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Smoker identity and resistance to antismoking campaigns: The role of group entitativity

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Abstract

Past works have shown that identification with smokers predicts increased resistance to antismoking campaigns. In this research, we hypothesized that group entitativity, because it affects the extent to which people feel committed to act for their group, can mitigate this link. We conducted two studies with convenient samples of smokers that both included a measure of identification and measured (Study 1) or manipulated (Study 2) entitativity. Then, participants read an antismoking message and, finally, reported their attitude toward smoking (Studies 1 and 2), as well as their urge to smoke and intention to quit (Study 2). Consistently, both studies revealed more resistance among high (vs. low) identifiers, but only when they perceived smokers as a highly entitative group. These findings emphasized the importance of group processes and social identity factors for accounting for responses to antismoking information.

Keywords

antismoking campaigns, entitativity, identification, resistance, smoker identity

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Antismoking media campaigns can be useful to motivate smokers to cease smoking and stay abstinent as long as possible. These campaigns inform about potential health risks that smokers might have to deal with if they continue smoking (e.g., cancer, respiratory and heart diseases), and can provide useful advice as to how to avoid relapse and manage withdrawal symptoms. Unfortunately, and despite strong efforts put into designing impactful, often threat-based, messages (Manyiwa & Brennan, 2012), research shows mixed findings with regard to their effectiveness in changing behaviour. Antismoking campaigns may certainly have beneficial effects on smokers (e.g., Durkin, Brennan, & Wakefield, 2012; Farrelly et al., 2012; Fong et al., 2010; McAfee, Davis, Alexander, Pechacek, & Bunnell, 2013; Wakefield, Loken, & Hornik, 2010), but a high number of studies have shown that they may also give rise to resistance reactions, as notably manifested by positive attitudes toward smoking and motivation not to quit (e.g., Brown & Smith, 2007; Erceg-Hurn & Steed, 2011; Glock & Kneer, 2009; Harris, Mayle,

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Mabbott, & Napper, 2007; Kessels, Ruiter, & Jansma, 2010; Leshner, Bolls, & Wise, 2011; Wolburg, 2006). This is highly consequential in that such reactions are likely to prevent smokers from properly weighing up the importance to quit for their health, which, ultimately, may lead to smoking maintenance.

To date, research on reactions to antismoking campaigns has mainly focused on the role of individual factors, such as emotion, risk perception, personal involvement, or information processing. However, smokers also constitute a particular group within the society, and group processes may strongly influence their motivation to give up or continue smoking. In the present research, we consider resistance to antismoking campaigns as a group process bringing into play a diverse range of social factors. While some previous works have brought light on the role of group identification in the receptiveness to antismoking campaigns, we here aimed to expand this framework by exploring another group-related factor, namely entitativity.

Smoker Identity and Resistance to Antismoking Campaigns

In part because they have habits, attitudes, and values in common, smokers form a group with a specific collective identity (Hertel & Mermelstein, 2012; Meijer et al., 2017; van den Putte, Yzer, Willemsen, & de Bruijn, 2009). Nevertheless, they do not constitute a group like other groups. Over the last decades, at least in Western countries, as both smokers and nonsmokers have endorsed the idea that "smoking is bad for the health," smoking has become an irrational and socially inacceptable act. As a result, smokers have suffered growing stigmatization and social rejection (e.g., Evans-Polce, Castaldelli-Maia, Schomerus, & Evans-Lacko, 2015; Farrimond & Joffe, 2006; Kim & Shanahan, 2003; Louka, Maguire, Evans, & Worrell, 2006; Peretti-Watel, Legleye, Guignard, & Beck, 2014; Stuber, Galea, & Link, 2008). In parallel, many researchers have witnessed the emergence of an antismoking norm, turning smoking behaviours into socially deviant behaviours and exerting strong social pressure on smokers to quit (e.g., Falomir-Pichastor & Mugny, 2004; Falomir-Pichastor, Mugny, Berent, Pereira, & Krasteva, 2013; W. L. Hamilton, Biener, & Brennan, 2007; Markle & Troyer, 1979; Thrasher, Boado, Sebrié, & Bianco, 2009). This has imposed on smokers a devalued, stigmatized, and repeatedly threatened collective identity within a social context where the antismoking norm reigns supreme.

Tobacco control policies, either banning smokers from public places (e.g., bars, restaurants, workplaces) or increasing the price of tobacco, have contributed to creating and perpetuating social rejection of smokers (Burgess, Fu, & van Ryn, 2009). Similarly, antismoking campaigns have also exacerbated such a stigmatization (Riley, Ulrich, Hamann, & Ostroff, 2017; Thompson, Barnett, & Pearce, 2009), notably by making negative features of smokers' identity more salient (Falomir-Pichastor, Chatard, Mugny, & Quiamzade, 2009; Falomir-Pichastor & Mugny, 2004), by devaluing and casting doubts on the appropriateness of their group-defining behaviours (e.g., by asserting, as an imperative, that smoking is harmful) and by vividly depicting them as slaves of tobacco, lacking of individual autonomy and self-control capacities, as well as unstable, anxious, and immature persons (Echabe, Guede, & Castro, 1994; Tombor et al., 2015). Moreover, because these campaigns activate the antismoking norm (Rhodes, Roskos-Ewoldsen, Edison, & Bradford, 2008), they inevitably put smokers in a position of social deviance by reminding them what are the appropriate behaviours in society, and that theirs is not. In sum, since antismoking campaigns, more or less explicitly, emphasize the notion that smoking is a deviant behaviour, smokers are likely to perceive that their group is stigmatized and devalued.

According to social identity theory (Tajfel & Turner, 1979), when people face threats to their social identity, they are likely to respond differentially as a function of their level of identification with the in-group. Identification is distinct from merely belonging to a group and refers to a subjective feeling of connection and attachment to the group that involves

incorporating the group membership as a central aspect of the self-definition. In response to identity-threatening circumstances, those who more strongly identify with the group have been found to express greater motivation to counteract the threat and further engage in identity management strategies directed at protecting the in-group (Doosje, Ellemers, & Spears, 1995; Ellemers, Spears, & Doosje, 1997; Schmader, 2002; Spears, Doosje, & Ellemers, 1997). In contrast, low identifiers, because they do not experience a particular connection with the group, are likely to be insensitive to identity threats and unwilling to act on them.

Accordingly, smokers highly identified with their group are particularly likely to consider antismoking campaigns as threats to their social identity and can make resistance a form of reaction aimed at managing and defending themselves against those threats. Evidence for such notions has been provided in studies showing that identification with smokers shapes receptiveness to antitobacco messages, so that smokers who are the most strongly identified are those who express resistance the most (Falomir-Pichastor & Invernizzi, 1999; Falomir-Pichastor & Mugny, 1999; Freeman, Hennessy, & Marzullo, 2001). Similarly, it has been shown that, when exposed to information that smokers generally oppose antismoking actions, smokers increase group identification and resist to a greater extent antitobacco messages (Falomir-Pichastor, Mugny, & Invernizzi, 2002). Furthermore, other studies have demonstrated that increasing perception of identification with the source of antismoking messages, for example by portraying someone who shares an important aspect of the self (e.g., being a student), can reduce the feeling of identity threat and hence increase intention to quit (Comello, 2013; Moran & Sussman, 2014).

In the present study, we go a step further from past research by suggesting that not only identification may account for smokers' resistance to antismoking campaigns. It is also crucial to consider how smokers perceive their group and, more specifically, whether they perceive that it can sustain and encourage members' engagement in group defence when dealing with identity threats. Accordingly, we explored the role of group entitativity and sought to show how such a group-based factor may be central in the rise of resistance reactions to antismoking campaigns.

Group Entitativity

Group entitativity can be defined as the extent to which a group is perceived to be a coherent and unified entity, where members share high similarity and interdependence (Dasgupta, Banaji, & Abelson, 1999; D. L. Hamilton & Sherman, 1996; D. L. Hamilton, Sherman, & Lickel, 1998; see also Campbell, 1958), maintain strong interpersonal bonds (Brewer, Hong, & Li, 2004; Crump, Hamilton, Sherman, Lickel, & Thakkar, 2010), and pursue common goals (Denson, Lickel, Curtis, Stenstrom, & Ames, 2006). Put differently, it refers to the perceived level of "groupness" of a group. This dimension is central in group structuration and has strong implications for various aspects of group behaviour, for example, regarding discrimination and stereotyping (e.g., Castano, Yzerbyt, Paladino, & Sacchi, 2002; Rydell, Hugenberg, Ray, & Mackie, 2007; Spencer-Rodgers, Hamilton, & Sherman, 2007; Spencer-Rodgers, Williams, Hamilton, Peng, & Wang, 2007).

Perception of group entitativity has important consequences for the ways people engage with their in-group and, more specifically, the extent to which they feel committed to act for the good of the group, especially when threatened (see Sherman, Hamilton, & Lewis, 1999). Because members of highly entitative groups view their group as a "real" group (Sacchi, Castano, & Brauer, 2009) and ascribe more value to their membership in the group (Crawford & Salaman, 2012; Lickel et al., 2000), they are more likely to invest in actions aimed at protecting the in-group from external threats than are members of groups that are lower in entitativity. This is because high perceived entitativity acts as a signal that the in-group is strong and highly supportive of actions in service of the group and that group

interests need to be defended over personal interests. Several studies have given evidence for this. For example, Hogg (2004) has shown that people are more inclined to act in a radical way against in-group threats, notably through very extreme behaviours (e.g., terrorism), when they identify with entitative groups. Similarly, Effron and Knowles (2015) have demonstrated that entitativity increases tendency to act in defence of the group's interests by displaying explicit prejudice and discrimination toward threatening outgroups (see also Effron, Kakkar, & Knowles, 2018). As a consequence, the higher the entitativity of a group, the higher its support to its members for demonstrating a sustained engagement in protection of the group identity.

In the present research, we suggest that entitativity can mitigate the effects of identification on the way people manage identity threats. Indeed, although identification constitutes a driving force boosting willingness to engage in social identity protection actions, it is also necessary to take into account whether people perceive that their group can bolster engagement in such actions. Because group entitativity affects members' level of commitment to act for the group, we propose that it would shape the effects of identification on responses to identity threats. If people identify with an entitative group, personal willingness to engage in resistance actions would be perceived as supported by the in-group. Thus, people will actively seek to preserve a positive social identity and take action for group protection. In contrast, effects of identification on motivation to defend the group identity are likely to be undermined in cases where group entitativity is low. This is because people would feel identified with a group that would not support them in defending the group when threatened, thereby leading to further accept the threat. Thus, whereas identification reveals how much individuals are ready to personally engage in group defence, entitativity would reflect the extent to which the group can make members feel committed and supported to initiate identity protection actions.

It is important to note that identification and entitativity have been mainly examined as dependent constructs, as either the cause or consequence of one another. One the one hand, perceived group entitativity has been investigated as an antecedent of identification, such that the more people perceive themselves as being part of a highly entitative group, the higher their identification (Castano, Yzerbyt, & Bourguignon, 2003; Crawford & Salaman, 2012; Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007). This enhanced identification occurs in part because groups high in entitativity are more effective in reducing feelings of self-uncertainty (Hogg et al., 2007) and can satisfy psychological needs more strongly (Crawford & Salaman, 2012; Lickel et al., 2000). On the other hand, other studies have shown that group entitativity can be a product of identification, with high identifiers perceiving in-group members as more homogeneous, especially in a context of identity threat (e.g., Doosje, Spears, & Ellemers, 2002). Drawing upon self-categorization theory, high levels of in-group identification are likely to make group identity more salient, which, in turn, can produce a process of self-depersonalization through which group members come to perceive themselves as more interchangeable and similar (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), especially when people perceive themselves as members of a low-status or stigmatized group (Doosje et al., 1995; Iacoviello, Lorenzi-Cioldi, & Chipeaux, 2019; Spears et al., 1997).

In this research, however, we consider that entitativity and identification can be examined as two independent constructs, the former as a moderator of the latter. Indeed, it seems equally possible that people identify with low-entitative groups such as large and diversified groups formed on the basis of age or gender, or that they belong to groups with a strong entitativity without feeling identified, like, for instance, in the case where people from low-status groups anticipate social mobility (see e.g., Chipeaux, Kulich, Iacoviello, & Lorenzi-Cioldi, 2017). Moreover, both constructs are distinct in terms of the effects that they can produce on in-group behaviour. If identification can stimulate

individuals' motivation to take action in benefit of the in-group, perception of entitativity, indicating whether the group as a whole bolsters and supports members to do so, would allow such motivation to transform into action. Borrowing a metaphor from Effron and Knowles (2015), in-group identification provides the "fuel" for initiating group action, while in-group entitativity opens (or closes) a "valve" through which such actions can escape. This way, even though entitativity has been mostly regarded as the antecedent or result of identification in research thus far, it is of great relevance to examine whether and how group entitativity modulates the effects of identification on identity threat management and, more specifically, whether identification may result in different responses to antismoking campaigns depending on the extent to which smokers perceive their group as entitative.

The Role of Entitativity in Smokers' Response to Antismoking Messages

Previous research has shown that group entitativity can affect social influence and persuasion processes (Clark & Thiem, 2015; Clark & Wegener, 2009; Rydell & McConnell, 2005). For example, Rydell and McConnell (2005) observed that messages are more persuasive and require more effortful processing when the source is described as belonging to a highly (vs. low) entitative group. However, no research has ever examined the influence of perceived entitativity when persuasive messages are threatening to the receivers' group identity. Yet, in this case, one may expect entitativity to cause opposite effects, that is, greater resistance when it is perceived to be high, resulting from a higher level of commitment to defend the in-group against identity threats. Thus, the present research can provide an important contribution to research on entitativity by exploring its role in the context of identity-threatening persuasive communications.

Similarly, group entitativity has never been considered in the specific context of smoking behaviours and smokers' reactions to antismoking campaigns. Yet, beyond the effects of identification, examination of such variable in this context is of great importance. Indeed, the group and what other group members think and do highly matters for smokers (Hertel & Mermelstein, 2012, 2016; Tombor et al., 2015). To motivate them to engage in action for the group, they need to feel supported and committed to the group. Thus, smokers' willingness to act for their group and to protect the group identity is contingent upon whether they perceive that smokers as a whole are capable of supporting such group-directed actions. This is particularly clear in the cases where smokers' collective support is lacking. For example, Jetten, Schmitt, Branscombe, Garza, and Mewse (2011) showed that smokers engage less in resistance actions aimed at defying governmental decisions regarding smoking bans in public places and endorse more antismoking policies when they are led to think that smokers in general believe that their stigmatization is legitimate. Because group disadvantages are legitimized by other members, smokers are likely to think that their group does not encourage efforts to defend the group's interests, which leads to reduced engagement in doing so. Thus, given that entitativity directly influences in-group perception and whether people perceive that they are encouraged to engage in action for the in-group, we suggest that it is a pivotal variable that needs to be addressed in research on smokers' responses to antismoking information.

More specifically, we contend that group entitativity has the potential to counteract the effects of identification on resistance to antismoking campaigns. Perception that smokers form an entitative group, thus signalling that actions in favour of the group are supported, would bolster high identifiers' motivation to defend the in-group against identity threats. Without the support of other smokers, as signalled through reduced perception of entitativity, smokers high in identification would not find appropriate resources for engaging in actions to cope with group stigmatization. Relatedly, it has been shown that smokers with a relatively strong smoker identity (vs. weak) resist antismoking persuasive messages by increasing their perceptions that smokers, as a group,

cohesively oppose antismoking actions (Falomir-Pichastor & Invernizzi, 1999). As a result, we hypothesize that smokers' expression of resistance to antismoking campaigns would not only result from identification but also from perception of whether smokers are perceived to be an entitative group. If smokers high (vs. low) in identification view the in-group as highly entitative, they will be more strongly motivated to defend the group identity and hence resist antismoking campaigns. In contrast, if smokers are perceived as a low-entitative group, their level of identification will affect to a lesser extent the motivation to act in favour of smokers' interests and to engage in resistance actions.

Overview of the Present Studies

We report here two studies designed to test whether perceived entitativity of smokers would modulate the effect of identification on smokers' resistance to an antismoking message. Both studies measured group identification. Study 1 measured perception of entitativity, while Study 2 manipulated it. In each study, participants (all smokers) were instructed to read an antismoking message and then to report their attitude toward smoking. In Study 2, we additionally included measures of participants' urge to smoke and intention to quit. Although these outcome variables do not directly assess reactions to the message and do not only arise in response to antismoking information, we included them because they are commonly used measures to evaluate the impact of antismoking campaigns on smokers (see e.g., Durkin et al., 2012; Falomir-Pichastor & Invernizzi, 1999). When the smoker group is perceived to be highly entitative, we expect highly identified smokers to express higher resistance to the message than low-identified smokers. When the group is perceived to be low in entitativity, we hypothesize this effect to disappear or to be less pronounced.

Study 1

We first conducted a correlational study, which successively included measures of identification and entitativity, exposure to an antismoking message, and a measure of attitude toward smoking. We anticipated a significant interaction between identification and entitativity, with a more positive attitude toward smoking among smokers high in identification than among those low in identification when they perceive their group to be highly entitative. No effect, or a less marked one, of identification was expected when entitativity is low.

Method

Participants. Ninety-two smokers[1] voluntarily participated in this study (M_{age} = 20.67, SD_{age} = 1.99; women = 54, men = 37[2]). They smoked a mean number of 9.55 cigarettes a day (*SD* = 5.73) and had started smoking 4.74 years ago on average (*SD* = 2.67).

Procedure and stimulus material. Smokers were recruited in various public places in a French city and were informed that the study was about smokers' attitudes toward health information. They were invited to participate if they considered themselves to be daily smokers. Once they agreed and gave their consent for participating in the study, they were provided with a booklet including, on the first page, measures of identification and entitativity (the presentation order was randomly counterbalanced). Then, they were instructed to read a short antismoking message supposedly designed and disseminated by a local health association, describing the health risks that smokers can potentially run (e.g., cancer, respiratory and heart diseases) and mortality rates caused by cigarette use. Resistance to the message was then measured by assessing attitude toward smoking. Lastly, participants were briefly debriefed and thanked. The ethical committee of the Faculty of Psychology and Education Sciences of the University of Geneva approved this study, as well as Study 2.

Predictor variables

Identification. Identification was assessed by adapting the four items proposed by Doosje et al. (1995): "I feel similar to other smokers," "I am glad

to be a smoker," "I feel strong ties with smokers," "I identify with smokers" ($\alpha = .68$; $M = 3.87$, $SD = 1.46$). Participants responded on 7-point rating scales (1 = *not at all*, 7 = *yes, absolutely*).

Entitativity. Based on the scales developed by Rydell and McConnell (2005) and Spencer-Rodgers, Williams, et al. (2007), we measured smokers' entitativity with seven items on a 7-point scale (1 = *not at all*, 7 = *yes, absolutely*): "Smokers as a group is important to its members," "Smokers are similar to each other," "The group of smokers is a structured group," "Smokers feel connected with their group," "Smokers share common goals," "Smokers feel they are all part of the same group," "Some groups have the characteristic of being unique and different from others. Do you think smokers as a group can be qualified as one of them?" As a validation of this measure, we performed a principal axis factor analysis with oblique (oblimin) rotation. Only one factor with an eigenvalue greater than 1 was extracted from the analysis, accounting for 43.43% of the total variance. Together, these items formed a reliable scale ($\alpha = .83$; $M = 2.79$, $SD = 1.28$).[3]

Dependent variable

Attitude toward smoking. We measured smokers' attitude toward smoking by using a semantic differential scale with four items: "bad–good," "dangerous–safe," "healthy–unhealthy," "negative–positive" ($\alpha = .77$; $M = 2.16$, $SD = 1.20$). It is important to note that the higher the score, the more favourable participants' attitude toward smoking and, thus, the greater the resistance to the message.

Results

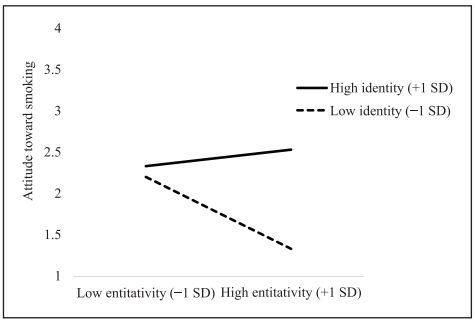
Data were analysed with hierarchical regression analyses including, at Step 1, identification and group entitativity as main centered predictors, and the number of smoked cigarettes per day as a covariate.[4] At Step 2, we additionally entered the interaction product between identity and entitativity. Descriptive statistics and correlations between the variables are provided in Table 1. At Step 1, the analysis revealed a main effect of identification, $\beta = .23$, $SE = 0.13$, $t = 2.16$, $p = .034$, 95% CI [0.02, 0.53], such that highly identified smokers exhibited a more positive attitude toward smoking than low identified smokers. At Step 2, we found a significant Identification × Entitativity interaction, $\beta = .22$, $SE = 0.13$, $t = 2.17$, $p = .033$, 95% CI [0.02, 0.56]. To interpret this interaction, we performed slope analyses at 1 *SD* above and below the mean score of entitativity. Results showed that identification significantly predicted a more positive attitude toward smoking when smokers perceived their group as highly entitative, $\beta = .52$, $SE = 0.21$, $t = 3.05$, $p = .003$, 95% CI [0.22, 1.05]. When entitativity of smokers was perceived to be low, identification had no effect, $\beta = .05$, $t = 0.35$, $p = .731$. We plotted this interaction in Figure 1.

Table 1. Means, standard deviations, and correlations in Study 1.

	M	*SD*	1	2	3
1. Identification	3.87	1.46	–		
2. Entitativity	2.98	1.25	.22*	–	
3. Attitude	2.16	1.20	.23*	−.08	–

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

Figure 1. Attitude toward smoking as a function of smoker identity and entitativity (measured).



Discussion

Results of this correlational study gave preliminary evidence that perceived entitativity of the smoker

group can mitigate the effect of identification on people's responses to antismoking information. Consistent with our predictions, highly (vs. low) identified smokers reported a more positive attitude toward smoking, but only when they perceived smokers as a highly entitative group. Contrarily, among smokers perceiving their group as low in entitativity, identification did not affect attitude.

Study 2

The main purpose of this second study was to replicate previous findings by manipulating perception of entitativity. As an addition to Study 1, we included other outcome variables evaluating smokers' resistance to the message at a behavioural level. We first measured smokers' urge to smoke (i.e., desire to smoke immediately), with the idea that increased urge to smoke would be indicative of greater resistance to antismoking information. Second, smokers were asked about their intention to quit smoking. We expected the same Identification × Entitativity interaction as in the previous study.

Method

Participants. One hundred and seventy-five smokers participated in this study (M_{age} = 21.74, SD_{age} = 7.98; women = 128, men = 47),[5] which was, this time, conducted online. Smokers were recruited by disseminating a call for participation on various Facebook groups. Our post informed that we were running a study about smokers' reactions to health information and searching for volunteers to take part in it. Participants were randomly assigned to one of two experimental conditions (i.e., low vs. high entitativity).

Procedure and stimulus material. Similar to Study 1, only smokers who considered themselves as daily smokers were invited to participate in the study. After being informed about the study objectives and asked for their consent, they were instructed to report identification as smokers. Then, we manipulated group entitativity, where half of the participants were assigned to a condition of high entitativity and the remaining half to a condition of low entitativity. Right after that, we provided smokers with the same antismoking message that we used in Study 1, then we asked them about their attitude toward smoking, their urge to smoke, and their intention to quit. All responses were given on 7-point rating scales (1 = *not at all*, 7 = *yes, absolutely*). Finally, they were all thanked for participating and debriefed.

Independent variables

Identification. The same items as those used in Study 1 were used to measure identification (α = .68; M = 4.11, SD = 1.47).

Entitativity. Manipulation of entitativity was adapted from the procedure of Rydell and McConnell (2005), also employed by Clark and Wegener (2009). Participants had to read some information about a fictitious study that intended to investigate smokers' attitudes and behaviours in relation to various topics. They were told that this study was conducted on a large sample of smokers across European countries. Description of the study findings served us to manipulate perception of entitativity. Smokers assigned to the low-entitativity condition received the following information:

> It follows from this study that smokers do not share the same values and have few common ideas. Whatever the domain, authors observed strong disparities in smokers' opinions. Generally speaking, they tend not to think the same way and, when they oppose somehow, it concerns problems of high importance. Besides, the study indicated that smokers pursue very varied goals in their lives, which lead them to adopt different behaviours. For example, they do not consume the same things, do not have similar hobbies, etc. Authors concluded that smokers are a highly diversified group in which there is only a weak similarity link between them.

Conversely, people assigned to the condition of high entitativity had to read the following information:

It follows from this study that smokers share the same values and have lots of common ideas. Whatever the domain, authors observed few disparities in smokers' opinions. Generally speaking, they all tend to think the same way and, when they oppose somehow, it concerns quite shallow problems. Besides, the study indicated that smokers pursue very close goals in their lives, which lead them to adopt similar behaviours. For example, they consume the same things, have similar hobbies, etc. Authors concluded that smokers are a highly unified group in which there is a strong similarity link between them.

Dependent variables

Attitude toward smoking. We used the same measure as in Study 1 ($\alpha = .92$; $M = 2.57$, $SD = 1.81$).

Urge to smoke. Urge to smoke was measured using the 10 items of the brief Questionnaire of Smoking Urges (QSU-brief; Cox, Tiffany, & Christen, 2001; $\alpha = .91$; $M = 2.58$, $SD = 1.41$). Examples of items are "Nothing would be better than smoking a cigarette right now," "I have a desire for a cigarette right now," and "If it were possible, I probably would smoke now."

Intention to quit. We assessed smokers' intention to quit with seven items (e.g., "Are you motivated to stop smoking?"; "Do you intend to cut down your level of cigarette use?"; "Do you intend to definitely stop smoking?"; $\alpha = .89$; $M = 4.87$, $SD = 2.66$).

Results

Descriptive statistics and correlations are given in Table 2. Similar to Study 1, we performed hierarchical regression analyses with identification and entitativity as main centered predictors and the number of smoked cigarettes per day as a covariate (Step 1), prior to entering the interaction product in the next step (Step 2). Results for all dependent variables are reported in Table 3.

Attitude toward smoking. Analyses did not show significant main effects, but they showed the expected interaction between identification and entitativity, $\beta = .19$, $SE = 0.13$, $t = 2.52$, $p = .013$, 95% CI [0.07, 0.60] (see Figure 2). Replicating Study 1, decompositions of this interaction revealed that, among smokers assigned to the high-entitativity condition, high identifiers reported a more positive attitude toward smoking than low identifiers, $\beta = .23$, $SE = 0.20$, $t = 2.08$, $p = .039$, 95% CI [0.02, 0.79]. Identification did

Table 2. Means, standard deviations, and correlations in Study 2.

	M	*SD*	1	2	3	4
1. Identification	4.11	1.47	–			
2. Entitativity	–	–	−.07	–		
3. Attitude	2.57	1.81	.01	.02	–	
4. Urge to smoke	2.58	1.41	.31***	.08	.04	–
5. Intention to quit	4.87	2.66	−.26***	.04	−.16*	.10

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

Table 3. Hierarchical multiple regressions predicting attitude toward smoking, urge to smoke, and intention to quit.

	Attitude toward smoking		Urge to smoke		Intention to quit	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Tobacco use	−.10 (0.15)	−.09 (0.15)	.31 (0.11)***	.32 (0.10)***	−.003 (0.21)	.003 (0.21)
Smoker identity	−.04 (0.14)	.04 (0.14)	.21 (0.10)**	.21 (0.10)**	−.26 (0.20)**	−.26 (0.20)**
Entitativity	.03 (0.14)	.01 (0.14)	.05 (0.10)	.04 (0.10)	.04 (0.20)	.04 (0.20)
Identity × Entitativity		.19 (0.13)*		.15 (0.10)*		.09 (0.19)
R^2	.01	.05	.02	.02	.07	.08

Note. Values refer to coefficients of regression (β) and standard errors (in parentheses).
$*p < .05$, $**p < .01$, $***p < .001$.

Figure 2. Attitude toward smoking as a function of smoker identity and entitativity (manipulated).

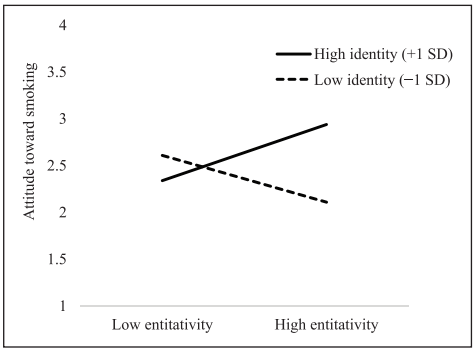
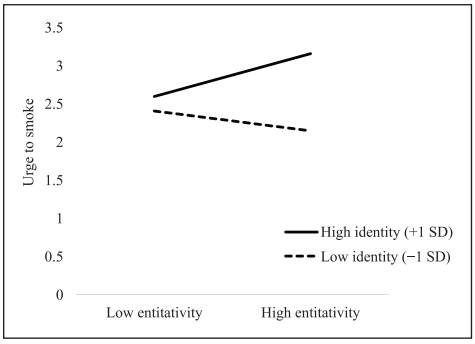


Figure 3. Urge to smoke as a function of smoker identity and entitativity.



not predict attitude toward smoking among smokers assigned to the low-entitativity condition, $\beta = -.15$, $t = -1.40$, $p = .164$.

Urge to smoke. At Step 1, we found a main effect of identification, $\beta = .21$, $SE = 0.10$, $t = 2.87$, $p = .005$, 95% CI [0.09, 0.49] (see Figure 3). Smokers had a stronger urge to smoke when they reported having a strong smoker identity than when having a low smoker identity. At Step 2, the regression analysis showed a significant Identification x Entitativity interaction, $\beta = .15$, $SE = 0.10$, $t = 1.26$, $p = .035$, 95% CI [0.01, 0.39]. Urge to smoke was positively predicted by identification in the condition of high entitativity, $\beta = .36$, $SE = 0.14$, $t = 3.56$, $p > .001$, 95% CI [0.22, 0.77], but not in the condition of low entitativity, $\beta = .07$, $SE = 0.14$, $t = 0.67$, $p = .502$.

Intention to quit. Regarding quitting intention, we found a main effect of identification, $\beta = -.26$, $SE = 0.20$, $t = -3.38$, $p = .001$, 95% CI [−1.08, −0.29], such that highly identified smokers reported less willingness to stop smoking than low-identified smokers. However, the interaction was found to be nonsignificant, $\beta = .09$, $SE = 0.19$, $t = 1.26$, $p = .211$.

Discussion

By means of an experimental design where entitativity was manipulated, this second study replicated findings from Study 1 regarding smokers' attitudes toward smoking. More specifically, we found that the relationship between identification and positive attitude toward smoking depended on perceived entitativity. When smokers perceived their group to be an entitative group, identification increased favourability toward smoking. In contrast, when smokers rated entitativity of their group to be low, the effect of identification on attitude disappeared. In addition, this study showed that smokers' resistance to the antismoking message can also affect urge to smoke. Smokers reporting strong identification showed a greater desire to smoke immediately when group entitativity was high, rather than low. Unfortunately, no effect was found on intention to quit. However, some studies have shown that people's reactions to threatening health messages may be defensive on risk-related outcomes only (e.g., attitude toward smoking or urge to smoke), but not on solving-problem outcomes (e.g., attitude toward or intention to quit smoking; Blondé & Girandola, 2018; de Hoog, Stroebe, & de Wit, 2008). Hence, smokers may resist by showing a positive attitude toward smoking and willingness to smoke immediately, without this affecting their intention to engage in protective behaviours, such as quitting smoking. Moreover, in contrast with models of health behaviour change (e.g., theory of planned behaviour), there is now extensive research showing that attitude change does not always result in changes in intention or behaviour (e.g., Kollmuss & Agyeman, 2002; Kraus, 1995; Vermeir & Verbeke, 2006). There is strong variability in the degree to which attitude predicts behavioural outcomes, and

many factors have been shown to moderate the attitude–behaviour relationship, such as attitude accessibility, attitude certainty, or stability of information (see Cooke & Sheeran, 2004; Glasman & Albarracin, 2006). Therefore, this might also explain why we found effects on attitude toward smoking and not on intention to quit, which constitutes a more difficult outcome variable to change due to the many barriers that smokers need to overcome when attempting to quit (e.g., nicotine dependence).

General Discussion

Earlier work has demonstrated that identification with smokers predicts increased resistance to antismoking campaigns (e.g., Falomir-Pichastor & Invernizzi, 1999; Falomir-Pichastor & Mugny, 1999; Freeman et al., 2001). The present research aimed to examine whether the extent to which smokers see their group as entitative could moderate the effect of identification with the group. Across one correlational and one experimental study in which we manipulated entitativity, our findings showed that perceived entitativity altered the link between identification with smokers and resistance to an antismoking message in the predicted direction. When entitativity was high, high identifiers displayed more resistance than low identifiers. When entitativity was low, identification did not affect resistance.

These findings have several theoretical implications and complement extant research in different ways. First, on a broader level, the present research contributes to our understanding of stigmatization and the ways that stigmatized people cope with threats to their social identity. Indeed, our findings constitute the first pieces of evidence that engagement in identity-defensive actions do not only result from high levels of in-group identification (Doosje et al., 1995; Ellemers et al., 1997; Schmader, 2002; Spears et al., 1997), but also from perception that the in-group, as a function of the level of entitativity, can provide group members with support for such actions. Opting for resistance actions against majority groups (e.g., nonsmokers) may indeed prove to be a costly decision for disadvantaged people, which explains why it is necessary that they feel these actions are not initiated in a vacuum. Hence, the perception whereby members are similar and mutually support each other is decisive and crucially shape preferences for resistance to threats over acceptance. That being said, our research was designed to focus on the very specific context of smoking behaviours and smokers, and it would be necessary to conduct new studies to confirm the existence of such social identity mechanism in other contexts.

Second, these findings are important for research on smokers and smoking behaviours. Indeed, they reveal that resistance to antismoking campaigns does not only reflect a way to protect the smoker identity, as indicated by the effect of identification, but constitutes also a group phenomenon in the sense that smokers need to perceive collective support from other smokers to engage in protection actions. Indeed, perception of high entitativity, as a signal that there is group support to resist against identity-threatening information, bolster willingness to protect one's social identity. This way, resistance to persuasive antismoking messages, through maintenance or reinforcement of key in-group's attitudes and behaviours (i.e., holding favourable views about tobacco use and desire to smoke a cigarette), is indicative of how supportive the smoker group is in tackling threats to its identity. More generally, this suggests that group perception strongly matters for smokers, who are inclined to engage in protective actions for their group depending on whether they perceive their group to be strong, unified, and capable of offering support. Besides, if social cohesion and support from nonsmokers have been repeatedly shown as important factors to boost smokers' attempts to quit and to maintain abstinence efforts (e.g., Fisher, 1997; Mermelstein, Cohen, Lichtenstein, Baer, & Kamarck, 1986; Westmaas, Bontemps-Jones, & Bauer, 2010), the present findings suggest the contrary, that perceived social support from other smokers can increase defensive reactions against antismoking campaigns and smoking maintenance. However, further research is needed to

clarify the role of expected social support in the investigated processes.

On the other hand, our findings also document the reasons why some smokers for whom the smoker identity may be central to their self-concept tend to report increased compliance with antismoking messages. Beyond the fact that they may hold negative views on their group identity (Tombor, Shahab, Brown, & West, 2013), the present data give evidence that perception of smokers as a highly diversified group, where members do not build strong relationships and have varied and distinct goals, can increase conformity to the majority's antismoking views (e.g., Falomir-Pichastor & Invernizzi, 1999; Falomir-Pichastor et al., 2002). Accordingly, smokers certainly are sensitive and wish to do something against the effects of identity-threatening messages (Doosje et al., 1995; Ellemers et al., 1997; Spears et al., 1997) but, given their low level of entitativity, they may not feel motivated to act to protect the group and may decide to align with the outgroup's attitudes and behaviours, perhaps as an individual-level strategy to cope with stigmatization (Falomir-Pichastor et al., 2013). As our results suggest, in this case, smokers high in identification reported being as prone to defend their group against the antismoking rhetoric promoted in campaigns as did smokers low in identification. On a practical level, this also suggests that health interventions aimed at reducing tobacco consumption in smokers, and notably in dependent smokers for whom the smoker identity may be highly relevant (Dupont et al., 2015; Hertel & Mermelstein, 2012; Pulvers et al., 2014; Tracy, Lombardo, & Bentley, 2012), might gain in efficacy by using messages designed to decrease perception of group entitativity (e.g., by depicting strong diversity among members).

It is worth mentioning that our research has limitations. First, resistance reactions were only measured through attitude and behavioural intention. Literature has shown, however, that resistance may arise at different levels, going from attentional resources allocated to message processing (e.g., Kessels et al., 2010; Nielsen & Shapiro, 2009) to actual behaviours (e.g., increase in cigarette use). Thus, new studies should be conducted including alternative measures of resistance. Second, none of the studies included a control condition with no antismoking message. This is an important pitfall that should be overcome in future studies, as our findings cannot give evidence that the observed effects are specifically indicative of participants' responses to the message. Including variables that directly assess smokers' reactions to the message, like attitude toward the message or message derogation, might also be a fruitful way to address this issue.

In conclusion, one of the major contributions of our research is to propose an examination of receptiveness to antismoking campaigns at the group level, and to consider resistance as the expression of smokers' willingness to cope with their stigmatization. While research pointing out the decisive role of social factors in health behaviours is importantly increasing (see Haslam, Jetten, Cruwys, Dingle, & Haslam, 2018; Jetten et al., 2017), we call upon for their integration in the study of psychological reactions to persuasive antismoking campaigns. Development of a social identity approach to phenomena related to the receptiveness to promotional health interventions and influence attempts surrounding tobacco control policies is highly needed. Campaigns do not only contain information regarding smokers' personal relationship with tobacco (e.g., dependence level) or their capacity to quit (e.g., perception of self-efficacy), but also regarding issues related to smokers as a group and its image in society. On a broader level, more consideration of group processes and social identity factors when investigating receptiveness to health messages in general, or any health-related information, is highly required, since it has become increasingly clear, in view of the empirical evidence we have accumulated so far, that health behaviours are in fact social practices, fundamentally integrated into group contexts and relations.

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Notes

1. To estimate the capacity of this sample size to detect the predicted effects, we computed a sensitivity power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007), including three predictors within a multiple regression model (i.e., two main effects and one interaction effect). The minimum effect size that could be detected at 80% power (.05 alpha level) for our predicted two-way interaction was $f = 0.26$. This indicates that our study was sensitive enough to detect a medium effect size.
2. One participant did not report his/her age.
3. We initially included the item "Smokers form a cohesive group" but removed it based on Blanchard, Caudill, and Walker's (2018) research, which has recently demonstrated that cohesion, contrary to what has commonly been conceptualized (e.g., D. L. Hamilton et al., 1998; Spencer-Rodgers, Hamilton, & Sherman, 2007), is conceptually distinct from entitativity and refers to an outcome of entitativity and not a constitutive component of it (see also Ip, Chiu, & Wan, 2006).
4. This variable was included as a covariate to control its potential effects on the dependent variables, as one may reasonably assume that personal use of tobacco can strongly influence smokers' attitude and behaviours.
5. Again, we performed a sensitivity power analysis using G*Power (Faul et al., 2007) to assess the capacity of our sample size to detect two main effects and one interaction effect within a multiple regression model (i.e., three predictors). The minimum effect size that could be detected at 80% power (.05 alpha level) was $f = 0.21$. This indicates that our statistical tests were sensitive enough to detect a small to medium effect size.

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