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3   **From Individual Anxiety to Collective Narcissism?**

4   **Adult Attachment Styles and Different Types of National Commitment**

5

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24   **Data availability statement:**

25   The data that support current findings are openly available in Open Science Framework depository at

26   https://osf.io/t7k4g/?view_only=9da20b2635bd460d928ddef3b988d511

27

28

Abstract

National narcissism and national identification, two distinct types of national commitment, differ in terms of their psychological concomitants. Therefore, in the current paper, we hypothesized that they would also relate to different adult attachment styles. Namely, we proposed that national narcissism would be positively associated with higher attachment anxiety, while national identification would be associated with lower attachment anxiety and avoidance. These hypotheses were tested in three cross-sectional surveys (Study 1 $N = 570$; Study 3 $N = 558$; Study 4 $N = 649$) and one longitudinal survey (Study 2 $N = 808$). In all studies, we found a consistent positive relationship between attachment anxiety and national narcissism, and a negative relationship between attachment avoidance and national identification. Finally, we also demonstrated indirect effects of attachment anxiety (via national narcissism) on maladaptive group-related outcomes: conspiracy beliefs, nonnormative collective action, and willingness to conspire.

Keywords: attachment anxiety and avoidance, national narcissism, national identification, conspiracy intentions, conspiracy beliefs, nonnormative collective action

From Individual Anxiety to Collective Narcissism? Adult Attachment Styles and

Different Types of National Commitment

Investigations of social identity-related processes have often focused on individual factors shaping different types of in-group commitment (e.g., Adorno et al., 1950; Fromm, 1973; Turner, 1982). In line with classic psychological theorizing (Tajfel & Turner, 1986), social identity may serve as a compensation for the frustration of different psychological needs. Indeed, previous research showed that people identified with their in-groups, for example, to manage feelings of uncertainty (Mullin & Hogg, 1998), existential threats (Castano et al., 2002) or lack of personal control (Agroskin & Jonas, 2013). In such cases, the group is perceived as offering opportunities for self-fulfillment and, thus, being at the service of the self. Those who are related to their in-group in this way are less motivated to invest individual effort to benefit the group. Instead, they search for a possibility to satisfy their individual needs by becoming part of a strong collective (Cichocka, 2016). This type of in-group commitment is often defensive and destructive, both from the perspective of intra- and intergroup processes (Golec de Zavala et al., 2009). It is related to in-group disloyalty and hostility towards out-group members (Marchlewska et al., 2020). Not all types of in-group commitment, however, are based on mechanisms of psychological compensation. In fact, some individuals are more focused on group- than individual-level benefits and commit to their in-group in a constructive way.

In this article, we discuss the concomitants of these two distinct forms of in-group commitment and assume that individual frustration and satisfaction should translate into collective defensiveness and security respectively. We hypothesize that the way people form personal relationships should be related to the way they commit to their in-groups as well. Specifically, we are the first to explore the links between adult attachment and defensive versus secure commitment related to one's national in-group. We focus on adult attachment

70 styles to better understand the role of basic individual-level factors in adopting different forms

71 of national commitment – phenomena shaping attitudes and behaviors that have a significant

72 impact on entire societies.

73 **National Narcissism versus Secure National Identification**

74   We operationalize defensive national commitment as national narcissism (Cichocka &

75 Cisłak, 2020) – a grandiose image of one's national group that is contingent on the external

76 recognition of its worth (Golec de Zavala et al., 2009). In turn, secure (i.e., non-narcissistic)

77 national commitment is defined as an unpretentious investment in the national in-group,

78 independent of the recognition of the group in the eyes of others (Golec de Zavala et al.,

79 2013). This distinction is inspired by research on self-evaluation, which differentiates between

80 individual narcissism (i.e., an inflated self-evaluation associated with the need for external

81 validation and defensiveness in response to ego threats; Horvath & Morf, 2009) and secure

82 self-esteem (i.e., a realistic pride people take in their strengths, which serves as a buffer

83 against psychological threats; Kernis, 2005; Marchlewska & Cichocka, 2017). In our

84 methodological approach, we follow the previously used procedure (e.g., Cichocka et al.,

85 2018; Golec de Zavala et al., 2009; Marchlewska, Cichocka, et al., 2022; Paulhus et al.,

86 2004), where researchers distinguish the unique effects of individual narcissism versus self-

87 esteem by accounting for their shared variance. Similarly, to observe the unique effects of

88 narcissistic versus secure national commitment, researchers co-vary out the variance shared

89 between national narcissism and national identification. Such an approach gives the

90 possibility to observe the distinctive effects of defensive national commitment, that is national

91 narcissism minus its overlap with national identification, and the unique effects of secure

92 national commitment, that is national identification minus its overlap with national narcissism

93 (e.g., Cichocka. & Cisłak, 2020). Controlling for national narcissism while measuring national

94 identification makes it possible to obtain an index of secure national identification (i.e., an

95   unpretentious investment in the in-group, independent of the recognition of the group in the

96   eyes of others; Golec de Zavala et al., 2013; Marchlewska, Cichocka, et al., 2022), previously

97   linked to psychological security (e.g., higher personal control; Cichocka et al., 2018) and

98   positive inter- and intra- group outcomes (Cichocka, 2016).

99   Previous research has shown that national narcissism is a type of in-group

100 commitment that is built on the foundations of a threatened ego (Cichocka et al., 2018; Golec

101 de Zavala et al., 2020; see also Fromm, 1973). For example, it was shown to increase in

102 response to low levels of personal control (Cichocka et al., 2018; see also Marchlewska et al.,

103 2020) and observed among those individuals who scored low (vs. high) on self-esteem (Golec

104 de Zavala et al., 2020). Still, it is worth stressing that although national narcissism results

105 from the frustration of individual needs, it does not necessarily reinforce feelings of personal

106 control or boost self-esteem (Cichocka et al., 2018). In contrast, due to its defensive nature, it

107 leads to maladaptive psychological outcomes (Marchlewska et al., 2020; for a review see

108 Cichocka & Cisłak, 2020).

109   In fact, individuals scoring high on collective narcissism are focused on defending

110 their group from real or imagined enemies, rather than on investing individual effort to

111 actually benefit the group (Cichocka, 2016; Marchlewska et al., 2020; Marchlewska,

112 Cichocka, et al., 2019, 2022). This is probably due to the exaggerated feelings of insecurity,

113 which underlie this particular in-group commitment (Cichocka, 2016). Prior studies

114 demonstrated that collective narcissism was positively related to perceiving even ambiguous

115 intergroup situations as threatening (Golec de Zavala et al., 2009). This may explain its

116 positive relationships with conspiracy beliefs (i.e., beliefs in secret plots by powerful and

117 malevolent groups; Douglas & Sutton, 2008) and out-group hostility (Marchlewska,

118 Cichocka, et al., 2019; Marchlewska, Górska, et al., 2022). As previously mentioned, national

119 narcissism is not only related to negative perceptions of out-groups, but also to lack of trust

120   towards other in-group members. Recent research revealed that in some cases, those scoring

121   high on collective narcissism are even ready to act contrary to the interests of their own group

122   members, by, for example, showing stronger willingness to conspire against them (e.g.,

123   Biddlestone et al., 2022; Molenda et al., in press), which may result in negative relations

124   within the group itself (Cichocka & Cislak, 2020; Marchlewska et al., 2020; in press).

125   This, however, is not the case among people who commit to their nation in a secure

126   way. Secure (i.e., non-narcissistic) national commitment stems from satisfied psychological

127   needs (e.g., Marchlewska et al., 2020) and is based on the foundation of a stable and secure

128   self (Cichocka et al., 2018). For example, it was previously linked to high levels of personal

129   control (e.g., Cichocka et al., 2018) and positive emotionality (Golec de Zavala, 2019). Those

130   who score high (vs. low) on secure national commitment do not react negatively towards out-

131   group members (Górska, Stefaniak, et al., 2022). They are also less defensive and do not

132   respond to criticism with retaliatory hostility (Cichocka, 2016). They also engage in

133   constructive intragroup behaviors. For example, in their recent research Marchlewska, Hamer,

134   et al. (2022) found that willingness to vaccinate against COVID-19 was positively related to

135   secure national commitment and negatively to national narcissism.

136   These results suggest that collective narcissism and secure identification often have

137   opposite relationships with many psychological variables. Collective narcissism (but not

138   secure identification) is related to maladaptive traits and states. Given such findings, we

139   expected that these two types of national commitment (i.e., narcissistic vs. secure) would be

140   also related differently to insecure and secure interpersonal attachment.

141   **Adult Attachment and Group Processes**

142   Attachment in adulthood can be conceptualized as an orthogonal relationship between

143   two dimensions; *attachment anxiety*, which reflects feelings of low self-worth and fear of

144   abandonment and rejection, and *attachment avoidance*, which reflects discomfort with

145   closeness, excessive self-reliance, and lack of confidence in depending on others

146   (Bartholomew & Horowitz, 1991; for a review of attachment measurement see Mikulincer &

147   Shaver, 2016). Scoring low on both of these dimensions would constitute a secure attachment.

148   Although adult attachment research has primarily been concerned with individual and

149   interpersonal processes, a growing body of research has demonstrated that it is also able to

150   explain people's maladaptive and adaptive group processes.

151   For example, Rom and Mikulincer (2003) demonstrated how attachment anxiety and

152   avoidance affect group-related regulatory strategies. Specifically, attachment-anxious people

153   reported negative self-concepts as group members and demonstrated poor instrumental

154   support (i.e., contributing to a successful completion of tasks) toward group interactions. On

155   the other hand, attachment-avoidant people had negative views of other in-group members

156   and group interactions (but did not find them threatening), sought self-reliance goals, and

157   demonstrated poor instrumental and socioemotional support (i.e., contributing to morale and

158   cohesion) towards groups. Rom and Mikulincer (2003) argued that their findings could be

159   described in terms of *hyperactivating* and *deactivating* regulatory strategies respectively (e.g.,

160   Cassidy & Kobak, 1988). Attachment anxiety is characterized by a heightened sensitivity

161   towards threats, coupled with continual elicitation of attention, support, and care from others,

162   while attachment avoidance is characterized by psychological avoidance of negative affect

163   and denial of attachment needs.

164   The studies described above are theoretically important for understanding how

165   attachment affects group processes but did not explore the different ways in which people

166   may commit to social groups. In this vein, Milanov and colleagues (2013) examined such

167   relationships and found unique associations between attachment and different types of in-

168   group attitudes. Secure attachment was associated with a higher social (e.g., higher similarity

169   to in-group members) and communal (e.g., able to empathize with in-group members)

170 identification, compared to attachment avoidance only. Alternatively, attachment avoidance

171 was associated with a higher interdependent identification (e.g., instrumental, exchange-

172 orientated), compared to secure attachment only. This study shows that secure attachment is

173 associated with constructive forms of in-group commitment, but does not appear to measure

174 insecure, defensive types of in-group commitment (e.g., collective narcissism). Further, like

175 other studies described in this section, this study did not account for the context of the group

176 (i.e., national) either. Moreover, no research has explored the relationships between

177 attachment and insecure (particularly narcissistic) versus secure national in-group

178 commitment. The current research aims to delineate these relationships.

179 **Adult Attachment and Different Types of In-group Commitment**

180   Thus far, one study measured maladaptive and adaptive aspects of national

181 commitment (i.e., blind nationalism vs. constructive patriotism, respectively; Rothí et al.,

182 2005) alongside attachment anxiety and avoidance (see Marsh & Brown, 2011). Specifically,

183 nationalism was found to positively correlate with attachment anxiety only. Unfortunately,

184 however, the relationships between patriotism and attachment were not the main focus of their

185 study and were therefore not reported.[1] This study provides initial support for the notion that

186 insecure attachment may be associated with insecure forms of national commitment; however,

187 it falls short on simultaneously taking into account insecure and secure forms of national

188 commitment, which would provide a more nuanced understanding of how attachment

189 differences may affect these types of identification. Notwithstanding the dearth of literature

190 on this approach, there is a lot of indirect evidence that suggests these variables are associated

191 in disparate ways.

192   To begin, we know that collective narcissism is borne out of a weak and threatened

193 ego (Golec de Zavala et al., 2020) and is associated with a heightened sensitivity towards

---

[1] The patriotism factor of the scale was included to disguise the purpose of the study.

194   threats (Cichocka, 2016). Similarly, attachment anxiety is characterized by negative models of

195   the self as unworthy, vulnerable, and helpless (Bartholomew & Horowitz, 1991), and is

196   associated with regulatory strategies that intensify feelings of distress (i.e., hyperactivating;

197   Mikulincer & Shaver, 2003); all of which appear to be consistent at the group level (e.g., Rom

198   & Mikulincer, 2003). Further, like collective narcissism (Golec de Zavala & Cichocka, 2012;

199   Marchlewska, Cichocka, et al., 2019), attachment anxiety has also been associated with an

200   increased belief in conspiracy theories, which was argued to stem from the tendency to

201   appraise life's problems in catastrophic terms (Green & Douglas, 2018). Therefore, it seems

202   reasonable to assume that attachment anxiety will be a concomitant of collective narcissism,

203   due to their similarities with a threatened sense of self and the propensity to exaggerate

204   threats.

205   Secure national commitment, on the other hand, is likely to be associated with both

206   low attachment avoidance and anxiety — that is, secure attachment. For example, secure

207   national identification is associated with satisfied psychological needs and a secure sense of

208   self (Cichocka et al., 2018; Marchlewska et al., 2020), high personal control (Cichocka et al.,

209   2018), and positive emotionality (Golec de Zavala, 2019); each of which are indicative of low

210   attachment anxiety (i.e., a positive model of the self). Further, secure national commitment is

211   also associated with positive attitudes towards in-group and out-group members alike

212   (Cichocka, 2016), which is indicative of low attachment avoidance (i.e., a positive model of

213   others). In fact, secure attachment has been associated with a number of adaptive group-

214   related processes, which further indicate its positive relationship with secure national

215   commitment. As already mentioned, secure attachment is associated with constructive types

216   of group identification (Milanov et al., 2013). Interestingly, other research has shown that

217   both majority and minority (i.e., immigrant) group members with secure attachment have

218   positive attitudes towards integration, with the opposite only being true for attachment

219   avoidance (Van Oudenhoven & Hofstra, 2006; see also Hofstra et al., 2005). Additionally,

220   experimental studies have demonstrated positive effects of situationally inducing a sense of

221   secure attachment (Mikulincer & Shaver, 2001). Specifically, by priming a sense of

222   attachment-related security — compared to a control group — participants were found to

223   derogate out-group members less, even when their self-esteem and cultural worldviews were

224   threatened.

225   These studies suggest that feeling secure with oneself and other people should lead to

226   more secure forms of national commitment. Taken together, we assumed that high attachment

227   anxiety underscores narcissistic national commitment, while low attachment avoidance and

228   anxiety underscore secure national in-group commitment.

229   **Overview of the Current Research**

230   As stated before, national narcissism, in contrast to secure national identification,

231   stems from unsatisfied individual needs and a threatened ego (e.g., Cichocka, 2016; Fromm,

232   1973; Golec de Zavala et al., 2020). However, the empirical evidence identifying those exact

233   unsatisfied needs or psychological difficulties underpinning narcissistic in-group commitment

234   is scarce. In turn, comprehending the psychological roots of national narcissism would be

235   beneficial for future interventions – as targeting them at groups with specific difficulties

236   could be more efficient. Therefore, our research aims to fill this gap by investigating another

237   possible foundation of the types of in-group commitment: adult attachment styles.

238   We tested our hypotheses in a series of four studies. We assumed that high attachment

239   anxiety should be linked to a *defensive form of in-group commitment*, that is national

240   narcissism when controlled for national identification (H1). Moreover, we hypothesized that

241   low attachment avoidance (H2) and anxiety (H3) should be linked to a *secure form of in-*

242   *group commitment*, that is national identification when controlled for national narcissism. We

243   expected the relationships between attachment and different types of in-group commitment to

244   be especially pronounced when controlled for the shared variance between national narcissism

245   and national identification. For this reason, we first report zero-order correlations and then,

246   we report the effects of attachment anxiety and avoidance on each type of in-group

247   commitment, while considering both national narcissism and national identification in one

248   model (i.e., controlling for their shared variance). We investigate these effects in three cross-

249   sectional surveys (Study 1, Study 3, and Study 4) and one two-wave survey (Study 2), in

250   which we focus on the reciprocal paths between attachment anxiety and avoidance, and both

251   forms of in-group commitment. In Study 3 and Study 4, we additionally check whether both

252   types of in-group commitment may differentially mediate the relationships between

253   attachment and group-related outcomes: nonnormative collective action (Studies 3),

254   conspiracy beliefs (Studies 3 and 4), and willingness to conspire against one's in-group

255   (Study 4). Our studies were not preregistered. In all studies, we aimed to include at least 400

256   participants, which gave us a power of .80 for detecting even small associations between

257   variables (for $r = .14$; Cohen, 1988; G*Power yields a target of 395 participants). Data (with

258   labelled variables) for all studies are available at the Open Science Framework:

259   https://osf.io/t7k4g/?view_only=9da20b2635bd460d928ddef3b988d511.

Study 1

261   In Study 1, we checked for the relationships between attachment anxiety and

262   avoidance, and two forms of national identity. We assumed that high attachment anxiety

263   should be associated with national narcissism (when controlled for national identification),

264   whereas low attachment anxiety and avoidance should be linked to national identification

265   (when controlled for national narcissism).

266   **Method**

267   *Participants and Procedure*

268   The data for Study 1 was obtained from a 2019 online survey, conducted by a local

269   research company, also used in other academic studies (e.g., Marchlewska, Cichocka, et al.,

270   2019). Five hundred seventy Polish participants were recruited for this Study (284 women,

271   286 men), aged between 18 and 25 ($M = 22.14$, $SD = 2.24$). The sample was non-probability,

272   quota-based, and representative of young Polish adults in terms of gender, education, and size

273   of the place of residence. Quotas were selected based on the last National Census of

274   Population and Housing, carried out by the Central Statistical Office (Główny Urząd

275   Statystyczny; GUS).

276   *Measures*

277   The scales employed in the present research were part of a larger questionnaire that

278   included the measures of various personality and social psychology constructs (e.g., need for

279   cognitive closure; Kossowska et al., 2012).[2] Unless otherwise noted, all measures used a

280   response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

281   **Attachment.** The Revised Adult Attachment Scale (RAAS; Collins, 1996; Adamczyk

282   & Pilarska, 2012) was employed to measure adult attachment. While the initial version of the

283   RAAS consists of three subscales (i.e., anxiety [e.g., "I often worry that romantic partners

284   don't really love me."], close [e.g., "I find it relatively easy to get close to people."], and

285   depend [e.g., "I find it difficult to allow myself to depend on others."]), for this study we

286   formed the attachment avoidance index by combining close and depend subscales (see

287   Collins, 2008). Within the avoidance subscale, five items were recorded (three items of

288   depend subscale and two items of close subscale) according to alternative scoring proposed by

289   Collins (2008). At the same time, the original anxiety subscale was used as a measure of

---

[2] This dataset was also used by Marchlewska, Cichocka, et al. (2022) and Michalski et al. (2021), though relationships between different variables were analyzed.

290   attachment anxiety. Both attachment avoidance (α = .70) and anxiety (α = .86) were

291   internally consistent.[3]

292   **National Identification.** To assess national identification, we used the full, 12-item

293   Social Identification Scale (Cameron, 2004), where Poles served as the reference group (e.g.,

294   "I have a lot in common with other Poles"; α = .86).

295   **National Narcissism.** Collective narcissism with respect to the national in-group

296   (national narcissism) was measured with the short, five-item version of the Collective

297   narcissism Scale (e.g., "If the Polish nation had a major say in the world, the world would be

298   a much better place"; α = 85; Golec de Zavala et al., 2013).

299   **Covariates.** Political conservatism (1 = *left*, 7 = *right*), gender (0 = *female*, 1 = *male*),

300   age, education *(1 = primary degree or no degree, 2 = vocational degree, 3 = high school or*

301   *post-secondary degree, 4 = university degree),* and size of the place of residence *(1 = rural*

302   *area or village, 2 = town up to 20,000 residents, 3 = town 20,001 – 100,000 residents, 4 =*

303   *town 100,001 – 200,000 residents, 5 = city 200,001 – 500,000 residents, 6 = city with more*

304   *than 500,000 residents)* served as covariates[4].

305   **Results**

306   *Analytic Strategy*

307   Our analyses were divided into two parts – inspecting zero-order correlations and

308   hypotheses testing. To verify our hypotheses, we tested two path models. First, we regressed

309   national narcissism on attachment anxiety and avoidance, and on national identification.

310   Accounting for the national identification allowed us to check whether attachment anxiety and

311   avoidance explained the variance in national narcissism when national identification was

---

[3] For this and the following studies, analyses employing the three original RAAS subscales are presented in the Online Supplement.

[4] We have included demographic covariates in each of the reported studies to account for the potential weaknesses in the data collection process and to make our results more generalizable.

312   controlled for.[5] Likewise, to check whether attachment anxiety and avoidance predicted

313   national identification (when controlled for national narcissism), we tested a separate model,

314   in which national identification was regressed on attachment anxiety and avoidance, and on

315   national narcissism. Finally, we checked whether 1) accounting for the covariates, and 2)

316   using robust estimation method changed our results in a theoretically meaningful way.

317   Missing data (0.8%) was handled with the Full Information Maximum Likelihood (FIML)

318   estimator (Enders & Bandalos, 2001). All models were estimated with the use of Mplus 8.0.

319   Given that the analyzed models were saturated (i.e., without degrees of freedom), we do not

320   report any fit indices.

321   ***Preliminary Analyses***

322   Table 1 presents descriptive statistics and intercorrelations for the variables measured

323   in Study 1. In comparison to women, men reported more conservative political views, $M =$

324   4.08, $SD = 1.50$ *versus* $M = 4.58$, $SD = 1.30$, $t(362.04) = -3.48$, $p < .001$, $d = 0.35$. Gender did

325   not differentiate participants in terms of attachment anxiety or avoidance, national narcissism,

326   national identification, or demographics (all ps > .064). Attachment anxiety was associated

327   positively with national narcissism and negatively with national identification, whereas

328   avoidance displayed a negative link with national identification only.

---

[5] For a similar method employed to obtain RWA when controlled for SDO, and SDO when controlled for RWA, see Cichocka et al., 2017.

329 **Table 1**

330 *Descriptive Statistics and Correlations (Study 1)*

	M	*SD*	2	3	4	5	6	7	8
1. Attachment Anxiety	3.19	0.77	.45***	.19***	-.11*	-.04	.001	-.02	-.11*
2. Attachment Avoidance	3.01	0.46	–	.01	-.21***	.04	.04	-.02	-.10*
3. National Narcissism	3.04	0.79		–	.37***	.35***	-.08	-.03	-.13**
4. National Identification	3.21	0.61			–	.15***	.01	.08	-.05
5. Political Conservatism	4.34	1.42				–	.03	-.05	-.06
6. Age	22.14	2.24					–	.25***	.05
7. Education	2.56	1.01						–	-.03
8. Size of the place of residence	2.79	1.77							–

331 *Note*. *N* = 570.

332 ****p* < .001. ***p* < .01. **p* < .05.

333 ***Hypotheses Testing***

334   As presented in Figure 1, attachment anxiety was positively related to national

335 narcissism (when controlled for national identification), $B = 0.25$, $SE = 0.04$, 95% CI [0.17,

336 0.34], $\beta = .25$, $p < .001$, but attachment avoidance was unrelated to national narcissism, $B = -$

337 0.04, $SE = 0.07$, 95% CI [-0.19, 0.10], $\beta = -.02$, $p = .585$. At the same time, both attachment

338 anxiety, $B = -0.09$, $SE = 0.03$, 95% CI [-0.16, -0.02], $\beta = -.11$, $p = .009$, and avoidance, $B = -$

339 0.21, $SE = 0.06$, 95% CI [-0.32, -0.10], $\beta = -.16$, $p < .001$, were negatively related to the non-

340 narcissistic national identification (i.e., national identification when controlled for national

341 narcissism). Adding covariates into the model or using the robust estimation method did not

342 alter our conclusions.

343 **Figure 1**

344 *Results of Path Models Testing the Effects of Attachment Anxiety and Attachment Avoidance*

345 *on National Narcissism (When Controlled for National Identification) and National*

346 *Identification (When Controlled for National Narcissism), Study 1*

347

348
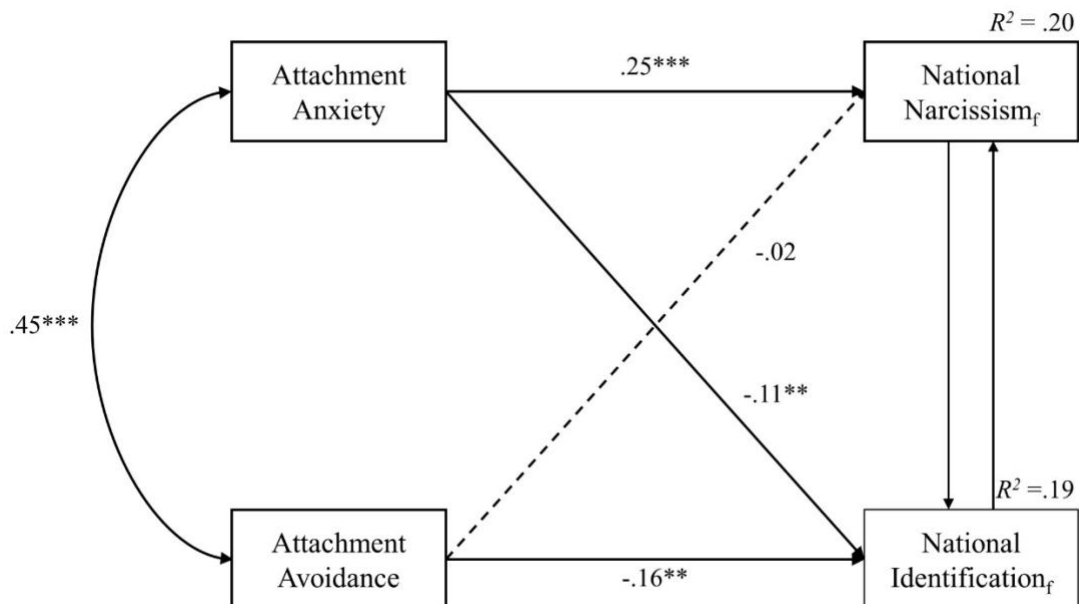
349 *Note*. Standardized coefficients presented. National Narcissism$_f$ = national narcissism

350 accounting for national identification (a model including the path from National Identification

351 to National Narcissism). National Identification$_f$ = national identification accounting for

352 national narcissism (a model including the path from National Narcissism to National

353 Identification). Dashed arrows reflect nonsignificant effects ($p \geq .05$).

354 **$p < .01$. ***$p < .001$.

355 **Discussion**

356   Study 1 offered initial support for our theorizing, confirming our hypotheses. In a

357 sample of young adults, national narcissism (when controlled for national identification) was

358 positively related to attachment anxiety but not to avoidance. Thus, H1 received full support.

359 In turn, national identification (when controlled for national narcissism) was negatively

360 associated with both attachment anxiety and avoidance, which confirmed H2 and H3 in full as

361 well.

362   **Study 2**

363   Although the results from Study 1 were encouraging, they were rather preliminary.

364 Therefore, in Study 2, we tested our main hypotheses utilizing a two-wave study design,

365 assuming that the relations identified in Study 1 would remain stable over time. Moreover, as

366 the sample in Study 1 was drawn from the population of young adults, generalizability of our

367 findings could be questioned. Thus, in Study 2 data was collected in a nationwide survey of

368 adult Poles.

369 **Method**

370 *Participants and Procedure*

371   Study 2 was administered as part of a two-wave in-house survey of adult Poles. To

372 obtain a representative sample in the first wave, we employed random sampling based on the

373 Polish identity number (PESEL) as the sampling frame. The two measurements were divided

374   by a six-month interval. Data was collected using computer-assisted personal interviews. Out

375   of the 1,300 respondents who participated in the first measurement, 808 (62.2%)[6] took part in

376   the second measurement.[7] Only individuals who participated in both waves of the survey

377   comprised the sample of this study (429 female, 379 male, $M_{age} = 46.62$, $SD_{age} = 16.27$).

378   *Measures*

379   　　　Measures used in the analyses presented below were embedded in a larger

380   questionnaire that assessed a range of psychology constructs (e.g., right-wing

381   authoritarianism; Funke, 2005). Due to space constraints, short versions of the original

382   measures were employed.

383   　　　**Attachment.** To measure the participants' level of attachment avoidance, we used

384   four items from the RAAS depend and close subscales (Collins, 2008): "I find it relatively

385   easy to get close to others," "I am comfortable developing close relationships with others," "I

386   know that people will be there when I need them," and "I am comfortable depending on

387   others" (1 = *strongly disagree*, 7 = *strongly agree*). Prior to forming the attachment avoidance

388   index, all four items were reverse-scored. The scale showed satisfactory reliability across both

389   measurement occasions, $\alpha_{T1} = .85$, $\alpha_{T2} = .85$. At the same time, attachment anxiety was

390   assessed with two items taken from the RAAS anxiety subscale: "When I show my feelings

391   for others, I'm afraid they will not feel the same about me" and "I often worry that romantic

392   partners won't want to stay with me" (1 = *strongly disagree*, 7 = *strongly agree*). The

393   correlation between these items was moderate, $r_{T1}(724) = .40$, $p < .001$ $r_{T2}(776) = .49$, $p <$

394   .001.

395   　　　**National Identification.** National identification was assessed with three items

396   borrowed from Cameron's scale (2004; see also Górska et al., 2020): "I feel strong ties to

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[6] The contract with the research company specified the minimal retention rate to 60%.

[7] Participants' drop-out was not predicted by neither political conservatism nor demographics.

397   other Poles" (in-group ties), "In general, being a Pole is an important part of my self-image"

398   (in-group centrality), and "In general, I'm glad to be a Pole" (in-group affect). The response

399   scale ranged from 1 = *strongly disagree* to 5 = *strongly agree*. The scale was internally

400   consistent, $\alpha_{T1} = .86$, $\alpha_{T2} = .82$

401   **National Narcissism.** National narcissism was assessed as in Study 1 (Golec de

402   Zavala et al., 2013), $\alpha_{T1} = .89$, $\alpha_{T2} = .87$.

403   **Covariates.** Similar to Study 1, political conservatism (1 = *left*, 7 = *right*), gender (0 =

404   *female*, 1 = *male*), age, education, and size of the place of residence served as covariates.

405   **Results**

406   *Analytic Strategy*

407   Again, our analyses involved two steps. First, we inspected intercorrelations for the

408   variables of interest. Next, an autoregressive cross-lagged path model (Selig & Little, 2012)

409   was estimated to verify our hypotheses. In this solution, each out of the four variables

410   assessed at T2 (i.e., attachment avoidance, attachment anxiety, national narcissism, and

411   national identification) was regressed on attachment avoidance, attachment anxiety, national

412   narcissism, and national identification measured at T1. Similar to Study 1, we accounted for

413   the variance shared by national narcissism and national identification at T2.[8] To compare the

414   specific paths, we performed Wald tests. Robustness checks were the last part of our analyses

415   – we checked whether our findings changed substantively after 1) accounting for covariates

416   and 2) employing robust estimation method. Missing data (3.64%) was handled with the

417   FIML estimator. Model was estimated with the use of Mplus 8.0.

418   *Preliminary Analyses*

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[8] In fact, two autoregressive cross-lagged panel models were tested – one in which the variance shared with T2 national in-group commitment was partialled out from T2 national narcissism, and one in which the variance shared with T2 national narcissism was partialled out from T2 national identification.

419   Descriptive statistics and intercorrelations for the variables assessed in Study 2 are

420   presented in Table 2. In comparison to men, women were slightly older ($M = 44.80$, $SD =$

421   16.34 vs. $M = 48.23$, $SD = 16.05$, $t(802) = 2.99$, $p = .003$, $d = 0.21$) and better educated, $M =$

422   12.63, $SD = 2.68$ vs. $M = 13.17$, $SD = 3.54$, $t(719.90) = 2.37$, $p = .018$, $d = 0.17$. Gender did

423   not differentiate the participants' national narcissism, national identification, attachment

424   anxiety, attachment avoidance, or any of the remaining covariates (ps $\geq$ .314). Attachment

425   avoidance and anxiety, national narcissism, and national identification were stable over time,

426   rs $\geq$ .53. Across both measurements, attachment anxiety correlated positively with national

427   narcissism and attachment avoidance was related to national narcissism negatively. Moreover,

428   attachment avoidance and anxiety were associated negatively with national identification at

429   T2.

430 **Table 2**

431 *Descriptive Statistics and Correlations (Study 2)*

	M	SD	2	3	4	5	6	7	8	9	10	11	12
1. Attachment Anxiety T1	3.54	1.48	.08*	.17***	-.05	.53***	.11**	.15***	-.12***	-.05	-.12***	-.01	.10**
2. Attachment Avoidance T1	3.02	1.12	–	-.14***	-.39***	.14***	.66***	-.08*	-.35***	.00	.08*	-.11**	.09**
3. National Narcissism T1	3.15	0.97		–	.44***	.19***	-.11**	.73***	.29***	.21***	.08*	-.08*	-.07*
4. National Identification T1	3.84	0.87			–	-.13***	-.34***	.33***	.69***	.15***	.13***	-.02	-.03
5. Attachment Anxiety T2	3.51	1.38				–	.17***	.19***	-.18***	-.06	-.14***	-.01	-.01
6. Attachment Avoidance T2	2.91	1.01					–	-.12***	-.42***	-.03	.04	-.08*	.14***
7. National Narcissism T2	3.15	0.91						–	.36***	.26***	.14***	-.12**	-.12***
8. National Identification T2	3.84	0.82							–	.20***	.16***	-.07	-.14***
9. Political conservatism	4.35	1.65								–	.12**	-.17***	-.15***
10. Age	46.62	16.27									–	-.30***	-.01
11. Education	12.92	3.18										–	.15***
12. Size of the place of residence	2.57	1.75											–

432 *Note*. *N*s from 655 to 808.

433 ***p < .001. **p < .01. *p < .05.

434 *Hypotheses Testing*

435   Figure 2 shows the results for the autoregressive cross-lagged path model tested in

436 Study 2. Attachment anxiety, $B = 0.04$, $SE = 0.02$, 95% CI [0.01, 0.07], $\beta = .06$, $p = .012$, and

437 avoidance, $B = 0.05$, $SE = 0.02$, 95% CI [0.01, 0.09], $\beta = .06$, $p = .019$ measured at T1 were

438 positively related to national narcissism (when controlled for national identification) assessed

439 at T2. Moreover, national narcissism assessed at T1 was positively related to itself at T2, $B =$

440 0.67, $SE = 0.03$, 95% CI [0.62, 0.72], $\beta = .71$, $p < .001$. National identification at T1 was

441 negatively related to national narcissism at T2, $B = -0.17$, $SE = 0.04$, 95% CI [-0.24, -0.10], β

442 $= -.16$, $p < .001$.

443   Moreover, both attachment anxiety, $B = -0.05$, $SE = 0.01$, 95% CI [-0.08, -0.02], $\beta = -$

444 .09, $p < .001$) and avoidance, $B = -0.08$, $SE = 0.02$, 95% CI [-0.11, -0.04], $\beta = -.10$, $p < .001$)

445 assessed at T1 were negatively related to non-narcissistic national identification measured at

446 T2. Furthermore, national identification at T1 was positively related to itself at T2, $B = 0.60$,

447 $SE = 0.03$, 95% CI [0.55, 0.66], $\beta = .64$, $p < .001$). National narcissism assessed at T1 was

448 negatively related to national identification at T2, $B = -0.20$, $SE = 0.03$, 95% CI [-0.26, -0.14],

449 $\beta = -.23$, $p < .001$.

450   Interestingly, national narcissism assessed at T1 was positively related to attachment

451 anxiety measured at T2, $B = 0.28$, $SE = 0.05$, 95% CI [0.18, 0.37], $\beta = .19$, $p < .001$, and this

452 effect was significantly stronger than the reverse effect of T1 attachment anxiety on T2

453 national narcissism, $\chi^2(1) = 22.10$, $p < .001$. Moreover, there was a negative overtime effect

454 of the T1 national identification on T2 attachment anxiety, $B = -0.27$, $SE = 0.06$, 95% CI [-

455 0.38, -0.16], $\beta = -.17$, $p < .001$, which again was significantly stronger than its reverse

456 counterpart, $\chi^2(1) = 13.83$, $p < .001$. The effect of T1 attachment anxiety on itself at T2 was

457 positive and significant, $B = 0.45$, $SE = 0.03$, 95% CI [0.39, 0.50], $\beta = .48$, $p < .001$. The

458 effect of T1 attachment avoidance did not reach significance, $B = 0.07$, $SE = 0.04$, 95% CI [-

459 0.01, 0.15], $\beta = .06$, $p = .067$.

460   National identification assessed at T1 was negatively related to attachment avoidance

461 measured at T2, $B = -0.13$, $SE = 0.04$, 95% CI [-0.20, -0.05], $\beta = -.11$, $p = .001$, and this effect

462 did not differ from the reverse negative effect of T1 attachment avoidance on T2 national

463 identification, $\chi^2(1) = 1.33$, $p = .250$. By contrast, national narcissism assessed at T1 was not

464 associated with T2 attachment avoidance, $B = 0.03$, $SE = 0.03$, 95% CI [-0.04, 0.09], $\beta = .02$,

465 $p = .423$. However, this effect did not differ significantly from the positive effect of T1

466 attachment avoidance on T2 national narcissism, $\chi^2(1) = 0.31$, $p = .577$. Moreover, T1

467 attachment avoidance was positively related to itself at T2, $B = 0.56$, $SE = 0.03$, 95% CI [0.51,

468 0.61], $\beta = .62$, $p < .001$. Attachment anxiety measured at T1 was unrelated to attachment

469 avoidance at T2, $B = 0.03$, $SE = 0.02$, 95% CI [-0.004, 0.07], $\beta = .05$, $p = .083$.

470   Adding covariates into the model slightly changed the results. Specifically, while

471 attachment anxiety measured at T1 still was positively associated to national narcissism

472 measured at T2, attachment avoidance assessed at T1 was no longer associated with T2

473 national narcissism. At the same time, the negative effects of T1 attachment anxiety and T1

474 attachment avoidance on national identification assessed at T2 remained significant. Using

475 MLR estimation did not alter the results in a meaningful way.

476 **Figure 2**

477 *Results of Autoregressive Cross-Lagged Panel Models Testing the Relationships Between*

478 *Attachment Anxiety, Attachment Avoidance, National Narcissism (When Controlled for*

479 *National Identification), and National Identification (When Controlled for National*

480 *Narcissism), Study 2*
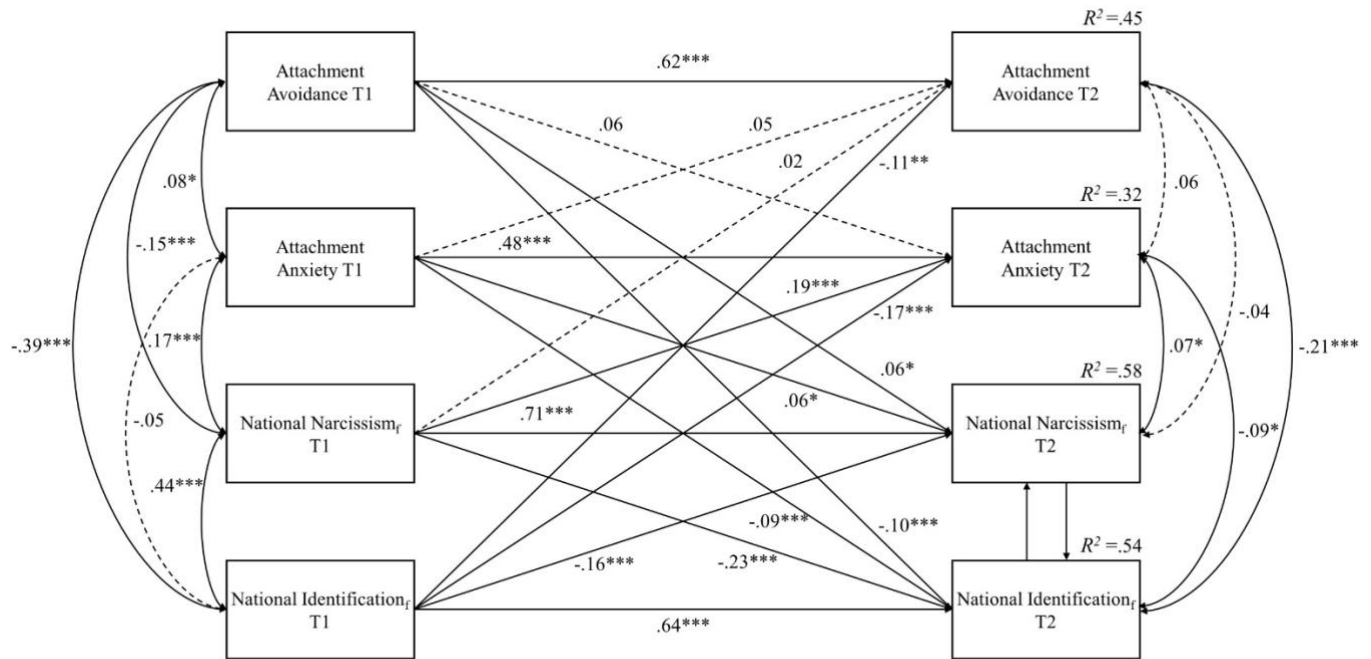
481

482   *Note*. Standardized coefficients presented. National Narcissism$_f$ T2 = national narcissism at

483   T2 accounting for national identification at T2 (a model including the path from National

484   Identification at T2 to National Narcissism at T2). National Identification$_f$ T2 = national

485   identification at T2 accounting for national narcissism at T2 (a model including the path from

486   National Narcissism at T2 to National In-group Commitment at T2). Dashed arrows reflect

487   nonsignificant effects ($p \geq .05$).

488   *$p < .05$. **$p < .01$. ***$p < .001$.

489

490   **Discussion**

491   Study 2 provided further support for our hypotheses and overcame some of the

492   limitations of Study 1. Attachment anxiety exerted a positive overtime effect on national

493   narcissism (when controlled for national identification), thus confirming H1. Moreover, we

494   also found an unexpected positive effect of attachment avoidance on national narcissism

495   (when controlled for national identification). At the same time, the longitudinal effects of

496   attachment anxiety and avoidance on national identification (when controlled for national

497   narcissism) were negative, which again confirmed H2 and H3. Thus, except for the significant

498   positive effect of attachment avoidance on national narcissism, the results from a different

499   population were in high congruence to the young adult population reported in Study 1.

500   Moreover, within the current study, we found evidence in favor of some reverse

501   effects. Specifically, national identification (when controlled for national narcissism) had

502   negative overtime effects on attachment anxiety and avoidance. Moreover, national

503   narcissism served as a positive longitudinal predictor of attachment anxiety. As such, the

504   relationships between attachment anxiety and the two types of national in-group commitment,

505   as well as attachment avoidance and national identification, turned out to be reciprocal.

506   **Study 3**

507   Results of Studies 1 and 2 provided evidence that attachment anxiety is associated

508   with national narcissism (when controlled for national identification). We also found that both

509   types of attachment (i.e., anxiety and avoidance) were negatively related to national

510   identification (when controlled for national narcissism). However, our knowledge of *how* this

511   association might explain other, socially undesirable phenomena was still limited. Previous

512   research found both anxious (but not avoidant; Green & Douglas, 2018) attachment and

513   national narcissism (but not national identification; Marchlewska et al., 2020) to predict

514   negative intra- and intergroup outcomes (e.g., conspiracy beliefs, see Green & Douglas,

515   2018). These studies, however, did not analyze the link between attachment and the two types

516   of in-group commitment in question. Thus, the purpose of Study 3 was to assess whether the

517   two types of attachment facilitated conspiracy theory beliefs and radical collective action by

518   affecting different types of in-group commitment. Specifically, we hypothesized that the

519   positive effect of attachment anxiety (but not avoidance) on conspiracy beliefs would be

520   mediated by increased national narcissism (when controlled for national identification) but not

521   national identification (when controlled for national narcissism). Understanding the

522   relationship between attachment and these two types of socially undesirable phenomena could

523   enable future interventions to be more effective. As studies show, endorsement of conspiracy

524   beliefs might pose a threat for public safety as it, for example, can discourage people from

525   vaccinating themselves against COVID-19 (Marchlewska, Hamer, et al., 2022). Radical

526   collective actions are also dangerous for public safety, as they may be directly related to

527   violence against out-groups (e.g., attacks on LGBTQ demonstrators in Poland).

528   **Method**

529   *Participants and Procedure*

530   Data for Study 3 was obtained in an online survey of Poles aged between 18 and 26

531   ($M = 23.30$, $SD = 2.12$).[9] The sample consisted of $N = 558$ individuals (272 female, 286

532   male), which constituted 53.24% of the sample employed in the first measurement.[10]

533   Importantly, the sample gathered in the first wave of the survey was representative of young

534   adults in the Polish society in terms of gender, age, and size of the place of residence.[11]As in

535   Study 1, data collection was carried out by an external, local research company specializing in

536   markt research. Quotas used by the chosen company were based on the last National Census

537   of Population and Housing, carried out by the Central Statistical Office (Główny Urząd

538   Statystyczny; GUS). In exchange for participation in the survey, participants were given small

539   material rewards. Study 3 was conducted during the COVID-19 pandemic.

540   *Measures*

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[9] Since the first measurement was carried out prior to the outbreak of the pandemic, the questionnaire did not assess COVID-19 conspiracy beliefs. As we were interested in the effects that different types of attachment and in-group commitment had on conspiracy theory beliefs, we decided to limit our analyses to the data gathered in the second measurement. Analyses using data collected in the first measurement are presented in the Supplement.

[10] The contract signed with the research company specified that the retention rate would be no lower than 50%.

[11] Participants' drop-out was predicted by gender and age – men and older respondents were more likely to take part in the second measurement (see the Supplement).

541   Measures employed in Study 3 were part of a larger questionnaire that included scales

542   of various personality and social-psychological constructs.[12] Unless otherwise noted, all

543   measures utilized a 5-point response scale (1 = *strongly disagree*, 5 = *strongly agree*).

544   **Attachment.** To assess attachment, we used the same measure as in Study 1 (RAAS;

545   Collins, 1996; Adamczyk & Pilarska, 2012). Both attachment anxiety (α = .88) and avoidance

546   (α = .76) subscales showed satisfactory reliability.

547   **National Identification.** National in-group commitment was measured as in Study 1

548   (Cameron, 2004; α = .85).

549   **National Narcissism.** National narcissism was assessed as in Studies 1 and 2 (Golec

550   de Zavala et al., 2013). The measure was internally consistent, α = .89.

551   **COVID-19 Conspiracy Beliefs**. Fourteen items were used to assess COVID-19

552   conspiracy beliefs (based on Kowalski et al., 2020). Sample items read: "The coronavirus

553   does not really exist – it was invented to distract attention from behind-the-scenes political

554   games" and "The coronavirus was made up to restrict people's freedom and control them" (1

555   = *strongly disagree*, 7 = *strongly agree*).[13] The scale showed high reliability, α = .97.[14]

556   **Nonnormative Collective Action**. Four items were used to tap into nonnormative

557   collective action. Participants were presented with different forms of nonnormative

558   engagement (i.e., blocking the streets, destroying property, attending an illegal demonstration,

559   and attending an illegal gathering) and asked to declare whether they had done it, whether

560   they might do it in the future or would never engage in it. Responses were recorded on a 4-

561   point scale (1 = *would never do*, 2 = *might do it*, 3 = *have done it once or twice*, 4 = *do it on a*

562   *regular basis*). The scale demonstrated good reliability, α = .95.

---

[12] This dataset was also used by Łowicki et al. (2022) and Rogoza et al. (2022).
[13] For the full list of items comprising the scale, see the online Supplement.
[14] In fact, participants responded to 16 questions tapping on COVID-19 conspiracy theories. However, since two items created a separate factor in EFA, we decided not to include them in the composite score. For details, see the online Supplement.

563   **Covariates.** Again, the covariates involved political conservatism, gender (0 = *female*,

564   1 = *male*), age, education and size of the place of residence.

565   **Results**

566   *Analytic Strategy*

567   Similar to Studies 1 and 2, our analyses were divided into two parts. First, we

568   inspected gender effects and intercorrelations between the variables of interest. Next, two path

569   models were estimated to test our hypotheses. In both models, national narcissism and

570   national identification were regressed on attachment anxiety and avoidance. At the same time,

571   COVID-19 conspiracy beliefs and nonnormative collective action were regressed on the two

572   aspects of attachment and different types of national in-group commitment. Robustness

573   checks involved 1) accounting for the covariates and 2) using MLR estimation. Bootstrapping

574   with 10,000 re-samples was used to obtain 95% CIs for the indirect effects. Using the FIML

575   as an estimation method accounted for the missing data (0.10%). Models were estimated with

576   the use of Mplus 8.0. Given the analyzed models were saturated (i.e., without degrees of

577   freedom), we do not report any fit indices.

578   *Preliminary Analyses*

579   Table 3 presents the descriptive statistics and intercorrelations for the variables

580   assessed in Study 3. In comparison to women, men exhibited higher national narcissism ($M =$

581   2.78, $SD = 0.88$ vs. $M = 2.94$, $SD = 0.92$, $t(556) = -2.03$, $p = .043$, $d = 0.17$), declared higher

582   nonnormative engagement ($M = 1.57$, $SD = 0.81$ vs. $M = 1.82$, $SD = 0.92$, $t(547.31) = -3.38$, p

583    $< .001$, $d = 0.29$), and more right-wing political orientation ($M = 3.82$, $SD = 1.37$ vs. $M =$

584   4.07, $SD = 1.49$, $t(556) = -2.36$, $p = .019$, $d = 0.20$). Gender did not differentiate the remaining

585   variables, all p's $\geq .056$.

586   Attachment anxiety correlated positively with national narcissism, national

587   identification, COVID-19 conspiracy beliefs, and nonnormative collective action. The

588 association between attachment avoidance and national identification was negative. In line

589 with past research (e.g., Górska & Bilewicz, 2021; Górska et al., 2020; Górska, Marchlewska,

590 et al.,2022; Marchlewska, Cichocka, et al., 2019), national narcissism was positively linked to

591 national identification, COVID-19 conspiracy beliefs, and nonnormative collective action.

592 National identification correlated positively with COVID-19 conspiracy beliefs but remained

593 unrelated to nonnormative engagement. Nonnormative collective action was positively

594 associated with COVID-19 conspiracy beliefs, which confirmed recent results (Imhoff et al.,

595 2021).

596   **Table 3**

597   *Descriptive Statistics and Correlations (Study 3)*

	M	*SD*	2	3	4	5	6	7	8	9	10
1. Attachment Anxiety	3.06	0.87	.48***	.22***	.09*	.16***	.12**	-.01	-.03	-.05	-.03
2. Attachment Avoidance	3.02	0.54	–	-.002	-.08*	.06	.02	-.04	.03	-.02	-.05
3. National Narcissism	2.86	0.90		–	.58***	.50***	.20***	.43***	.02	-.14***	-.16***
4. National Identification	3.25	0.89			–	.15***	-.03	.39***	.06	-.02	-.12**
5. COVID-19 Conspiracy Beliefs	3.15	1.52				–	.34***	.27***	-.03	-.27***	-.19***
6. Nonnormative collective action	1.70	0.88					–	.08†	-.03	-.12**	.10*
7. Political conservatism	3.82	1.50						–	.07	-.01	-.14***
8. Age	23.30	2.12							–	.38***	.15***
9. Education	3.29	0.73								–	.23***
10. Size of the place of residence	2.67	1.79									–

598   *Note*. *Ns* ranging from 552 to 558.

599   ***$p < .001$. **$p < .01$. *$p < .05$. †$p < .10$.

600   *Hypotheses Testing*

601   Figure 3 presents the results of the tested path model. Attachment anxiety was

602   positively related to national narcissism (when controlled for national identification), $B =$

603   0.20, $SE = 0.04$, 95% CI [0.12, 0.28], $\beta = .20$, $p < .001$, but attachment avoidance was not, B

604    $= -0.08$, $SE = 0.07$, 95% CI [-0.21, 0.04], $\beta = -.05$, $p = .201$. In turn, attachment avoidance

605   was negatively related to national identification, $B = -0.13$, $SE = 0.07$, 95% CI [-0.26, -0.01],

606    $\beta = -.08$, $p = .038$, but attachment anxiety was not, $B = 0.00$, $SE = 0.04$, 95% CI [-0.08, 0.08],

607    $\beta = .00$, $p = .991$. In line with our expectations, national narcissism was positively associated

608   to COVID-19 conspiracy beliefs, $B = 1.03$, $SE = 0.08$, 95% CI [0.88, 1.18], $\beta = .61$, $p < .001$,

609   and nonnormative collective action, $B = 0.29$, $SE = 0.05$, 95% CI [0.19, 0.39], $\beta = .30$, $p <$

610   .001. By contrast, national identification showed opposite relationships with these two DVs (B

611    $= -0.35$, $SE = 0.08$, 95% CI [-0.50, -0.20], $\beta = -.21$, $p < .001$ and $B = -0.20$, $SE = 0.05$, 95% CI

612   [-0.30, -0.10], $\beta = -.20$, $p < .001$, respectively). The direct effects of attachment avoidance on

613   COVID-19 conspiracy beliefs ($B = 0.06$, $SE = 0.12$, 95% CI [-0.16, 0.29], $\beta = .02$, $p = .592$)

614   and nonnormative collective action ($B = -0.06$, $SE = 0.08$, 95% CI [-0.21, 0.09], $\beta = -.04$, $p =$

615   .449) were both nonsignificant. At the same time, while the positive effect of attachment

616   anxiety on nonnormative collective action approached significance ($B = 0.09$, $SE = 0.05$, 95%

617   CI [-0.003, 0.19], $\beta = .09$, $p = .058$), attachment anxiety was unrelated to COVID-19

618   conspiracy beliefs, $B = 0.06$, $SE = 0.07$, 95% CI [-0.08, 0.21], $\beta = .04$, $p = .389$.

619   There was a positive indirect effect of attachment anxiety on COVID-19 conspiracy

620   beliefs through increased national narcissism, $IE = 0.21$, $SE = 0.05$, 95% CI [0.10, 0.33], $Z =$

621   4.71, $p < .001$. Likewise, attachment anxiety was positively associated with nonnormative

622   collective action through increased national collective narcissism, $IE = 0.06$, $SE = 0.02$, 95%

623   CI [0.03, 0.10], $Z = 3.80$, $p < .001$. However, national narcissism did not mediate the effect of

624   attachment avoidance on COVID-19 conspiracy beliefs ($IE = -0.09$, $SE = 0.07$, 95% CI [-0.27,

625   0.09], *Z* = , *p* = .203) or nonnormative collective action, *IE* = -0.02, *SE* = 0.02, 95% CI [-0.08,

626   0.03], *Z* = -1.25, *p* = .211.

627   By contrast, attachment avoidance did not exert a positive indirect effect neither on

628   COVID-19 conspiracy beliefs nor nonnormative collective action through decreased national

629   identification (*IE* = 0.05, *SE* = 0.03, 95% CI [-0.01, 0.12], *Z* = 1.89, *p* = .058, and *IE* = 0.03,

630   *SE* = 0.02, 95% CI [-0.01, 0.07], *Z* = 1.85, *p* = .065, respectively). Likewise, the indirect

631   effects of attachment anxiety via decreased national identification did not reach significance

632   (*IE* = 0.00, *SE* = 0.02, 95% CI [-0.04, 0.04], *Z* = -0.01, *p* = .991 for COVID-19 conspiracy

633   beliefs and *IE* = 0.00, *SE* = 0.01, 95% CI [-0.02, 0.02], *Z* = -0.01, *p* = .991 for nonnormative

634   collective action).

635   Adding covariates into the model or using the robust estimation method did not alter

636   our conclusions.

637   **Figure 3**

638   *Results of Path Models Examining the Indirect Effects of Attachment Anxiety and Attachment*

639   *Avoidance on COVID-19 Conspiracy Beliefs and Nonnormative Collective Action via*

640   *National Narcissism (When Controlled for National Identification) and National*

641   *Identification (When Controlled for National Narcissism), Study 3*
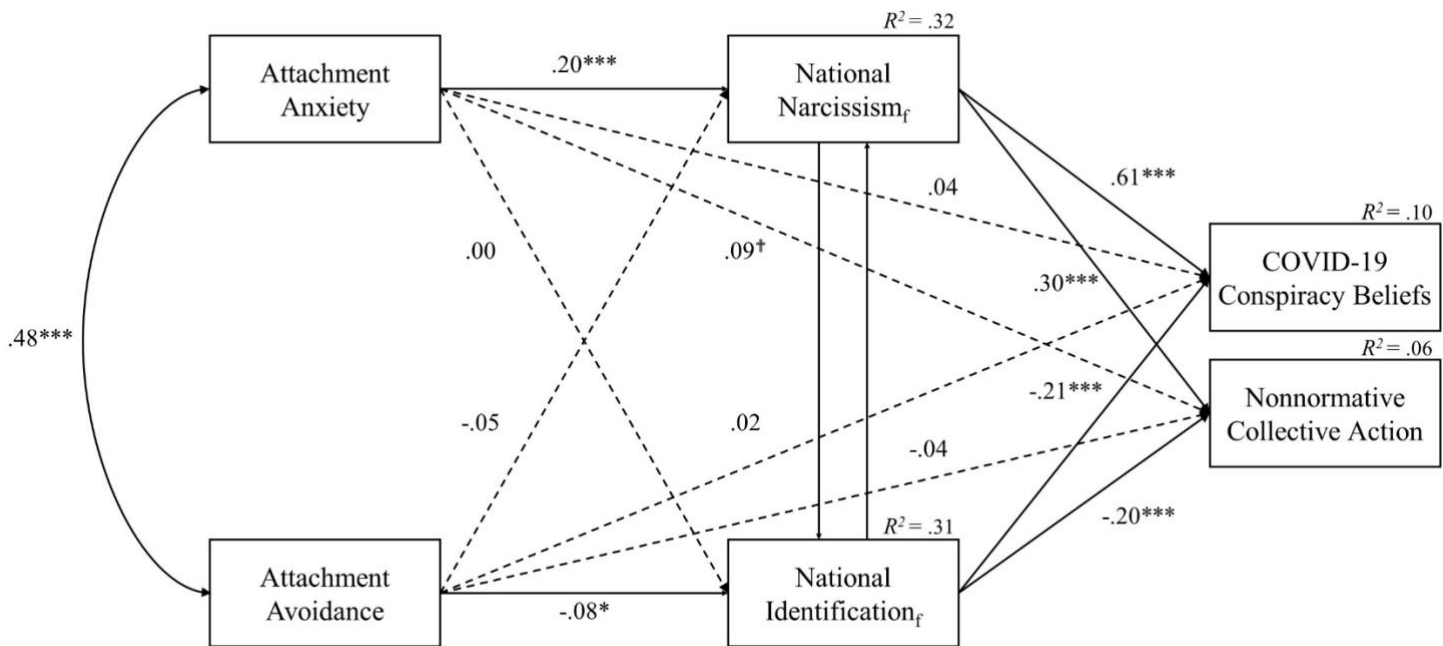
643   *Note*. Standardized coefficients presented. National Narcissism$_f$ = national narcissism

644   accounting for national identification (a model including the path from national identification

645   to national narcissism). National Identification$_f$ = national identification accounting for

646   national narcissism (a model including the path from National Narcissism to National

647   Identification). Dashed arrows reflect nonsignificant effects ($p \geq .05$).

648   ***$p < .001$.

649   **Discussion**

650   The goal of Study 3 was to scrutinize the mediating effects of national narcissism on

651   the relation between attachment anxiety and: a. conspiracy beliefs, and b. nonnormative

652   engagement. More specifically, we expected that among the two types of national in-group

653   commitment, only national narcissism (when controlled for national identification) should

654   catalyze these socially undesirable phenomena. Results confirmed these expectations.

655   National narcissism mediated the relationship between attachment anxiety and COVID-19

656   conspiracy beliefs and between attachment anxiety and nonnormative collective action.

657   National identification (when controlled for national narcissism) was negatively related to

658 COVID-19 conspiracy beliefs and nonnormative collective action. However, the indirect

659 effect of attachment avoidance via national identification on our dependent variables did not

660 reach significance. This time, we did not find a significant relationship between attachment

661 anxiety and national identification either.

<div align="center">**Study 4**</div>

663   In Study 4, we aimed to replicate the pattern of results obtained in previous studies in

664 a different socio-political context (i.e., among British participants). As in Study 3, we focused

665 on the relationship between attachment styles, different types of in-group commitment, and

666 COVID-19 conspiracy beliefs. This time, however, we also included an additional variable,

667 strictly related to negative intragroup processes (i.e., willingness to conspire; Douglas &

668 Sutton, 2011). Previous research found that people usually endorsed conspiracy theories when

669 they thought they would be willing, personally, to participate in the alleged conspiracies

670 (Douglas & Sutton, 2011). Thus, in Study 4, we hypothesized that the positive effect of

671 attachment anxiety (but not avoidance) on COVID-19 conspiracy beliefs would be mediated

672 by increased national narcissism and, in turn, increased willingness to conspire in the COVID-

673 19 context. In such a way, we aimed to examine whether defensive in-group commitment may

674 be related to another form of an intragroup hostility (i.e., willingness to engage in secret

675 harmful plots against one's own in-group members; see also Biddlestone et al., 2022;

676 Molenda et al., in press). One limitation of Studies 1-3 was that we measured the crucial

677 variable (i.e., national narcissism) with the use of a short (five-item) scale with no reverse-

678 coded items. Therefore, in Study 4 we also examined whether the pattern of results obtained

679 in previous studies would conceptually replicate if we used a better measurement tool (a full,

680 9-item version of the Collective Narcissism Scale; Golec de Zavala et al., 2009).

681 **Method**

682 *Participants and Procedure*

683   Data for Study 4 was obtained in an online survey of British participants aged between

684   18 and 83 ($M = 40.74$, $SD = 12.86$) via Prolific Academic (Peer et al., 2017). The sample

685   consisted of $N = 649$ individuals (321 female, 326 male, 1 non-binary, 1 other).

686   *Measures*

687   Unless otherwise noted, all measures utilized a 5-point response scale (1 = *strongly*

688   *disagree*, 5 = *strongly agree*).

689   **Attachment.** We assessed attachment with the same measure as in Studies 1 and 3

690   (RAAS; Collins, 1996). Both attachment anxiety ($\alpha = .89$) and attachment avoidance ($\alpha =$

691   .90) subscales were reliable.

692   **National Identification.** National in-group commitment was measured in the same

693   way as in Study 1, that is with the full 12-item (e.g., "I often think about being British")

694   version of Cameron's (2004) scale, $\alpha = .89$.

695   **National Narcissism.** National narcissism was assessed with the full 9-item (e.g.,

696   "The true worth of British people is often misunderstood") version of the Collective

697   Narcissism Scale (Golec de Zavala et al., 2009), $\alpha = .89$.

698   **Willingness to Conspire**. Willingness to conspire was measured with a 5-item scale

699   based on Douglas and Sutton (2011; e.g., "If I were in the position of governments, I would

700   manipulate the information about the coronavirus to increase my influence"), $\alpha = .93$.

701   **COVID-19 Conspiracy Beliefs**. To assess COVID-19 conspiracy beliefs, we used the

702   same 16 items as in Study 3, $\alpha = .93$.

703   **Covariates.** Again, the covariates involved political conservatism, gender (0 = *female*,

704   1 = *male*), age, education, and size of the place of residence.

705   **Results**

706   *Analytic Strategy*

707   Following Studies 1-3, we started by examining gender differences and

708   intercorrelations. In the next step, two path models were estimated. While national narcissism

709   and national identification were regressed on attachment anxiety and avoidance, willingness

710   to conspire was regressed on the two types of national in-group commitment and the two

711   facets of attachment. COVID-19 conspiracy beliefs – the outcome variable – was regressed on

712   all other variables. To test the robustness of our conclusions, we 1) accounted for the

713   covariates and 2) used MLR estimation. The 95% CIs for the indirect effects were obtained

714   with bootstrapping (10,000 re-samples). As far as the psychological variables were concerned,

715   there was no missing values in the present dataset. Models were estimated with the use of

716   Mplus 8.0. Given the analyzed models were saturated (i.e., without degrees of freedom), we

717   do not report any fit indices.

718   *Preliminary Analyses*

719   Table 4 displays the descriptive statistics and intercorrelations for the variables

720   measured in Study 4. In comparison to women, men exhibited lower attachment anxiety ($M =$

721   2.94, $SD = 0.98$ vs. $M = 2.77$, $SD = 0.90$, $t(645) = 2.24$, $p = .025$, $d = 0.18$), showed higher

722   collective narcissism ($M = 2.07$, $SD = 0.75$ vs. $M = 2.23$, $SD = 0.78$, $t(645) = -2.58$, $p = .010$,

723    $d = 0.20$), declared higher willingness to conspire ($M = 1.33$, $SD = 0.77$ vs. $M = 1.53$, $SD =$

724   1.10, $t(583.82) = -2.75$, $p = .006$, $d = 0.22$), were less educated ($M = 3.38$, $SD = 0.79$ vs. $M =$

725   3.24, $SD = 0.95$, $t(627.72) = 2.14$, $p = .033$, $d = 0.17$), as well as older ($M = 38.76$, $SD = 11.78$

726   vs. $M = 42.63$, $SD = 13.58$, $t(634.87) = -3.87$, $p < .001$, $d = 0.30$), and more conservative ($M =$

727   4.78, $SD = 1.99$ vs. $M = 5.37$, $SD = 2.06$, $t(645) = -3.68$, $p < .001$, $d = 0.29$). None of the

728   remaining variables was differentiated by gender p's $\geq .093$.

729   Attachment anxiety correlated positively with attachment avoidance and COVID-19

730   conspiracy beliefs, and negatively with national identification. Attachment avoidance showed

731   a negative association with national identification and was related positively to COVID-19

732   conspiracy beliefs. National narcissism was associated positively with national identification,

733   COVID-19 conspiracy beliefs, and willingness to conspire. There was a positive correlation

734   between COVID-19 conspiracy beliefs and willingness to conspire.

735 **Table 4**

736 *Descriptive Statistics and Correlations (Study 4)*

	M	*SD*	2	3	4	5	6	7	8	9	10
1. Attachment Anxiety	2.85	0.95	.57***	.05	-.16***	.07	.13**	-.08†	-.18***	-.03	.02
2. Attachment Avoidance	2.86	0.76	–	-.03	-.23***	.05	.11**	-.02	-.06	-.02	.04
3. National Narcissism	2.15	0.77		–	.53***	.18***	.23***	.47***	.17***	-.12**	-.04
4. National Identification	3.19	0.71			–	.03	-.02	.43***	.19***	-.05	-.13***
5. Willingness to conspire	1.43	0.96				–	.36***	.07†	-.12**	-.03	.02
6. COVID-19 Conspiracy Beliefs	1.61	0.85					–	.06	-.09*	-.09*	.04
7. Political conservatism	5.08	2.04						–	.24***	-.17***	-.13**
8. Age	40.74	12.86							–	-.11**	-.12**
9. Education	3.31	0.88								–	.07†
10. Size of the place of residence	3.09	1.07									–

737 *Note*. $N = 649$.

738 ***$p < .001$. **$p < .01$. *$p < .05$. †$p < .10$.

739   *Hypotheses Testing*

740   Figure 4 displays the results for the path model tested in Study 4. Attachment anxiety

741   was positively related to national narcissism (when controlled for national identification), $B =$

742   0.11, $SE = 0.04$, 95% CI [0.05, 0.18], $\beta = .14$, $p = .001$, but avoidance was not, $B = 0.02$, $SE =$

743   0.04, 95% CI [-0.07, 0.10], $\beta = .01$, $p = .722$. At the same time, both attachment avoidance (B

744    $= -0.14$, $SE = 0.04$, 95% CI [-0.21, -0.07], $\beta = -.15$, $p < .001$) and attachment anxiety ($B = -$

745   0.08, $SE = 0.03$, 95% CI [-0.14, -0.02], $\beta = -.11$, $p = .006$) were negatively associated to

746   national identification (when controlled for national narcissism). National narcissism was

747   positively reated to willingness to conspire ($B = 0.27$, $SE = 0.06$, 95% CI [0.16, 0.39], $\beta = .22$,

748    $p < .001$), but national identification ($B = -0.10$, $SE = 0.06$, 95% CI [-0.23, 0.02], $\beta = -.08$, $p =$

749   .101), attachment anxiety ($B = 0.02$, $SE = 0.05$, 95% CI [-0.07, 0.12], $\beta = .02$, $p = .632$), and

750   attachment avoidance ($B = 0.04$, $SE = 0.06$, 95% CI [-0.08, 0.16], $\beta = .03$, $p = .524$) were not.

751   In turn, willingness to conspire was positively related to COVID-19 conspiracy beliefs ($B =$

752   0.28, $SE = 0.03$, 95% CI [0.22, 0.35], $\beta = .32$, $p < .001$). National narcissism was also

753   positively related to COVID-19 conspiracy beliefs ($B = 0.28$, $SE = 0.05$, 95% CI [0.18, 0.37],

754    $\beta = .25$, $p < .001$), replicating the results of Study 3. By contrast, national identification was

755   negatively related to COVID-19 conspiracy beliefs, $B = -0.17$, $SE = 0.05$, 95% CI [-0.28, -

756   0.07], $\beta = -.14$, $p = .001$. Neither attachment anxiety ($B = 0.04$, $SE = 0.04$, 95% CI [-0.04,

757   0.12], $\beta = .05$, $p = .281$), nor attachment avoidance ($B = 0.04$, $SE = 0.05$, 95% CI [-0.06,

758   0.14], $\beta = .04$, $p = .395$) were related to the outcome variable.

759   In accordance with our expectations, there was a positive indirect effect of attachment

760   anxiety on COVID-19 conspiracy beliefs via increased national narcissism and willingness to

761   conspire, $IE = 0.01$, $SE = 0.003$, 95% CI [0.003, 0.02], $Z = 2.65$, $p = .008$. At the same time,

762   attachment anxiety exerted a positive effect on COVID-19 conspiracy beliefs by increasing

763   national narcissism, $IE = 0.03$, $SE = 0.01$, 95% CI [0.01, 0.06], $Z = 2.93$, $p = .003$. By

764 contrast, the indirect effect of attachment avoidance on COVID-19 conspiracy beliefs

765 thorough national narcissism and willingness to conspire ($IE = 0.001$, $SE = 0.003$, 95% CI [-

766 0.01, 0.01], $Z = 0.35$, $p = .723$), as well as national narcissism, were nonsignificant, $IE =$

767 0.004, $SE = 0.01$, 95% CI [-0.02, 0.03], $Z = 0.35$, $p = .723$.

768   National identification mediated the effects of attachment anxiety ($IE = 0.01$, $SE =$

769 0.01, 95% CI [0.004, 0.03], $Z = 2.10$, $p = .035$) and attachment avoidance ($IE = 0.02$, $SE =$

770 0.01, 95% CI [0.01, 0.05], $Z = 2.49$, $p = .013$) on COVID-19 conspiracy beliefs. Neither

771 attachment anxiety ($IE = 0.002$, $SE = 0.002$, 95% CI [-0.001, 0.01], $Z = 1.39$, $p = .165$), nor

772 attachment avoidance ($IE = 0.004$, $SE = 0.003$, 95% CI [-0.001, 0.01], $Z = 1.49$, $p = .138$)

773 exerted a serial indirect effect on the outcome variable by affecting national identification and

774 willingness to conspire.

775   Using the robust estimation method did not alter our conclusions in a meaningful

776 way. However, when the covariates were accounted for, the positive effect of attachment

777 anxiety on COVID-19 conspiracy beliefs lost significance.

778 **Figure 4**

779 *Results of Path Models Examining the Indirect Effects of Attachment Anxiety and Attachment*

780 *Avoidance on COVID-19 Conspiracy Beliefs via National Narcissism (When Controlled for*

781 *National Identification) and National Identification (When Controlled for National*

782 *Narcissism), and Willingness to Conspire, Study 4*

783
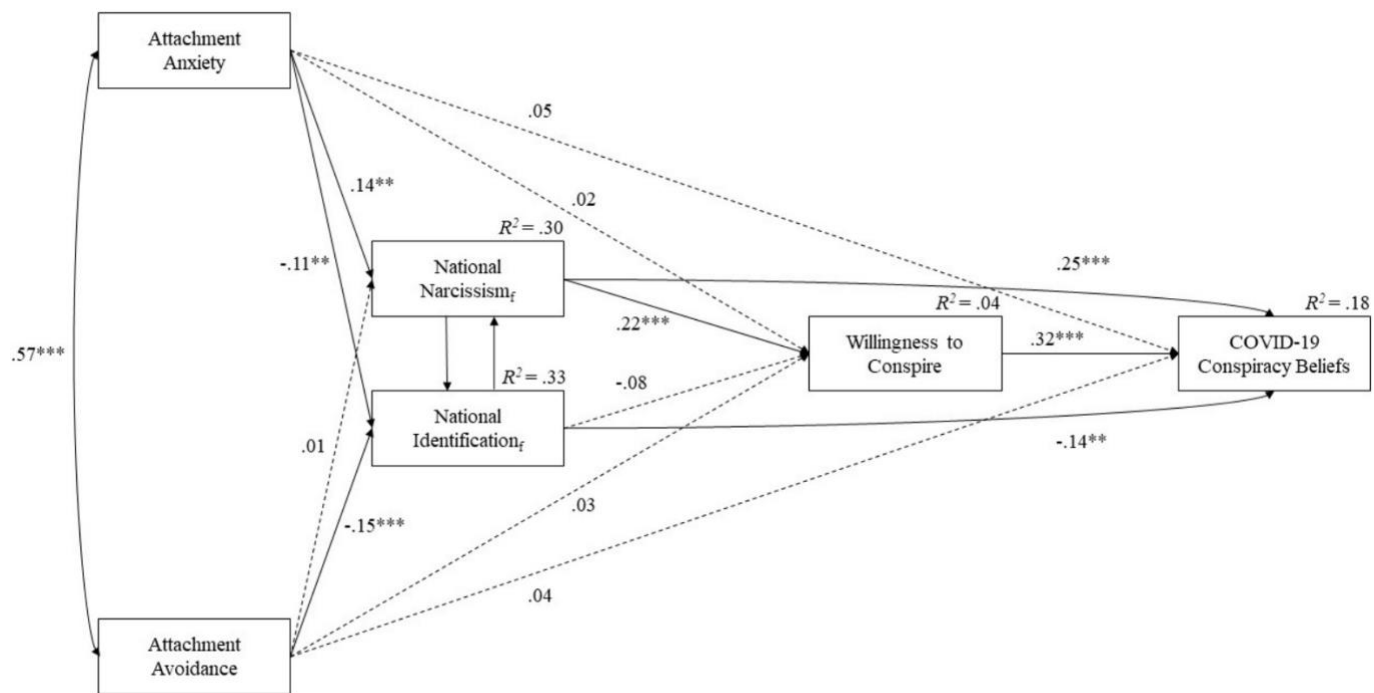
784

785   *Note*. Standardized coefficients presented. National Narcissism$_f$ = national narcissism

786   accounting for national identification (a model including the path from national identification

787   to national narcissism). National Identification$_f$ = national identification accounting for

788   national narcissism (a model including the path from National Narcissism to National

789   Identification). Dashed arrows reflect nonsignificant effects ($p \geq .05$).

790   ***$p < .001$.

791   **Discussion**

792   The goal of Study 4 was to check whether the pattern of results obtained in previous

793   studies would replicate in a different socio-political context (i.e., among British participants).

794   In line with our assumptions, we found that anxious attachment was positively linked to

795   increased national narcissism, which was further linked to increased willingness to conspire,

796   which then predicted COVID-19 conspiracy beliefs. In Study 4, we also found that both

797   attachment anxiety and avoidance were negatively related to national identification, which

798   was then negatively linked to COVID-19 conspiracy beliefs. Overall, the results of Study 4

799   showed that it seems at least plausible that individual insecurity may translate into collective

800   defensiveness that further goes hand in hand with negative intragroup (i.e., willingness to

801   conspire) and intergroup (i.e., conspiracy beliefs) phenomena.

<div align="center">

General Discussion

</div>

803   Across a series of four studies, we have investigated the links between attachment

804   anxiety and avoidance, and the two types of national in-group commitment: secure national

805   commitment (i.e., national identification when controlled for national narcissism) and

806   defensive national commitment (i.e., national narcissism when controlled for national

807   identification). We found consistent evidence that national narcissism is positively related to

808   attachment anxiety, whilst national identification is negatively related to avoidance, but also,

809   in a more limited extent, to attachment anxiety (see Table 5 for the summary of key results).

810   These relationships were especially pronounced once we accounted for the variance shared

811   between national narcissism and national identification.

812   **Table 5**

813   *Summary of the Key Results*

	Key results
Study 1	Attachment anxiety (but not avoidance) was positively associated with national narcissism. Both attachment anxiety and avoidance were related to national identification negatively.
Study 2	Attachment anxiety and avoidance had positive effects on national narcissism and negative ones on national identification over time. National identification had negative effects on attachment anxiety and avoidance over time. National narcissism was a positive longitudinal predictor of attachment anxiety.
Study 3	Attachment anxiety was positively related to national narcissism. Attachment avoidance was negatively related to national identification. National narcissism served as a significant mediator of the relationship between attachment anxiety and a. COVID-19 conspiracy beliefs and b. nonnormative collective action.

Study 4	Attachment anxiety was positively related to national narcissism, whereas both attachment avoidance and attachment anxiety were negatively related to national identification. There was a positive indirect effect of attachment anxiety on COVID-19 conspiracy beliefs via increased national narcissism and willingness to conspire (serial mediation). National identification mediated the effects of attachment anxiety and attachment avoidance on COVID-19 conspiracy beliefs.
Summary	We demonstrated that adult attachment is an essential factor in explaining group-level processes. Our studies suggest that people's attachment style may play an important role in how they identify with in-groups, which has consequences for both intra-group and inter-group relations.

814

Theoretical Implications

The present results provided systematic evidence that attachment anxiety is related to national narcissism. This goes in line with previous theorizing (Tajfel & Turner, 1986), suggesting that social identity may serve as a compensation for the frustration of different psychological needs. In this case, individual-level anxiety translates into collective defensiveness in the form of national narcissism, which is full of entitlement and concern about the external recognition of the in-group in the eyes of others (Golec de Zavala et al., 2013). Previous research showed that this type of defensive in-group commitment results in maladaptive intra- (e.g., in-group disloyalty; Marchlewska et al., 2020) and intergroup outcomes (e.g., out-group hostility; Marchlewska, Górska, et al., 2022). Our studies extend this work by showing positive relationships between: attachment anxiety, defensive national commitment, and, in turn, COVID-19 conspiracy beliefs, willingness to conspire, as well as nonnormative collective action. These phenomena have negative impacts on society. Conspiracy beliefs, of which adherence to COVID-19 conspiracies is but one example, stem from willingness to conspire (Douglas & Sutton, 2011) and may have vast consequences both for the in-group, as well as the out-groups (Douglas, 2021b). For example, in the context of the pandemic, past research showed that higher endorsement of COVID-19 conspiracies was

832   positively related to the refusal to vaccinate or wear masks to prevent the spread of the disease

833   (Cislak et al., 2021; Marchlewska, Hamer, et al., 2022), which may potentially have a

834   negative effect on the health of other in-group members. It was also related to blaming out-

835   groups for the pandemic's outbreak (Douglas, 2021a), which may lead to the reinforcement of

836   prejudice. On the other hand, nonnormative collective actions deriving from defensive

837   national commitment are probably directly aimed at out-groups and, therefore, endanger their

838   safety in the public sphere.

839   Moreover, we also found that lower attachment anxiety and avoidance were related to

840   secure national identification. This may suggest that the feelings of comfort with closeness

841   and confidence in depending on others (Bartholomew & Horowitz, 1991) is related to an

842   increased commitment to the national in-group in a more constructive way. This commitment

843   is based on an unpretentious investment in the in-group, which is independent of the

844   recognition of the group in the eyes of others (Golec de Zavala et al., 2013). This form of

845   national commitment does not lead to maladaptive intra- or intergroup outcomes (Cichocka &

846   Cisłak, 2020).

847   At the same time, the results of the longitudinal Study 2 showed that the relationships

848   between attachment anxiety and avoidance, and both types of national commitment, were

849   reciprocal. First, we not only found that high attachment anxiety at Time 1 predicted greater

850   national narcissism at Time 2, but also that high national narcissism at Time 1 predicted

851   greater attachment anxiety at Time 2. These results suggest that attachment anxiety

852   strengthens defensive national commitment a few months later and that defensive national

853   commitment also strengthens attachment anxiety. Second, we also found that both attachment

854   anxiety and avoidance at Time 1 predicted lower secure national identification and that secure

855   national identification at Time 1 predicted lower attachment anxiety and avoidance at Time 2.

856   Taken together, these findings point to a conclusion that psychological compensation

857   in the form of a defensive identity only seems to make things worse. Those who score high

858   (vs. low) on attachment anxiety are highly sensitive towards threats, obsessively search for

859   attention, support, and care from others (Cassidy & Kobak, 1988). This seems to evoke a kind

860   of a "vicious circle", in which individuals with attachment anxiety commit to a particular

861   group in a narcissistic way, which strengthens their insecurity and defensiveness in the long-

862   term.

863   Furthermore, our research extends past findings on the link between attachment styles

864   and group-related processes. Our results align with previous studies, which showed a positive

865   relationship between attachment anxiety and nationalism (Marsh & Brown, 2011), which has

866   a lot in common with national narcissism (Cichocka & Cisłak, 2020). However, our findings

867   provide a more nuanced understanding of the role of attachment styles in shaping different

868   attitudes towards one's own national in-group by simultaneously including insecure and

869   secure forms of national in-group commitment and demonstrating opposite effects of

870   attachment anxiety on these types of in-group commitment. Moreover, while previous studies

871   showed that secure attachment was linked to desirable group-related outcomes (positive

872   attitudes towards integration, out-group acceptance; Mikulincer & Shaver, 2001; Van

873   Oudenhoven & Hofstra, 2006), we identified the other side of the coin. More specifically, we

874   demonstrated that anxious attachment might have adverse social consequences (e.g.,

875   nonnormative collective action, conspiracy beliefs) and this relationship is mediated by

876   national narcissism.

877   Therefore, our research is the first to show that the compensatory mechanisms related

878   to high anxious attachment may only strengthen certain psychological problems. This,

879   however, is not the case among people low in attachment avoidance and anxiety (secure

880   attachment), who commit to their national group in a secure manner and, further, seem to

881   become even more secure individually. Indeed, this finding echoes Mikulincer and Shaver's

882   (2020) "broaden and build" theory of secure attachment, which has not been demonstrated at

883   the national in-group level until now.

884   **Limitations and Future Directions**

885   In this research, we aimed to assess the relationships between attachment and

886   defensive *versus* secure national in-group commitment. We did so in a series of four

887   independent studies. However, research presented here is not without limitations.

888   First, within the current research, we used only one measure of attachment. The

889   reported results, therefore, might be somewhat specific for this measure. Future research

890   might consider replicating the results reported in the current paper using other validated

891   measures of attachment (e.g., Experiences in Close Relationships, Fraley et al., 2000).

892   Second, future research would also do well to develop and validate a questionnaire

893   that allows researchers to investigate and measure secure in-group commitment per se (i.e.,

894   without the necessity to control for national narcissism in the analysis). In this research, we

895   followed an established tradition of capturing security by controlling for defensiveness (e.g.,

896   Cichocka et al., 2018; Locke, 2009; Marchlewska & Cichocka, 2017). This approach, though

897   easy to implement, does not allow for an unbiased interpretation of the obtained results. In

898   fact, there are reasons to believe that secure national commitment can be more than just

899   national identification without the narcissistic component. Thus, even though similar

900   procedures were implemented in many different contexts (e.g., self-esteem; Paulhus et al.,

901   2004; Marchlewska, Castellanos, et al., 2019 or perfectionism; Stoeber, 2014), future studies

902   should focus on developing a tool that captures secure national identification more directly.

903   Third, important limitation of the current work is that the observed results were solely

904   based on self-reports. While this is a typical approach studying the correlates of national in-

905   group commitment (e.g., Cichocka et al., 2018), future research using a multi-methodological

906   approach including observational data, informant-reports, and other sources of data are

907   desired in order to assess the degree of robustness of our findings.

908   Fourth, national narcissism is related to other forms of national commitment that have

909   been linked to maladaptive psychological states and traits, such as nationalism (understood as

910   national dominance; Kosterman & Feschbach, 1989), "blind" patriotism (understood as an

911   uncritical attachment to the nation; Schatz & Staub, 1997), or glorification (understood as

912   national superiority and respect for national symbols; Roccas et al., 2006). According to

913   Cichocka and Cislak (2020), national narcissism can be seen as an underlying construct that

914   could lead to both aggrandizing (captured by glorification) and dominating (captured by

915   nationalism) strategies in the struggle for group recognition (see also Gronfeldt et al., 2021).

916   Investigating the role of adult attachment styles in forming all these different forms of

917   national commitment would be an interesting avenue for future research.

918   Finally, the designs of our studies were correlational, thereby limiting causal

919   inferences. Future research would do well to manipulate attachment styles in experimental

920   studies (e.g., in the form of trainings or psychoeducation) or use three-wave longitudinal

921   research design to better verify causality (e.g., Górska, Marchlewska, et al., 2022). Future

922   studies might also consider assessments during longer periods of time, as attachment is

923   subject to change (Fraley, 2019), or alternatively, using the Experience Sampling

924   Methodology, focus on intensive assessments during short periods of time.

925   **Conclusion**

926   We believe that the role of attachment for national in-group commitment is an

927   important issue that may help explain some intra- and intergroup processes. We provide

928   empirical evidence that types of adult attachment are related differently to secure and to

929   defensive national commitment. Specifically, our results shed new light on that defensive

930   national commitment is primarily associated to heightened attachment anxiety, whereas

931   secure national commitment is related negatively to both attachment anxiety and avoidance.

932   We found these relationships to be reciprocal. Summing up, the current research emphasizes

933   that the role of attachment could be an important factor explaining not only intraindividual,

934   but also group-level processes.

935

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