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Collective Narcissism Predicts Hypersensitivity to In-group Insult and Direct and Indirect Retaliatory Intergroup Hostility

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## Abstract

Results of five studies ( $N = 1596$ ) linked collective narcissism – a belief in in-group exaggerated greatness contingent on external validation – to direct and indirect, retaliatory hostility in response to situations collective narcissists perceived as insulting to the in-group but which fell well beyond the definition of an insult. In Turkey, collective narcissists responded with schadenfreude to the European economic crisis after feeling humiliated by the Turkish wait to be admitted to the European Union (Study 1). In Portugal, they supported hostile actions towards Germans and rejoiced in the German economic crisis after perceiving Germany's position in the European Union as more important than the position of Portugal (Study 2). In Poland, they supported hostile actions towards the makers of a movie they found offensive to Poland (Study 3 and 5) and responded with direct and indirect hostility towards a celebrity whose jokes about the Polish government they found offensive (Study 4). Comparisons with self- and in-group positivity indices and predictors of intergroup hostility indicated that collective narcissism is the only systematic predictor of hypersensitivity to in-group insult followed by direct and indirect, retaliatory intergroup hostility.

*Keywords:* collective narcissism, hypersensitivity to in-group image threat, intergroup hostility, schadenfreude

## Collective Narcissism Predicts Hypersensitivity to In-group Insult and Direct and Indirect Retaliatory Intergroup Hostility

In 2007, a British school teacher in Sudan was sentenced under sharia law because she allowed her pupils to name a teddy-bear Muhammad. The day after the sentence was announced, 10,000 people in Sudan took to the streets demanding the teacher's execution, blaming the UK for disrespecting their country ("I Was Terrified That The Guards Would Come In And Teach Me A Lesson", 2007). Although alternative explanations of the teacher's actions existed – the name Muhammad was chosen by children's voting, it is a popular name for males in Sudan – since her actions were interpreted as an insult to the whole group, the teacher faced retaliatory hostility disproportionate to her actions. In 2014, Top Gear's (a British television series about motor vehicles) recording team was forced out of Argentina by angry national protesters, offended because the number plates on one of the cars featured in the recording read "H982 FKL" ("Make no mistake, lives were at risk", 2014). This was perceived by the protesters as a sneering allusion to the 1982 Falklands war, which Argentina lost to the UK. Naturally, this could have been a coincidence and a mistake, but it was interpreted as an insult to the in-group and followed by retaliatory hostility.

Why do some people feel their group is being insulted when others do not, when insult is not meant and an alternative explanation for out-group actions exist? Clearly, in the above example, those who felt their group was insulted must have held their group in high esteem. However, not all who hold their group in high esteem feel insulted and support hostile retaliation after real or imagined threats to the in-group image. The present studies aim to elucidate the relationship between individual differences in collective narcissism – a belief in the exaggerated greatness of one's own group contingent on validation by others (Golec de Zavala, Cichocka, Eidelson & Jayawickreme, 2009) – and hypersensitivity to in-

group image threat and hostile retaliation to even debatable in-group offences. Better understanding of the role of individual differences in in-group positivity in the psychological dynamics of intergroup offence is particularly important in the light of data suggesting that feeling humiliated in the name of one's own group is one of the most frequently-reported motives for political radicalization and violence (McCauley & Moskaleiko, 2008).

### **Collective narcissism and sensitivity to in-group image threat**

Previous research has shown that collective narcissism is linked to retaliatory intergroup hostility after an in-group is overtly criticized or undermined by others. This effect is mediated by the perception of in-group criticism as personally threatening (Golec de Zavala et al., 2009; Golec de Zavala, Cichočka, & Iskra-Golec, 2013). Moreover, this relationship appeared to be specific to collective narcissism. It was not explained by the overlap of collective and individual narcissism, or collective narcissism and other forms of in-group positivity such as positive in-group identification (e.g., Jetten, Branscombe, Spears, & McKimmie, 2003; Tropp & Wright, 2001), or blind and constructive patriotism (Schatz, Staub & Lavine, 1999). It was also independent of the effects of other robust predictors of intergroup hostility such as social dominance orientation and right-wing authoritarianism (Golec de Zavala et al., 2013a). Vicarious retribution – indiscriminately punishing the whole out-group for the offending actions of some of its members (Lickel, Miller, Stenstrom, Denson, & Schmader, 2006) – seems to be the default approach collective narcissists use to restore threatened in-group and self-image.

However, there are reasons to suspect that previous studies failed to provide a full insight into the depth of collective narcissistic sensitivity to in-group insult and collective narcissistic vindictiveness. Collective narcissists were shown to aggress in response to unambiguous and incontrovertibly intentional in-group criticism. Only one study suggested

that collective narcissists may be *hypersensitive* to in-group image threat and perceive an insult to the in-group even when it is debatable, not perceived by others, or not intended by the other group. Mexican collective narcissists felt offended by the construction of the wall along Mexican-American border that the US began in 2006. According to the American government, the wall was constructed to protect against the terrorist threat. Nevertheless, Mexican collective narcissists wanted to boycott American companies and engage in destructive actions against American institutions in Mexico in response to the perceived insult to Mexico and Mexicans (Golec de Zavala et al., 2009, Study 5). Such results suggest that collective narcissists may be hypervigilant and hypersensitive to the signs of in-group image threat, and may be disproportionately punitive in responding to them.

### **Debatable insult, collective narcissism and other predictors of hostility**

There are reasons to think that collective narcissistic hypervigilance to in-group image threat generalizes beyond the intergroup context of the previous study. Collective narcissistic hypersensitivity to in-group image threat may be driven by its contingency on the recognition of the in-group's greatness by others. Analogously to individual narcissists, who seek self-confirmation in the admiration of others because they hold internal doubts about the greatness of the self (cf. Bosson et al., 2008), collective narcissists, despite their overtly exaggerated opinion of their in-group, do not associate in-group symbols with positively valued stimuli and think that others do not have a positive opinion about their in-group (Golec de Zavala et al., 2009). Individual narcissism is associated with a tendency to protect self-image through aggressive actions towards those who threaten it (Bushman & Baumeister, 1998), a tendency to remember the wrongdoings of others (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004) and a tendency to seek revenge (Brown, 2004). However, collective rather than individual narcissism, predicts retaliatory hostility in response to in-group image threat

(Golec de Zavala et al., 2013a). Collective narcissists, preoccupied with the in-group's superiority and its validation by others, are likely to be particularly sensitive to signs of insufficient recognition of the in-group, exaggerate them and experience them as an insult to the in-group. Unlike collective narcissists, individual narcissists can dissociate themselves from an unpopular or criticized group in order to protect their exaggerated self-image (Bizumic & Duckitt, 2008). Collective narcissists are not primarily motivated by ego-enhancement but by in-group enhancement and, once invested in the greatness of the in-group, they do not have the choice to dissociate from it when its greatness is undermined.

Arguably, people should be motivated to protect the image of their in-group when the group is important to them, and when they hold positive opinions about it. However, collective narcissism and other forms of in-group positivity, despite their positive overlap, may be associated with very different approaches towards in-group criticism and those who criticize the in-group. Collective narcissism, but not positive in-group identification, is associated with vicarious retaliatory hostility in response to overt in-group criticism (Golec de Zavala et al., 2013a). In addition, constructive patriotism – a positive evaluation of one's country, tolerant to its criticism in view of national advancement (Schatz et al., 1999) – is associated with intergroup tolerance, especially when its overlap with collective narcissism is accounted for. Similarly, once the overlaps of private collective self-esteem or in-group satisfaction with collective narcissism were controlled for, those aspects of in-group positivity predicted *more* positive attitudes towards out-groups, whereas collective narcissism was associated with more negative out-group attitudes (Golec de Zavala, Cichocka, & Bilewicz, 2013). Collective narcissism mediated the relationship between negativity towards national out-groups and blind patriotism – an idealization of one's own nation intolerant of its criticism (Golec de Zavala et al., 2013b). In-group satisfaction and positivity without an overlap with collective narcissism can be interpreted as a confident and genuine liking and

being proud of one's own group, whereas collective narcissism without the genuine in-group positivity becomes the sheer group-based entitlement and preoccupation with what the in-group amounts to in the eyes of others, untempered by any joy of being a member of a valued group (Golec de Zavala et al., 2013b). Thus, collective narcissism, rather than non-narcissistic in-group positivity, should be related to exaggerated hostile reactions to debatable in-group image threats.

Collective narcissism is related to social dominance orientation and right-wing authoritarianism (Golec de Zavala et al., 2009). However, only collective narcissistic intergroup hostility seems inspired by hypervigilance to in-group insult. Social dominance orientation and right-wing authoritarianism did not increase the likelihood of perceiving the wall on the Mexican-American border as an insult to Mexico and Mexicans (Golec de Zavala et al., 2009). Social dominance orientation and right-wing authoritarianism were not related to retaliatory intergroup hostility in response to in-group criticism (Golec de Zavala et al., 2013a). Thus, the three variables seem to inspire intergroup hostility for different reasons. While right-wing authoritarians use intergroup hostility to preserve the status quo and preserve authority and people high in social dominance orientation use intergroup hostility to preserve group-based hierarchies, collective narcissists use intergroup hostility to protect the exaggerated in-group image from real or imagined threats. Thus, collective narcissism, rather than social dominance orientation or right-wing authoritarianism, should be related to exaggerated hostile reactions to debatable in-group image threats.

### **Collective narcissism and indirect intergroup hostility**

Initial hostile reactions to less obvious instances of in-group insult may themselves be less obvious and indirect. However, it is important to understand the role of individual difference predictors of such indirect, retaliatory intergroup hostility because they can quickly



escalate to open intergroup violence (Cikara, Bruneau, & Saxe, 2011). Collective schadenfreude – rejoicing in the misfortunes of other groups – may be seen as an indirect way of expressing vengeful intergroup hostility compensating for threats to the in-group’s image (Leach & Spears, 2008; Leach, Spears, Branscombe, & Doosje, 2003; Sawada & Hayama, 2012). Collective schadenfreude occurs in response to the misfortunes of out-groups that are envied because they are better or have a higher status than the in-group (Cikara & Fiske, 2012; 2013; Van Dijk, Ouwerkerk, Smith, & Cikara, 2015), or because they are superior in a domain relevant to the in-group’s image (Leach et al., 2003; Leach & Spears, 2008). Experiencing collective schadenfreude reduces the adverse emotional effect of inferiority in the intergroup context (Leach & Spears, 2008). As a form of vicarious retribution, collective schadenfreude fits into the repertoire of collective narcissistic responses to the perceived in-group image threat.

The strength of in-group identification has been recognized as a predictor of vicarious retributions (Stenstrom, Lickel, Denson, & Miller, 2008). However, results regarding the relationship between collective schadenfreude and positive in-group identification are inconclusive. Despite several studies reporting a positive relationship (Combs, Powell, Schurtz, & Smith, 2009), a comprehensive review suggests that the overall relationship is null (Iyer & Leach, 2008). Such an inconsistency may suggest a suppression effect because different forms of in-group positivity may have opposite relationships with collective schadenfreude, just as they have opposite relationships with out-group derogation (Golec de Zavala et al., 2013b). Differentiating the role of collective narcissism and non-narcissistic in-group positivity in inspiring vindictive collective schadenfreude is important because it may help us understand why people sometimes rejoice in the suffering of out-groups, rather than empathizing and helping. In addition, just as non-narcissistic in-group positivity inspires greater out-group tolerance (Golec de Zavala et al., 2013a), a non-narcissistic positive

identification towards one's own group may be a potential platform on which to build intergroup empathy. Thus, understanding how different forms of in-group positivity motivate different responses to an out-group's misfortune may help us to understand the limitations of out-group empathy (Cikara et al., 2011).

### **Overview of the present studies**

The present studies aimed to elucidate the role of collective narcissism in inspiring direct and indirect hostile responses to various forms of *perceived*, but otherwise debatable, insult to in-group image: the rejection of the in-group from an international organization (Study 1), an unfavorable intergroup comparison (Study 2), a reminder of less laudable moments in the national history (Studies 3 and 5) or a joke about a national government (Study 4). All studies took advantage of naturally occurring situations in which a group or a group representative (1) has threatened the in-group's image and (2) was faced with misfortunes (in order to assess indirect hostility, i.e. collective schadenfreude).

The studies tested the main hypothesis that collective narcissism would be linked to direct (except Study 1) and indirect intergroup hostility (collective schadenfreude) via the perception of in-group insult or in-group humiliation by another group. In addition, it was expected that the mediated effect of collective narcissism on direct hostility and collective schadenfreude would be specific to collective narcissism in comparison to the effects of other personality variables pertaining to self-evaluation (self-esteem, dominant and vulnerable narcissism), other forms of in-group positivity (in-group satisfaction, constructive and blind patriotism, nationalism, national symbolism) and other robust predictors of intergroup hostility (social dominance orientation and right-wing authoritarianism). Thus, it was expected that collective narcissism would specifically and uniquely predict hypersensitivity to in-group insult and disproportionate retaliatory hostility, both direct and indirect.

## Study 1

Study 1 provided an initial test of the hypothesis that collective narcissism would predict collective schadenfreude in response to perceived in-group humiliation. It was conducted in Turkey using the context of the unsuccessful Turkish attempts to become a member of the European Union. Turkey has been waiting to be admitted to the European Union (EU) since 1987. Study 1 examined whether Turkish national collective narcissism predicted schadenfreude regarding Europe's economic crisis in 2008–2012 via the feeling of group-based humiliation regarding the long wait for the EU admission.

Study 1 also compared the relationship between collective narcissism and private collective self-esteem – a positive opinion about one's own national group (Luhtanen & Crocker, 1992) – as predictors of the perceived in-group humiliation and collective schadenfreude. Based on previous studies (Golec de Zavala et al., 2013b) we expected that when the overlap between collective narcissism and private collective self-esteem was controlled for, private collective self-esteem would predict less collective schadenfreude via a reduced tendency to perceive in-group humiliation.

## Method

**Participants.** One hundred and eleven Turkish undergraduate students (82 women and 27 men, with a mean age of  $M = 20.98$ ;  $SD = 3.01$ ) participated in exchange for course credit. The planned sample size (over 70 participants) was based on the effect size from a previous study that examined the mediated link of collective narcissism to intergroup hostility via the perception of the in-group criticism as the ego threat (Golec de Zavala et al., 2013a). We took the smallest multiple  $R^2$  (.34) to calculate the sample size for two predictors, one mediator and one criterion variable using G\*Power 3.1 (Faul, Erdfelder, Lang, & Buchner,

2007). In all studies data collection ceased on a predetermined date and data were not observed prior to analyses.

**Procedure and measurements.** After giving their informed consent, participants read news reports regarding the Turkish wait to be admitted to the EU and the European economic crisis, and respond to a related questionnaire. All items were answered on scales from “1” = “*I strongly disagree*” to “7” = “*I strongly agree*”. Questionnaires were administered in a laboratory environment using E-Prime 2. The research was presented as a study on attitudes towards news reports. After completion, participants were thanked and debriefed.

**Collective narcissism** was measured by the Turkish version of the 9-item Collective Narcissism Scale (Golec de Zavala et al., 2009, e.g. “My group deserves special treatment“),  $M = 4.63$ ;  $SD = 1.22$ ,  $\alpha = .82$ .

**Private collective self-esteem** was measured by a subscale of the Collective Self-Esteem Scale’s (Luthanen & Crocker, 1992, e.g., “I feel good about the group I belong to”),  $M = 5.48$ ;  $SD = 1.45$ ,  $\alpha = .85$ .

**Perceived in-group humiliation** was assessed after participants read an alleged news excerpt about Turkey’s wait to be admitted as a member of the EU. They were asked to what extent they felt “humiliated”, “inferior” and “ashamed” in response to that situation,  $M = 3.56$ ;  $SD = 1.68$ ,  $\alpha = .73$ .

**Collective schadenfreude** was measured after participants read an excerpt of an alleged news release regarding the economic crisis in Europe. Participants were asked to what extent they felt “happy” and “satisfied” by the economic crisis experienced in the EU,  $M = 2.92$ ;  $SD = 1.39$ ,  $\alpha = .79$ .

## Results

The correlations between variables are presented in Table 1. In order to test the hypothesis that collective narcissism predicts collective schadenfreude in response to perceived in-group humiliation, we first performed a mediation analysis using the PROCESS macro for SPSS (Model 4, Hayes, 2013). This analysis indicated that the positive relationship between collective narcissism and collective schadenfreude,  $b = .65$ ;  $SE = .12$ ;  $\beta = .48$ ;  $t(109) = 5.62$ ,  $p < .001$ , became non-significant after perceived in-group humiliation was entered into the equation,  $b = .23$ ;  $SE = .08$ ;  $\beta = .28$ ;  $t(109) = 2.78$ ,  $p = .006$ . We used bootstrapping with 1000 samples in all analyses to construct the confidence intervals for the indirect effects. The indirect effect of collective narcissism on collective schadenfreude via perceived in-group insult was significant,  $IE = .15$ ;  $SE = .06$ ; 95% CI [0.05; 0.29].

In order to compare the mediated effects of collective narcissism and private collective self-esteem, we performed a path analysis using AMOS 22. Collective narcissism and private collective self-esteem were entered as predictors, perceived in-group humiliation as a mediator and collective schadenfreude as the outcome variable (Figure 1). The model outlined in Figure 1 fit the data very well (Table 2). The indirect effect of collective narcissism on collective schadenfreude, mediated by perceived in-group humiliation, was positive and significant,  $IE = .22$ ;  $SE = .07$ ; 95% CI [0.10; 0.36]. The indirect effect of private collective self-esteem on collective schadenfreude via perceived in-group humiliation was negative and statistically significant,  $IE = -.07$ ;  $SE = .03$ ; 95% CI [-0.14; -0.01].

## Discussion of Study 1

The results of Study 1 supported our hypothesis that collective narcissism would predict collective schadenfreude in response to perceived in-group humiliation. The

relationship between Turkish collective narcissism and rejoicing at the European economic crisis was mediated by the feeling of group-based humiliation in response to the EU's reluctance to admit Turkey. This relationship was independent of the significant and negative relationship of private collective self-esteem with collective schadenfreude via perceived in-group humiliation, which emerged when the overlap between collective narcissism and private collective self-esteem was accounted for. Bivariate correlations indicated no significant links between private collective self-esteem and perceived in-group humiliation or collective schadenfreude. Thus, removing the collective narcissistic aspect of a positive opinion about the in-group uncovered the potential of non-narcissistic in-group positivity to buffer against feeling humiliated on behalf of the group by the actions of others.

Although the results of Study 1 were encouraging, Study 1 tested only a part of the model predicted by our main hypothesis. Thus, in the next study, we examined whether collective narcissism predicts direct *and* indirect intergroup hostility in response to perceived in-group image threat.

## **Study 2**

Study 2 tested the hypothesis that collective narcissism predicts direct *and* indirect intergroup hostility in response to the perceived in-group image threat resulting from unfavorable intergroup comparisons. Study 2 was conducted in Portugal in the context of the financial bailout that took place in 2011 as a consequence of the 2008 global financial crisis. The bailout resulted in the imposition of a severe austerity program in Portugal followed by a steep decrease in economic activity and increases in unemployment and poverty levels. Data from subsequent national polls and Eurobarometer indicated that 70% of Portuguese citizens blamed the EU for the negative consequences of the austerity program. Especially, Germany

has been blamed for the mismanagement of the economic crisis and the increased economic hardship in Portugal (Ntampoudi, 2014). Study 2 examined whether Portuguese collective narcissism predicts hostile behavioral intentions towards Germans and rejoicing in the possibility of Germany being affected by Europe's economic crisis via perceived unfavorable comparisons of Portugal with Germany.

## **Method**

**Participants** in this online survey were recruited via research mailing lists and Facebook pages. Among 165 participants, 164 were Portuguese (113 women and 51 men) with a mean age of 24.86 ( $SD = 7.14$ ). Data from one person whose nationality was not Portuguese were excluded from the analyses. Data collection ceased on a predetermined date and data were not observed before collection terminated. The sample size was determined as for Study 1.

**Procedure and measurements.** Data collection was supported by Qualtrics (<http://www.qualtrics.com>). Participants responded to the online survey measures after giving informed consent. Participants were told the study examined perceptions and attitudes towards the current economic and social crisis in Europe. After completing the survey, they were debriefed and offered the chance to participate in a lottery (four €25 voucher prizes).

**Collective narcissism** was measured by the Portuguese version of the Collective Narcissism Scale (Golec de Zavala et al., 2009). Participants responded using a scale from "1" = "totally disagree" to "6" = "totally agree",  $\alpha = .76$ ,  $M = 3.74$ ,  $SD = 0.92$ .

**Unfavorable intergroup comparisons** were assessed by 7 items from the Portuguese version of the intergroup threat scale (Riek, Mania, Gaertner, Direso, & Lamoreaux, 2010). The items pertained to perceived privileged treatment and position of Germany over Portugal: "When Germans hold a position of authority, they discriminate against Portuguese when

making decisions”, “A lot of companies hire Germans who are less qualified than Portuguese”, “Public service institutions of the European Union favor Germans over Portuguese”, “the European legal system is less rigorous towards Germans than it is towards Portuguese”, “Germans do not respect Portuguese as much as they should”, “Germans regard themselves as morally superior to Portuguese”, and “Germans want their rights to be put ahead of the rights of Portuguese”. The statements were rated on a scale from “1” = “*totally disagree*” to “5” = “*totally agree*”,  $\alpha = .87$ ,  $M = 3.29$ ;  $SD = 0.75$ .

***Retaliatory hostility*** was measured by means of the behavioral intentions scale based on Mackie, Devos and Smith (2000). Seven behavioral intentions towards Germans were measured in response to a question: “When thinking of Germans, to what extent do you want to”: “confront them”, “hurt them”, “injure them”, “oppose them”, “offend them”, “intimidate them”, “humiliate them”. Participants responded on a scale “1” = *not at all* to “7” = *very much so*),  $\alpha = .85$ ,  $M = 2.13$ ;  $SD = 1.48$ .

***Schadenfreude*** was measured after participants read an excerpt of an alleged news release regarding the economic crisis in Europe. Participants were asked how happy and satisfied they would feel if the economic crisis would negatively affect Germany and the Germans. The 4 answers were provided on a scale from “1” = “*totally disagree*” to “6” = “*totally agree*” (e.g., “How happy would you feel if the economic crisis affected Germany”, or “How satisfied would you feel if the unemployment rate increased in Germany”),  $M = 2.42$ ;  $SD = 1.70$ ,  $\alpha = .93$ .

## **Results**

All variables were positively correlated (Table 3). In order to test the hypothesis that collective narcissism predicts direct intergroup hostility and collective schadenfreude via unfavorable intergroup comparisons, we performed a path analysis using AMOS 22 (Figure



2). Collective narcissism was entered as a predictor, unfavorable intergroup comparisons as a mediator and direct and indirect intergroup hostility as correlated out-come variables. The model outlined in Figure 2 fit the data very well (Table 2). The indirect effect of collective narcissism on direct hostility via unfavorable comparisons was significant,  $IE = .43$ ,  $SE = .08$  95% CI [0.25; 0.61]. The indirect effect of collective narcissism on collective schadenfreude via unfavorable comparisons was also significant,  $IE = .38$ ,  $SE = .09$ , 95% CI [0.21; 0.55].

## **Discussion of Study 2**

The results of Study 2 supported our expectation that collective narcissism predicts collective schadenfreude and direct intergroup hostility in response to the perceived intergroup threat resulting from unfavorable intergroup comparisons that undermine the in-group's greatness. Collective narcissists addressed the "pain of the in-group's inferiority" by expressing hostile behavioral intentions against the better out-group and rejoicing in its potential misfortunes.

Although Studies 1 and 2 supported our main hypothesis, they were conducted on relatively small samples. In our next studies we sought to increase the sample sizes to over 250 participants in light of new research suggesting that at this sample size correlations stabilize (Schönbrodt & Perugini, 2013). We conducted Study 3 also to test whether the hypothesized effect is specific and unique to collective narcissism. In the next study, in order to develop on the insights provided by the results of Study 1, we compared the effects of collective narcissism to the effects of other variables pertaining to the positive opinion about one's own group.

## **Study 3**

In Study 3 Polish participants were asked their opinions about a movie that commented on Polish anti-Semitism during and after WWII, and pogroms perpetrated by Poles on their neighbors of Jewish ethnic origin. For the last decade, Poles have been reconciling their national self-perception as the victims of WWII with the emerging evidence that they were also perpetrators of war crimes. Several recent Polish movies dealt with this issue directly. Reactions to one such movie in Poland varied dramatically. To some, it presented an honest and mature acceptance of the collective responsibility for the crimes perpetrated by the past generation, to others it was a malicious lie offending all ‘true Poles’. Many Poles rejected the movie and its creators were accused of betraying their nation (“Poland’s past. A difficult film”, 2013; “In the Polish aftermath”, 2013).

Study 3 tested the hypothesis that Polish collective narcissism would predict direct retaliatory hostility towards the makers of this movie in response to perceiving it as a malicious insult to the Polish nation. In addition, Study 3 tested the expectation that this indirect effect will be specific to collective narcissism and will not be explained by its overlap with other forms of positive attitudes towards one’s own nation.

## **Method**

**Participants** were 364 Polish nationals, 167 male and 197 female with the mean age of 44.10 ( $SD= 15.03$ ). The sample size was set to be over 250 participants based on the suggestions of Schönbrodt and Perugini, (2013).

**Procedure and measurements.** Data collection was supported by the Ariadna Research Panel (<http://www.panelariadna.com>). Participants responded to the online survey allegedly assessing their perception of Poland, Polish art and the Polish nation. Measures were presented in a random order. Participants responded to all measures using a scale from “1” = “*totally disagree*” to “6” = “*totally agree*”.

**Collective narcissism** was measured by the 5-item version of the Collective Narcissism Scale (Golec de Zavala et al., 2013b),  $\alpha = .90$ ,  $M = 3.78$ ,  $SD = 1.07$ .

**In-group satisfaction** was assessed by the 4-item in-group satisfaction subscale of the In-group Identity Scale (Leach et al., 2008; e.g., “I am glad to be Polish”) which pertains to one’s own positive opinion about one’s own in-group and closely overlaps with measures such as private collective self-esteem,  $\alpha = .94$ ,  $M = 4.25$ ,  $SD = 1.17$ .

**Constructive** (e.g., “I express my love for my country by supporting efforts at positive change”,  $\alpha = .94$ ,  $M = 5.09$ ,  $SD = 1.15$ ) and **blind patriotism** (e.g., “I would support my country right or wrong”,  $\alpha = .89$ ,  $M = 3.83$ ,  $SD = 1.25$ ) were measured by the Polish translation of the scales proposed by Schatz et al., (1999) used in previous studies (Golec de Zavala et al., 2013b).

**Nationalism** defined after Kosterman and Feshbach (1989) as a belief that the country is superior and should be dominant was measured by the following items adopted from the Polish Nationalism Scale (Skarżyńska, Przybyła, & Wójcik, 2012): “My country is not better than any other country in the world” (reversed), “My country should not dominate other countries” (reversed), “The more my country influences other countries the better they are”, “In order to maintain the dominant position of my country aggressive economic actions against other countries are sometimes necessary” and “In order to maintain my country’s power it is sometimes necessary to engage in war with other countries”,  $\alpha = .89$ ,  $M = 3.65$ ,  $SD = 1.00$ .

**National symbolism** defined by Schatz and Lavine (2007) as psychological attachment to the country as a source of identity was measured by following items, adapted from the Polish translation of the scale by Radkiewicz (2009): “Expressing patriotism by respecting national symbols (flag, national anthems or monuments) is not important to me”

(reversed), “Listening to the national anthem makes me deeply emotional”, “I feel moved each time I see the national flag”,  $\alpha = .84$ ,  $M = 5.17$ ,  $SD = 1.35$ .

**Perceived in-group insult** was measured by following items: “This movie is an insult to the Polish nation” and “This movie is a malicious manipulation of historical facts”,  $\alpha = .84$ ,  $M = 3.26$ ,  $SD = 1.44$ .

**Retaliatory hostility** was measured by following items: “This movie makes me want to express my anger at its makers” and “This movie makes me want to punish its makers”,  $\alpha = .87$ ,  $M = 2.91$ ,  $SD = 1.46$

## Results

Correlations between variables are presented in Table 4. In order to test whether collective narcissism predicts hostility towards the makers of the controversial movie via perceiving this movie as an insult to the Polish nation, we performed a mediation analysis using the PROCESS macro for SPSS (Model 4, Hayes, 2013). This analysis indicated that the positive relationship between collective narcissism and direct retaliatory hostility,  $b = .35$ ;  $SE = .07$ ;  $\beta = .26$ ;  $t(362) = 5.09$ ,  $p < .001$ , became non-significant after the perceived in-group insult was entered into the equation,  $b = .81$ ;  $SE = .03$ ;  $\beta = .80$ ;  $t(362) = 24.09$ ,  $p < .001$ . The indirect effect of collective narcissism on hostility via the perceived insult was significant,  $IE = .28$ ,  $SE = .06$ , 95% CI[0.17; 0.42].

In order to test the hypothesis that collective narcissism uniquely predicts hostility towards the authors via the perceived in-group insult when compared to other variables pertaining to national attachment and national identity, we performed a path analysis using AMOS 22 (Figure 3). Collective narcissism was entered as a predictor, together with national in-group satisfaction, national symbolism, constructive and blind patriotism and nationalism, perceived insult was entered as a mediator and hostility towards the makers as

the outcome variable. The model outlined in Figure 3 showed excellent fit to the data (Table 2). This analysis indicated that only the indirect effect of collective narcissism on direct hostility via perceived insult was significant,  $IE = .42$ ,  $SE = .08$ , 95% CI[0.24; 0.58]. The direct negative effect of national symbolism and the direct positive effect of blind patriotism on retaliatory hostility were also significant.

Finally, in order to analyze the role the correlated predictors play in predicting the mediator and the outcome variable, we computed three importance indices that allow to assess the unique contribution of each predictor in the context of possible multicollinearity: dominance weights, relative importance weights and incremental  $R^2$  (Braun & Oswald, 2011). Those indices help to determine the unique and combined contribution of each predictor to explaining variance in the outcome variable. Although multiple regression compares the relative importance of predictors in explaining a criterion variable, it is based on the assumption that the predictors are not strongly correlated with each other. Regression weights of strongly correlated predictors may not give an adequate indicator of the unique contribution of each predictor because they change with covariance relationships, and therefore tend to be sample-specific and not easily generalizable. Dominance weights give a more accurate assessment of the hierarchy of importance of the correlated predictors. This analysis considers unique and combined contribution of each predictor and reduces the importance of redundant predictors when multicollinearity is present. Relative importance weights indicate the proportionate contribution of each predictor to the variance explained in the outcome variable. Incremental  $R^2$  analysis reflects the unique contribution of each predictor after the variance accounted for by the remaining predictors has been partialled out of the outcome. The importance indices presented in Table 5 point to collective narcissism as the primary predictor of the perceived in-group insult and retaliatory hostility (the latter, together with national symbolism).

### **Discussion of Study 3**

The results of Study 3 confirm the hypothesis that collective narcissism predicts retaliatory hostility in response to the perceived in-group insult. Polish collective narcissists wanted to punish the makers of a movie commenting on infamous aspects of Polish history: Polish participation in pogroms on Poles of Jewish origins during the Second World War. Collective narcissism – but not national in-group satisfaction, national symbolism, constructive and blind patriotism and nationalism – predicted the perception of this movie as a malicious insult to Poland and the Polish nation, and this perception mediated the relationship between collective narcissism and support for punishment to the authors.

Relative importance analyses indicated that collective narcissism was a primary (and the only statistically significant) predictor of perceiving the movie as an insult to the Polish nation. Study 3 did not replicate the results of Study 1 regarding the negative mediated effect of in-group satisfaction. This may be due to the different measurement of the variables. However, the in-group satisfaction aspect of social identity was conceptualized very similarly to private collective self-esteem and similar items were used for its assessment (Leach, et al., 2008). We further investigated the role of in-group satisfaction in Studies 4 and 5.

Although the results of Study 3 supported our main hypothesis and our expectations that the mediated positive effect on intergroup hostility is specific and unique to collective narcissism, Study 3 tested only a part of the proposed model without extending it to indirect retaliatory hostility. In addition, the uniqueness and importance of the collective narcissistic contribution to explaining the tendency to perceive the in-group insult was compared to other forms of national in-group positivity, but not to other individual difference variables pertaining to self-positivity. Thus, in the next study we examined both direct and indirect

intergroup hostility as outcome variables and included self-esteem and individual narcissism among the alternative predictors.

#### **Study 4**

Study 4 was designed around a controversy caused by a popular Polish actor who publicly made jokes ridiculing the ‘catch phrases’ the Polish government has used to mobilize political capital by spreading conspiracy theories of national threat (“The conspiracy theorists who have taken over Poland”, 2016). Those jokes divided Polish public opinion between those who found them offensive (among others because they referred to the Polish government capitalizing on the plane crash that killed 96 members of Polish political elite in 2010) and those who found them funny. Shortly afterwards, one of the members of the ruling party publicly commented on the terminal illness of the actor’s family members, asking him whether the actor finds those comments funny. Study 4 was designed around these events.

Study 4 tested the whole proposed model – the assumption that collective narcissism predicts direct *and* indirect hostile retaliation to the perceived in-group insult. It also compared the effects of collective narcissism to the effects of other individual difference variables pertaining to a positive self-image, specifically, two forms of narcissism distinguished in the literature: grandiose and vulnerable (e.g., Miller & Campbell, 2008) and self-esteem. We also compared the effects of self-esteem and non-narcissistic in-group satisfaction in the same study comparing them also to the effects of collective and individual narcissism.

#### **Method**

**Participants** were 427 Polish nationals, 220 male and 227 female with the mean age of 43.57 ( $SD = 15.30$ ). The sample size was determined as in Study 3.

**Procedure and measurements.** Data collection was supported by the Ariadna Research Panel (<http://www.panelariadna.com>). Participants responded to the online survey allegedly assessing the relationship between personality and perception of celebrities. Participants responded to demographic questions and to individual difference measures (presented in random order). Next they were lead to believe they would evaluate a randomly chosen Polish celebrity. All participants were presented with a short YouTube video reminding them of the controversial jokes. Next, the measures of direct hostility and schadenfreude were taken in random order. Participants responded to all measurements (except the Narcissistic Personality Inventory) using a scale from “1” = “*totally disagree*” to “7” = “*totally agree*”.

**Collective narcissism** was measured as in Study 3,  $\alpha = .90$ ,  $M = 4.12$ ,  $SD = 1.31$ .

**Grandiose narcissism**, defined as excessively positive self-image with delusions of grandeur and self-aggrandizement tendencies (e.g., Miller & Campbell, 2008), was measured using the Polish version of the 16-item Narcissistic Personality Inventory (Ames, Rose & Anderson, 2006) used in previous studies (Golec de Zavala et al., 2013b). Participants chose between narcissistic (scored “0”) and non-narcissistic options (scored “1”),  $\alpha = .76$ ,  $M = 5.38$ ,  $SD = 3.23$ .

**Vulnerable narcissism**, defined as insecure grandiosity, proneness to hypersensitivity and social anxiety (e.g., Miller & Campbell, 2008), was measured using a Polish translation of the Hypersensitive Narcissism Scale (Hending & Cheek, 1997, e.g., “My feelings are easily hurt by ridicule or by the slighting remarks of others”). Items were translated to Polish and back translated,  $\alpha = .78$ ,  $M = 3.88$ ,  $SD = .85$ .

**Self-esteem** was measured by the Self-Esteem Scale (Rosenberg, 1965),  $\alpha = .89$ ,  $M = 4.90$ ,  $SD = 1.05$ .

**In-group satisfaction** was measured as in Study 3.



*Perceived in-group insult* was measured by the following items: “By making those jokes the actor offends national values”; “The actor insults Polish patriots”, and “Those jokes offend Poland and Poles”,  $\alpha = .95$ ,  $M = 2.53$ ,  $SD = 1.73$ .

*Direct hostility* was measured by asking participants about their behavioral intentions should they ever met the popular actor on the street. The following options were given: “offend him”, “hit him”, “look at him with contempt”, “ostracize him” and “spit on him”,  $\alpha = .83$ ,  $M = 2.10$ ,  $SD = 1.20$ .

*Schadenfreude* was assessed by asking participants about their opinion regarding the comments that the ruling party politician made about the terminal disease of the actor’s father. Four items were used: “The politician was right to make those comments”, “I would make those comments myself”, “The actor got what he deserved” and “I am satisfied that the actor received adequate treatment”,  $\alpha = .94$ ,  $M = 2.47$ ,  $SD = 1.69$

## **Results**

Correlations between variables are presented in Table 6. In order to test the hypothesis that collective narcissism predicts direct and indirect hostility via perceived insult to the in-group, we performed a path analysis using AMOS 22 with collective narcissism as a predictor, perceived insult to the nation as a mediator and direct hostility and schadenfreude as outcome variables. This model had an excellent fit to the data (Table 2). The analysis produced a significant indirect effect of collective narcissism on hostility via the perceived insult,  $IE = .20$ ,  $SE = .03$ , 95% CI [0.14; 0.26] and a significant indirect effect of collective narcissism on schadenfreude via the perceived insult,  $IE = .34$ ,  $SE = .05$ , 95% CI [0.24; 0.44].

In order to test whether collective narcissism predicted hostility towards the actor via the perceived insult even after other variables pertaining to self-image and self-worth and robust predictors of prejudice are controlled for, we performed another path analysis using

AMOS 22 (Figure 4). Collective narcissism was entered as a predictor, together with individual and vulnerable narcissism, self-esteem, and in-group satisfaction, perceived insult was entered as a mediator and hostility and schadenfreude as outcome variables. The initial model was corrected following the model modification indices by including two direct paths from predictors to outcome variables. The model outlined in Figure 4 showed a very good fit to the data (Table 2). The positive indirect effect of collective narcissism on direct hostility was significant,  $IE = .19$ ,  $SE = .04$ , 95% CI [0.13; 0.27]. The indirect effect of collective narcissism on schadenfreude was significant,  $IE = .34$ ,  $SE = .05$ , 95% CI [0.25; 0.46]. Negative indirect effects of self-esteem were also significant (for direct hostility,  $IE = -.09$ ,  $SE = .04$ , 95% CI [-0.17; -0.02], for schadenfreude,  $IE = -.16$ ,  $SE = .06$ , 95% CI [-0.30; -0.02]). Direct negative effect of self-esteem on direct hostility and direct positive effect of individual narcissism on direct hostility were also significant. The mediated effect of self-esteem was significant also when self-esteem was entered into the model as a sole predictor.

Finally, in order to assess and compare the contribution of each predictor to explaining the variance in the perceived in-group insult, direct and indirect analysis we performed dominance, relative regression weights and incremental  $R^2$  analyses as in Study 3. The results (Table 7) indicate that collective narcissism was the primary predictor of three variables, followed by self-esteem whose contribution was one third smaller but noticeably larger than of the other included predictors.

#### **Discussion of Study 4**

Study 4 supported the expectation that collective narcissism predicts the tendency to exaggerate the perception of in-group insult and a tendency to react with direct and indirect hostility towards those who are hold responsible for the perceived insult. Analyzed as a sole predictor, collective narcissism was positively related to the perception of the in-group insult

and via this perception to direct and indirect retaliatory hostility. The relative importance indices suggested that collective narcissism was a primary predictor of the perceived in-group insult, direct hostility and schadenfreude compared to self-esteem, grandiose and vulnerable narcissism and to in-group satisfaction.

Collective narcissism remained the only positive predictor of the perception of in-group insult after it was compared to the indices of self-positivity and in-group satisfaction. Even after its overlaps with vulnerable narcissism and with in-group satisfaction were accounted for, collective narcissism predicted a tendency to perceive the actor's jokes as insults to the whole nation. These results suggested that the route to retaliatory hostility specifically inspired by collective narcissism is related to hypersensitivity to in-group image threat, and to a disproportionate hostile response when such threat is perceived. Unrelated to collective narcissism, grandiose individual narcissism predicted direct hostility towards the actor which may reflect greater hostility associated with individual narcissism (Ruiz, Smith, & Rhodewalt, 2001).

In-group satisfaction was not related to the perception of insult nor to direct or indirect retaliatory hostility. Thus, the present results did not support the findings of Study 2 suggesting that non-narcissistic in-group positivity may buffer against a tendency to exaggerate the perceived in-group insult. It is possible that the previous results were obtained because in-group satisfaction overlaps with individual self-esteem.

In Study 4, individual self-esteem (unrelated to collective narcissism and positively related to in-group satisfaction) was a negative predictor of the perception of insult and thus indirectly predicted less direct and indirect hostility. In addition, self-esteem was directly related to a lower tendency to choose hostile actions towards the actor who made the jokes about the Polish government. This result emerged also when self-esteem was analyzed as a sole predictor instead of collective narcissism, and when both variables were analyzed as

predictors. This result was not initially predicted but it is in line with research pointing to the association of low self-esteem with delinquent behavior and hostility (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005, Trzesniewski et al., 2006). Those results were discussed by Bushman et al. (2009), who proposed that threatened egotism rather than low self-esteem predicts interpersonal hostility. Our results suggested that self-esteem may be relevant for processing the in-group insult. Thus, the role of individual self-esteem was tested again in Study 5.

Although the results of Studies 1-4 supported our prediction that collective narcissism uniquely predicts direct and indirect hostility via the perceived in-group image threat, the results are correlational and do not allow firm inferences about the causal direction of the hypothesized relationships. Collective narcissism is an individual difference variable that does not lend itself easily to manipulation as a state. Thus, in the next experimental study, we manipulated the perceived in-group insult reminder and expected that collective narcissism would predict direct and indirect retaliatory hostility only when the reminder is present but not when it is absent.

## Study 5

Study 5 tested the prediction that collective narcissism would predict direct hostility and schadenfreude after participants were reminded about the controversial movie used in Study 3 (*Aftermath*) vs. after they were reminded about an uncontroversial historical movie (*Katyn*). *Katyn* dealt with the same period in the Polish history but it presented Poles as victims of the Second World War. This movie was generally positively received in Poland (Bradshaw, 2009). One of the lead actors in the controversial *Aftermath* was attacked on social media and accused of being anti-Polish and ‘siding with Jews’. Soon after the movie was screened, this actor divorced. The divorce was viciously discussed in the gossip media.

The actor publicly expressed his grief and disgust at his treatment by the media. The measure of schadenfreude was designed around this situation.

Study 5 tested whether the research condition moderated the link between collective narcissism and direct and indirect retaliatory hostility. In addition, Study 5 tested whether collective narcissism is a unique predictor of direct and indirect retaliatory hostility in comparison to other robust predictors of punitiveness and intergroup hostility: social dominance orientation and right-wing authoritarianism. Study 5 compared the moderating effects of collective narcissism to moderating effects of variables that predicted perceived in-group insult in previous studies: self-esteem and in-group satisfaction.

## **Method**

**Participants** in this online experiment were 532 Polish adults. Based on the previous method to plan the sample size we aimed for about 250 participants per research condition. Two participants failed to respond correctly to the attention control question (check which celebrity the questions concerned) and their data were excluded from the analyses. The remaining 530 participants included 281 women and 249 men with a mean age of 43.22 ( $SD = 15.37$ ).

**Procedure and measurements.** The study was conducted using the Ariadna Research Platform (<http://www.panelariadna.com>). After giving informed consent, participants took part in a study allegedly assessing their national attitudes and opinions about Polish culture, celebrities and media. First, collective narcissism, in-group satisfaction, self-esteem, right-wing authoritarianism and social dominance orientation were assessed. Next, participants were randomly allocated to one of the only two research conditions. To keep up with the cover story, participants were informed that they were asked to evaluate the artistic value of one randomly chosen, recent Polish movie. In the experimental condition ( $n = 268$ ),

participants were asked to watch a trailer and to read a synopsis of *Aftermath* that reminded participants about one specific pogrom in the village of Jedwabne. In the control condition ( $n = 262$ ), participants watched a trailer of *Katyn*. Participants were asked about their opinions of the movies. They were also asked manipulation check questions which referred to the extent to which they found each movie offensive to Poland and Poles.

Next, direct and indirect hostility measures were presented in random order. Direct hostility was assessed as in Study 4. For the assessment of indirect hostility, participants read a short description on an alleged internet celebrity gossip portal. The description contained an interview with the lead actor of *Aftermath*, in which the actor expressed his distress at the way his private life was publicly exposed. Participants were asked about their response to the actor's distress. Participants responded to all measures using a scale from "1" = "totally disagree" to "7" = "totally agree". In the end, participants were probed for suspicion (no participant guessed the true purpose of the study), thanked and debriefed.

**Collective narcissism** was assessed as in previous Polish studies,  $\alpha = .89$ ,  $M = 4.01$ ,  $SD = 1.38$ .

**Self-esteem** was measured as in Study 4,  $\alpha = .86$ ,  $M = 4.81$ ,  $SD = 1.01$ .

**In-group satisfaction** was assessed as in Studies 3 and 4,  $\alpha = .93$ ,  $M = 5.03$ ,  $SD = 1.42$ .

**Social dominance orientation** was measured by a 4-item version of the Social Dominance Orientation Scale (Pratto et al., 2013),  $\alpha = .58$ ,  $M = 3.28$ ,  $SD = 1.02$ .

**Right-wing authoritarianism** was measured by a 10-item version of the Right-Wing Authoritarianism Scale (Zakrisson, 2005),  $\alpha = .66$ ,  $M = 3.65$ ,  $SD = .82$ .

**Manipulation check.** Perception of the movie as an insult to the in-group was measured by following items: "This movie is an insult to the Polish nation" and "This movie is a malicious manipulation of historical facts",  $\alpha = .84$ ,  $M = 2.54$ ,  $SD = 1.36$ .

*Schadenfreude* was assessed by the following items: “I think this actor got what he deserved”; “I do not pity this actor”; “The way this actor was treated by media makes me pleased”; “The way this actor was treated by media makes me rejoice”; “The way this actor was treated by media is just”; “I sympathize with this actor” (reversed); “I feel pity for this actor” (reversed); “I understand this actor” (reversed); “The way this actor was treated by media makes me disgusted” (reversed); “The way this actor was treated by media makes me angry” (reversed); “The way this actor was treated by media makes me sympathetic towards him” (reversed),  $\alpha = .79$ ;  $M = 3.28$ ;  $SD = .90$ .

*Direct hostility* was measured by asking participants about their behavioral intentions should they ever meet the popular actor on the street. The following options were given: “offend him”, “hit him”, “look at him with contempt”, “ostracize him” and “spit on him”, “he should be punished”,  $\alpha = .85$ ,  $M = 2.05$ ,  $SD = 1.03$ .

## Results

Correlations between predictors are presented in Table 8. In order to test whether the experimental manipulation was effective in reminding participants about the alleged in-group offence, we compared the perception of the movie as offensive to Poland and Poles between the research conditions. This analysis indicated that participants in the experimental condition felt their national in-group was offended more than participants in the control condition,  $M_{\text{experimental}} = 2.79$ ;  $SD_{\text{experimental}} = 1.39$  vs.  $M_{\text{control}} = 2.28$ ;  $SD_{\text{control}} = 1.27$ ;  $F(1,528) = 19.46$ ,  $p < .001$ ,  $\eta_p^2 = .04$ .

We examined whether any of the individual difference predictors interacted with the research condition to predict this perception by performing multiple regression analysis with all continuous predictors and research conditions (“0” = “control” vs. “1” = “experimental”) and their two way interactions entered as predictors. Only collective narcissism interacted

with research condition to predict the perception of the controversial movie as the in-group insult perception,  $b = .39$ ,  $SE = .11$ ,  $\beta = .20$ ,  $t(526) = 3.64$ ;  $p = .003$ ; 95% CI [0.18; 0.60].

Collective narcissism predicted the perception of the in-group insult after watching the trailer of *Aftermath*,  $b = .32$ ,  $SE = .07$ ,  $\beta = .33$ ;  $t(526) = 4.46$ ;  $p < .001$ ; 95% CI [0.18; 0.47] but not after watching the trailer of *Katyn*,  $b = -.07$ ,  $SE = .08$ ,  $\beta = -.06$ ;  $t(526) = -.85$ ;  $p = .40$ ; 95% CI [-0.22; 0.09]. Social dominance orientation predicted the tendency to see the movies as an insult across the research conditions,  $b = .23$ ,  $SE = .08$ ,  $\beta = .13$ ,  $t(516) = 2.83$ ;  $p = .01$ ; 95% CI [0.08; 0.39].

In order to test the hypothesis that collective narcissism predicts direct hostility and schadenfreude when perceived in-group insult is present, we performed two multiple regression analyses. The first analysis used the direct hostility as the outcome variable, collective narcissism and a predictor and research condition as a moderator. The analysis was performed using PROCESS macro for SPSS (Model 1, Hayes, 2013). This analysis produced a significant effect of collective narcissism,  $b = .13$ ,  $SE = .03$ ,  $\beta = .09$ ,  $t(526) = 4.11$ ;  $p < .001$ ; 95% CI [0.07; 0.19] qualified by a significant interaction with research condition,  $b = .23$ ,  $SE = .06$ ,  $\beta = .20$ ,  $t(526) = 3.58$ ;  $p < .001$ ; 95% CI [0.10; 0.35]. Adding the interaction term significantly increased the percentage of variance explained in direct retaliatory hostility,  $R^2 = .06$ ,  $F(3, 526) = 10.16$ ,  $p < .001$ ,  $\Delta R^2 = .02$ . The simple slopes analysis to probe this interaction indicated that the relationship between collective narcissism and direct hostility towards the protagonist of *Aftermath* was significant after participants were reminded about this movie,  $b = .24$ ,  $SE = .05$ ,  $\beta = .19$ ,  $t(526) = 5.43$ ;  $p < .001$ ; 95% CI [0.16; 0.33], and not significant when they were reminded about the non-controversial movie,  $b = .02$ ,  $SE = .05$ ,  $\beta = .01$ ,  $t(526) = .35$ ;  $p = .73$ ; 95% CI [-0.07; 0.10].

The analysis with schadenfreude as the dependent variable produced a significant effect of collective narcissism,  $b = .07$ ,  $SE = .03$ ,  $\beta = .11$ ,  $t(526) = 2.50$ ;  $p = .01$ ; 95% CI



[0.02; 0.13] qualified by a significant interaction with research condition,  $b = .12$ ,  $SE = .06$ ,  $\beta = .09$ ,  $t(526) = 2.13$ ;  $p = .03$ ; 95% CI [0.01; 0.23]. Adding the interaction term significantly increased the percentage of variance explained in direct retaliatory hostility,  $R^2 = .02$ ,  $F(3, 526) = 3.62$ ,  $p = .01$ ,  $\Delta R^2 = .008$ . The simple slopes analysis to probe this interaction indicated that the relationship between collective narcissism and rejoicing in misfortunes of the protagonist of *Aftermath* was significant after participants were reminded about this move,  $b = .13$ ,  $SE = .04$ ,  $\beta = .20$ ,  $t(526) = 3.27$ ;  $p = .001$ ; 95% CI [0.05; 0.21], and not significant when they were reminded about the non-controversial movie,  $b = .01$ ,  $SE = .04$ ,  $\beta = .02$ ,  $t(526) = .25$ ;  $p = .81$ ; 95% CI [-0.07; 0.09].

Next, we examined whether collective narcissism interacted with research condition when other continuous predictors and their interactions with the research condition were also entered to the regression equation (Table 9). This analysis was first performed with direct hostility as the dependent variable. The interaction of collective narcissism and the research condition remained significant. Adding the interaction term significantly increased the percentage of variance explained in direct retaliatory hostility,  $R^2 = .24$ ,  $F(11, 516) = 14.44$ ,  $p < .001$ ,  $\Delta R^2 = .006$ . The analysis also produced a significant interaction of self-esteem and the research condition. The relationship between self-esteem and direct hostility was negative and significant after participants watched the controversial *Aftermath*,  $b = -.29$ ,  $SE = .06$ ,  $\beta = -.28$ ,  $t(516) = 4.95$ ;  $p < .001$ ; 95% CI [-0.40; -0.17] and negative and not significant after participants watched *Katyn*,  $b = -.08$ ,  $SE = .06$ ,  $\beta = -.05$ ,  $t(516) = -1.35$ ;  $p = .18$ ; 95% CI [-0.21; 0.04]. However, this interaction was not significant when self-esteem was entered as a predictor without covering any other variable. The analysis also produced significant positive main effects of social dominance orientation and right-wing authoritarianism.

When schadenfreude was entered as the dependent variable (Table 10), the interaction of collective narcissism and research condition remained significant. Adding the interaction

term significantly increased the percentage of variance explained in direct retaliatory hostility,  $R^2 = .12$ ,  $F(11, 516) = 6.40$ ,  $p < .001$ ,  $\Delta R^2 = .008$ . The analysis also produced a marginally significant interaction of self-esteem and research condition. The relationship between self-esteem and direct hostility was negative and significant after participants watched the controversial *Aftermath*,  $b = -.21$ ,  $SE = .05$ ,  $\beta = -.23$ ,  $t(516) = 3.90$ ;  $p < .001$ ; 95% CI [-0.32; -0.10] and negative and not significant after participants watched *Katyn*,  $b = -.06$ ,  $\beta = -.05$ ,  $SE = .06$ ,  $t(516) = -.96$ ;  $p = .34$ ; 95% CI [-0.17; 0.06]. However, this interaction was not significant when self-esteem was entered as a predictor without covarying other predictors. The analysis also produced significant positive main effects of social dominance orientation and right-wing authoritarianism.

## **Discussion of Study 5**

The results of Study 5 supported our hypothesis that collective narcissism uniquely predicts a tendency to exaggerate the perception of the in-group insult and a tendency to react with direct and indirect retaliatory hostility. Only when reminded about the controversial movie which they perceived as an in-group insult, collective narcissists expressed the intention to engage in hostile behaviors towards the lead actor of the movie, and rejoiced in his misfortunes. This suggests that collective narcissism predicts direct and indirect intergroup hostility specifically in response to perceived in-group insult. Social dominance and right-wing authoritarianism predicted schadenfreude across the research conditions. This suggests that the route to direct or indirect hostility related to those variables does not involve retaliation to the perceived in-group insult.

Self-esteem did not interact with research condition to predict the perception of the controversial movie as an insult to the national in-group. However, low self-esteem predicted a tendency to perceive either movie as an insult. Low self-esteem was also related to direct

and indirect hostility especially after participants watched the trailer of the controversial movie. This suggests that low self-esteem predicted direct and indirect intergroup hostility because it predicted a higher tendency to feel insulted in the name of the group. *Katyn* presented Poles as victims of the Second War World; such a portrayal may be acceptable to collective narcissists because it asserts the nation's special status. Collective narcissists do not need to base their convictions about the in-group's greatness on its superiority or might. They may use other reasons to believe in the in-groups special and unique status (e.g. unprecedented in-group suffering, Golec de Zavala et al., 2009; Skarżyńska et al., 2012). However, framing the nation as victims might have been upsetting to people with low self-esteem. However, the interpretation of the results related to the role of self-esteem is difficult because in Study 5 they were statistically significant only after all continuous predictors were entered into the equation.

## **General Discussion**

### **Collective narcissism and hypersensitivity to in-group insult**

Results of five studies converged to support our hypothesis that collective narcissism would predict hypersensitivity to in-group offence and retaliatory hostility. The present results are in line with previous findings indicating that collective narcissism predicts a tendency to retaliate in response to the in-group image threat (Golec de Zavala et al., 2009; 2013b). However, the present results go beyond the previous findings, elucidating how far collective narcissistic hypersensitivity to in-group offence may go. The present results indicate that the intention of insult does not matter for collective narcissists and the direct negative feedback to the in-group is not the only thing that upsets and antagonizes them.

Collective narcissists feel insulted and humiliated on behalf of their in-group in response to multiple triggers: perceived in-group rejection (Study 1), unfavorable intergroup

comparisons and envious perception of the out-group (Study 2), jokes made about the in-group's authorities (Study 4) or a movie referring to less admirable aspects of the national past (Study 5). All intergroup situations explored by the present research fall well beyond the definition of an insult as a disrespectful or scornfully abusive remark or act. They also fall beyond the definition of direct criticism as judgments of faults. In fact, they required a stretch of the imagination to be interpreted as undermining the in-group's positive image. Yet, collective narcissists interpreted them as offensive to the whole group. Moreover, they found them impactful enough to support hostile retaliation towards those who they blamed for the insult.

### **Intergroup hostility - collective narcissists' default response to the perceived in-group insult**

Going beyond previous findings, the present studies showed that collective narcissists reacted to the perceived in-group insult with retaliatory hostility: not only direct hostility (expressing intention to punish and hurt the perceived out-group "offenders") but also indirect hostility in the form of vicarious schadenfreude (rejoicing when bad things happen to the perceived out-group "offenders"). The present results also extend the previous findings by experimentally demonstrating that collective narcissism predicted retaliatory hostility and schadenfreude when and because an in-group insult was perceived.

The present results suggest that there always will be a proportion of the population which is responsive to the framing of intergroup situations as insulting to an in-group. Such a framing is likely to mobilize support for hostile actions towards the alleged perpetrators of the imagined in-group offences. Even if collective narcissistic hostility may be initially indirect, it may prepare the route for open animosity (Cikara et al., 2011). Thus, understanding the situations that mobilize collective narcissistic responses may help explain

seemingly sudden and unprovoked outbursts of intergroup hostility. It may also help explain the emergence of extreme groups in which collective narcissistic responses are normative. Such groups may be prone to disproportionate intergroup hostility in retaliation to seemingly trivial offences such as the 2015 terrorist attack on the headquarters of Charlie Hebdo (a French satiric newspaper that published controversial caricatures of the prophet Muhammad) after a satire published by this newspaper was perceived as an insult to the whole group.

### **Uniqueness of collective narcissistic hypersensitivity to in-group insult**

The described route to retaliatory intergroup hostility via the exaggerated perception of in-group insult seems specific and unique to collective narcissism. Collective narcissism overlaps with in-group positivity and social dominance orientation, and to some extent with individual narcissism and right-wing authoritarianism (e.g., Golec de Zavala, 2011; Golec de Zavala et al., 2009; Golec de Zavala et al., 2013a). However, our analyses indicated that it is a conceptually and functionally distinct variable. We compared the relative contribution of collective narcissism and other variables to explaining the variance in perceived in-group insult and retaliatory hostility, using dominance analysis, incremental R-square analysis and relative importance weights. These statistical techniques take the correlations between predictors into account, and allow for inferences about their relative importance in conditions of multicollinearity. Such inferences are generalizable beyond the particular samples on which they are based (Braun & Oswald, 2011). In all studies, when compared with indices of self- and in-group positivity, right-wing authoritarianism or social dominance orientation, collective narcissism was a primary predictor of hypersensitivity to in-group insult and of direct and indirect retaliatory hostility. It was also a unique sole moderator of the effect of perceived in-group insult on intergroup hostility in the experimental Study 5.

### **The role of self-esteem**

By introducing the concept of collective narcissism, the present results offered additional insights into the role of self- and in-group positivity in predicting intergroup hostility. Social Identity Theory has proposed that lower self-esteem should motivate people to engage in out-group derogation to boost self-esteem through positive intergroup comparisons (Tajfel & Turner, 1986). However, empirical research failed to support this hypothesis. Similarly, research did not support the later proposition that in-group identification might predict out-group derogation better than individual self-esteem (e.g., Abrams & Hogg, 1988; Rubin & Hewstone, 1998). The relationship between high in-group identification and out-group derogation is on average close to zero (e.g., Pehrson et al., 2009). However, studies showed that when the overlap between collective narcissism and in-group identification was controlled for, collective narcissism predicted out-group derogation, while non-narcissistic in-group positivity predicted more intergroup tolerance. This suggests that while collective narcissism is reliably related to out-group derogation, non-narcissistic in-group positivity may buffer against it (Golec de Zavala et al., 2013b).

The present Study 1 corroborated this pattern of results indicating that when the overlap of collective narcissism and private collective self-esteem was accounted for, collective self-esteem predicted a lower tendency to perceive in-group insult and lower support for intergroup hostility, whereas collective narcissism predicted higher intergroup hostility via the perception of in-group insult. However, this pattern was not sustained when self-esteem was entered as an additional predictor in Studies 4 and 5. Self-esteem was not related to collective narcissism but positively correlated with in-group satisfaction. After all variables were entered into the regression equation, lower individual self-esteem and higher collective narcissism, but not higher in-group satisfaction, predicted the exaggerated tendency to perceive in-group insult and intergroup hostility. These results suggest that, independently

of collective narcissism, low self-esteem may be related to out-group derogation and hypersensitivity to in-group insult when its overlap with positive in-group identification is accounted for. Such an interpretation would be in line with previous studies suggesting that low self-esteem is related to delinquency and aggressiveness (Donnellan et al., 2005, Trzesniewski et al., 2006) and a tendency to engage in schadenfreude towards those who threaten the self-image (van Dijk, Koningsburrigen, Ouwerkerk, & Wesselling, 2011). The present results suggest that low self-esteem may be involved in the processes of vindictive out-group derogation, while high self-esteem may buffer against hypersensitivity to in-group insult and create a platform for the development of intergroup empathy.

However, it is important to note that the present results regarding the role of self-esteem were not consistent. Self-esteem emerged as a predictor of retaliatory hostility in Studies 4 and 5. However, in Study 4 it predicted perceived insult and hostility also when entered to the analyses as a sole predictor. In Study 5, it was linked to direct hostility and schadenfreude (marginally) in response to the reminders of the controversial movie only when other predictors were also entered into the regression equation. Thus, the present results uncovered the role of individual self-esteem in processes related to intergroup hostility. However, future studies are needed to fully explore the role of the interplay of processes on the personal and social levels of the self in intergroup relations. Such studies could help elucidate the contradictory findings regarding the role of self- and group affirmation in intergroup relations (Cehajic-Clancy, Effron, Halperin, Liberman, & Ross, 2011; Ehrlieh & Gramzow, 2015; Sherman, Kinias, Major, Kim, & Prenovost, 2007). Self-affirmation – engaging in activities that remind people ‘who they are’ and what values they stand for in the face of threats to their self-worth - reduced interpersonal hostility among individual narcissists (Thomaes, Bushman, de Castro, Cohen, & Denissen, 2009 ). Group affirmation – affirming important group values - allowed in-group glorifiers to accept collective guilt

(Schori-Eyal, Tagar, Saguy, & Halperin, 2015). Future research may explore self- and in-group-affirmation as interventions to reduce hypersensitivity and reactivity to in-group insult among collective narcissists and people with low self-esteem.

### **Collective and individual narcissism**

The present research provides new insight into the relationship between individual and collective narcissism. We argue that, although the two processes may be related, collective and individual narcissism's dynamics are qualitatively different. In previous studies, the relationship between individual and collective narcissism varied from negligible to moderately strong (Golec de Zavala et al., 2013a; Golec de Zavala et al., 2009). Collective, not individual, narcissism was related to intergroup hostility, and moderated the effect of in-group criticism on intergroup hostility. The present results corroborate the previous findings indicating that individual narcissism was not related to intergroup hostility when compared to collective narcissism and did not predict hypersensitivity to in-group insult.

The present research was the first to examine the relationship between collective narcissism and different facets of individual narcissism. It showed that in the Polish sample, collective narcissism was related to vulnerable rather than grandiose individual narcissism. Via its relationship with collective narcissism, vulnerable narcissism predicted hypersensitivity to in-group image threat and intergroup hostility. The link between collective and vulnerable narcissism is in line with our assumption that collective narcissism may be motivated by ego weakness. In-group enhancement may be used to protect the ego and collective narcissists may be dependent on protecting the in-group greatness (Golec de Zavala et al., 2009). In line with this expectation our studies showed that low sense of personal control was related to collective narcissism (Cichocka et al., 2016). The present results are also in line with previous findings suggesting that Polish national collective narcissism is



related to taking pride in ennobling, prolonged national suffering from mistreatment by others (Skarżyńska et al., 2012).

Importantly, the instability and complexity of the link between facets of individual narcissism and collective narcissism raise the question of whether this link may be affected by the in-group's relative status and history. For example, the positive and significant link between individual, grandiose narcissism and collective narcissism was reliably found in previous studies in American samples (a high power and status group) but not in Polish samples (a relatively low power and status group, Golec de Zavala et al., 2009; Golec de Zavala et al., 2013a). Grandiose, individual narcissists are likely to have a utilitarian approach towards the groups they belong to, and to use them for boosting their self-image. Thus, they may emphasize identification with successful and high status groups (which may explain the positive link between grandiose narcissism and collective narcissism), but may want to dissociate themselves from the in-groups whose greatness or status is undermined (which may explain the instability of this link). The link between vulnerable individual narcissism and collective narcissism is more likely in lower status groups that use alternative methods to assert the in-group's uniqueness and entitlement. In such groups the unjustifiable lack of recognition of the individual's and the in-group's greatness may be the dominant theme. It may also prove valuable to investigate whether collective narcissism is expressed differently in groups of different power and status and whether facets of collective narcissism can be conceptually differentiated.

### **Limitations and future research**

Several limitations should be taken into account while interpreting the results of the present studies. First, the present studies used indirect assessments of schadenfreude and intergroup hostility. They asked about behavioral intentions rather than measuring actual

hostile intergroup behaviors, and asked about emotional reactions to the out-group's misfortune. In the future, it would be instructive to measure collective narcissists' intergroup hostility directly using such behavioral indicators as unfavorable resource distribution (e.g. Golec de Zavala et al., 2013a; Harth, Kessler, & Leach, 2008), intensity of white noise blasts (Thomaes, Bushman, Stegge & Olthof, 2008), or the amount of hot sauce prescribed to the members of the offensive out-group (Lieberman, Solomon, Greenberg, & McGregor, 1999). Future studies could also consider alternative assessment of emotional reactions to the out-group's misfortune, using such methods as facial electromyography (EMG) to assess activation of the zygomaticus major muscle as a physiological marker of positive affect (Cikara & Fiske, 2012), or reward related engagement of the ventral striatum as a neural marker of positive affect (Cikara & Fiske, 2013).

Second, the present research exploited real-life, naturally occurring situations in order to maximize the ecological validity of the triggers of the perception of the in-group insult. Future studies could devise a methodology to manipulate the perceived in-group insult and examine the extent to which participants varying in collective narcissism engage in retribution and schadenfreude in controlled experimental settings. On the other hand, future studies could also explore alternative ways of assessing collective narcissism at a distance, to observe how the collective narcissistic process unfolds in more naturalistic settings of field studies. For example, previous analyses suggest that the increase in collective narcissistic sentiments may mobilize support for exclusionist national politics (Baumeister & Vohs, 2004). Thus, increases in collective narcissistic framing in public discourses and widening public support for collective narcissistic responses may be seen as markers of escalating intergroup tensions, and a warning of social preparations for open intergroup violence. One interesting direction of the future research on collective narcissism would be defining the

characteristic of collective narcissistic narrative and devising a method of assessing collective narcissism in public discourse.

Although the present research provides new insights into the depths of collective narcissistic preoccupation with the in-group image, it also opens several new areas for further investigation. For example, Study 2 showed that collective narcissists responded with direct and indirect hostility to unfavorable intergroup comparisons. This suggests that collective narcissist antagonistic protection of the in-group image may be, in some cases, driven by malicious envy; motivating individuals to damage the position of those who are perceived as superior. Collective narcissists may be likely to justify retaliatory hostility towards such envied out-groups by attributing evil characteristics and malicious intentions to them. In line with this expectation, studies showed that collective narcissism was related to anti-Semitism via the conspiracy stereotype of Jews as being highly competent, but also maliciously conspiring to rule the world (Golec de Zavala & Cichocka, 2012). It would be instructive for future studies to explore whether collective narcissism is related to conspiracy mentality - a general propensity towards conspirational thinking (Imhoff & Bruder, 2014) and via this relationship predicts prejudice and schadenfreude towards powerful, successful or competent out-groups.

Future research could also explore whether the link between collective narcissism and derogation of envied out-groups can be weakened. Research shows that individual narcissism which is focused around the possibility of individual success is related to benign envy in interpersonal comparisons, and motivation towards self-improvement. Narcissism focused around the fear of failure is related to malicious envy, and motivation towards derogation of others (Lange, Crusius & Hagemeyer, 2016). Inspired by this line of research, future studies may explore whether collective narcissists can be focused on the possibility of the in-group's

success to channel their intergroup envy towards the betterment of the in-group, rather than derogation of the out-group.

The present research interprets collective narcissism as a relatively stable, individual difference variable with a normal distribution in the population. However, it is possible to conceptualize collective narcissism as a temporary state of collective identity. Research has shown that collective narcissism is momentarily increased when people feel they lost control over their lives. Moreover, the increase in collective narcissism mediates the link between the loss of personal control and intergroup hostility (Cichocka et al., 2016). Future studies may explore the impact of situational conditions that undermine personal control on collective narcissism. For example, research showed that external threat (indicated by high crime rates in a country) is related to higher intergroup intolerance (Roccatò, Vieno, & Russo, 2014). Future research may explore whether this link is mediated by an increase in national collective narcissism.

## **Conclusions**

To sum up, the present studies advance our understanding of the social psychological processes through which intergroup tensions may become exaggerated. They identify collective narcissism as a specific and unique, systematic predictor of hypersensitivity to in-group insult and proclivity for hostile over-reaction when such insult is perceived. Collective narcissism emerged as a systematic predictor of direct intergroup hostility and vindictive collective schadenfreude: rejoicing in the misfortunes of those who unwittingly undermine the in-group's positive image.

It is important to underline that the present results *do not* indicate that all Turkish, Portuguese or Polish citizens are collective narcissists. Instead, the collective narcissistic dynamic behind intergroup hostility is characteristic of a limited proportion of any population. Collective narcissistic exaggerated hypersensitivity to in-group image threat and its exaggerated responsiveness to such threat may be marginalized by a majority, discouraged by its norms or authorities, punished by its laws, or ridiculed (as in the controversial jokes in Study 4). However, there have been very destructive periods in human history when such dynamics became mainstream, like Nazi Germany where the very term “collective narcissism” was first used to describe rising nationalist entitlement and exclusionist politics (Baumeister & Vohs, 2004). Thus, better understanding of the cultural, economic, educational or societal contexts that encourage vs. discourage collective narcissism may inspire new ways to deescalate intergroup tensions and discourage radicalization towards intergroup violence.

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Table 1

*Correlations between variables, Study 1*

	1	2	3
1. Collective narcissism	--		
2. Private collective self esteem	.31**	---	
3. Perceived in-group humiliation	.48**	-.03	--
4. Schadenfreude	.29**	.08	.36***

*Note:* \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 2

*Model fit indices for all studies*

	$\chi^2$ (df), $p$	CFI	SRMR	RMSEA	TLI
Study 1	2.75(2), $p = .25$	.99	.05	.058	.96
Study 2	4.12(2), $p = .13$	.99	.04	.08	.96
Study 3 (simple model)	1.97 (1), $p = .16$	.998	.017	.05	.993
Study 3 (with additional variables)	7.76 (4), $p = .10$	.998	.01	.05	.98
Study 4 (simple model)	2.67(2), $p = .26$	.999	.018	.028	.997
Study 4 (with additional variables)	13.46 (8), $p = .10$	.995	.026	.04	.98



Table 3

*Correlations between variables, Study 2*

	1	2	3	4
1. Collective narcissism	--			
2. Unfavorable comparisons	-.002	--		
3. Direct hostility	.46***	-.07	--	
4. Schadenfreude	.29***	.09	.44***	--

*Note:* \*\*\* $p < .001$

Table 4

*Correlations between variables, Study 3*

	1	2	3	4	5	6	7
1. Collective narcissism	---						
2. National symbolism	.48***	---					
3. In-group satisfaction	.63***	.68***	---				
4. Constructive patriotism	.42***	.71***	.64***	---			
5. Blind patriotism	.65***	.37***	.60***	.31***	---		
6. Nationalism	.34***	.06	.22***	.05	.53***	--	
7. Perceived insult	.26***	-.009	.05	.04	.13*	.11*	
8. Direct hostility	.25***	-.14*	.009	-.07	.15**	.13*	.79***

Note: \*  $p < .05$ ; \*\*\*  $p < .001$

Table 5

*Comparison of relative importance of all variables in explaining variance in the mediator and outcome variables, Study 3*

	<u>Perceived insult (Overall <math>R^2 = .099</math>)</u>					<u>Direct hostility (Overall <math>R^2 = .15</math>)</u>			
	VIF	Regression weights	Dominance weights	Relative importance weights	Incremental $R^2$	Regression weights	Dominance weights	Relative importance weights	Incremental $R^2$
Collective narcissism	2.12	.39	.072	.066	.074	.42	.08	.073	.082
National symbolism	2.50	-.15	.007	.008	.009	-.29	.034	.032	.034
In-group satisfaction	2.97	-.13	.006	.008	.006	-.07	.007	.011	.002
Constructive patriotism	2.26	.07	.002	.004	.002	-.001	.007	.009	.00
Blind patriotism	2.46	-.03	.009	.01	.00	.03	.015	.015	.00
Nationalism	1.45	.025	.006	.05	.00	.01	.007	.007	.00

Table 6

*Correlations between variables, Study 4*

	1	2	3	4	5	6	7	8
1. Collective narcissism	---							
2. Grandiose narcissism	-.008	---						
3. Vulnerable narcissism	.25***	.08	---					
4. Self-esteem	.007	.14**	-.36***	---				
5. In-group satisfaction	.48***	-.07	-.06	.29***	---			
7. Perceived insult	.34***	.05	.20***	-.15**	.08	.44***		
8. Direct hostility	.25***	.10*	.21***	-.23***	-.05	.37***	.64***	
9. Schadenfreude	.31***	.05	.19***	-.17**	.04	.41***	.77***	.69***

*Note:* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 7

*Comparison of relative importance of all variables in explaining variance in the mediator and outcome variables, Study 4*

	<u>Perceived insult</u> (Overall $R^2 = .149$ )					<u>Direct hostility</u> (Overall $R^2 = .148$ )				<u>Schadenfreude</u> (Overall $R^2 = .137$ )			
	VIF	Reg. weights	Dom. weights	Rel. imp. weights	Inc. $R^2$	Reg. weights	Dom. weights	Rel. imp. weights	Inc. $R^2$	Reg. weights	Dom. weights	Rel. imp. weights	Inc. $R^2$
Collective narcissism	1.44	.35	.103	.10	.10	.30	.07	.064	.065	.34	.09	.09	.09
Grandiose narcissism	1.06	.06	.003	.003	.003	.12	.012	.012	.012	.06	.003	.003	.003
Vulnerable narcissism	1.28	.06	.03	.02	.02	.05	.03	.019	.02	.05	.02	.02	.02
Self-esteem	1.32	-.13	.02	.02	.02	-.19	.04	.04	.04	-.14	.03	.02	.02
In-group satisfaction	1.48	-.04	.011	.008	.007	-.13	.007	.01	.01	-.07	.006	.07	.05

Table 8

*Correlations between variables, Study 5*

	1	2	3	4	5	6
1. Collective narcissism	---					
2. Social dominance orientation	.17***	---				
3. Right-wing authoritarianism	.47***	.21***	---			
4. Self-esteem	.02	-.09*	-.17***	---		
5. In-group satisfaction	.56***	-.10*	.21	.26***	---	
6. Direct hostility	.17***	.33***	.27***	-.23***	-.05	---
7. Schadenfreude	.11**	.21***	.21***	-.18**	-.02	.44***

Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 9

*Multiple regression analysis of collective narcissism, in-group satisfaction, self-esteem, right-wing authoritarianism and social dominance orientation as predictors of direct hostility in control vs. experimental condition, Study 5*

	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>95%CI</i>	<i>VIF</i>
Collective narcissism	.07	.04	.09	1.65	.10	-0.01; 0.14	4.12
Conditions	.18	.08	.10	2.24	.03	0.02; 0.34	1.02
Self-esteem	-.08	.06	-.05	-1.35	.18	-0.21; 0.04	2.50
In-group satisfaction	-.08	.05	-.18	-1.58	.11	-0.19; 0.02	3.49
Right-wing authoritarianism	.17	.08	.14	2.10	.04	0.01; 0.33	2.75
Social dominance orientation	.26	.06	.20	4.27	.001	0.14; 0.37	2.35
Condition X collective narcissism	.16	.08	.10	2.02	.04	0.004; 0.32	3.75
Condition X self-esteem	-.20	.09	-.17	-2.38	.02	-0.37; -0.04	2.60
Condition X in-group satisfaction	.18	.10	.16	1.71	.09 <sup>+</sup>	-0.03; 0.38	3.25
Condition X right-wing authoritarianism	.08	.09	.05	.82	.42	-0.11; 0.26	2.72
Condition X social dominance orientation	.02	.08	.05	.25	.80	-0.14; 0.18	2.25

Table 10

*Multiple regression analysis of collective narcissism, in-group satisfaction, self-esteem, right-wing authoritarianism and social dominance orientation as predictors of schadenfreude in control vs. experimental condition, Study 5*

	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>95%CI</i>
Collective narcissism	.01	.04	.02	.36	.72	-0.06; 0.09
Conditions	.04	.08	.02	.49	.63	-0.11; 0.18
Self-esteem	-.06	.06	-.05	-.96	.34	-0.17; 0.06
In-group satisfaction	-.01	.05	-.04	-.29	.77	-0.11; 0.08
Right-wing authoritarianism	.21	.08	.20	2.86	.005	0.07; 0.36
Social dominance orientation	.20	.06	.21	3.50	.001	0.09; 0.31
Condition X collective narcissism	.16	.07	.12	2.17	.03	0.02; 0.37
Condition X self-esteem	-.16	.08	-.14	-1.95	.052	-0.31; 0.002
Condition X in-group satisfaction	.07	.10	.06	.70	.49	-0.12; 0.26
Condition X right-wing authoritarianism	-.08	.09	-.06	-.82	.41	-0.24; 0.10
Condition X social dominance orientation	-.11	.08	-.08	-1.44	.15	-0.27; 0.04



Figure Captions

*Figure 1.* Relationship between collective narcissism, private collective self-esteem and schadenfreude via perceived in-group humiliation, Study 1. Numerals are unstandardized regression weights and standard errors are in parentheses \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . In bold is the hypothesized model.

*Figure 2.* Relationship between collective narcissism and direct intergroup hostility and schadenfreude via unfavourable intergroup comparisons, Study 2. Numerals are unstandardized regression weights and standard errors are in parentheses, \*\*\*  $p < .001$ . In bold is the hypothesized model

*Figure 3:* Relationships between variables, Study 3. In bold is the hypothesized model.

<sup>+</sup>  $p = .06$  \*\*\*  $p < .001$ .

Collective narcissism and national symbolism,  $b = .69^{***}$ ,  $SE = .08$ ,  $\beta = .48$ ; Collective narcissism and blind patriotism,  $b = .87^{***}$ ,  $SE = .08$ ,  $\beta = .65$ ; Collective narcissism and constructive patriotism,  $b = .51^{***}$ ,  $SE = .07$ ,  $\beta = .42$ ; Collective narcissism and nationalism,  $b = .37^{***}$ ,  $SE = .06$ ,  $\beta = .34$ ; Collective narcissism and in-group satisfaction,  $b = .79^{***}$ ,  $SE = .08$ ,  $\beta = .63$ ; National symbolism and blind patriotism,  $b = .62^{***}$ ,  $SE = .09$ ,  $\beta = .34$ ; National symbolism and constructive patriotism,  $b = 1.11^{***}$ ,  $SE = .10$ ,  $\beta = .71$ ; National symbolism and nationalism;  $b = .08$ ,  $SE = .07$ ,  $\beta = .06$ ; National symbolism and in-group satisfaction,  $b = 1.07^{***}$ ,  $SE = .10$ ,  $\beta = .68$ ; Blind patriotism and constructive patriotism,  $b = .44^{***}$ ,  $SE = .08$ ,  $\beta = .31$ ; Blind patriotism and nationalism,  $b = .66^{***}$ ,  $SE = .07$ ,  $\beta = .53$ ; blind patriotism and in-group satisfaction,  $b = .87^{***}$ ,  $SE = .09$ ,  $\beta = .60$ ; Constructive patriotism and nationalism,  $b = .05$ ,  $SE = .06$ ,  $\beta = .05$ ; Constrictive patriotism and in-group satisfaction,  $b = .86^{***}$ ,  $SE = .08$ ,  $\beta = .64$ ; Nationalism and in-group satisfaction,  $b = .26^{***}$ ,  $SE = .06$ ,  $\beta = .22$ .

*Figure 4:* Relationships between variables, Study 4. In bold is the hypothesized model.

<sup>+</sup>  $p = .06$  \*\*\*  $p < .001$ .

Collective narcissism and in-group satisfaction,  $b = .80^{***}$ ,  $SE = .09$ ,  $\beta = .48$ ; Collective narcissism and grandiose narcissism,  $b = -.04$ ,  $SE = .20$ ,  $\beta = -.008$ ; Collective narcissism and vulnerable narcissism,  $b = .28^{***}$ ,  $SE = .06$ ,  $\beta = .25$ ; Collective narcissism and self-esteem,  $b = .01$ ,  $SE = .06$ ,  $\beta = .007$ ; In-group satisfaction and grandiose narcissism,  $b = -.31$ ,  $SE = .20$ ,  $\beta = -.07$ ; In-group satisfaction and vulnerable narcissism,  $b = -.05$ ,  $SE = .05$ ,  $\beta = .08$ ; In-group satisfaction and self-esteem,  $b = .39^{***}$ ,  $SE = .07$ ,  $\beta = .29$ ; Grandiose narcissism and vulnerable narcissism,  $b = .22^+$ ,  $SE = .13$ ,  $\beta = .08$ ; Grandiose narcissism and self-esteem,  $b = .47^{***}$ ,  $SE = .17$ ,  $\beta = .14$ ; Vulnerable narcissism and self-esteem,  $b = -.32^{***}$ ,  $SE = .05$ ,  $\beta = -.36$ .

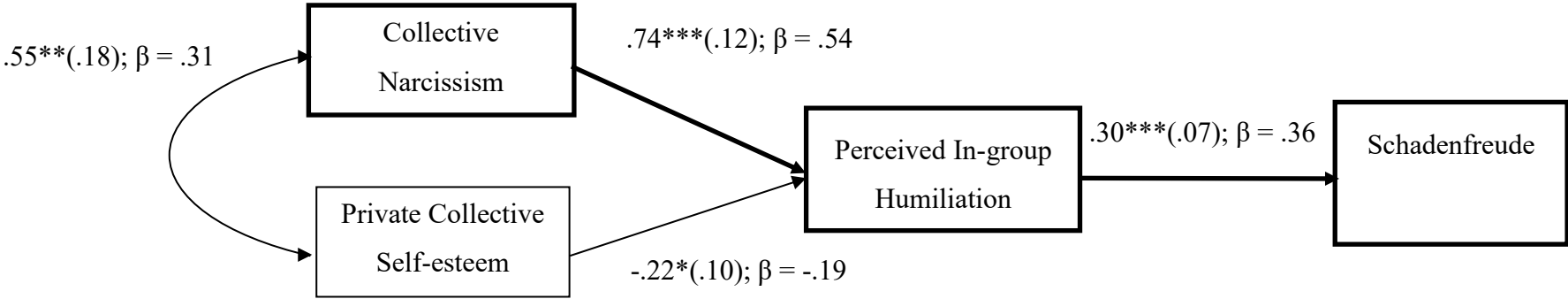


Figure 1.

4

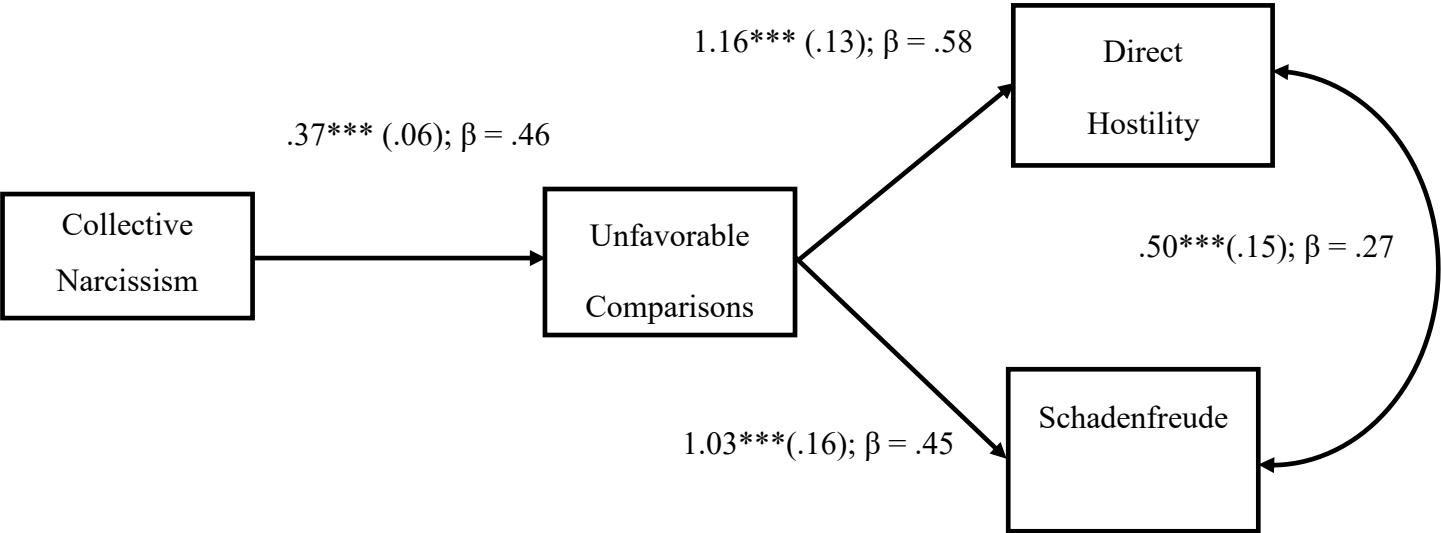


Figure 2.

5

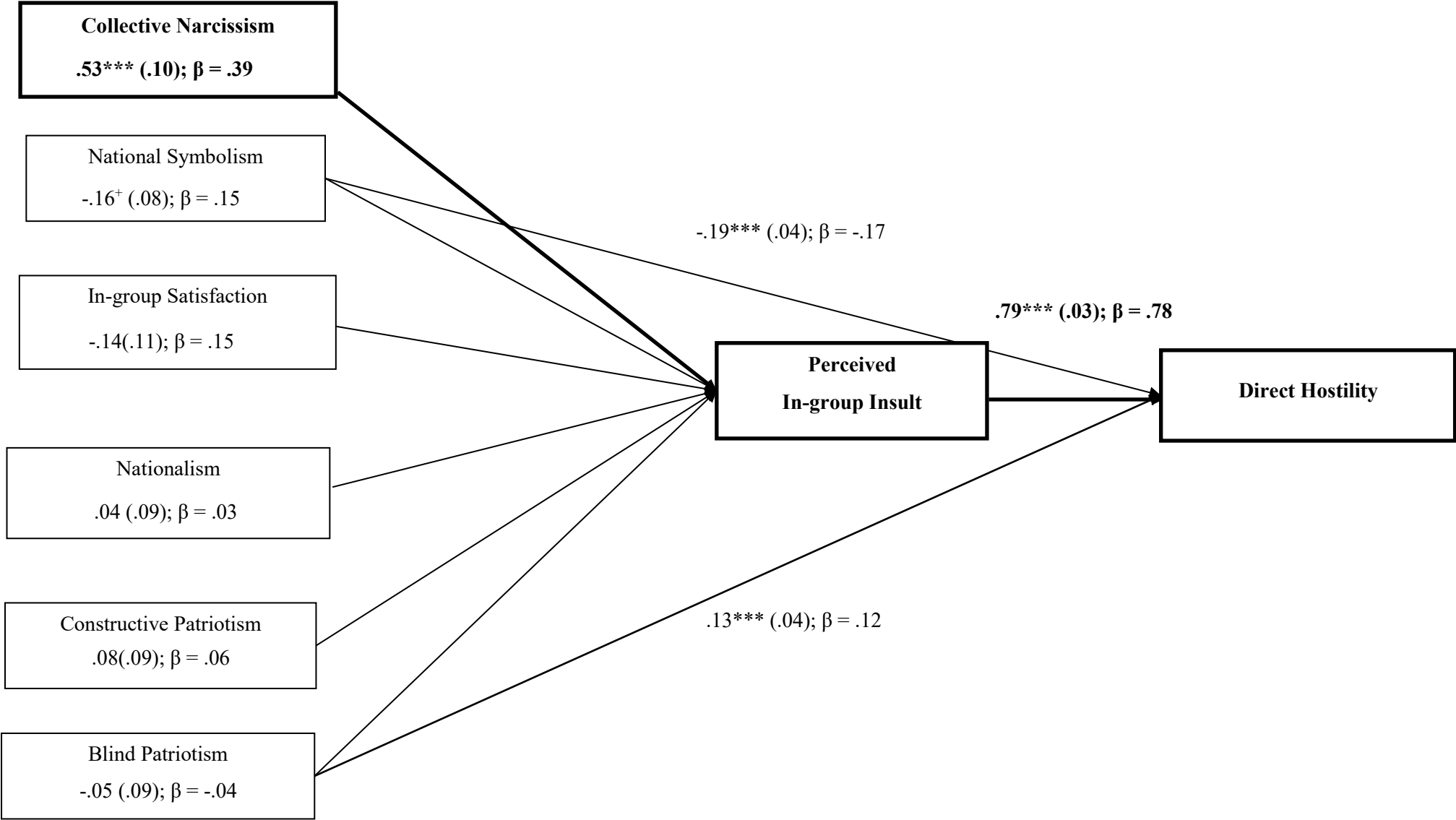


Figure 3.

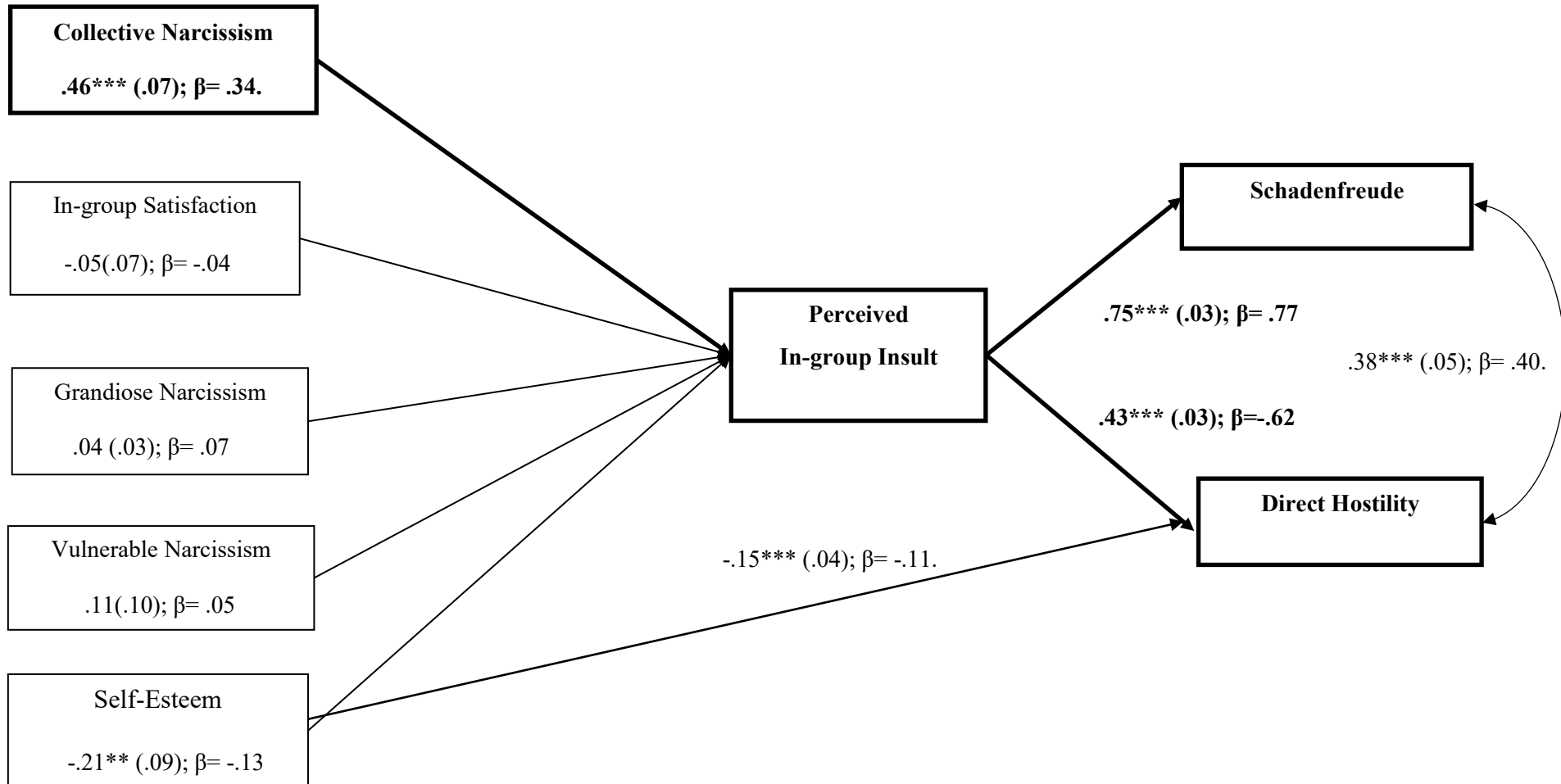


Figure 4.