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RESEARCH ARTICLE

Investigating the social embeddedness of criminal groups: Longitudinal associations between masculine honour and legitimizing attitudes towards the Camorra

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Abstract

The embeddedness of criminal groups within communities accrues from their ability to establish legitimacy, particularly among young people. A prototypical example are mafia claims to political authority in Italy. Intracultural Appropriation Theory proposes that embeddedness is partly derived from criminal groups' ability to embody cultural ideologies of masculine honour, and to reinforce these ideologies in society through their actions. We tested these propositions using a three-wave longitudinal design involving Italian adolescents from the Campania region ($N_{1^{st} wave} = 1,173$). We also examined an alternative explanation rooted in individuals' generic acceptance of group-based hierarchies, i.e., social dominance orientation. The longitudinal design enabled us to examine for the first time both between- and within-person processes. Between-person results indicated that higher levels of the masculine honour ideology and social dominance were associated with stronger legitimizing attitudes towards the Camorra, a mafia-type group. Within-person effects revealed a positive reciprocal association between masculine honour and legitimizing attitudes. These findings emphasize the importance of culture-specific ideologies in sustaining the legitimacy of criminal groups.

KEYWORDS

criminal groups, embeddedness, criminal governance, legitimization, masculine honour, organized crime

1 | INTRODUCTION

Criminal groups are a very substantial global threat. Their presence within communities has significant implications both for public security and local and national economies. For instance, estimates from the United Nations Office on Drugs and Crime suggest that criminal groups may be responsible for more violent deaths per year

than armed conflicts (United Nations, 2011; cf. Barnes, 2017). These groups' engagement in illegal trafficking, including drugs and weapons, generates illicit financial flows of up to 3.6% of global gross domestic product (Natarajan, 2019; United Nations, 2011). The resulting assets also finance terrorist and paramilitary organizations worldwide and damage legal economies (Kruisbergen et al., 2015; Leggett, 2019).

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Notably, however, the aims of criminal groups are not restricted to material gains. At least as consequential is their ability to become embedded in the community's social fabric (Horowitz, 1983), exerting *political authority* over citizens (Ferreira & Gonçalves, 2022; Lessing, 2021; Von Lampe, 2016). The exercise of such authority is epitomized by mafia actions in some southern Italian regions, where such groups compete with, infiltrate, and are even able to displace legal institutions. Mafia groups in those areas may offer services to citizens, enforcing rules, exacting taxes, and distributing jobs (Schneider & Schneider, 2003; Travaglino & Abrams, 2019).

Criminal groups' social embeddedness and ability to exert political authority has significant implications for democracy and the exercise of state sovereignty (Allum & Siebert, 2004; Barnes, 2017). An important research question is: what are the psychological bases of these groups' authority? Very few psychological studies have examined this question empirically (Travaglino & Abrams, 2019). In the present study, we did so with data from a three-wave longitudinal study of southern Italian adolescents. Specifically, amongst adolescents, we investigated the implications of their embracing masculine honour ideology for their legitimization of criminal groups operating within their territory. We also examined whether the association between masculine honour ideology and legitimizing attitudes was present over and beyond adolescents' generic orientation towards social hierarchy and inequality (i.e., their social dominance orientation; Pratto & Sidanius, 1994). Thus, we extended research on masculine honour beyond the realms of interpersonal aggression and violence by addressing this ideology's implications for regulating intergroup relations in societies characterized by the presence of criminal groups.

1.1 | Masculine honour and criminal groups

Honour is defined as the "value of a person in his [*sic*] own eyes, but also in the eyes of his [*sic*] society" (Pitt-Rivers, 1966, p. 22; see Cohen & Nisbett, 1997; Rodriguez Mosquera, 2016; Uskul et al., 2019). As the definition emphasizes, the concept of honour encompasses two main qualities (Rodriguez-Mosquera, et al., 2002). On the one hand, honour denotes moral standing, integrity, and principled behaviour. On the other, it refers to matters of reputation, status, and prestige. Whereas honour-as-morality is intrinsic to the individual's sense of self, honour-as-reputation depends on the judgement of the individual's social milieu.

Concerns about honour-as-reputation are central to individuals' social perceptions and interactions across many areas around the globe, including Mediterranean countries such as Italy (Travaglino et al., 2017), southern regions of the United States (Cohen & Nisbett, 1997), and Latin America (Johnson & Lipsett-Rivera, 1998). In these regions, individuals hold gender-specific normative and ideological expectations about how men *ought* to behave to be considered "honourable" and worthy of respect. This "masculine honour ideology" prescribes and commends men's use of violence in circumstances in which a man must defend his (or his family's) honour against insults,

attacks or provocations (Barnes et al., 2012). Masculine honour ideology has been linked to men's proclivity for violence toward both other men and women (e.g., Brown et al., 2018).

Masculine honour is also a central feature of many criminal groups' practices and discourses worldwide. Norms and beliefs emphasizing honour, masculinity, and violence govern affiliates' lives in mafia-type organizations in Italy (Paoli, 2003), criminal cliques in Brazil, Russia, and Germany (Zdun, 2008), and American inner-city gangs (Stewart, 2001; Horowitz, 1983). Such norms enable affiliates to navigate lawless environments, shaping interactions among criminal group members (Anderson, 1999).

Beyond intragroup interactions, we propose that masculine honour may also regulate relationships between criminal groups and the community at large (Travaglino & Abrams, 2019). Specifically, we contend that individuals' endorsement of masculine honour may predict their legitimization of criminal groups, helping to explain why these groups are able to exert authority over territories. In the present study, we employ a longitudinal design to examine the between- and within-person associations between individuals' endorsement of masculine honour ideology and their tendency to legitimize criminal groups.

1.2 | Legitimacy and criminal groups: Intracultural Appropriation Theory

To operate effectively and over a prolonged period, authority must be grounded in legitimacy (Tyler, 2006). When authorities are perceived as legitimate, individuals are more likely to obey them. Illegitimate authorities must constantly resort to violence and surveillance (Turner, 2005) but this is likely to elicit opposition by subordinates (Zelditch, 2006).

The state and other institutional authorities ground their legitimacy in their adherence to just procedures and the rule of law (Tyler, 2006; cf. Weber, 1978). Individuals may also be motivated to perceive authorities as fair, regardless of authorities' adherence to just procedures, because doing so satisfies individuals' fundamental needs to live in an orderly, just, and secure world (Jost, 2019). However, illegal and criminal authorities cannot resort to the same legal procedures to sustain their power, or satisfy the same psychological needs for justice and security. Criminal groups behave violently and are often (at least nominally) in conflict with institutions. They exert their power in ways that are markedly unjust. As Varese (2017, p. 49) puts it, "the mafia operates without consideration for justice, fairness or the well-being of society at large. In the world run by the mafia, there is no such thing as a 'right', even to the protection for which one has paid." The question is how are these groups able to displace institutional authorities and obtain legitimacy?

Recently, Travaglino and Abrams (2019; see also Travaglino, 2019) proposed Intracultural Appropriation Theory to explain the psychological bases of criminal authorities' governance and social embeddedness. Specifically, the theory contends that the legitimacy of criminal authorities is sustained, at least in part, by their ability to present

themselves strategically as the embodiment of cultural values, traditions, and customs cherished within the community. To the extent that community members endorse similar values, they are more likely to regard criminal authorities' actions as legitimate, enabling these groups to consolidate their embedding in society. Conversely, to sustain their power, criminal authorities aim to reinforce the perceived public importance of those values.

Anthropological (Schneider & Schneider, 2003) and sociological (Paoli, 2003) analyses of criminal organizations have stressed the importance of discourses and practices of masculine honour within these groups. For instance, mafia members call themselves "men of honour" and flaunt their adherence to a traditional morality rooted in patriarchal values. In addition, criminal organizations use violence strategically and publicly to punish perceived insults against their members' reputation. Previous research has emphasized the importance of masculine honour values in sustaining cohesion within criminal groups (e.g., Schneider & Schneider, 2003). We argue that the value framework of masculine honour ideology also enables criminal organizations to obtain legitimacy within the community (Travaglino & Abrams, 2019).

In the present study, we tested for the first time how these dynamics unfold over time in a large three-wave longitudinal study of southern Italian adolescents. Adolescents are an especially important demographic group for this research. It is during adolescence that individuals may be particularly prone to expressing their rejection of the institutional order and may attempt to improve their social standing by embracing criminal groups (Emler & Reicher, 1995). Moreover, adolescents have heightened needs for belonging (Abrams et al., 2011), and are liable to be very aware of intragroup rejection of dissenters (Abrams et al., 2014), making them more at risk of being recruited by these organizations to commit petty crimes based on the typically unfulfilled promise of joining the organization in the future, or obtaining other advantages. We thus hypothesized that the extent to which adolescents endorse masculine honour ideology positively predicts their legitimizing attitudes towards criminal organizations at a later point in time.

We also examined a competing explanation for the legitimization of criminal groups. Specifically, we tested the role of adolescents' orientation towards group-based hierarchies. Individuals differ in their orientation towards hierarchies, i.e., social dominance orientation (Pratto & Sidanius, 1994). According to social dominance theory, the emergence of social inequality is in part made possible by individuals' acceptance and justification of hierarchies among groups (Pratto et al., 2006; Sidanius et al., 2017).

Criminal groups, especially mafias, have substantial access to wealth and status. Their ability to exert political control means that they establish relationships of domination-subordination within the community (Travaglino & Drury, 2020). Young people may perceive such groups as prestigious and perhaps as symbolizing opportunities for social mobility (Horowitz, 1983).

As discussed earlier, Intracultural Appropriation Theory emphasizes the importance of culture-specific ideologies and shared values in driving individuals' legitimization of criminal groups. In contrast,

the social dominance orientation construct entails individuals' positive views of dominant groups in society, regardless of the specific groups or contexts that are being examined (e.g., Pratto et al., 2006). An explanation grounded in social dominance theory would instead highlight the role of more generic individual differences in the ways in which people perceive hierarchies and inequality. Thus, in the present research, we investigated longitudinally whether adolescents' endorsement of masculine honour could explain their tendency to legitimize criminal groups over and beyond their generic tendency to accept group-based hierarchy.

The test of longitudinal effects requires the application of cross-lagged panel models (CLPMs; Usami et al., 2019; Mulder & Hamaker, 2021). Cross-lagged panel models have recently been criticized in their conventional form for disregarding the naturally occurring hierarchical structure of longitudinal data, in which observations are nested within participants. Conventional CLPMs are not informative about whether the reported longitudinal effects can be interpreted on an intra-individual or an inter-individual level of analysis (Hamaker et al., 2015). An alternative approach, random-intercept cross-lagged panel models (RI-CLPMs) separate the stable between-person differences (i.e., inter-individual effects) from dynamic within-person processes (i.e., intra-individual effects).

We were particularly interested in examining the existence of intra-individual effects, namely whether intra-individual changes in the endorsement of masculine honour ideology and social dominance orientation were associated with intra-individual changes in the legitimization of criminal groups. Posing the question at this level of analysis is crucial for setting up applied interventions that aim at changing how values shape attitudes. Consequently, we tested our hypotheses using the RI-CLPM.

2 | METHODS

2.1 | Participants and procedure

Participants were recruited in Campania, a southern Italian region, and participated voluntarily in the study. Participants were recruited across three different schools in an area characterized by a high prevalence of the Camorra, the local mafia group. Data were collected using pencil-and-paper questionnaires administered by two researchers in classrooms. Data collection sessions took place in October 2014, February 2015, and June 2015. No formal power analysis was used to determine sample size. Sample size depended on the number of pupils present during data-collection sessions.

To preserve their anonymity, participants were asked to generate a unique code by answering some simple questions (e.g., the last two digits of their phone number). At the end of the final data collection sessions, workshops were organized to debrief students on the aim of the research and discuss the issues related to the presence of criminal organizations in the region. Cross-sectional analyses involving data from wave 1 (W1) of the present study were published in Travaglino

et al. (2017). Longitudinal analyses are reported for the first time in this article.

The initial sample at W1 consisted of a total of $N = 1,173$ adolescents ($M_{age} = 16.70$, $SD_{age} = 1.10$; 43.8% female, 54.8% male, 1.4% did not specify their gender). A large majority of participants were born in Campania (94.2%), 2.4% in other regions in Italy, and 3.4% did not indicate any region. $N = 1,172$ students participated in at least two waves, resulting in high participation in follow-up waves ($N_{wave\ 2\ and\ 3} = 1,087$). At wave 2 (W2), there were 46.6% female pupils and 53.4% male pupils. At wave (W3) there were 46.8% female pupils and 53.2% male pupils. Thirty-five participants could not be matched between waves because they did not provide participant codes. Nonetheless, we included these participants in our analyses treating their data as stemming from participants who took part in only one of the waves. We performed robustness checks to examine whether excluding them affected our results. There were no substantial differences in the model.

2.2 | Measures

Measures were included in a larger questionnaire focusing on organized crime and cultural values (see the [supplementary information](#) for a full list of measures). Throughout the questionnaire, we referred to criminal organizations by using the label Camorra, the name of the local mafia group. Items were in Italian.

2.2.1 | Honour ideology for manhood

To measure participants' endorsement of masculine honour ideology, we used Barnes et al.'s (2012) 16-item scale translated in Travaglino et al. (2017). This scale includes eight items measuring individuals' endorsement of male violence in honour-threatening situations ("A man has the right to act with physical aggression toward another man who flirts with his wife"), and eight items measuring individuals' endorsement of the traits that define a "real man" ("A real man can 'pull himself up by his bootstraps' when the going gets tough"). Items were answered on a seven-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Items were worded in a way that could be answered both by male and female participants because they asked about approval of male violence rather than personal aggressive tendencies (see Barnes et al., 2012, for a discussion). Items formed a reliable scale across waves, $\omega_{wave\ 1} = .90$, $\omega_{wave\ 2} = .93$, $\omega_{wave\ 3} = .94$.

2.2.2 | Legitimizing attitudes towards criminal organizations

Four items used in previous research were applied to measure participants' legitimizing attitudes towards criminal organizations (e.g., Travaglino et al., 2017). Items were "Actions of Camorra deserve

respect", "Actions of Camorra deserve admiration", "Some of Camorra's aims are legitimate", "Some actions of Camorra may have positive direct or indirect consequences for the area where you live". Items were answered on a seven-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Items formed a reliable scale across waves, $\omega_{wave\ 1} = .88$, $\omega_{wave\ 2} = .92$, $\omega_{wave\ 3} = .91$.

2.2.3 | Social dominance orientation

Participants' social dominance orientation was measured using a four-item version of the scale (Pratto et al., 2013). Items were "Superior groups should dominate inferior groups", "This country would be better off if we cared less about how equal all groups were", "This country would be better off if certain groups stayed in their place", "It is not a problem if some groups have more of a chance in life than others." Items were answered on a seven-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Items formed a reliable scale across waves, $\omega_{wave\ 1} = .76$, $\omega_{wave\ 2} = .79$, $\omega_{wave\ 3} = .80$.

2.3 | Analytical Strategy

All preliminary analyses were conducted using IBM-SPSS 26. We computed the longitudinal model using Mplus 8.3 (Muthén & Muthén, 1998–2019) or higher. Using the RI-CLPM approach allows us to test whether the within-person change in a variable over time affects the within-person change in other variables regardless of their position relative to other people (Mulder & Hamaker, 2020).

The RI-CLPM fully separates the observed variance in the indicator of one construct over time into either one latent factor representing stable between-person differences (called "random intercepts"), or latent wave-factors representing situational within-person deviations from the person-specific expected mean value. These time-specific within-person deviation factors were used to model stability (i.e., regression coefficients from W1 to W2, and from W2 to W3 for each construct) and cross-lagged relations (i.e., from construct A W1 to construct B W2, and vice versa) between the different constructs. The relations represent purely within-person processes. Within each time-point, we allowed the within-person factors (W1) or their residuals (W2 and W3) to covary. Within-person process factors were modelled without relation to the stable between-person difference factors. The between-person factors were allowed to covary. We regressed age and gender on the observed indicators of each construct at each time-point to examine whether there were significant associations between these demographic characteristics and the key constructs of interest across measurement occasions (Mulder & Hamaker, 2020).

We evaluated the model fit using the goodness-of-fit cut-off criteria defined by Schermelleh-Engel et al. (2003): root mean standard error of approximation (RMSEA) < .08; standardized root mean square residual (SRMR) < .10; comparative fit index (CFI) > .95.

TABLE 1 Descriptive statistics and intercorrelations for the mean values of all constructs across all time-points

		N	Mean	SD	Min.	Max.	1	2	3	4	5	6	7	8	9
1	Honour Wave 1	1,173	3.927	1.044	1.200	7.000	.900								
2	Honour Wave 2	1,087	3.944	1.119	1.000	7.000	.744	.924							
3	Honour Wave 3	1,087	3.914	1.172	1.000	7.000	.711	.792	.936						
4	Attitudes Wave 1	1,171	1.735	1.001	1.000	7.000	.364	.371	.328	.876					
5	Attitudes Wave 2	1,084	1.961	1.189	1.000	7.000	.364	.435	.357	.690	.916				
6	Attitudes Wave 3	1,097	2.066	1.179	1.000	7.000	.304	.324	.352	.599	.744	.913			
7	SDO Wave 1	1,168	2.509	1.161	1.000	7.000	.313	.292	.274	.314	.274	.280	.761		
8	SDO Wave 2	1,080	2.523	1.148	1.000	7.000	.305	.337	.297	.322	.384	.340	.552	.793	
9	SDO Wave 3	1,082	2.450	1.123	1.000	6.750	.260	.281	.310	.275	.314	.381	.506	.633	.803

Note: The diagonal line includes reliability estimates (omega/ ω), while the intercorrelations are depicted below the diagonal. Scale ranges from 1 *strongly disagree/not at all likely* to 7 *strongly agree/extremely likely*. Attitudes = legitimizing attitudes towards criminal organizations; Honour = masculine honour ideology; SDO = social dominance orientation. All the correlations are significant at $p < .001$.

3 | RESULTS

3.1 | Preliminary analyses

Descriptive statistics for each construct across measurement waves are reported in Table 1. First, we conducted a series of ANOVAs and χ^2 tests to examine whether those participants that dropped out after participation in a previous wave ($n_{wave\ 1-2} = 222$; $n_{wave\ 2-3} = 202$) differed significantly on demographics and items of key constructs from those who continued their participation across waves ($n_{wave\ 1-2} = 951$; $n_{wave\ 2-3} = 885$). We adjusted for multiple testing within waves using Bonferroni correction (significance level of .05/27 tests per wave = .00185). The results indicated that boys were slightly more likely to drop out after W2 than girls, $\chi^2(3, N = 1157) = 18.95, p < .001$. Those participants who dropped out after W2 also scored significantly higher on two items of the masculine honour ideology scale, $F(1, 1,082) = 13.09, p < .001$, and $F(1, 1,081) = 17.78, p < .001$, respectively.

Moreover, a series of Little’s missing completely at random (MCAR) tests including the items of all key variables of each wave were significant for wave 1, $\chi^2_{wave\ 1}(733) = 832.83, p = .006$, and wave 3, $\chi^2_{wave\ 3}(639) = 910.90, p < .001$ although non-significant for wave 2, $\chi^2_{wave\ 2}(665) = 625.48, p = .625$. Consequently, the MCAR assumption (Rubin, 1987) for dropout and missingness patterns within waves had to be rejected.

We used robust maximum likelihood estimation (MLR) in all following analyses. Maximum likelihood estimation accounts for missing information assuming a missing at random (MAR) pattern (Rubin, 1987), and is thus recommended for analyses of data that do not meet the MCAR assumption (Schafer & Graham, 2002). Moreover, the MLR estimation method also accounts for deviations from the normality assumption in the measures.

We used the observed scale composite scores of all measures for computing the RI-CLPM to reduce model complexity. We ran a series of confirmatory factor analyses to examine whether the assumptions necessary for comparing the composite scores across time were met. This strategy requires that factor loadings and intercepts of factors are equal across measurement occasions (scalar measurement invariance; Steinmetz, 2013; Little, 2013). Using Chen’s (2007) criteria, we successfully established scalar measurement invariance for all scales. To create observed scores, we averaged items for each latent factor to form composite scores for each wave.

3.2 | Testing the RI-CLPM

The simplified model displaying significant paths only is depicted in Figure 1. All the model coefficients are summarized in Table 2, and the effects of the time-invariant person predictors (gender and age) are summarized in Table 3. The model fitted the data well. For masculine honour ideology (henceforth “honour ideology”), we observed higher standardized factor loadings, and thus more explained variance, for the between-person factors (ranging between .79 and .70) than the within-person factors (ranging between .48 and .61) across waves. This indicates that a larger share of the variance in the measures could be explained by stable between-person differences. For legitimizing attitudes towards criminal organizations (“attitudes”) we observed the same pattern at W1 (between: .74; within: .65) but the reversed pattern at W2 (between: .62; within: .77), and W3 (between: .62; within: .77). Finally, for social dominance orientation (“SDO”) we observed lower standardized factor loadings for the between-person factors (ranging between .67 and .69) than the within-person factors (ranging between .72 and .73) across waves.

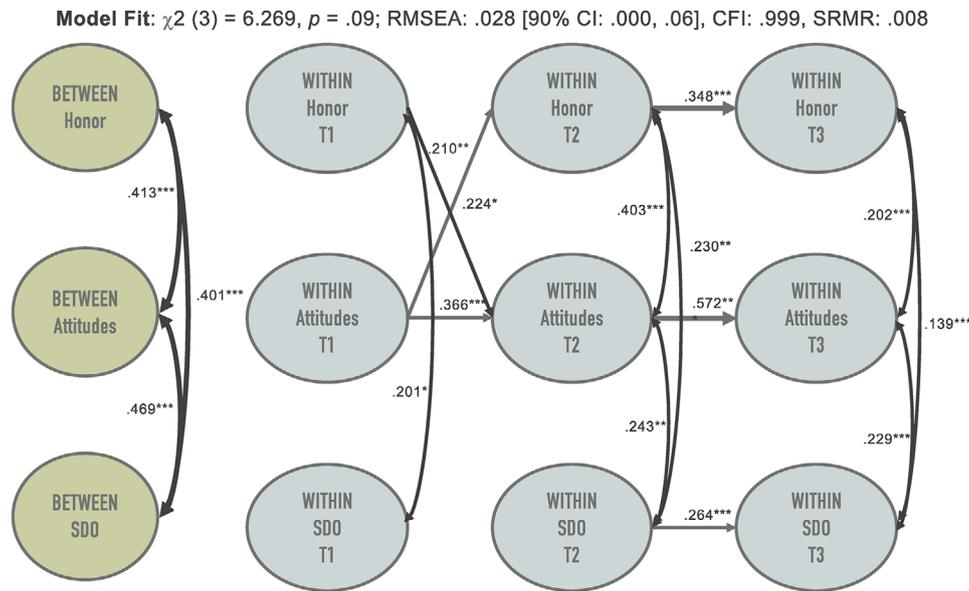


FIGURE 1 Random-intercept cross-lagged panel model

TABLE 2 Random-intercept cross-lagged panel model coefficients

Paths	Unstandardized (standardized) coefficients	SE	p	CI (lower-upper)
Between-person effects				
Honour \leftrightarrow Attitudes	0.256 (0.413)	0.051	$p < .001$.155-.357
Honour \leftrightarrow SDO	0.257 (0.401)	0.041	$p < .001$.177-.338
Attitudes \leftrightarrow SDO	0.279 (0.469)	0.052	$p < .001$.176-.382
Within-person effects Wave 1 \rightarrow Wave 2				
Honour \rightarrow Attitudes	0.398 (0.210)	0.099	$p = .007$.110-.686
SDO \rightarrow Attitudes	0.019 (0.017)	0.059	$p = .752$	-.098-.135
Attitudes \rightarrow Attitudes	0.518 (0.366)	0.135	$p < .001$.254-.783
Attitudes \rightarrow Honour	0.211 (0.224)	0.099	$p = .033$.017-.405
SDO \rightarrow Honour	0.080 (0.109)	0.054	$p = .140$	-.026-.186
Honour \rightarrow Honour	0.012 (0.010)	0.176	$p = .945$	-.333-.357
Honour \rightarrow SDO	0.243 (0.145)	0.150	$p = .106$	-.051-.537
Attitudes \rightarrow SDO	0.144 (0.115)	0.118	$p = .222$	-.087-.375
SDO \rightarrow SDO	0.110 (0.112)	0.078	$p = .160$	-.043-.262
Within-person effects Wave 2 \rightarrow Wave 3				
Honour \rightarrow Attitudes	-0.057 (-0.039)	0.080	$p = .470$	-.213-.098
SDO \rightarrow Attitudes	0.054 (0.049)	0.059	$p = .354$	-.061-.169
Attitudes \rightarrow Attitudes	0.567 (0.572)	0.079	$p < .001$.413-.722
Attitudes \rightarrow Honour	0.076 (0.101)	0.044	$p = .083$	-.010-.162
SDO \rightarrow Honour	0.027 (0.032)	0.046	$p = .550$	-.062-.117
Honour \rightarrow Honour	0.394 (0.348)	0.090	$p < .001$.217-.571
Honour \rightarrow SDO	0.015 (0.012)	0.079	$p = .850$	-.141-.171
Attitudes \rightarrow SDO	0.088 (0.102)	0.056	$p = .102$	-.021-.1988
SDO \rightarrow SDO	0.258 (0.264)	0.073	$p < .001$.114-.401

Note. Attitudes = legitimizing attitudes towards criminal organizations; Honour = masculine honour ideology; SDO = social dominance orientation. Double-headed arrows (\leftrightarrow) are covariances. One-headed arrows (\rightarrow) are regression coefficients. CI = 95% confidence interval.

TABLE 3 Effects of time invariant person predictors in the random-intercept cross-lagged panel model

Variable (Wave)	Gender	Age
Honour (W1)	$b = -0.760$ ($\beta = -0.364$), $SE = 0.054, p < .001$	$b = -0.083$ ($\beta = -0.091$), $SE = 0.024, p = .001$
Honour (W2)	$b = -0.789$ ($\beta = -0.353$), $SE = 0.059, p < .001$	$b = -0.086$ ($\beta = -0.088$), $SE = 0.028, p = .002$
Honour (W3)	$b = -0.846$ ($\beta = -0.358$), $SE = 0.062, p < .001$	$b = -0.120$ ($\beta = -0.117$), $SE = 0.028, p < .001$
Attitudes (W1)	$b = -0.349$ ($\beta = -0.169$), $SE = 0.056, p < .001$	$b = -0.004$ ($\beta = -0.005$), $SE = 0.030, p = .889$
Attitudes (W2)	$b = -0.381$ ($\beta = -0.154$), $SE = 0.069, p < .001$	$b = -0.013$ ($\beta = -0.012$), $SE = 0.035, p = .713$
Attitudes (W3)	$b = -0.297$ ($\beta = -0.121$), $SE = 0.070, p < .001$	$b = 0.010$ ($\beta = 0.009$), $SE = 0.035, p = .781$
SDO (W1)	$b = -0.182$ ($\beta = -0.077$), $SE = 0.067, p = .007$	$b = -0.052$ ($\beta = -0.051$), $SE = 0.031, p = .094$
SDO (W2)	$b = -0.207$ ($\beta = -0.089$), $SE = 0.067, p = .002$	$b = -0.037$ ($\beta = -0.036$), $SE = 0.032, p = .249$
SDO (W3)	$b = -0.283$ ($\beta = -0.123$), $SE = 0.066, p < .001$	$b = -0.019$ ($\beta = -0.019$), $SE = 0.031, p = .546$

Note: Attitudes = legitimizing attitudes towards criminal organizations; Honour = masculine honour ideology; SDO = social dominance orientation. Gender was coded 1 = male, 2 = female.

We found significant latent correlations between all the between-person factors. In line with previous research (e.g., Travaglino et al., 2017), when compared to others (i.e., rank orders), individuals with higher honour ideology tended to report stronger legitimizing attitudes ($\beta = .41, p < .001$). Individuals' levels of SDO were also significantly associated with both their honour ideology ($\beta = .40, p < .001$), and attitudes ($\beta = .47, p < .001$).

Next, we examined within-person effects. We observed a positive and significant stability coefficient for attitudes between W1 and W2, and between W2 and W3. These coefficients indicate that if an individual deviated positively from their average attitude level at W1 or W2, they were also likely to do so at W2 and W3 respectively. Within-person positive stability in honour ideology and SDO were significant only between W2 and W3 suggesting non-systematic within-person change over the time intervals.

We found a positive cross-lagged relation between honour ideology W1 and attitudes W2 as a purely within-person effect, and a non-significant effect between honour ideology W2 and attitudes W3. There was also a significant cross-lagged relationship between legitimizing attitudes at W1 and honour ideology at W2. The cross-lagged effects of SDO were non-significant. Our results supported Intra-

cultural Appropriation Theory by showing the existence of reciprocal longitudinal relationships between individuals' endorsement of masculine honour ideology and their legitimizing attitudes towards criminal groups, over and beyond the effects of SDO. Our analyses demonstrated that these relationships take also place intra-individually and not only based on rank-order differences between participants.¹

4 | DISCUSSION

Criminal groups are able to embed themselves in society and exert illegal governance over the community. Little is known about the psychological bases of their authority. In the present study, we tested the role of adolescents' endorsement of masculine honour ideology and social dominance orientation in legitimizing criminal groups in southern Italy, an area characterized by a strong influence of mafia-type organizations. We tested the proposition that adolescents' endorsement of masculine honour ideology is associated with stronger legitimizing attitudes towards criminal organizations. We examined whether masculine honour significantly predicted legitimization over and beyond adolescents' social dominance orientation—a generic attitude towards group-based inequality. We tested our hypothesis in a large, three-wave longitudinal study using RI-CLPM, which enabled us, for the first time, to investigate both inter- and intra-individual longitudinal processes.

Consistent with previous cross-sectional research (for a review see Travaglino & Abrams, 2019), there were significant between-individual associations among adolescents' endorsement of masculine honour ideology, social dominance orientation, and legitimizing attitudes towards criminal organizations. Specifically, adolescents who endorsed masculine honour ideology more strongly also had significantly higher levels of social dominance orientation and stronger legitimizing attitudes towards criminal groups than those who endorsed the ideology less strongly. Moreover, adolescents who reported higher levels of social dominance also had stronger legitimizing attitudes toward criminal groups.

At the intra-individual level, we found reciprocal longitudinal associations between adolescents' endorsement of masculine honour ideology and legitimizing attitudes towards criminal organizations. Specifically, holding SDO constant at wave 1, adolescents who more strongly endorsed masculine honour ideology at wave 1 also expressed stronger legitimizing attitudes at wave 2. Interestingly, stronger legitimizing attitudes at wave 1 predicted stronger endorsement of masculine honour ideology at wave 2. The latter finding indicates that individuals who had a more positive view of criminal organizations also subsequently reported higher levels of masculine honour.

Overall, this pattern of findings supports the theoretical proposition that criminal groups may derive their legitimization from the

¹ In the supplementary online material we also report models testing the relationship between SDO and Attitudes (Tables A and C), and Honour and Attitudes (Tables B and D) separately, displaying the effects of these variables without statistical controls.

strategic display of and normative adherence to cultural ideologies of masculinity, while also reinforcing the prominence of these values in society. This evidence indicates that criminal groups' emphasis on masculine honour might not only facilitate their ability to regulate intragroup interactions in a lawless environment but also underpin their legitimacy and social standing within the wider community.

Moreover, because criminal groups rely on values of masculinity to sustain their authority, it is in their interest to strengthen the importance of such values in the community. Criminal groups employ targeted actions, discourses, and narratives to cement the impression that they are the embodiment of masculinity (Poppi et al., 2018). Their strategic use of communicative and symbolic devices might explain why adolescents who have a more positive view of these groups also report stronger endorsement of masculine honour ideology at later times. This process is consistent with Intracultural Appropriation Theory's proposition that powerholders actively and strategically manipulate *meaning* to sustain their authority in society (Travaglino & Abrams, 2019).

Adolescents' social dominance orientation was not longitudinally associated with the legitimization of criminal groups. In line with Intracultural Appropriation Theory, at the within-individual level of analysis, it was the culture-specific endorsement of masculine honour ideology rather than adolescents' general tendency towards group-based hierarchies and inequality that predicted the legitimization of criminal groups. This result highlights the crucial role of *cultural meaning* and culturally rooted ideologies in sustaining dominance-subordination relationships in society.

Notably, the cross-lagged associations between masculine honour and legitimizing attitudes were significant between W1 and W2 but not between W2 and Wave 3. Differences in associations across waves could be a methodological artifact attributable to participants' concerns at answering repeated questions about a sensitive topic. For instance, local crime events could have made participants more reluctant to answer items about mafia groups. However, it should also be considered that, in line with research employing the RI-CLPM in other contexts (e.g., Osborne & Sibley, 2020; Liekefett et al., 2021; Van Breen et al., 2021), within-person effects are typically smaller and less stable over time compared with between-person effects, or those obtained by traditional CLPMs. Additional multi-wave longitudinal studies employing a variety of different measures are needed to investigate further changes in adolescents' perceptions of criminal groups.

4.1 | Theoretical contributions

Previous research has investigated how authorities are afforded legitimacy by virtue of their adherence to just, lawful procedures (Tyler, 2006). In addition, research has addressed the motivational conditions that may induce individuals to legitimize unfair societal arrangements (Jost, 2019). However, that line of research has been constrained by an almost exclusive focus on individuals' perception of the institutional authority and legal groups. It has yet to consider contexts in

which competing criminal groups exert power and become socially embedded.

Criminal groups cannot rely on the same sources of legitimacy as legal or elected authorities. Criminal groups are violent, predatory and have the potential to subvert society's social order and democratic institutions (Barnes et al., 2017; Travaglino & Abrams, 2019). Assessing the psychological bases of criminal groups' political authority, therefore, provides an opportunity to understand the articulation between ideology and social power in hitherto unexplored contexts and outside the boundaries of legal institutions.

Intracultural Appropriation Theory highlights the important role of cultural ideologies—the *meaning* that groups mobilize and propagate—in reinforcing authorities' hegemonic position in society. According to the theory, criminal groups may sustain their dominant and privileged position through the strategic appropriation, use, and reproduction of cultural values that are considered important within their context and by the community where they operate. Conversely, it is in these groups' interest to reinforce the weight of these values in society to sustain their power.

Thus, Intracultural Appropriation Theory addresses some of the crucial mechanisms through which *culture* can be harnessed by powerholders to justify unequal relationships of power and domination. The results from the present study provide the first empirical test of within-individual dynamics in the associations between individuals' endorsement of cultural values and legitimizing attitudes. Additional research is needed that examines these dynamics in the context of other authorities and groups.

Results from the present study also contribute to theorizing on masculine honour more broadly. Barnes et al. (2012) observed an association between individuals' endorsement of masculine honour ideology and support for the US government's war on terror. Barnes et al. (2014) found that this association was mediated by a heightened sense of national identity, suggesting a link between masculine honour and patriotism. However, evidence from the present study qualifies Barnes et al. (2014)'s findings in important ways by showing that masculine honour ideology can be implied in the legitimization of criminal groups that threaten the authority of the national government. This finding underlines the different functions that masculine honour may have across contexts and subcultures characterized by different intergroup relationships and power structures.

4.2 | Limitations and directions for future research

Unlike the CLPM, the RI-CLPM is a statistical technique able to differentiate between intra- and interindividual processes in longitudinal data analysis (Hamaker et al., 2015). The use of RI-CLPM to test our hypotheses enabled us to examine how the masculine ideology is associated with the legitimization of criminal groups at the within-individual level. This approach has the potential to extend previous theorizing in new directions, raising important novel research questions and addressing a level of analysis that is extremely consequential for the implementation of psychological interventions. The RI-CLPM or

related advanced statistical methods can be used to gain insights about the psychological processes at work in different settings and contexts.

Nonetheless, the RI-CLPM is not without its limitations. For instance, as with other non-experimental methods, the RI-CLPM cannot provide a complete test of causality because it is not possible to exclude alternative explanations for the observed relationships over time (Cook et al., 2002). Moreover, the RI-CLPM assumes a perfect separation of the variance in between- and within-person components, without explicitly modelling measurement error. Finally, it has been argued that the RI-CLPM does not capture differences over time that are located at the between-person level but rather focuses on fluctuations around individuals' means (Lüdtke & Robitzsch, 2021; Orth et al., 2021). This was a suitable level of analysis in relation to the theoretical focus of the present study. Nevertheless, future research could employ other statistical approaches to enhance our understanding of the processes at work at the various levels of analysis (e.g., Curran & Hancock, 2021). Notably, RI-CLPM's models are not equipped to capture long-term or sustained effects that persist over time (Lüdtke & Robitzsch, 2021; Orth et al., 2021). Recently, other CLPM extensions have been proposed to mitigate this problem (e.g., CLPM with additional lag-2 effects; Lüdtke & Robitzsch, 2021). As the debates about the best ways to analyse longitudinal data continue, future research should examine the extent to which the findings reported here depend on a specific method by using different analytical strategies.

Future studies should examine the generalizability of the processes investigated here across a broader array of samples, groups, and contexts. Representative and larger samples involving additional groups could be used to estimate the size of the relationships observed in the present study more precisely. Moreover, other criminal authorities such as terrorist and paramilitary organizations across the world may also attempt to depict themselves as the embodiment of cherished values, or the defenders of traditional customs, to subvert the authority of the state and gain consensus (Grynkewich, 2008). Research should examine the cultural values that may be involved in the legitimization of such groups.

Yet another question for future research concerns what alternative ideologies and beliefs may be involved in individuals' intentions to oppose criminal groups. Beliefs about the importance of societal change (Travaglino et al., 2017), and positive attitudes towards the state and the police (Tyler, 2006) may play an important role in individuals' decisions to engage collectively against these groups. Conversely, interpretations of the state as ineffective may create the perception of a power vacuum where alternative systems of authority may more easily operate.

Finally, more research is also needed to consider the relative relevance of cultural values in the legitimization of criminal groups at different stages of development. The malleability of values and attitudes during adolescence (Rutland et al., 2010) makes this age group an important target for interventions. Nonetheless, additional factors pertaining to the perception of the state and economic conditions may become more relevant later in life. Longer term longitudinal studies are needed to address these and related research questions.

5 | CONCLUSIONS

Individuals in many societies across the world must navigate a complex set of power relations, whereby different groups make competing claims to legitimacy, authority and social embeddedness. It is, thus, important that research addresses public views of groups other than legal institutions. The longitudinal evidence reported in this article demonstrates the key role played by adolescents' endorsement of masculine honour ideology in bestowing criminal groups with legitimacy. Interventions that help at-risk adolescents avoid engaging with criminal groups, or policies intent on preventing such groups from becoming rooted in the community, must address not only structural factors but also individuals' cultural values and beliefs. Educative programs should be implemented either to challenge damaging ideologies of masculine honour or to expose the vacuity of criminal groups' claims that they embody them.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data for this study are available at the following link: <http://osf.io/hgw87/>

ETHICS STATEMENT

The manuscript adheres to ethical guidelines specified in the APA Code of Conduct as well as BPS guidelines. The study was approved by the Research Ethics Review Board of the University of Kent. The submitted work is original and not (self-)plagiarized, and authorship reflects individuals' contributions.

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