1984).

People are motivated to detect 'free-riders'; their evaluation of and behaviour towards another party in a social exchange situation largely depends on the extent to which they think that this party is 'free-riding' (Cosmides & Tooby, 2015; Fehr & Gächter, 2000). In the immigration context, people evaluate whether immigrants 'deserve' favourable treatment based on the perceived effort to benefit the public good. In line with this, citizens are inclined to impede immigrants' access to social welfare if they suspect that immigrants receive more from the welfare state than they contribute to it (de Koster et al., 2013; Reeskens & van der Meer, 2019; Reeskens & Van Oorschot, 2012). Notably, it makes a strong difference whether a party does not contribute to a public good because of a lack of competence, contextual factors or bad luck or whether the 'free-rider' is intentionally avoiding productive effort to benefit unilaterally from the public good – a behaviour termed 'parasitic strategy' (Petersen et al., 2012). In order to identify individuals harbouring parasitic strategies, people pay particular attention to the target's motivation to take part in the system of social exchange (Cosmides et al., 2010; Delton et al., 2012). Detecting parasitic strategies triggers anger – an emotion associated with defensive reactions against exploitation (e.g., Sell et al., 2009) and uncooperative behaviour towards the target person or group independent of the perceivers' political ideology (e.g., Petersen et al., 2012). As such, being sensitive to free-riding is evolutionarily adaptive: It shields a group from a loss of status and material resources and it fosters group norms and group members' willingness to cooperate within the group.

That said, being sensitive to free-riding may also come in a less prosocial flavour. As a personality disposition, a latent fear of being exploited can have a number of maladaptive intra- and inter-individual consequences. A specific personality trait that captures this latent fear of being exploited is called justice sensitivity from a victim's perspective, or simply 'victim sensitivity' (VS; Gollwitzer et al., 2005; Schmitt et al., 2005, 2010). People high in VS (a) are particularly sensitive to others' free-riding behaviour (e.g., Gollwitzer et al., 2009; Maltese et al., 2016) and (b) are more likely to expect other people to free-ride even when there are no strong reasons to do so (Agroskin et al., 2015; Gerlach et al., 2012; Gollwitzer et al., 2012). On the intrapersonal level, VS is associated with problem behaviour such as anxiety or

substance abuse (e.g., Bilgin et al., 2022; Bondü & Inerle, 2020). On the interpersonal level, VS is associated with non-solidarity, non-cooperation and antisocial behaviour (e.g., Bondü & Richter, 2016; Gollwitzer et al., 2005, 2013).

In the immigration context, first findings support this idea as high-VS participants (compared with low-VS participants) showed more anger towards asylum-seekers in need when there was reason to believe that the foreigners may harbour egoistic intentions (Süssenbach & Gollwitzer, 2015; Study 2). In the current research, we intend to build upon this finding in examining whether victim sensitivity is related to anti-immigration attitudes and behaviour due to a heightened fear of being exploited by immigrants.

VICTIM SENSITIVITY AND THE SENSITIVITY TO MEAN INTENTIONS MODEL

The motivational and social-cognitive processes underlying victim sensitivity can be explained by the Sensitivity to Mean Intentions Model (SeMI Model; Gollwitzer & Rothmund, 2009, 2011; Gollwitzer et al., 2013). This model postulates that the antisocial tendencies of victim-sensitive individuals can be regarded as self-protective measures. While people who are victim-sensitive highly value trustworthiness, they tend to give more weight to untrustworthiness cues than to trustworthiness cues (Gollwitzer et al., 2012). Their disproportionate sensitivity to contextual cues signalling potential meanness, recklessness and untrustworthiness feeds into a 'suspicious mindset': a social-cognitive schema consisting of (a) a strong motivation to avoid being exploited, (b) a hostile attributional bias and (c) a tendency to rationalize, justify and legitimize one's own antisocial behaviour (e.g., Maltese et al., 2016).

Victim-sensitive individuals also react more strongly to potential *collective* exploitation. Past research found that individuals high in victim sensitivity (compared with people low in victim-sensitivity) reported stronger outgroup-directed anger and ingroup-directed worries ('intergroup angst') in situations in which an out-group was framed as potentially exploitative (Süssenbach & Gollwitzer, 2015). Such sentiments also manifest in political attitudes (Agroskin et al., 2015; Traut-Mattausch et al., 2011). In two national samples in the United States and Germany, victim sensitivity was related to populist attitudes, the support of populist radical-right actors and anti-immigration attitudes (Rothmund et al., 2020).

People high in VS were also less likely to support solidarity with countries in need of financial support during the Euro Crisis (Rothmund et al., 2017). This effect was mediated by nationalistic concerns including (a) worries about the future of the nation and (b) fear of in-group exploitation. In an additional study, framing the support for debtor countries in an 'exploitative frame' (compared to a 'solidarity frame') was more likely to trigger nationalistic concerns and, in turn, decrease support of solidarity for debtor countries among victim-sensitive individuals compared with less victim-sensitive people (Rothmund et al., 2017; Study 2). These findings can be interpreted as an attempt to shield one's in-group and subsequently oneself from being exploited by out-groups.

Fear of exploitation arguably also plays a role in the current societal discourse about immigration. With the influx of immigrants into Europe between 2014 and 2015, the suspicion that the incoming population could 'exploit the social security and employee benefits' grew (Trede, 2015, p. 41). The underlying suspicion that immigrants' motives may be exploitative in nature has long followed the debates concerning immigration in Germany. German right-wing parties NPD ('National democratic Party of Germany') and AfD ('Alternative for Germany') nourish a public fear towards potentially exploitative motives of immigrants. For instance, during the general election campaign in 2017, one of NPD's election slogans read, 'Money for grandma, not for Sinti and Roma', referring to the long-standing right-wing idea that cultural minorities, such as Sinti and Roma, are actually economic migrants (Bade, 2018). On the other hand, a former AfD politician stated that the German state should stop giving 'cash to so-called refugees' (AfD, 2019). Right-wing political actors gained widespread support following the refugee crisis in 2015. Political scientists

identify the discursive perpetuation of uncertainty and the suspicion of exploitation as important drivers of antisocial attitudes and according political behaviour (Geiges, 2018).

With the present research, we aim to provide first empirical evidence for this conjecture. Specifically, we argue that dispositional victim sensitivity can explain people's negative stance towards immigrants and immigration based on an increased fear of being exploited. In line with the SeMI Model, victim-sensitive individuals should be more likely to report anti-immigration attitudes when cues of potential exploitation are present (and are not explicitly invalidated). As we assume that the proposed effect of victim sensitivity is mediated by a fear of exploitation and not by ideas pertaining to societal order, authoritarianism or conservatism, we hypothesize that victim sensitivity predicts anti-immigration attitudes over and above political orientation as well as ideological variables, such as right-wing authoritarianism and social dominance orientation. In addition, we expect that victim sensitivity will predict anti-immigration attitudes over and above the three 'other-oriented' justice sensitivity facets (observer-, perpetrator- and beneficiary sensitivity). While these other-oriented justice sensitivity dimensions represent genuine moral concerns, victim sensitivity incorporates both moral concerns as well as self-protective or even egoistic motives (Eftedal et al., 2022; Gollwitzer et al., 2005). We suggest that the proposed effect will have downstream consequences on behavioural outcomes, such as antisocial behavioural tendencies against immigrants.

We test these hypotheses in three studies. We include longitudinal and cross-sectional data with varying degrees of abstraction regarding the immigration situation to ensure internal and external validity. Pre-registrations, materials, data and analyses are openly accessible (https://osf.io/x9mp5/).

STUDY 1

After the dissolution of the Soviet Union and the German reunification at the end of the 1980s migratory movements increased, contributing to significant socio-political changes in Germany during the 1990s (Velling, 1996). Discussions about citizenship, asylum and immigration law were accompanied by xenophobia and violence against immigrants (Seifert, 2012). At the time, fairness was already a pertinent theme due to unequal resource distributions in Eastern and Western Germany and this was further strengthened by residents' fear that the increasing immigrant population might exploit the German welfare system (BAMF, 2005). Therefore, the 1990s in Germany offer a particularly interesting real-world setting to test the effect of victim sensitivity on intergroup attitudes. Employing a longitudinal design with two measurement occasions, we tested our hypothesis that victim sensitivity predicts anti-immigration attitudes in a potentially exploitative setting over and above right-wing authoritarianism and other justice sensitivity facets. More specifically, we predicted a positive cross-lagged effect of victim sensitivity on anti-immigration attitudes above and beyond right-wing authoritarianism as well as observer-, perpetrator- and beneficiary sensitivity.

METHODS

Sample

The data we used were collected as part of a longitudinal panel survey with two measurement occasions and a 2-year time interval between 1996 and 1998 on the psychological consequences of the German reunification (for other studies using the same dataset see Maes & Schmitt, 1999; Schmitt & Maes, 1998, 2002; Süssenbach & Gollwitzer, 2015). A total of 3170 German citizens drawn by registration offices of 18 German cities and from the electronic telephone register participated in the study. They received questionnaires via mail and answered anonymously. The analyses reported here focus on a sub-sample of 1038 participants, who reported their attitudes towards immigrants in both measurement occasions

TABLE 1 Descriptive statistics and reliability measures (Study 1).

Study variables	Time 1 (1996)			Time 2 (1998)			Cohen's d
	M	SD	α	M	SD	α	
Victim	2.69	1.02	.89	2.58	1.02	.91	.11
Observer	2.90	1.01	.92	2.71	1.05	.94	.18
Beneficiary	2.80	1.08	.92	2.62	1.10	.93	.17
Authoritarianism	1.97	.92	.80	1.92	.91	.81	.05
Anti-immigration	1.30	1.65	—	1.41	1.66	—	−.06

Note: The last column provides Cohen's d as an effect size for the observed mean difference between the two measurement occasions (positive values indicate a decrease over time).

(single item).[1] In this sub-sample, 39.3% identified as female and 60.7% identified as male with an age range of 14 to 87 ($M = 50.15$, $SD = 15.13$).

Materials

Descriptive statistics and reliability estimates are reported in Table 1.

Justice sensitivity

Victim, observer and beneficiary sensitivity were measured with 10 items each (Schmitt et al., 2005). Example items are 'It bothers me when others receive something that ought to be mine' for victim sensitivity; 'I am upset when someone is undeservingly worse off than others' for observer sensitivity; and 'I feel guilty when I receive better treatment than others' for beneficiary sensitivity. Items were rated on a 6-point response scale ranging from 0 = not at all true to 5 = absolutely true.

Right-wing authoritarianism

Authoritarianism was measured with nine items. Example items are 'Every group needs a strong person who makes decisions and leads' and 'Governmental decisions are to be accepted, no matter if they seem reasonable to you or not'. Items were rated on a 6-point response scale ranging from 0 = strongly disagree to 5 = strongly agree.

Anti-immigration attitudes

Anti-immigration attitudes were measured with a single item: 'Although it sounds harsh, Germany has to get rid of all the foreigners and asylum-seekers. Even if violence is needed'. Agreement with this statement was rated on a 6-point response scale ranging from 0 = strongly disagree to 5 = strongly agree.

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[1]Doing so rests on the assumption that missing data in Study 1 can be considered 'completely at random' (MCAR). The plausibility of this assumption can be tested via Little's MCAR test (Little, 1988). According to the test statistic, χ^2 (5265) = 5171.521, $p = .82$, the null hypothesis (i.e., no differences between the means of different missing-value patterns) does not have to be rejected, despite the high number of variables (81) and the high sample size ($n \geq 924$), which yields a high statistical power for this test.

RESULTS AND DISCUSSION

Mean values of all variables except for anti-immigration attitudes slightly decreased over time. Effect sizes of mean changes between measurement occasions indicate that victim sensitivity remained most stable out of the justice sensitivity facets. Table 2 displays the zero-order correlations between all measured variables at both measurement occasions (T1 and T2).

To test our central hypothesis, a cross-lagged panel model was used to inspect the longitudinal causal effect structure of our measured variables (Burkholder & Harlow, 2003). More specifically, we report the results of a path analysis in which the three justice sensitivity perspectives as well as right-wing authoritarianism and anti-immigration attitudes at T1 serve as predictors for the same measures at T2 (Figure 1). No restrictions were imposed, that is, all parameters were freely estimated. As hypothesized, the cross-lagged path from victim sensitivity at T1 on anti-immigration attitudes at T2 was positive and significant, $\beta = .09$ ($SE = .03$), $t(1038) = 3.03$, $p < .01$, above and beyond right-wing authoritarianism. No other justice sensitivity perspective at T1 predicted anti-immigration attitudes at T2. By contrast, the cross-lagged path from anti-immigration attitudes at T1 on victim sensitivity on T2 was not significant.

The present findings provide evidence for the argument that anti-immigration attitudes are at least partially predicted by a dispositional sensitivity to self-oriented injustice (i.e., victim sensitivity), above and beyond right-wing authoritarianism and the other justice sensitivity facets. In order to provide a stronger confirmation for the proposed hypotheses, including the proposition that it is particularly the fear of being exploited by immigrants that underlies the effect of victim sensitivity on anti-immigration attitudes, we conducted an experimental study, in which the 'exploitative nature' of the displaced population was manipulated.

STUDY 2

In Study 2, we experimentally manipulated the fear of exploitation by providing participants with information that either (a) do not invalidate, (b) do invalidate or (c) provide counter-arguments for the notion that immigrants may exploit the in-group (i.e., Germans). Specifically, invalidating this argument (technically speaking, 'switching off' the proposed psychological process; see Jacoby & Sassenberg, 2011; Spencer et al., 2005) should reduce the effect of victim sensitivity on anti-immigration attitudes. In the third condition ('exploitation countered'), participants were informed that immigrants often harbour prosocial rather than anti-social intentions. As victim-sensitive individuals regard cooperation as particularly desirable, yet uncertain (Gollwitzer et al., 2013), we postulate that cues alluding to

TABLE 2 Zero-order correlations of the study variables at both measurement occasions (Study 1).

| Study variables		A	B	C	D	E	F	G	H	I	J
Victim sensitivity T1	(A)	1									
Victim sensitivity T2	(B)	.67**	1								
Observer sensitivity T1	(C)	.46**	.31**	1							
Observer sensitivity T2	(D)	.28**	.49**	.62**	1						
Beneficiary sensitivity T1	(E)	.26**	.17**	.68**	.49**	1					
Beneficiary sensitivity T2	(F)	.20**	.32**	.50**	.69**	.62**	1				
Right-wing authoritarianism T1	(G)	.20**	.20**	.17**	.18**	.10**	.14**	1			
Right-wing authoritarianism T2	(H)	.20**	.26**	.13**	.21**	.08*	.13**	.73**	1		
Anti-immigration attitudes T1	(I)	.12**	.10**	.04	.01	- .01	- .00	.37**	.37**	1	
Anti-immigration attitudes T2	(J)	.17**	.16**	.05	.07	- .01	.03	.37**	.38**	.69**	1

Note: $N = 1.038$.

**$p < .01$; *$p < 05$.
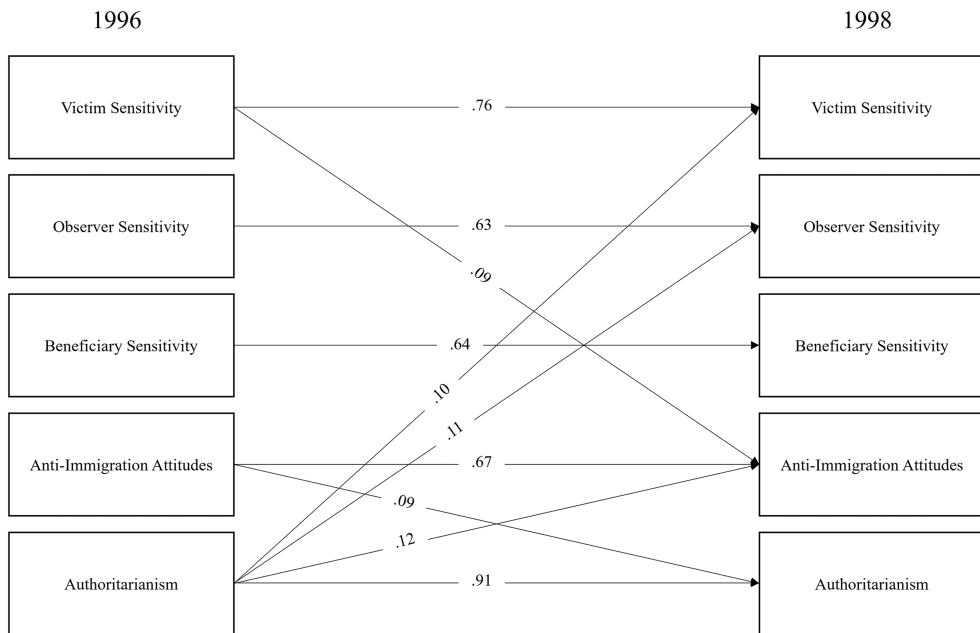
FIGURE 1 Cross-lagged effects of study variables between 1996 and 1998. The figure includes standardized values. *Note*: Only significant paths ($p < .05$) are displayed.

prosocial intentions should reduce the effect of victim sensitivity on anti-immigration attitudes even more strongly than cues that merely invalidate the fear of exploitation. In addition, we included social dominance orientation (SDO), right-wing authoritarianism (RWA), political orientation and the other justice sensitivity facets to test whether the hypothesized effect of victim sensitivity on anti-immigration attitudes is unique and specific.

METHODS

Sample

An a priori power analysis was performed for sample size estimation. Based on prior research examining the interaction between victim sensitivity and the fear of exploitation (Süssenbach & Gollwitzer, 2015; Study 2), we predicted a medium effect size (Cohen's $f^2 = .06$; Cohen, 1988). Assuming an alpha of .05 and a power of .90, $N = 178$ participants are required. Our final sample includes 299 participants (see below); thus, our study is sufficiently powered to detect a practically significant effect if it exists.

Participants were invited using a university-maintained mailing list consisting of approximately 5200 individuals who had given their consent to be invited to various survey studies. The sample is sufficiently diverse regarding demographic distributions, yet not representative for the German population. For the present study, a randomly drawn sub-sample of 1700 individuals from this list were contacted. Participation requirements included a minimum age of 18 years, fluency in German, and no migration background.[2] The study was conducted in two data collection waves with an interval of

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[2]In this case, having a migration background means that the participant or at least one of the participant's parents was born without German citizenship (Destatis, 2021). Participants with a migration background were not eligible to partake in the study because we expected biased responding as 'refugees' represent an important target group in the proposed experimental design.

2 weeks to avoid methodological artefacts (i.e., carry-over effects between measures). In the first data collection wave, participants ($N = 373$) completed a questionnaire including scales measuring JS, SDO, RWA, political orientation, and contact to immigrants. Participants received an automatic email invitation to take part in the second part of the survey 2 weeks after participation in the first part. In the second data collection wave, participants were presented with the manipulation (see below), after which they completed a questionnaire including scales measuring anti-immigration attitudes. Using a personalized code, data from both data collection waves could be matched for 299 participants (80.16%). In the final sample, 66.3% identified as female, 33.0% identified as male and .7% identified as diverse with an age range of 18 to 77 years ($M = 43.06$, $SD = 15.46$). Approximately one fifth (i.e., 19.4%) were currently unemployed, 65.3% were employed, 13.3% were completing a university degree, and 2% were either at school or completing a training program. In total, 51.4% had an academic degree.

Procedure

In the second data collection wave, participants took part in an online experiment. Here, respondents were asked to read an alleged screenshot of a newspaper article published by the fictional newspaper company, 'Daily Compact online' (see Appendix S1, 'Study 2'). In all three conditions, participants first read an introductory paragraph on the topic of immigration in Europe, which was followed by an explanation that the motives of immigrants are diverse and that some people are worried that most immigrants intend to benefit from the social welfare system in Germany without contributing to it (exploitation cues). Participants were randomly assigned to one of three versions of the article. Each version of the article differed with regard to how it continued after the exploitation cues: In the *exploitation not invalidated* condition ($n = 80$), the article continued by explaining the terms and conditions for receiving social welfare in Germany. In the *exploitation invalidated* condition ($n = 85$), the exploitation cues were followed by an explanation that worries about any exploitative motives of immigrants are unjustified as a federal report proves that the unemployment rates among immigrants are decreasing and that the state's social benefit expenditures for immigrants are likely to be re-financed. The article ended by stating that, based on projections, immigrants will not pose a burden to the German welfare state in the long run. Finally, in the *exploitation countered* condition ($n = 82$), the article mentioned that worries about any exploitative motives of immigrants are unjustified as a federal report actually proves that, due to the increasing number of employed immigrants, the German state receives more revenue due to tax and social contributions paid by immigrants than it is spending on social benefits for immigrants. The article ended by stating that, based on macro-economic statistical models, the German welfare system will ultimately profit from the influx of immigrants. After reading the article, participants' attitudes regarding immigration were assessed.

Materials

Descriptive statistics and reliability estimates are reported in Table 3.

Justice sensitivity

The four justice sensitivity perspectives (victim, observer, beneficiary and perpetrator sensitivity; Schmitt et al., 2010)[3] were assessed using 10 items per perspective (Study 1). Items were rated on a 6-point response scale ranging from 1 = not at all true to 6 = absolutely true.

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[3]Schmitt et al. (2010) differentiate the 'beneficiary' perspective (i.e., benefiting from injustice without being responsible for it) from the 'perpetrator' perspective (i.e., benefiting from injustice that one has caused or contributed to).

TABLE 3 Descriptive statistics and reliability measures of the study variables (Study 2).

Study variables	*N*	Min.	Max.	*M*	*SD*	*α*
Victim sensitivity	299	1	6	3.81	.84	.86
Observer sensitivity	299	2	6	4.01	.82	.88
Perpetrator sensitivity	296	3	6	4.85	.75	.87
Beneficiary sensitivity	299	2	6	3.85	.92	.89
Right-wing authoritarianism	295	1	6	2.56	.89	.85
Social dominance orientation	294	1	5	2.28	.86	.89
Anti-immigration attitudes	247	1	6	2.54	.96	.93

Note: Response scales vary across measures.

Right-wing authoritarianism

We used the 9-item KSA-3 scale by Beierlein et al. (2014). Example items are 'We should take strong action against misfits and slackers in society', 'People should leave important decisions in society to their leaders' and 'Traditions should definitely be carried on and kept alive'. Items were rated on a 6-point response scale ranging from 1 = strongly oppose to 6 = strongly favour.

Social dominance orientation

We used the SDO7 scale by Ho et al. (2015). Example items read, 'Some groups of people are simply inferior to other groups', 'Groups at the bottom should not have to stay in their place' and "Group equality should not be our primary goal". Items were rated on a 6-point response scale ranging from 1 = strongly oppose to 6 = strongly favour.

Political orientation

We used a single item to assess political orientation (Süssenbach & Gollwitzer, 2015). The prompt read as follows: 'In politics people often talk about the 'left' and the 'right'. Where would you place yourself on the following continuum?'. The item was rated on a 7-point response scale ranging from 1 = left to 7 = right.

Contact to immigrants

We included a single item to assess participants' contact to immigrants. The prompt 'How often do you have contact to immigrants?' was followed by the answer options 'never', 'rarely', 'occasionally', 'a couple times a month', 'weekly' and 'daily'.

Anti-immigration attitudes

Based on Billiet and Meuleman's (2012) recommendation, we assessed the following dimensions of anti-immigration attitudes: opposition against immigration into the country, perceived economic threat and perceived cultural threat. Example items are as follows: 'Borders should be closed for immigrants', 'Immigrants take jobs away from the German people' and 'Cultural life in Germany is undermined by immigrants'. Items were rated on a 6-point response scale ranging from 1 = strongly oppose to 6 = strongly favour.

RESULTS AND DISCUSSION

Zero-order correlations between study variables in the different conditions are reported in Tables 4–6. A manipulation check revealed that while individuals in the *exploitation not invalidated* condition expect motives of immigrants to be more exploitative ($M = 3.01$, $SD = 1.87$) than people in the *exploitation invalidated* condition ($M = 2.45$, $SD = 1.52$), $t(163) = 2.13$, $p = .03$, $d = .33$, this mean difference was neither found between the *exploitation not invalidated* and the *exploitation countered* conditions ($M = 2.94$, $SD = 2.07$), $t(160) = .24$, $p = .81$, $d = .04$, nor between the *exploitation invalidated* and the *exploitation countered* condition, $t(165) = −1.75$, $p = .08$, $d = .27$. This means that our manipulation was only partly successful: while exploitation expectations were only slightly reduced in the *exploitation invalidated* condition, we did not achieve this in the *exploitation countered* condition. We will come back to this in the Discussion.

To test our predictions that the effect of victim sensitivity on anti-immigration attitudes is significantly reduced when the assumed mediator is 'switched off', that is, when a fear of being (collectively) exploited is explicitly invalidated and that the effect is even more reduced when the fear is countered

TABLE 4 Correlations of the study variables and control variables in the control condition: Exploitation not invalidated (Study 2).

Study variables		A	B	C	D	E	F	G	H	I
Victim sensitivity	(A)	1								
Observer sensitivity	(B)	.37**	1							
Beneficiary sensitivity	(C)	.24*	.68**	1						
Perpetrator sensitivity	(D)	.01	.48**	.66**	1					
RWA	(E)	.23*	.03	.05	−.10	1				
SDO	(F)	−.01	−.32**	−.17	−.32**	.46**	1			
Political orientation	(G)	.14	−.30	−.18	−.25*	.37**	.53**	1		
Exploitation	(H)	.30**	−.06	−.11	−.16	.27*	.28*	.22	1	
Anti-immigration	(I)	.23*	−.27*	−.23*	−.31**	.45**	.59**	.59**	.51**	1

Note: $N = 80$.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

**$p < .01$; *$p < 05$.

TABLE 5 Correlations of the study variables and control variables in the experimental condition 1: Exploitation invalidated (Study 2).

Study variables		A	B	C	D	E	F	G	H	I
Victim sensitivity	(A)	1								
Observer sensitivity	(B)	.38**	1							
Beneficiary sensitivity	(C)	.22*	.64**	1						
Perpetrator sensitivity	(D)	−.02	.54**	.68**	1					
RWA	(E)	.06	−.16	−.25*	−.25*	1				
SDO	(F)	−.02	−.38**	−.29**	−.24*	.47**	1			
Political orientation	(G)	.10	−.27**	−.18	−.23*	.52**	.43**	1		
Exploitation	(H)	.09	−.16	−.18	−.31**	.35**	.24*	.37**	1	
Anti-immigration	(I)	.11	−.33**	−.39**	−.48**	.52**	.45**	.48**	.60**	1

Note: $N = 85$.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

**$p < .01$; *$p < 05$.

with cues of cooperation, hierarchical regression analyses were conducted (Table 7). All measured variables except for political orientation were standardized. Control variables, including demographics, right-wing authoritarianism, social dominance orientation, and political orientation were entered in Step 1. The justice sensitivity perspectives and two contrast variables representing hypothesized differences between experimental conditions (Contrast 1: *exploitation not invalidated* = −2, *exploitation invalidated* = 1, *exploitation countered* = 1; Contrast 2: *exploitation not invalidated* = 0, *exploitation invalidated* −1, *exploitation countered* = 1) were added in Step 2. The interaction terms (victim sensitivity × Contrast 1, victim sensitivity × Contrast 2) were included in Step 3. As expected, we found a significant unconditional effect of victim sensitivity on anti-immigration attitudes, β = .16 (SE = .05), t(297) = 2.94, p = .04. Neither Contrast 1, β = .02 (SE = .07), t(297) = .33, p = .74, nor Contrast 2, β = .06 (SE = .06), t(297) = 1.34, p = .18, had a significant unconditional effect on anti-immigration attitudes.

TABLE 6 Correlations of the study variables and control variables in the experimental condition 2: Exploitation countered (Study 2).

Study variables		A	B	C	D	E	F	G	H	I
Victim sensitivity	(A)	1								
Observer sensitivity	(B)	.43**	1							
Beneficiary sensitivity	(C)	.24*	.67**	1						
Perpetrator sensitivity	(D)	.06	.43**	.66**	1					
RWA	(E)	.19	−.06	−.08*	−.09	1				
SDO	(F)	.07	−.15	−.23**	−.20	.58**	1			
Political orientation	(G)	−.12	−.25*	−.15	−.16	.48**	.54**	1		
Exploitation	(H)	.07	−.14	−.15	−.18	.49**	.40**	.27*	1	
Anti-immigration	(I)	.11	−.19**	−.14	−.18	.70**	.64**	.58**	.66**	1

Note. N = 82.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

**p < .01; *p < 05.

TABLE 7 Hierarchical Regression Analysis of Predictors of Anti-Immigration Attitudes (Study 2).

Step	Predictor variables	β	t	p
1	Age	.07	1.35	.18
	Gender	−.04	−.74	.46
	Political orientation	.27	4.49	.00
	Right-wing authoritarianism	.30	5.26	.00
	Social dominance orientation	.26	4.50	.00
	Contact to immigrants	.01	.30	.76
2	Victim sensitivity	.16	2.94	.00
	Observer sensitivity	−.09	−1.39	.17
	Perpetrator sensitivity	−.15	−2.28	.02
	Beneficiary Sensitivity	−.02	−.23	.82
	Contrast 1: Exploitation invalidated	.02	.33	.74
	Contrast 2: Exploitation countered	.06	1.34	.18
3	Victim sensitivity × Exploitation invalidated	−.03	−.65	.52
	Victim sensitivity × Exploitation countered	−.03	−.53	.60

Note: N = 299. Study variables are standardized.

Contrary to our predictions, the interaction terms were not significant according to conventional levels (p's = .52 and .60), However, looking at the simple effects of victim sensitivity on anti-immigration attitudes in each condition, separately, we found that victim sensitivity significantly predicted anti-immigration attitudes in the *exploitation not invalidated* condition, $\beta = .23$ ($SE = .11$), $t(77) = 2.05$, $p = .04$, $R^2 = .05$. We found this effect even after controlling for the other justice sensitivity perspectives and ideological variables, including right-wing authoritarianism, social dominance orientation, and political orientation, $\beta = .23$ ($SE = .10$), $t(77) = 2.40$, $p = .02$, $R^2 = .05$. Importantly, the effect of victim sensitivity on anti-immigration attitudes was no longer significant in the *exploitation invalidated* condition, $\beta = .11$ ($SE = .12$), $t(82) = 1.02$, $p = .31$, $R^2 = .01$, and the *exploitation countered* condition, $\beta = .11$ ($SE = .07$), $t(79) = .96$, $p = .34$, $R^2 = .01$.

A closer look at the anti-immigration dimensions showed that while VS was positively related to economic threat, $\beta = .20$ ($SE = .06$), $t(245) = 3.17$, $p < .01$, $R^2 = .04$, VS was neither related to cultural threat, $\beta = .10$ ($SE = .06$), $t(245) = 1.53$, $p = .13$, $R^2 = .01$, nor to general opposition to immigration, $\beta = .12$ ($SE = .06$), $t(245) = 1.82$, $p = .07$, $R^2 = .01$. In addition, we found an indirect effect of VS on opposition to immigration via economic threat (95% CI: .01, .12) but not via cultural threat (95% CI: −.04, .03) (Figure 2). Based on this, we tested the interaction terms from our first analysis with economic threat as our new dependent variable. Again, while we did not find any significant interaction terms (p's = .96 and .76), we found that victim sensitivity significantly predicted economic threat in the *exploitation not invalidated* conditions, $\beta = .23$ ($SE = .11$), $t(77) = 2.03$, $p = .04$, $R^2 = .05$, but neither in the *exploitation invalidated* condition, $\beta = .19$ ($SE = .13$), $t(82) = 1.72$, $p = .09$, $R^2 = .04$, nor in the *exploitation countered* condition, $\beta = .19$ ($SE = .10$), $t(79) = 1.76$, $p = .08$, $R^2 = .04$.

Several conclusions can be drawn from this study. The simple effects of victim sensitivity on opposition to immigration and economic threat in the different conditions as well as the indirect effect of VS on opposition to immigration via economic threat are in line with our theorizing that it is specifically the fear of (economic) exploitation that drives the effect of victim sensitivity on anti-immigration attitudes. However, our attempt to provide robust evidence for this effect by negating the assumed mediator was unsuccessful. Our first post hoc explanation is that participants – especially those high in victim sensitivity – did not really believe what they read in the (fake) articles and became suspicious about the intentions and credibility of the article's source. This alternative explanation was tested in a follow-up study. No evidence could be found to support this claim (Table 8; for a full report of this study, see Appendix S1 'Study 2.1'). Our second explanation follows from the idea that negating the
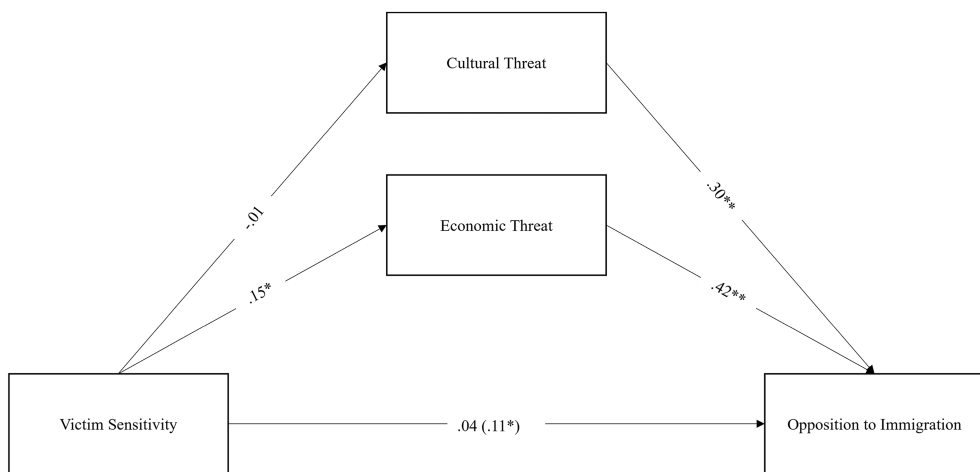

FIGURE 2 Standardized regression coefficients for the relationship between victim sensitivity and opposition to immigration as mediated by economic threat and cultural threat. The total effect of victim sensitivity on opposition to immigration reported in parantheses. **$p < .01$; *$p < .05$.

TABLE 8 Hierarchical Regression Analysis of Predictors of Trustworthiness Perceptions (Study 2.1).

Step	Predictor variables	β	t	p
1	Age	.01	.08	.93
	Gender	.05	.68	.49
2	Victim sensitivity	−.14	−1.86	.07
	Observer sensitivity	.12	1.48	.14
	Perpetrator sensitivity	.12	1.58	.12
	Beneficiary sensitivity	−.03	−.36	.72
	Contrast 1: Exploitation invalidated	.19	1.92	.06
	Contrast 2: Exploitation countered	.03	.34	.73
3	Victim sensitivity × Exploitation invalidated	.12	1.72	.09
	Victim sensitivity × Exploitation countered	−.02	−.22	.83

Note: $N = 209$. Study variables are standardized.

assumed mechanism (i.e., fear of exploitation) might necessitate making the evidence invalidating the fear of exploitation more explicit, tangible, and self-relevant. Victim-sensitive individuals tend to expect negative personal outcomes in uncertain situations, both in interpersonal situations, such as social dilemmas (e.g., Fetchenhauer & Huang, 2004) as well as in situations of collective change, such as political reforms (e.g., Traut-Mattausch et al., 2011). In Study 2, we attempted to invalidate (and counter) the fear of being (personally) exploited by providing evidence for *collective* benefits due to immigration (i.e., increase in federal tax revenue) and projections (i.e., immigrants will not pose a burden to the German welfare state in the long run). However, the evidence provided does not refute any possibility of negative consequences for the individual him- or herself. Finally, participants' prior beliefs could have affected their reported attitudes. Specifically, research shows that prior political stances are related to continued or even strengthened beliefs in retracted or refuted information (Ecker & Ang, 2019; Ma et al., 2019).

Study 3 was designed to address the two latter limitations. In addition, we intend to target the psychological mechanism more precisely. As argued in our theoretical introduction, we assume that high-VS individuals are particularly sensitive to other peoples' (here: immigrants') egoism and malevolence, and not to being disadvantaged due to others' lack of knowledge, competence or inability. In Study 3, we therefore differentiated between attributing 'exploitation' to either malevolence or inability.

STUDY 3

Study 3 was conducted to (a) test the causal effect of victim sensitivity on anti-immigration attitudes more rigidly, (b) scrutinize the assumed mediator of the proposed effect, namely, a heightened fear of (personal) exploitation and (c) investigate downstream consequences on observable behaviour towards immigrants in a more strongly controlled laboratory setting. Specifically, we employed a computerized economic game, which captured the fundamental structural properties of the immigration situation. A central advantage of using an economic game with real resources (rather than a vignette or 'fake article' design as in Study 2) was that we could create a more immersive situation, in which possible exploitation as well as the invalidation and countering of exploitation was experienced in a more direct, tangible, and self-relevant manner. In addition, the abstraction of the immigration situation allowed us to control for prior (political) beliefs. Data were collected according to the guidelines of the British Journal of Psychology, the German Psychological Society,[4] as well as other applicable rules and regulations (e.g., GDPR). The approved Stage 1 protocol can be found here: https://osf.io/je3bp.

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[4] https://www.dgps.de/die-dgps/aufgaben-und-ziele/berufsethische-richtlinien/ (in German only).

METHOD

Sample

Based on an a priori power analysis using G*Power (Faul et al., 2007), we determined a necessary sample size of $N = 175$. This estimation was based on the smallest effect size observed for the interaction between victim sensitivity and fear of exploitation (Cohen's $f^2 = .06$; Süssenbach & Gollwitzer, 2015, Study 2) and assuming a power of 90% and a significance level of 5% (two-tailed). To account for dropouts or invalid cases, we increased the sample size to $N = 195$. Participation requirements included a minimum age of 18 years as well as fluency in German. Data collection was stopped when the required sample size was obtained. Cases were defined as invalid if participants reported being suspicious about (a) the existence of their fellow players, (b) the information they received during the experiment and (c) their monetary compensation during the funnelled debriefing (see below). We excluded 16 participants based on these criteria. Our final sample includes 178 participants (64.6% female, 32.6% male, 2.8% diverse) with an age range of 18 to 65 years ($M = 24.70$, $SD = 7.34$). The majority of participants were students (87.1%) and 11.3% were employed.

Experimental paradigm

In this study, we used an adapted version of the 'Refugee Game' developed by Böhm et al. (2018). This computerized economic game allowed us to examine whether participants' immediate experience that a potentially exploitative out-group (i.e., immigrants) either does not exploit (i.e., invalidation of exploitation) or even benefits (i.e., countering exploitation) the in-group would diminish the effect of victim sensitivity on anti-immigration attitudes (and behaviour).

The study consisted of five parts (for an overview of the computerized experiment, see Appendix S1, 'Study 3'). In Part 1, participants completed a questionnaire capturing demographic information, the Justice Sensitivity scales, and control variables (see Materials below for details). In Part 2, participants completed an alleged 'cognitive test' (for more information on this test, see Appendix S1, 'Study 3'). According to their individual results, they were allocated into two groups: 'Group 1' (allegedly consisting of 20 individuals) and 'Group 2' (allegedly consisting of 10 individuals). Importantly, the results participants received were arbitrary and, in reality, all participants were assigned to 'Group 1'. However, it is important that participants believed that their group ('Group 1') was (a) larger than and (b) distinct from Group 2 with regard to a criterion that is *theoretically* (yet not necessarily empirically) unrelated to group performance. With this design, we intended to mirror the relationship between a 'host community' and 'immigrants' (cf., Mahfud et al., 2018).

In Part 3, participants were introduced to a 'slider task', which mirrored the effort people need to invest to earn money (i.e., they do a job to make a living; for more information, see Böhm et al., 2018). Participants were informed that they would be playing several rounds of this task. In each round, players had 70s to position 48 sliders to their mid-point. For every correctly positioned slider, players received 5 points. Thus, participants could receive a maximum of 240 points per round. The points were then converted to real money. Participants' salary was subject to an income tax of 40%. After each round of the game, players received their salary as well as an equal share of the total tax collected from all players in the group. Thus, participants' earnings also depended on the other players' performance. At the end of each round, participants were presented with a game overview, including (a) a game summary showing the participant's performance, (b) an overview of their salary and the contribution to a tax account, (c) the participant's fellow group members' mean earnings and mean contributions to the tax account and (d) the participant's final income. Participants were informed that the two groups would play the same game, but independently and on different 'platforms'. Before the start of the first round, participants completed a practice round.

In Part 4, participants played the first round of the 'slider task'. The game summary after the first round showed that the players' individual performance was close to the mean performance in Group 1. After the

game summary was shown, players received two messages. In the first message, they were informed that, due to 'complications' in Group 2, some players in this group had requested to join Group 1. Participants were shown the mean performance of players in Group 2, which was 50% lower than the mean performance of Group 1. Participants were informed that players in Group 2 were also shown the performance overview of Group 1. Importantly, it remained open whether Group 2 players intended to join Group 1 strategically because they were unwilling to perform better (i.e., laziness or lack of engagement) or whether the worse performance in Group 2 was due to capability issues (i.e., individual inability or external factors).

In the second message, participants were informed that each player in Group 1 (henceforth called 'citizens') would be asked to report their attitudes towards Group 2 players (henceforth called 'immigrants') and to submit an answer to the question whether they think that the performance of the immigrants could be attributed to unwillingness or to inability. In addition, citizens were asked to submit a decision as to how many immigrants they think should be allowed to join Group 1 in the next round (prosocial behaviour at time-1: the higher the number, the more immigrants are allowed to join; see below). Citizens were told that the final number of immigrants being allowed to join the citizens would be determined by randomly choosing one citizen's decision. Before the next round, citizens were informed that four immigrants would be joining their group in the next round.

Next, participants played the second round of the slider task. Here, the experimental manipulation was introduced: After the game, players were randomly shown one of three variants of the game summary. In the *exploitation not invalidated* condition, the game overview showed that their group's mean performance had dropped by 50% compared to Round 1. In the *exploitation invalidated* condition, the game overview showed that their group's mean performance had not changed between Rounds 1 and 2. In the *exploitation countered* condition, the game overview showed that their group's mean performance had improved by 50% compared to Round 1. Thereafter, participants were asked whether the average contribution to the tax account in Round 2 was lower, the same, or higher compared to Round 1 (i.e., manipulation check). Next, participants again reported their attitudes towards the immigrants and their evaluation of the immigrants' intentions to join Group 1. Then, participants were informed that they could decide how many immigrants should be allowed to join their group for the next and final round (prosocial behaviour at time-2).

In Part 5, participants were paid the amount they had earned in both rounds of the game. Specifically, participants received a funnelled debriefing in order to assess the extent to which they were suspicious about (a) the aims of this study, (b) the existence of their fellow players and (c) the manipulation regarding average group performance in Round 2. The average completion time was 23.8 min.

Materials

Descriptive statistics and reliability estimates are reported in Table 9.

Control variables

To measure Justice Sensitivity as well as the control variables Social Dominance Orientation, Right-Wing Authoritarianism and political orientation, the same measures as in Study 2 were used.

Experimental conditions

Mirroring the experimental conditions in Study 2, but adapted to the present context, we implemented three experimental conditions (see Appendix S1, 'Study 3'). After Round 1, participants were informed that their group's performance had either dropped due to the influx of immigrants (*exploitation not invalidated*), remained constant (*exploitation invalidated*) or improved (*exploitation countered*).

TABLE 9 Descriptive statistics and reliability measures of the study variables (Study 3).

Study variables	N	Min.	Max.	M	SD	α
Victim sensitivity	178	2	6	4.00	.74	.78
Observer sensitivity	178	2	6	4.13	.86	.87
Perpetrator sensitivity	178	2	6	4.75	.86	.89
Beneficiary sensitivity	178	1	6	4.01	.97	.89
Right-Wing authoritarianism	178	1	5	2.52	.76	.79
Social Dominance orientation	178	1	4	2.25	.77	.87
Anti-immigration attitudes T1	178	1	6	3.30	1.39	.79
Perceived exploitation T1	178	1	7	3.75	1.90	—
Prosocial behaviour T1	178	1	10	6.46	3.02	—

Note: Response scales vary across measures.

Perceived exploitation

After Round 1 and Round 2, participants were asked the following question: 'What do you think: Why do the players in Group 2 want to leave their group and join your group (Group 1) instead? Is it because the Group-2-players want to benefit from the better performance in Group 1 without having to contribute much themselves (we abbreviate this here to "WANT"), or is it because the Group-2-players are reaching their performance limits in their own group and hope to be able to perform better in Group 1 (we abbreviate this here to "CAN")?' Please indicate on the following answer scale whether you attribute the desire for a group change among Group-2-players more to WANT (left side) or more to CAN (right side).

Anti-immigration attitudes

Mirroring the scale used in Study 2, which captures anti-immigration dimensions proposed by Billiet and Meuleman (2012), we assessed opposition against new 'immigration' as well as perceived economic and cultural threat. Example items are as follows: 'I think the maximum of Group 2-players allowed to play in Group 1 should be lower than 10', 'Group 2-players will have a negative effect on our group's performance' and 'I think Group 2-players will have a bad influence on our group'. Items will be rated on a 6-point response scale ranging from 1 = strongly disagree to 6 = strongly agree.

Prosocial behaviour towards immigrants

Participants in Group 1 were asked to indicate how many players of Group 2 should be allowed to join their group in the next round. Participants were informed that at least one member of Group 2 *would have to* be allowed to join Group 1. Citizens were further informed that they would be asked to indicate their decision several times and that the pool of immigrants would always remain the same (i.e., 10); thus, this measure could always range between 1 (i.e., the minimal number of immigrants) to 10 (the maximum). Participants were led to believe that the final decision about the number of immigrants to be included in Group 1 would be determined by randomly choosing one decision made by a member of Group 1. However, unbeknownst to participants, the number was always fixed to 4.

Hypotheses and analysis plan

We tested the following conceptual hypotheses:

Hypothesis 1. Victim sensitivity positively predicts perceived exploitation as well as anti-immigration attitudes and negatively predicts prosocial behaviour towards immigrants when cues of (personal) exploitation are present (and not invalidated or countered).

Hypothesis 2. This effect exists even after controlling for Social Dominance Orientation, Right-Wing Authoritarianism, political orientation, demographics (age, gender) and other JS facets.

Hypothesis 3. The effect of victim sensitivity on perceived exploitation, anti-immigration attitudes, and prosocial behaviour towards immigrants is reduced when the assumed mediator is "switched off," that is, when a fear of being (personally) exploited is explicitly invalidated or countered.

Hypothesis 4. The effect of victim sensitivity on perceived exploitation, anti-immigration attitudes, and prosocial behaviour towards immigrants is reduced when a fear of being (personally) exploited is countered with cues suggesting cooperative motives of the immigrant population compared with merely invalidated.

Dependent variables were the intra-individual differences in (a) perceived exploitation, (b) anti-immigration attitudes, and (c) prosocial behaviour towards immigrants between Rounds 1 and 2 (time-2 minus time-1, such that positive values represent an increase in perceived exploitation, anti-immigration attitudes, and prosocial behaviour, respectively). We used multiple regression models to test our hypotheses, one for each difference variable. The central predictors in all of these models were Victim Sensitivity VS (standardized), two dummy variables (into which the three experimental conditions are coded), VS × Dummy 1, and VS × Dummy 2. The model testing Hypothesis 2 also included the eight covariates listed above.

This resulted in the following empirical hypotheses:

Hypothesis 1: In this model, dummy variables were coded such that the condition in which a fear of exploitation was neither invalidated nor countered represented the baseline (Dummy 1: 0 = *exploitation not invalidated*; 1 = *exploitation invalidated*; 0 = *exploitation countered*; Dummy 2: 0 = *exploitation not invalidated*; 0 = *exploitation invalidated*; 1 = *exploitation countered*). In the three regression models (one for each DV), we included the five predictors listed above. We expected a negative effect of VS on prosocial behaviour towards immigrants (more specifically, on the intra-individual difference in positive behaviour between Rounds 1 and 2) and a positive effect of VS on perceived exploitation and anti-immigration attitudes (more specifically, on the intra-individual difference in perceived exploitation and anti-immigration attitudes between Rounds 1 and 2). Due to our coding, the effect of VS in this model represents a conditional effect in the control condition (i.e., *exploitation not invalidated*).

Hypothesis 2: In the same regression models (one for each DV) including the five predictors plus the covariates, we expected to find the assumed effects of VS even after controlling for Social Dominance Orientation, Right-Wing Authoritarianism, political orientation, demographics (age, gender), and the other JS facets. The coding scheme was the same as in the model described before (see Hypothesis 1).

Hypothesis 3: In this model, contrast variables were Helmert-coded as in the previous studies, with Contrast 1 representing the difference between the control condition and the other two conditions (Contrast 1: −2 = *exploitation not invalidated*; 1 = *exploitation invalidated*; 1 = *exploitation countered*), and Contrast 2 representing the difference between the *exploitation invalidated* and the *exploitation countered* conditions (Contrast 2: 0 = *exploitation not invalidated*; −1 = *exploitation invalidated*; 1 = *exploitation*

countered). In the three regression models (one for each DV) we included the five predictors listed above. We expected a positive effect of VS × Contrast 1 on prosocial behaviour towards immigrants (more specifically, on the intra-individual difference in positive behaviour between Rounds 1 and 2) and a negative effect of VS × Contrast 1 on perceived exploitation and anti-immigration attitudes (more specifically, on the intra-individual difference in perceived exploitation and anti-immigration attitudes between Rounds 1 and 2).

Hypothesis 4: In the same models described in Hypothesis 3, we additionally expected a positive effect of VS × Contrast 2 on prosocial behaviour towards immigrants (more specifically, on the intra-individual difference in positive behaviour between Rounds 1 and 2) and a negative effect of VS × Contrast 2 on perceived exploitation and anti-immigration attitudes (more specifically, on the intra-individual difference in perceived exploitation and anti-immigration attitudes between Rounds 1 and 2).

All effects were tested on a significance level of 5% (two-tailed).

RESULTS AND DISCUSSION

A manipulation check showed the following results: In the *exploitation not invalidated* condition (group performance was worse with immigrants), 63.3% reported that the performance was worse, 25% reported that the performance did not change and 7% reported that the performance improved. In the *exploitation invalidated* condition (group performance remained the same with immigrants), 24.6% reported that the performance was worse, 36.1% reported that the performance did not change and 39.3% reported that the performance improved. Lastly, in the *exploitation countered* condition (group performance improved with immigrants), 8.8% reported that the performance was worse, 10.5% reported that the performance did not change and 80.7% reported that the performance improved. Thus, the manipulation was partly successful. Zero-order correlations between study variables in the overall sample and separated by experimental conditions are reported in Tables 10–13.

Confirmatory analyses

Hypothesis 1: Contrary to our expectations, the effect of victim sensitivity on an increase in prosocial behaviour was positive rather than negative, $\beta = .32$ ($SE = .14$), $t(174) = 2.34$, $p = .02$, $R^2 = .12$, and the effect on an increase in anti-immigration attitudes was negative rather than positive, $\beta = -.23$ ($SE = .08$), $t(174) = -2.70$, $p = .01$, $R^2 = .16$. In other words, in the control condition *exploitation not invalidated*, victim sensitivity predicted higher scores in prosocial behaviour at T2 compared to T1 and lower scores on anti-immigration attitudes at T2 compared to T1. There was no significant relationship between victim sensitivity and the intra-individual difference in perceived exploitation, $\beta = -.18$ ($SE = .10$), $t(174) = -1.78$, $p = .08$, $R^2 = .05$. Ceiling and floor effects on the dependent variables can explain these effects. We examine this in exploratory analyses.

Hypothesis 2: When controlling for political orientation, Social Dominance Orientation, Right-Wing Authoritarianism, demographics (age, gender) and the other JS facets, the effect of victim sensitivity on an increase in prosocial behaviour, $\beta = .36$ ($SE = .15$), $t(166) = 2.45$, $p = .02$, $R^2 = .12$, on an increase in anti-immigration attitudes, $\beta = -.24$ ($SE = .09$), $t(166) = -2.66$, $p = .01$, $R^2 = .13$ and on an increase in perceived exploitation, $\beta = -.20$ ($SE = .11$), $t(166) = -1.81$, $p = .07$, $R^2 = .04$ remained unchanged.

Hypotheses 3 and 4: Table 14 shows an overview of the hierarchical regressions on the outcome variables. Contrary to our predictions, the focal interaction terms were not significant according to conventional levels. Therefore, the results did not support Hypotheses 3 and 4.

TABLE 10 Correlations of the study variables and control variables in the overall sample (Study 3).

Study variables		A	B	C	D	E	F	G	H	I	J
Victim sensitivity	(A)	1									
Observer sensitivity	(B)	.28**	1								
Beneficiary sensitivity	(C)	−.01	.52**	1							
Perpetrator sensitivity	(D)	.01	.54**	.65**	1						
RWA	(E)	.13	−.16*	−.20**	−.20**	1					
SDO	(F)	.02	−.29**	−.26**	−.26**	.54**	1				
Political orientation	(G)	.05	−.17*	−.17*	−.15*	.55**	.41**	1			
Anti-immigration T1	(H)	.40**	−.08	−.26**	−.26**	.26**	.25**	.14	1		
Perceived exploitation T1	(I)	.07	−.21**	−.08	−.11	.18*	.17*	.11	.30**	1	
Prosocial behaviour T1	(J)	−.27**	.19*	.33**	.26**	−.39**	−.35**	−.31**	−.53**	−.29**	1

Note. $N = 178$.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

**p < .01; *p < .05.

TABLE 11 Correlations of the study variables and control variables in the control condition: Exploitation not invalidated (Study 3).

Study variables		A	B	C	D	E	F	G	H	I	J	K	L	M
Victim sensitivity	(A)	1												
Observer sensitivity	(B)	.36**	1											
Beneficiary sensitivity	(C)	−.15	.30*	1										
Perpetrator sensitivity	(D)	.02	.30*	.56**	1									
RWA	(E)	.14	−.36**	−.37**	−.34**	1								
SDO	(F)	.10	−.29**	−.36**	−.35**	.61*	1							
Political orientation	(G)	.14	−.30*	−.17	−.26*	.63**	.50**	1						
Anti-immigration T1	(H)	.43**	.02	−.25	−.39**	.30*	.29**	.15	1					
Anti-immigration T2	(I)	.36**	.00	−.23	−.31*	.39**	.44**	.28*	.75**	1				
Perceived exploitation T1	(J)	.21	−.13	−.18	−.27*	.25	.10	.11	.42**	.21	1			
Perceived exploitation T2	(K)	.15	−.13	−.15	−.18	.27	.14	.13	.36**	.33*	.79**	1		
Prosocial behaviour T1	(L)	−.24	.16	.28*	.25	−.44**	−.48**	−.42**	−.42**	−.55**	−.09	−.26*	1	
Prosocial behaviour T2	(M)	−.16	.18	.29*	.22	−.45**	−.51**	−.35**	−.39**	−.60**	−.09	−.28*	.89**	1

Note. $N = 60$.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

$**p < .01$; $*p < .05$.

TABLE 12 Correlations of the study variables and control variables in the experimental condition: Exploitation invalidated (Study 3).

Study variables		A	B	C	D	E	F	G	H	I	J	K	L	M
Victim sensitivity	(A)	1												
Observer sensitivity	(B)	.24	1											
Beneficiary sensitivity	(C)	−.07	.68**	1										
Perpetrator sensitivity	(D)	−.11	.69**	.76**	1									
RWA	(E)	.22	.01	.02	.00	1								
SDO	(F)	.05	−.23	−.13	−.21	.48**	1							
Political orientation	(G)	.03	−.11	−.11	−.06	.59**	.33**	1						
Anti-immigration T1	(H)	.37**	−.28*	−.33**	−.34**	.30*	.26*	.23	1					
Anti-immigration T2	(I)	.24	−.21	−.19	−.19	.28*	.13	.20	.77**	1				
Perceived exploitation T1	(J)	.00	−.27*	−.04	−.02	.13	.34**	.18	.35**	.20	1			
Perceived exploitation T2	(K)	−.06	−.18	.11	.16	.16	.17	.19	.20	.34**	.75**	1		
Prosocial behaviour T1	(L)	−.21	.26*	.34**	.30*	−.28*	−.34**	−.29*	−.62**	−.59**	−.51**	−.38**	1	
Prosocial behaviour T2	(M)	−.12	.23	.23	.30*	−.38**	−.30*	−.25	−.56**	−.67**	−.32*	−.36*	.85**	1

Note. $N = 61$.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

$**p < .01$; $*p < .05$.

TABLE 13 Correlations of the study variables and control variables in the experimental condition: Exploitation Countered (Study 3).

Study variables		A	B	C	D	E	F	G	H	I	J	K	L	M
Victim sensitivity	(A)	1												
Observer sensitivity	(B)	.27*	1											
Beneficiary sensitivity	(C)	.23	.48**	1										
Perpetrator sensitivity	(D)	.12	.57**	.65**	1									
RWA	(E)	.02	−.17	−.34*	−.31*	1								
SDO	(F)	−.13	−.37**	−.32*	−.30*	.56**	1							
Political orientation	(G)	.00	−.14	−.30*	−.15	.41**	.48**	1						
Anti-immigration T1	(H)	.39**	.05	−.18	−.08	.17	.19	.05	1					
Anti-immigration T2	(I)	.13	−.19	−.36**	−.33*	.45**	.50**	.15	.42**	1				
Perceived exploitation T1	(J)	.02	−.21	−.07	−.03	.16	.08	.06	.14	.18	1			
Perceived exploitation T2	(K)	−.18	−.24	−.26	−.01	.18	.29*	.22	−.05	.33*	.68**	1		
Prosocial behaviour T1	(L)	−.40**	.13	.38**	.22	−.46**	−.26	−.24	−.51**	−.52**	−.24	−.15	1	
Prosocial behaviour T2	(M)	−.21	.18	.40**	.31*	−.46**	−.44**	−.35**	−.24	−.72**	−.24	−.42**	.74**	1

Note: $N = 57$.

RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation.

**p < .01; *p < .05.

TABLE 14 Hierarchical regression analyses on the dependent variables (Study 3).

Predictors	Prosocial behaviour	Anti-immigration	Perceived exploitation
Step 1			
Age	.10	−.01	−.07
Gender	.05	.06	.07
Political orientation	.03	.07	.12
Social dominance orientation	−.15	−.02	−.01
Right-wing authoritarianism	−.17	.09	−.02
Observer sensitivity	.03	−.08	.03
Beneficiary sensitivity	−.37	.19	−.14
Perpetrator sensitivity	.33	−.05	.30
R^2	.06	.03	.04
Step 2			
Contrast 1: Exploitation invalidated	.35**	−.27*	−.18*
Contrast 2: Exploitation countered	.28**	−.18	−.08
Victim sensitivity	.37*	−.24*	−.20
R^2	.17	.19	.10
Step 3			
Victim sensitivity × Exploitation invalidated	.09	−.09	−.02
Victim sensitivity × Exploitation countered	.14	−.11	−.14
R^2	.18	.20	.10

Note: $N = 178$. The dependent variables are difference values (T2 –T1). Positive coefficients represent an increase at T2 (after the manipulation). Not including control variables yields the same results.

**$p < .01$; *$p < 05$.

Exploratory analyses

Post hoc analyses revealed ceiling and floor effects on prosocial behaviour at T1 and anti-immigration attitudes at T1, respectively. A relatively large number of participants (i.e., 35.4%) chose to allow the maximum number of 'immigrants' (10) to join their group at T1 ($M = 6.46$, $SD = 3.02$). Among participants who scored low on victim sensitivity (1 SD below the sample mean), this ceiling effect was even more pronounced with 57.7% allowing the maximum number of 'immigrants' to join their group at T1 ($M = 7.69$, $SD = 2.94$). Additionally, in this sub-sample, a floor effect was found on the variable anti-immigration attitudes ($M = 2.22$. $SD = .87$). Ceiling and floor effects allow less room for intra-individual variability, thereby decreasing the explanatory value of difference variables (cf. Allaire & Marsiske, 2005). Therefore, we re-did analyses using only T2 measures as dependent variables (post-manipulation).

As expected, victim sensitivity negatively predicted prosocial behaviour at T2, $\beta = −.51$ ($SE = .24$), $t(174) = −2.13$, $p = .04$, $R^2 = .05$, and positively predicted anti-immigration attitudes at T2, $\beta = .33$ ($SE = .09$), $t(174) = 3.48$, $p < .01$, $R^2 = .12$. In other words, in the *exploitation not invalidated* condition, VS had the expected effects on both prosocial behaviour and on anti-immigration attitudes. These effects persisted when controlling for Social Dominance Orientation, Right-Wing Authoritarianism, political orientation, demographics (age, gender), and the other JS facets (see Table 15). Victim sensitivity did not predict perceived exploitation at T2, $\beta = −.03$ ($SE = .14$), $t(174) = −.22$, $p = .82$, $R^2 = .03$. We assume that this effect is spurious because several participants reported that they had difficulty understanding the item. Further studies should examine the perceived "malicious intention" among VS-high participants using a simpler measurement.

To test whether the effects of victim sensitivity on prosocial behaviour and anti-immigration attitudes was diminished when invalidating or countering the fear of exploitation (Hypotheses 3 and 4), we

TABLE 15 Hierarchical regression analyses on the dependent variables at time 2 in the control condition: Exploitation not invalidated (Study 3).

Predictors	Prosocial behaviour	Anti-immigration	Perceived exploitation
Step 1			
Age	.03	−.01	−.01
Gender	.25	.03	.27
Political orientation	−.26	.03	.15
Social dominance orientation	−.56*	.18	.10
Right-wing authoritarianism	−.81**	.32**	.22
Observer sensitivity	−.10	.14	−.37*
Beneficiary sensitivity	.35	−.07	−.02
Perpetrator sensitivity	.43	−.30*	.31
R^2	.22	.16	.05
Step 2			
Victim sensitivity	−.46*	.32**	.08
R^2	.26	.26	.07

Note: $N = 60$. The dependent variables are measures at time 2 (after the manipulation).

**p < .01; *p < .05.

conducted hierarchical regressions on all three dependent variables at T2, including the contrasts specified above (Table 16). The interaction terms were not significant according to conventional levels. To probe these results, we conducted simple slope analyses. While victim sensitivity was negatively related to prosocial behaviour at T2, ($\beta = -.51$, $p = .04$) and positively related to anti-immigration attitudes at T2 ($\beta = .33$, $p < .01$) in the *exploitation not invalidated* condition, the effects of victim sensitivity on prosocial behaviour ($\beta = -.16$, $p = .34$; $\beta = -.29$, $p = .11$) and anti-immigration attitudes ($\beta = .30$, $p = .06$; $\beta = .18$, $p = .34$) disappeared in the *exploitation invalidated* and *exploitation countered* conditions. Based on the results of the manipulation check we repeated all confirmatory and exploratory analyses with a new data set, in which we only included participants who answered the manipulation check correctly. The results did not differ.

The results corroborate and extend the findings from Studies 1 and 2 showing that victim sensitivity is related to anti-social attitudes and behaviour towards immigrants when exploitation is possible. Similar to Study 2, we did find evidence that individuals who score high on victim sensitivity show anti-social tendencies towards immigrants (at least at Time-2) when cues of exploitation were present. We did not, however, find the predicted decrease in prosocial behaviour as well as the predicted increase in anti-immigration attitudes between Time-1 and Time-2, and we believe that this is due to a ceiling effect.

More importantly, however, we did not find evidence for the notion that countering or invalidating a fear of being exploited can reduce the effect of victim sensitivity on prosocial behaviour and on anti-immigration attitudes. In other words, direct, tangible and self-relevant evidence suggesting that the influx of immigrants would not lead to a loss of personal resources did not make victim-sensitive individuals less sceptical about immigration.

GENERAL DISCUSSION

Individual differences in justice perceptions influence how people think and behave in interpersonal and intergroup contexts (Baumert et al., 2022; Gerlach et al., 2012). Thus, it is understandable that a growing research field has examined whether and how justice sensitivity can explain political attitudes and behaviours (e.g., Agroskin et al., 2015; Nicolai et al., 2022; Rothmund et al., 2017). In the case

TABLE 16 Hierarchical regression analyses on the dependent variables at time 2 (Study 3).

Predictors	Prosocial behaviour	Anti-immigration	Perceived exploitation
Step 1			
Age	.06	−.07	−.05
Gender	.04	.01	.08
Political orientation	−.08	.02	.08
Social dominance orientation	−.17*	.14	.05
Right-wing authoritarianism	−.25*	.24*	.12
Observer sensitivity	−.03	.11	−.20*
Beneficiary sensitivity	.11	−.05	−.01
Perpetrator sensitivity	.13	−.23*	.17
R^2	.26	.19	.09
Step 2			
Contrast 1: Exploitation invalidated	.13*	−.20**	−.12*
Contrast 2: Exploitation countered	.11	−.13	−.15
Victim sensitivity	−.14*	.24**	.04
R^2	.30	.30	.13
Step 3			
Victim sensitivity × Exploitation invalidated	−.03	−.05	−.08
Victim sensitivity × Exploitation countered	−.15	.04	−.05
R^2	.31	.31	.14

Note: $N = 178$. The dependent variables are measures at time 2 (after the manipulation). Not including control variables yields the same results. **$p < .01$; *$p < .05$.

of immigration, first findings showed that a dispositional sensitivity to being the victim of injustice (i.e., victim sensitivity) was related to anger and negative attitudes towards immigrants (Rothmund et al., 2020; Süssenbach & Gollwitzer, 2015). With the current set of studies, we build upon these findings by investigating the causality of this relationship (Study 1), the motivational and social-cognitive processes underlying the effect (Studies 2 and 3), and downstream consequences on observable behaviour (Study 3). Together, the current findings shed light on the robustness of the investigated effect and provide new theoretical and practical insights.

Across all studies, we found that victim sensitivity predicted anti-immigration attitudes over and above ideological, political and demographic variables. Our research is the first to show that this effect is generalizable to different historical, social and experimental contexts. Victim sensitivity was related to negative attitudes towards immigrants and immigration in the context of post-reunification Germany in the 1990s, the European refugee crisis in 2015 and 2016, as well as in an artificial laboratory setting, in which we modelled the structural properties of immigration. In our third and final study, we showed that the effect of victim sensitivity on anti-immigration attitudes translates into antisocial behaviour towards immigrants. These findings suggest that peoples' perceptions and treatments of immigrants are not only related to specific ideas about deservingness or resource distributions (e.g., Jetten et al., 2015; Reeskens & van der Meer, 2019), but also related to stable individual differences in how people perceive (potential) injustice.

Based on assumptions regarding the psychological processes underlying victim sensitivity (Gollwitzer et al., 2013; Gollwitzer & Rothmund, 2009), we hypothesized that a heightened fear of exploitation can explain the negative perceptions and behaviours towards immigrants. Indeed, Study 2 showed that victim-sensitive individuals were more inclined to believe that immigrants' main reason to apply for asylum in Germany is to profit from the social welfare system. In addition, the effect of victim sensitivity

on anti-immigration attitudes was mediated by economic, but not by cultural threat. Both this study and Study 3 showed that the effect of victim sensitivity on anti-immigration attitudes and behaviour appears in situations, in which exploitation cues are present and are not invalidated. These results support earlier findings suggesting that victim-sensitive individuals show anti-social tendencies towards out-groups when the out-group is 'framed' in an exploitative manner (e.g., Rothmund et al., 2017; Süssenbach & Gollwitzer, 2015).

In two conservative tests, we attempted to scrutinize this mechanism by testing whether 'switching off' the proposed psychological process would diminish (or even kill) the effect of victim sensitivity on anti-immigration attitudes (cf., Jacoby & Sassenberg, 2011; Spencer et al., 2005). Yet, it did not. This might have methodological as well as theoretical reasons. Methodologically, the manipulations might not have been effective in attenuating the psychological process. In Study 2, we attempted to invalidate and counter the fear of exploitation by using real evidence taken from a federal report suggesting that immigration will (a) not have negative or (b) even have positive effects on German society in the long-run. This information might not have been explicit, tangible, and self-relevant enough to invalidate the fear of exploitation. In this respect, a challenge might have been that especially victim-sensitive individuals expect negative *personal* outcomes in situations of collective change (e.g., Traut-Mattausch et al., 2011).

In Study 3, we therefore opted to move to a laboratory setting. In this setting, we again chose to scrutinize the psychological mechanism (fear of exploitation) by 'switching off' the proposed psychological process. We expected that victim-sensitive individuals would be particularly likely to change their negative evaluation of and behaviour towards apparently exploitative immigrants after the risk of exploitation has been – at least experimentally – negated. Prior studies had already shown that victim-sensitive individuals, whose fear of exploitation was activated by untrustworthiness cues, were more likely to update their trustworthiness perceptions if a negatively labelled target turned out to show trustworthy behaviour (Süssenbach et al., 2016). Yet, we were unable to find an analogous effect in our own research (Study 3): The predicted interaction effects between our experimental manipulation and victim sensitivity on intra-individual changes in the two DVs (negative evaluation of and behaviour towards immigrants) were not significant; exploratory analyses with T2 scores on both DVs (instead of change scores) showed that, although the pattern of results was descriptively in line with our theorizing, the crucial interaction effects were also non-significant. Ceiling and floor effects at T1 suggest that the 'exploitation cue', which was supposed to elicit antisocial tendencies among victim-sensitive individuals, might not have been strong enough. Future studies should try to administer a stronger manipulation, in which the (apparently) exploitative intentions of targets are less ambiguous.

Further, based on the social dilemma literature, a one-shot game might not be enough to motivate cooperation in a public goods scenario as cooperative norms emerge dynamically over time and in an interplay of static factors, such as shared social identity and pre-existing norms (e.g., Titlestad et al., 2019).

The failure to find experimental evidence for the notion that it is a fear of exploitation that drives the effect of victim sensitivity on anti-immigration attitudes – both within participants and by condition – challenges assumptions of the Sensitivity to Mean Intentions Model (SeMI; Gollwitzer & Rothmund, 2009). Yet, our results are also theoretically informative and may be taken as a starting point to qualify and extend the SeMI model's predictions. Our attempt to negate the fear of exploitation might have failed because victim-sensitive individuals are generally more sensitive to untrustworthiness than to trustworthiness cues (Gollwitzer et al., 2012). Our finding that the difference between victim-sensitive and victim-*in*sensitive individuals with regard to anti-immigration attitudes and behaviours was apparent in the exploitation conditions but not in the exploitation invalidated and countered conditions supports the so-called 'asymmetry hypothesis'. Victim-sensitive individuals did attend to the 'trustworthiness cues' in both studies, but this did not lead to a reduction in anti-social attitudes and behaviour supporting the conjecture that victim-sensitive people simply weigh untrustworthiness cues more strongly when they evaluate others and make decisions in social interactions ('integrational

asymmetry'; Gollwitzer et al., 2013). Further, according to the 'defection hypothesis', victim-sensitive individuals tend to behave uncooperatively in social dilemmas if there is any reason to believe that others freeride (Gollwitzer et al., 2009). Thus, even in Study 3, victim-sensitive individuals might have suspected that the 'cooperative sample' of four immigrants might not have been representative of the total immigrant pool.

The current findings also suggest that intention attributions matter: It does make a difference whether targets (here: 'immigrants') who do not contribute sufficiently to the public good are perceived as *unwilling* or rather as *unable* to contribute. This attribution matters especially for victim-sensitive individuals. Future studies should specifically focus on whether individuals high in VS are more sensitive to personal losses when it becomes clear that these losses are due to targets' exploitative intentions instead of a lack of skill or ability.

On the other hand, the antisocial tendency of victim-sensitive individuals towards immigrants might not only hinge on attributing hostile intentions. Another explanation could be that victim sensitivity enhances an intergroup bias (Tajfel, 1970). Victim-sensitive individuals share a particularly strong need to trust (Gollwitzer & Rothmund, 2009), which can also be achieved by strengthening ties within one's ingroup (Hogg, 2007). Thus, the negative relation between VS and anti-immigration attitudes could also represent a form of generalized out-group derogation for the sake of increasing in-group cohesiveness (Meeus et al., 2010). Recent theorizing supports this, arguing that group-identification might drive anti-social intergroup behaviour among victim-sensitive individuals (Baumert et al., 2022).

More conclusive evidence is needed to understand whether the antisocial tendencies of victim-sensitive individuals towards immigrants are mainly based on the attribution of hostile intentions (Gollwitzer et al., 2013), on group-identification processes (Baumert et al., 2022), or on a combination of both. Based on the present results, future research could examine whether the effects of victim sensitivity on anti-immigration attitudes and behaviour can be diminished (or even reversed) when the risk of exploitation is completely negated and whether a common group identity could mitigate the fear of exploitation in socially uncertain situations. Finally, studies could look at other 'buffers' (Gollwitzer et al., 2013) which might alleviate antisocial tendencies among victim-sensitive individuals. For instance, intervention-focussed research could investigate whether descriptive norms signalling co-operative intentions of in-group members towards out-group members could reduce anti-immigration attitudes and behaviour among victim-sensitive individuals.

CONCLUSION

Globalization, climate change, conflicts. There are enough reasons to identify immigration as one of the biggest challenges of the present and the future. Host nations around the world need to find constructive ways to integrate immigrants from various countries, with different backgrounds, cultures and religions. In order to achieve a successful integration of immigrants, we need to understand the multidimensional antecedents of peoples' attitudes and behaviour towards immigrants and immigration. While psychological research on anti-immigration sentiments and behaviours has mainly focussed on ideology, prejudice and economic factors, the present findings show that we need to consider stable individual differences in peoples' sensitivity to injustice when examining people's attitudes and behaviour towards immigrants.

AUTHOR CONTRIBUTIONS
Lucas John Emmanuel Köhler: Conceptualization; data curation; formal analysis; investigation; methodology; project administration; resources; software; visualization; writing – original draft; writing – review and editing. **Mario Gollwitzer:** Conceptualization; data curation; methodology; supervision; writing – review and editing.

CONFLICT OF INTEREST STATEMENT

There is no actual or potential conflict of interest including any financial, personal, or other relationships with other people or organizations whatsoever.

OPEN RESEARCH BADGES

This article has earned Open Data, Open Materials and Preregistered badges. Data and materials are available at https://osf.io/x9mp5/ and https://osf.io/kfes6/?view_only=4ae95080d7654eaa8116dd1f3e38f531.

DATA AVAILABILITY STATEMENT

The data that support the findings of these studies are openly available in the Open Science Framework at https://osf.io/x9mp5/.

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