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40 Years of Multiple Social Categorization: A Tool for Social Inclusivity

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Abstract

We review a 40-year corpus of research that we collectively name 'Multiple Categorization Theory' (MCT). From early illustrations using the minimal group paradigm, through a focus on how people cognitively represent social diversity, to recent models of outgroup 're-humanization', this work has revealed much about how we think about inclusivity, exclusion, and intergroup differences. We review research that assessed ways to reduce intergroup bias by attenuating the reliance on simple categorization via 'crossed categorization'. We describe how this research evolved from a focus on intergroup differences to incorporate self-categorization, through processes of decategorization and increased social identity complexity. Finally, we consider contemporary models that reveal the generalized benefits of multiple categorization in promoting outgroup 're-humanization' through 'cognitive liberalization'. We conclude by highlighting the theoretical and practical implications of this research programme.

Word count: 131

Keywords: crossed categorization, multiple categorization, social identity complexity, prejudice, diversity, dehumanization, intergroup relations

Social integration and the quest for equality represent fundamental challenges for contemporary societies in which discrimination and prejudice toward many groups still persist (Pew Research Center, 2016; 2017). Indeed, immigrants and ethnic minorities are perceived and treated as a threat in many Western countries, where recent massive migrations have contributed to a rise in xenophobic and nationalistic attitudes (Eurobarometer, 2018). In this social climate, the need to understand and attenuate social biases surrounding how we think about and behave towards other groups is urgently needed to promote equality, equity, and inclusion.

In this regard, a large corpus of research has established that it is possible to reduce prejudice and discrimination towards outgroups by encouraging changes to how people engage in social categorization. Specifically, research has shown that moving away from simple 'us' *versus* 'them' conceptualizations of intergroup differences, to consider more complex, multiple or 'crossed' categorizations (e.g., multiple categorization; Crisp & Hewstone, 2007), as well as the complexity of one's self-categorization (social identity complexity; Roccas & Brewer, 2002), can ameliorate intergroup bias. Recent evidence has also demonstrated that such approaches can help to see the unique individuality and humanness of outgroup members and stimulate prosocial behaviour. However, these interventions can be cognitively challenging and may threaten identities, so they must be applied with care and due recognition of underlying social-psychological dynamics. With this in mind, the present review systematically considers both historical and contemporary lines of research on the conditions under which multiple categorization reduces intergroup bias, and the processes through which it does so.

In the first section of this paper, we briefly review the literature on social categorization to consider how dichotomous ('us' versus 'them') social categorization can be easy to establish and lead on to intergroup differentiation and outgroup prejudice. We then describe how examining these social cognitive bases led scholars to consider how the same differentiation-based mechanisms could hold the key to reducing intergroup discrimination through *crossed categorization*. We document how the literature developed to encompass the *common ingroup identity model*, the *dual*

identity model and the *social identity complexity model*. As the review progresses, we highlight similarities and differences between these approaches as effective strategies to reduce intergroup bias.

In the second part of the review, we focus on the extended benefits of *multiple* and *counter-stereotypical* categorizations on intergroup relationships. We further review research on the sequential role of cognitive and affective factors in explaining the effects of these interventions, such as dehumanization, as well as the ideological factors that can moderate their effects such as Social Dominance Orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994).

In the final part of the review, theoretical and practical implications of perceiving and experiencing multiple identities are described, and we suggest future directions for research and potential applications to help foster more inclusive societies.

Reducing Bias through Multiple Categorization

The cognitive underpinnings of intergroup bias

Social psychologists have been investigating the fundamental underpinnings of intergroup discrimination for quite some time, with Allport's (1954) *The Nature of Prejudice*, often cited as the spark for what has become one of the most enduring themes in the last 60 years of the discipline. The goal was to understand the social cognitive basis of intergroup bias, the common origins across groups that can give rise to discrimination, exclusion, conflict, and, at its most extreme, genocide. This research has provided fundamental insights on how social categorization, a psychological process that shapes perceptions and behaviours towards others as members of one social group (Macrae & Bodenhausen, 2001; Tajfel & Turner, 1979), is at the basis of intergroup discrimination (Tajfel, Billig, Bundy & Flament, 1971). By relying on simple social categorization as a guide, individuals tend to favour ingroup compared to outgroup members. In this vein, individuals that do not belong to the chosen ingroup circle might be derogated, or might not be treated as the self and ingroup members. Indeed, individuals' fundamental need to support the self in intergroup contexts

motivates them to prefer ingroup rather than outgroup members as an indirect way to endorse the self.

Besides motivational factors underlying group membership (i.e., need for collective esteem, Luthanen & Crocker, 1992; need for self-esteem, Tajfel & Turner, 1979), there are also cognitive ones. For instance, simple categorization reduces uncertainty and provides a clear set of expectations about others and the self (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). It is a fast and efficient way of providing information about people we do not know, simplifying and economizing social perception (Allport, 1954). Nevertheless, in any given situation, individuals can define others, and themselves, basing on not just one, but multiple alternative categories that are more applicable to themselves and others (i.e., gender, ethnicity, age compared to sexual orientation, political orientation and religious affiliation). The use of one category instead of another depends on a variety of factors such as context (Oakes, Turner, & Haslam, 1991), and motivation (Sinclair & Kunda, 1999).

The Crossed Categorization Paradigm

Almost in step with the development of research on social categorization as a cognitive basis of intergroup discrimination, scholars started to investigate its *construens* side, to understand whether it can provide a social cognitive path to reduce outgroup derogation. A substantial body of work has examined whether increasing the number of categories which simultaneously define a target can serve to reduce ingroup-outgroup differentiation leading to enhanced social inclusivity.

To test this assumption, research first focused on the effects of two compared to one category dimension simultaneously salient (e.g., gender and race) in making social judgments (*The Crossed Categorization Paradigm*, Deschamps, 1977; Deschamps & Doise, 1978). For instance, by crossing gender with race, females and males can be seen to share a common category. That is, black females and black males are both black; white females and white males are both white. Alternatively, black females and white females are both females, and black males and white males are both males (see Table 1). Under these shared identity situations, category differentiation

processes can be seen to work against each other (black females perceiving differences from black males on the gender dimension, but similarity on the race dimension). Importantly, the simultaneous consideration of these crossed categorizations should reduce intergroup differentiation and therefore remove the cognitive underpinning of intergroup bias. On the other hand, black females can be perceived as even more different from white males (a double outgroup), potentially increasing intergroup bias. Perceived similarity has been found to statistically mediate the effects of cross-cutting categorization on prejudiced judgments and behaviours, such as discrimination reward allocations (Brown & Wade, 1987; Deschamps & Brown, 1983). A meta-analysis of crossed categorization studies (Mullen et al., 2001) provided comparative tests of the magnitude of ingroup bias in all different types of crossed combinations (i.e., double outgroup, mixed groups) *versus* simple categorization. Results demonstrated that bias was reduced in mixed groups combinations, but it was amplified in double outgroup categorizations, compared to simple categorization. The authors concluded that "crossed categorization may increase, decrease, or redirect ingroup bias, depending on how ingroup bias is defined, but it does not eliminate ingroup bias by any definition of the term" (Mullen et al., 2011, pp. 733).

The Dual Identity Model

No one is an outgroup member per se, but only in the eyes of a perceiver who belong to different groups. Thus, given the key role of one's group membership in intergroup discrimination, scholars have also investigated whether weakening the salience of individuals' social identity can affect intergroup differentiation and outgroup discrimination. Research on the *Common Ingroup Identity Model* (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993) proposed a shift of impression formation from relying on simple social identity to a super-ordinate, more inclusive identity (e.g., Europeans) that comprises both ingroup (e.g., Italians) and outgroup (e.g., Germans) members. A common super-ordinate identification can reduce outgroup bias by increasing the attractiveness of former outgroup members, once they are included within a super-ordinate ingroup. However, identification at a more inclusive level involves blurring the boundaries between former

ingroup and outgroup, leading to reduced sub-ingroup distinctiveness. For those with higher social identification, this threat to intergroup distinctiveness motivates increased outgroup discrimination (Crisp, Stone, & Hall, 2006; van Leeuwen, van Knippenberg, & Ellemers, 2003).

Dovidio and colleagues (1998) in the *Dual Identity Model*, acknowledging the motivation to achieve distinctiveness in common ingroup contexts has proposed that individuals can identify along two dimensions simultaneously, a super-ordinate identity that attenuates negative evaluations towards outgroup members, and a sub-ordinate identity that avoids distinctiveness threat (e.g., it is possible to be Italian and European at the same time). Evidence has indicated that dual identity reduces outgroup discrimination, specifically for higher identifiers (Crisp et al., 2006). However, like crossed categorization, the combination of only two social identities, such as dual identity, has some limitations in reducing intergroup discrimination. When dual identities are defined by a high degree of overlap (i.e., a high number of shared or common characteristics), ingroup projection (Mummendey & Wenzel, 1999) is very likely, leading to the perception of sub-outgroup members as deviant members of the common super-ordinate group.

According to the *Ingroup Projection Model* (Mummendey & Wenzel, 1999) ingroup members might consider themselves as the best prototypes of the super-ordinate category. For example, both German and French people might consider themselves as prototypes of the super-ordinate category Europeans. In this vein, Greeks who are also included in the super-ordinate category are perceived as non-normative exemplars and this can lead to increase rather than decrease discrimination towards them. However, the exclusion of non-normative outgroup members from super-ordinate groups does not occur when dual identities (subordinate and super-ordinate group memberships) are uncorrelated or not overlapping (e.g., nationality and gender), because there is no opportunity of ingroup projection and related negative consequences of dual identity.

Multiple social identities

Many studies showed not just a link between self-perception and judgments about others, but also that the salience of dual compared to simple social identity reduces outgroup bias,

independently of shared group memberships. For instance, writing a list of more than one group to which one belongs weakened outgroup bias in comparison to writing about one's simple identification (Hall & Crisp, 2005). Similarly, multiracial people, those who declare themselves to belong to more than one ethnic group (e.g., African Americans), performed better than mono-racial people (e.g., White Americans) in memorizing racially ambiguous faces. Thus, the awareness of one's different identities improves individuals' evaluation of outgroup members in the direction of their social inclusivity (Pauker & Ambady, 2009).

Furthermore, people who identify with two non-overlapping and even conflicting groups can reduce reciprocal outgroup bias that are in fact reported by members who belong to only one of the same opposing groups (Levy, Saguy, Halperin & Van Zomeren, 2017). Specifically, the so- called *Gateway Groups* include individuals who are dual identifiers in a rare combination of groups (e.g., Israeli-Arabs, Indian-Muslims) that can be historically antagonists (e.g., the majority of Israeli are Jews; the majority of Indians are Hindu). This unique categorization strategically places such groups in between social categories, where they may potentially act as a gateway across group boundaries. Evidence has shown that under this double identity condition attitudes and prosocial behaviours towards the groups improve (Levy, et al., 2017).

Social Identity Complexity

Research on *Social Identity Complexity* (SIC) highlights the intertwined relationship between self-definition and the evaluation of others. The model specifies that one's identification with multiple, dissimilar and non-overlapping groups reduces intergroup discrimination (Roccas & Brewer, 2002). The idea behind this concept is that individuals identify with multiple groups (e.g., gender, age, religion, ethnicity, occupation, political organization, sport team). These groups are subjectively combined in the mind of individuals to determine the perceived overall inclusivity of one's social identity. Specifically, individuals may perceive the different groups to which they belong as highly overlapping, that is, including the same members (e.g., being Catholic and being Italian), or as highly similar, that is including people that share same characteristics (e.g., being a

student and being young). The condition of high overlap and/or similarity among groups of belongingness leads individuals to represent their different ingroups as forming a single convergent social identity, including only those who share both identities (e.g., Italians that are Catholics). On the contrary, when overlapping and similarity between one's multiple ingroups is perceived to be relatively small, individuals identify with all distinct groups they belong to, including those who share only one of their identities (e.g., all Italian people independently of their religious affiliation, and all Catholic people independently of their nationality). In this case, the social identity structure is larger and more inclusive than any of the ingroups alone.

High levels of SIC are associated with greater outgroup tolerance, including greater approval of affirmative action and multiculturalism (Brewer & Pierce, 2005) and less prejudicial implicit attitudes (Schmid, Hewstone, Tausch, Cairns, & Hughes, 2009). Such patterns are even found among subordinated groups. Muslim immigrants in the Netherlands who reported highly complex identities (i.e., reporting low overlap between ethnic and other ingroup identities) distanced themselves less from the host national group and exhibited lower ingroup bias than immigrants with a less complex identity structure (Verkuyten & Martinovic, 2012). Thus, low SIC predicts social exclusion as it leads to perceiving outgroup members as different from oneself or one's own ingroups.

The Differentiation-Discrimination Model of Multiple Categorization

Building upon evidence from research on crossed categorization, Crisp and Hewstone's (2007) *Differentiation-Discrimination Model of Multiple Categorization Effects* highlighted that the combination of two categories is not always effective in reducing intergroup bias. For instance, as noted above, perceivers' ingroup identification may increase or decrease the salience of subgroup categories, thus moderating the impact of simple social categorization. These possible outcomes indicate the need to go beyond the crossed categorization model to explore alternative ways of changing how people use social categories to guide judgment. Given that people can process information that involves up to four categorical dimensions simultaneously (Halford, Baker,

McCredden, & Bain, 2005; Stangor, Lynch, Duan, & Glass, 1992), exceeding this number may lead to a different process that can result in blurring perceived intergroup boundaries. In other words, when processing information according to more than four categories (e.g., young, man, migrant, professional, catholic), categorical operations may no longer satisfy efficacy or perceivers' seeker motivations. In this vein, the categorical processing could be abandoned in favour of an alternative way to reach a social judgement: *decategorization*.

Numerous studies (Bigler & Liben, 1993; Brewer & Miller, 1984; Crisp et al., 2001; Crisp & Hewstone, 1999; Crisp, Walsh, & Hewstone, 2006; Hall & Crisp, 2005; Hewstone, Islam, & Judd, 1999; Rosenthal & Crisp, 2006) support the idea that perceiving multiple categories inhibits the reliance on social categorization and corresponding stereotypes in favour of a more personalized and individuated way of making judgements. For instance, presenting respondents with five *versus* one specific categorical dimension (either shared – ingroup - not shared – outgroup between perceivers and the outgroup target) has been found to reduce intergroup bias (Crisp et al., 2001; Prati, Crisp, Meleady & Rubini, 2016). The same outcome was found by asking respondents to self-generate multiple bases for categorization of an outgroup target (Hall & Crisp, 2005; Vasiljevic & Crisp, 2013). The decategorizing and bias-reducing effects of multiple categorization have been observed with different measures, including point allocations, affective prejudice, and implicit means.

However, the danger of decategorization is subtyping - by shifting the focus of attention from group members to individuals, in such a way that they may simply be seen as exceptions to the rule, leaving group stereotypes and biases unchanged (Weber & Crocker, 1983; see also Johnston & Hewstone, 1992). In this vein, improved attitudes would be limited to the specific outgroup target at hand, with no generalization to the other members of the outgroup (Hewstone & Brown, 1986).

Counter-Stereotypic Categorization

Counter-stereotypes are characterized by the conjunction of two non-overlapping and conflicting categories (e.g., female mechanic, Muslim gay). Under this condition the task of the

perceiver is to integrate this information into a holistic impression that somehow integrates the information. (Hastie, Schroeder, & Weber, 1990; Kunda, Miller, & Claire, 1990). The non-normative nature of these combinations (e.g., Harvard-educated carpenter), provokes surprise that drives perceivers' attention to solve the stereotypic inconsistency elicited by the unexpected combination in favour of a more accurate impression of the target. The cognitive conflict generated by the combination of two non-overlapping categories leads to the inhibition of stereotypic attributions that could be derived from both categories. In its place an inconsistency resolution process involving the generation of emergent (novel) characteristics related to the surprising combination occurs (e.g., for a Harvard-educated carpenter - non-materialistic; Hutter & Crisp, 2005; 2006). The crucial thing about emergent attributes is that they imply that impressions have been constructed in a way that relies not on schematic information stored in long-term memory, but on an alternative process leading to the generation of non-stereotypic attributes. Even if perceivers appear to use categories at early stages of impression formation, counter-stereotypic categorization triggers an inconsistency resolution process that leads to a shift to a more generative and less biased way of thinking (Hutter et al., 2009; see also Crisp & Turner, 2011). In this vein, it is not only the number of multiple categories, or the extent to which they are overlapping, that determines bias-reduction, but also the extent to which multiple categories are mutually stereotypically confirming or disconfirming.

Shifting Mode of Processing

Multiple and counter-stereotypical categorization approaches elicit a cognitive shift in the impression formation process from the reliance on social categorization to individualized information. These two distinct cognitive processes represent the extremes of the continuum model of impression formation by Fiske and Neuberg (1990): social categorization, or the heuristic way of thinking initially used by perceivers, and attribute-based-individuation, or the more cognitive demanding way of thinking which is applied when social categorization is no longer effective in reaching a social judgement.

According to Crisp and Meleady (2012; see also Crisp, 2015), these cognitive abilities can be considered the result of human cognitive adaptation to social diversity. In our past mono-cultural ancestral environment, a fast (but less accurate) way of thinking may have been the most efficient and adaptive one to detect enemies from allies – something essential for humans' survival. However, in present day multicultural societies, where there are more opportunities for intercultural contact, a cognitive capability to go beyond simple social categorization is more adaptive in building new "alliances" with members of different groups and promoting social integration. Research on multiple categorization and social identity complexity have demonstrated that even if individuals are cognitively disposed to think categorically about social groups, they possess the computational ability to deal with social complexity and inconsistency in favour of more accurate evaluations of others and themselves. Even though this cognitive ability requires more cognitive resources than the use of heuristics, like other cognitive skills, it can be improved through practice.

The Categorization-Processing-Adaptation-Generalisation Model

Bringing the work described above to a single model of diversity-based cognition, Crisp and Turner (2011) outlined four steps required to attenuate reliance on social categorization in favour of individualization. First, the impression formation process requires the resolution of conflicting stereotypical expectation; that is, it should surprise and capture individuals' attention by involving social categories that comprise mutually conflicting stereotypes. Second, individuals need to be both motivated and cognitively able to engage in accurate processing to resolve the stereotypical inconsistency driven by the diversity experience. Third, the stereotypic inconsistency resolution process should be experienced multiple times involving different outgroups to promote a cognitive adaptation to the suppression of stereotypical knowledge and the stimulation of generative thought. Fourth, the cognitive adaptation to stereotypically challenging diversity can lead to generalized benefits beyond intergroup relations, improving the cognitive ability to handle complexity in different contexts and tasks that do not exclusively involve groups (i.e., creativity, mathematical skills, pro-environmental attitudes).

Summary

Overall, this first part of the review has illustrated the role of simple social categorization as underpinning intergroup differentiation and outgroup discrimination, and from this base, the different perspectives on multiple categorization that have been considered in the literature.

Many similarities are noticeable among the strategies explored by the lines of research aimed at exploring how to reduce intergroup bias. First, they all capture the variety of ways in which individuals can respectively form impressions of others and represent themselves, by considering more than two categories or identities simultaneously. Second, they highlight the key role of low overlap among multiple social groups that others or oneself belong to, in order to reduce reliance on social stereotypes. Third, this research has consistently displayed the effectiveness of strategies that encourage a consideration of the complexity of others or oneself to reduce outgroup discrimination. In this vein, the major contribution of multiple categorization research is that it has gone beyond the binary conception of ingroup *versus* outgroup by focusing on the many different ways in which individuals can simultaneously identify themselves and others.

The Extended Benefits of Multiple Social Categorization

The second part of this review considers recent work on the extended benefits of perceiving and experiencing multiple identities (see Table 2). In particular, we first examine the effects of multiple categorization, from outgroup re-humanization to prosocial behavioural intentions towards outgroup members and generalized effects on unrelated outgroups. We then illustrate the interplay between SIC and multiple categorization in predicting these effects.

The Re-Humanizing Effects of Multiple Social Categorization

In a recent program of work, the effectiveness of multiple categorization in attenuating one of the most heinous forms of intergroup discrimination - *dehumanization* - was investigated. Dehumanization describes the tendency to consider others or outgroup members as less human than the self and ingroup members respectively (Haslam, 2006). Failing to see others as human beings serves to justify their discrimination, including increased aggression and violence (Bastian, Denson,

& Haslam, 2013; Viki, Osgood, & Phillips, 2013) as well as reduced prosocial behaviour (Cuddy, Rock, & Norton, 2007; Vaes, Paladino, & Leyens, 2002). In a series of studies, Prati, Crisp, Meleady, and Rubini (2016) tested an intervention comprising the presentation of outgroup targets in simple (i.e., one categorical dimension) compared to multiple categorization (i.e., five categorical dimensions). A pilot study was first conducted to confirm that University affiliation and the additional social categories selected for the multiple categorization intervention were perceived as equally meaningful by University student respondents. Moreover, before completing the experiment, respondents were asked to indicate their affiliations on each of the social categories used in the manipulation to ensure that only those who were "ingroup members" in each category (i.e., Italians, young, same gender as the target described, students, without children, and living in Bologna) were included. Respondents were then presented with a description of migrant people in one of four conditions: simple categorization (e.g., immigrants), multiple ingroup categorization (e.g., immigrants who are young, students, living in the same town, without children, and of the same gender as the respondents), multiple outgroup categorization (e.g., immigrants who are middle aged, workers, living in countryside, with children, and of the opposite gender of the respondents), and multiple mixed categorization (e.g., youngsters, students, living in the same town, with children, and of the opposite gender of the respondents). Following the procedure of Crisp, Hewstone, and Rubin (2001), respondents were asked to write down their thoughts about the people described to reinforce the manipulation and ensure that they formed an impression of the targets before completing the questionnaire. Then, respondents were asked to complete either explicit (Studies 1 and 2) or indirect measures of outgroup humanization (Study 3). Results across different studies demonstrated that under multiple categorization immigrants were re-humanized to a greater extent than when depicted through simple categorization. Notably, the re-humanizing effect was found independently of the combination of multiple categories considered (ingroups, outgroups, mixed). This indicated that it is not the number of shared memberships between perceivers and

target that is important, but the number of categorical dimensions that simultaneously define outgroup targets.

This work built upon previous contributions on multiple categorization (Crisp et al., 2001) demonstrating its effectiveness in promoting not just a positive evaluation of outgroup members, but their inclusion in the human group and the acknowledgment of their human rights (see Figure 2). This re-humanization effect was consistently found using three different measures. First, respondents were asked to indicate the attribution of uniquely human (broadminded, arrogant) and human nature traits (sociable, instinctive) to the outgroup target (Leyens et al., 2000; see also Albarello & Rubini, 2012). Traits were half positive and half negative to rule out social desirability effects. Second, we used an indirect measure by asking respondents to rate outgroup target's ability to express secondary or uniquely human emotions (i.e., emotions that only human beings express like nostalgia or admiration) and primary emotions (i.e., emotions that human beings share with animals like excitement or fear). Given that individuals are not aware of the distinction between these two types of emotions, showing a significant increase of secondary rather than primary emotions in multiple compared to simple categorization strengthened the significance of these findings. Third, a free-response format was employed by asking respondents to generate traits to describe an outgroup target. The traits were then coded according to whether they represent human versus non-uniquely human traits (see Figure 3). This final measure authenticated the generative humanizing role of multiple categorization.

Mediators and Moderators of Outgroup Re-Humanization

Crisp et al. (2001) who carried out the first studies to test the impact of multiple *versus* simple categorization were able to show that multiple categorization led to greater intra-category differentiation (indicated by the distance between the two outgroup members marked on a 100 mm line), decreased perception of the context as involving "two groups", and heightened classification of former outgroup members as "individuals". Individualization as an outcome of decategorization, explained the effects of the manipulation on reduced prejudice. Prati, Crisp, Meleady, and Rubini

(2016) further investigated the mediators of multiple categorization by considering different cognitive and emotional-affective processes and tested their interplay on outgroup re-humanization outcomes. In terms of cognitive factors, individualization of immigrants (outgroup target) unlike super-ordinate categorization (i.e., native Italians and immigrants share similarities) explained the humanizing effect of multiple categorization. This effect was consistently found, independently of the specific category combination (i.e., shared *vs* unshared between immigrants and the respondents, who were native Italians). In terms of emotional-affective factors, the role of threat from immigrants was tested (symbolic threat, i.e., feeling worried and afraid of immigrants; and realistic threats, i.e., feeling the economic resources and achievement of immigrants are likely to damage Italians). Perceiving goals and intentions of outgroups as threatening for the ingroup leads to the belief of outgroups members as undeserving of human treatment (Opotow, 1990; Staub, 1989).

Interestingly, a sequential mediational model showed that multiple categorization increased individualization of outgroup members, thereby inhibiting outgroup threat responses and increasing outgroup re-humanization (see Table 4). Importantly, tests of alternative sequential mediation models (i.e., the mediating roles of threat and individualization on humanization, the mediating roles of individualization and humanization on threat, the mediating role of threat and humanization on individualization) revealed no significant indirect effect. This sequential mediational model sheds light on the interrelation between multiple mechanisms of intergroup tolerance, highlighting the intertwined relationship between cognitive and affective processes that are challenged by thinking about multiple categorizations of others.

A further study by Albarello, Crisp and Rubini (2018) examined both mediators and moderators of multiple categorization effects on outgroup re-humanization. Priming multiple categorizations of Black people (i.e., "a Black, Christian, male, young, born in Italy from immigrant parents") together with White respondents' super-ordinate identity (by making human identity salient) reduced dehumanization of Black people in general and this, in turn, increased the

attribution of human rights towards this minority in the European context. Thus, the implicit associative cognition of Black peoples' humanness (i.e., attribution of secondary emotions) explained the relationship between multiple categorization of outgroup members and explicit attribution of human rights. The perceived similarity between the outgroup target and respondents did not account for differences in the attribution of humanness nor affected the expected mediational effect of reduced dehumanization on the attribution of human rights. This evidence endorsed what has been argued by multiple categorization scholars, i.e., the fact that increasing the numbers of categories defining others makes it difficult to establish on what basis they are similar or dissimilar to oneself. Nevertheless, it attenuates intergroup differentiation and outgroup discrimination (e.g., Hall & Crisp, 2005).

Multiple Categorization as a Tool for Protecting Outgroup Members' Health

Prati, Crisp, Pratto, and Rubini (2016) demonstrated that multiple compared to simple categorization of immigrants led native Italian respondents to express the intention to cut public funds reserved for Italians, in order to support health policies in favour of immigrants. A pilot study was conducted to select equally salient and distinct social categories of belongingness of Italian respondents, such as gender, age, occupation, living place and parenthood. Respondents were asked to describe their impressions of immigrants (simple categorization) or immigrants who belong to five groups that were either shared (multiple ingroup), or unshared (multiple outgroup) or only some shared (multiple mixed) by respondents.

After that, intentional pro-social behaviour was measured by asking respondents to what extent they were willing to cut regional funds for education to provide aid for immigrants' health. The scenario involved a fake scientific report illustrating how a specific vaccination was essential for immigrants just arrived in Italy from Africa and Middle East countries in order to prevent serious infections that could lead to death. It was specified that the same infection was not as threatening for the host population that was already vaccinated as for immigrants, and it required extra public funds to be counteracted. Respondents had to decide to what extent they judged it

feasible to cut regional funds for public education to instead fund vaccination of immigrants who were presented as a social category with a high risk of getting affected by the virus A H1N1. The choice they made was among seven options presented in a random order and varying systematically the percentage of regional educational funds cut and the number of immigrants that could benefit from the vaccine. Each option pitted a policy concerning some number of immigrants' lives that could be saved (from 2,000, to 20,000) against a policy with the corresponding cut of regional funds (from 0.2%, to 2%). In this vein, the impact of multiple categorization in reducing intergroup disparities in health resource allocation was examined. Specifically, this study investigated the strength of multiple categorization in promoting not only a prosocial choice to defend outgroup members' human right of health and thus saving their lives, but also a choice that deprives ingroup members of their resources. Results revealed the beneficial effect of multiple categorization in fostering prosocial behaviours towards an even highly threatening outgroup such as immigrants. This evidence extended previous findings by suggesting that multiple categorization can be considered as a social cognitive antecedent to reduce health disparities among social groups. It is worth noting that the behavioural intention to financially sponsor immigrants' vaccination may imply that respondents in multiple categorization conditions, value outgroup members' lives as much as they do with their own group's lives, thus acknowledging their equal humanness.

The prosocial effect was persistently found across the three different types of multiple categorization conditions (shared, unshared and mixed between respondents and targets), again ruling out the role of shared affiliations and perceived similarity between respondents and the outgroup target. In line with other studies on multiple categorization, individualization of outgroup members, the extent to which perceivers rated the outgroup target as composed of distinct individuals, was the mediator as well of this prosocial effect (Prati, Crisp, Pratto, & Rubini, 2016). This research illustrates multiple categorization effectiveness in challenging the common tendency to perceive outgroup members as less human both in terms of judgments and behaviours.

In the same research, the interplay between multiple categorization and SIC in affecting positive intergroup attitudes was investigated for the first time (Prati, Crisp, Pratto & Rubini, 2016; see Figure 4). Italian respondents' perceived overlap and similarity among the most relevant social groups they belong to (i.e., nationality, occupation, political view; Roccas & Brewer, 2002) were measured. The lower the overlap and similarity rates, the higher the perceived SIC. These two distinct measurements were operationalized by Roccas and Brewer (2002), proposing that individuals' representations of their multiple group memberships can vary along the dimension of complexity in two different ways. Individuals can perceive a high or low overlap between the actual members of their various group memberships (overlap measure) as well as a high or low similarity between the typical characteristics of their various group memberships (similarity measure).

Italian respondents with highly complex identities showed support to health policies favouring the group of immigrants, irrespectively of whether they were portrayed in simple or multiple categorization terms. Along this line, experiencing the complexity of one's identity promoted prosocial behaviours towards disadvantaged groups. This contribution also highlighted that SIC can be a complementary strategy to multiple categorization in promoting the choice to support health policies favouring equity among social groups. Previous studies demonstrated that social identities are central to health and wellbeing (Haslam, Jetten, Postmes, & Haslam, 2009). These findings extend this assumption by showing that that social identity complexity pertaining to the self and the target can contribute to enlarging the boundaries of social groups and defend the human right to health of a much larger group of people.

Multiple Social Identities and Extended Behavioural Intentions of Social Inclusion

To further examine the powerful role of SIC in contributing to positive intergroup relationships, Prati, Moscatelli, Pratto and Rubini (2016) wondered whether it might also influence the call for responsibility to aid distant others in need. More specifically the research aimed to understand whether having a complex social identity can influence people's attitudes to spread egalitarian and democratic values. Findings demonstrated that Italian respondents with complex

identities were more likely to be in favour of Arab people's right to political autonomy. This outcome implies that they supported Arab Spring movements to get independence and freedom instead of being afraid and feeling threatened by Arab people's power. The perceived complex structure of one's own social identities seems to lead one to oppose disadvantaged people's oppression and defend political freedom. Thus, the effectiveness of SIC was found to affirm social equality, even for distal groups in other countries.

In this study, besides testing the link between SIC and support for Arabs' right to political autonomy, the moderating role of SDO (Pratto et al., 1994) on Arabs' humanization was investigated. Evidence from a large and heterogeneous group of Italian adults showed that those low on social dominance orientation, who oppose social hierarchies and intergroup inequality, had a more complex and inclusive organization of their own social identities. This, in turn, prevented individuals from viewing subordinated group members as less than human.

This result is even more informative, given that it involved a very heterogeneous sample of respondents in terms of age, gender, political affiliation and religiosity, who were recruited outside the laboratory in the Italian context. In this vein, this study is one of the few that has investigated the concept of SIC empirically, and it is the first attempt to examine the role of SIC in reducing exclusion of dominated outgroup members from the human group. This research also extends previous findings on the role of SIC in promoting intergroup tolerance (Brewer & Pierce, 2005) by proving for the first time that higher SIC is associated with the endorsement of outgroup autonomy. Respecting others as human beings, even people in groups who are vilified as a dangerous threat, extends to respecting their right to self-determination.

However, given that this study was correlational, future studies are needed to experimentally manipulate SIC and/or the humanity of subordinate groups (e.g., by informing respondents about the group's emotional experiences) in order to provide a causal test of these effects of SIC. It is worth noting that this contribution presented a reliable link between perceived relationships among groups one belongs to and dehumanization of an entirely different group. This evidence also

highlights how emphasizing complex social identities, rather than simply reducing psychological boundaries between self and low-power groups, may prevent dehumanization of distal and different outgroups.

Further research provided consistent evidence on how the manner in which individuals construe the interrelationships among their multiple identities is related to individuals' efforts to build more tolerant and equal societies. For instance, individuals who showed greater identity complexity tended to have generalized positive attitudes towards different outgroups that they did not even know or had have contact with (Schmid, Hewstone, & Ramiah, 2013). Increased SIC mediated the secondary transfer effect, that is, the influence of primary contact with an ethno-religious outgroup on attitudes towards unrelated disadvantaged minorities (i.e., ethnic minorities and homosexuals).

Among individuals who were highly identified with a group that had perpetrated violence against another group, those who had complex social identity were more likely to experience guilt and shame in response to the recalling of the episode, which was related to their willingness to engage in compensatory actions toward the community (Costabile & Austin, 2017). This finding strengthens the evidence summarized above on the role of SIC in promoting prosocial behavioural intentions towards outgroup members, enlarging the circle of moral concern. This research has shown that a complex social identity leads to increased prosocial behavioural intentions in favour of outgroup members even in spite of ingroup ones. This applies to different contexts and towards varied outgroups, highlighting the role of one's SIC in building positive intergroup relationships.

Counter-Stereotypical Categorization, Reduction of Emotional Prejudice and Outgroup Re-Humanization

Counter-stereotypic categorization can be considered as a particular type of multiple categorization that consists of the conjunction of two non-overlapping social categories, in terms of their conflicting characteristics. Previous studies (Hastie et al., 1990; Kunda et al., 1990) have shown that counter-stereotypical combination can be an effective intervention to reduce prejudice.

The program of research depicted below was designed to examine the efficacy of this tool in reducing “emotional prejudice”.

Emotional prejudice is thought to be a particularly heinous form of prejudice, strongly related to intergroup behaviour. For example, general affective reactions to national, ethnic, and religious groups can predict social distance with those groups more than stereotypes (Stangor, Sullivan, & Ford, 1991). More recent studies have demonstrated that affect (i.e., emotion) appears to mediate the effect of cognitions such as stereotypes on behaviour (Mackie, Devos & Smith, 2000). Thus, finding ways to reduce emotional prejudice can be particularly beneficial to improve intergroup relations.

Research on emotional prejudice has demonstrated, throughout a consistent corpus of studies collected across the world, that social groups can be distinguished along the two dimensions of competence and warmth. This results in four combinations that evoke unique patterns of emotional prejudice and corresponding behaviours (Stereotype Content Model; Fiske, Cuddy, Glick, & Xu, 2002). Specifically, groups stereotyped as low on competence, but high on warmth (e.g., women and elderly people) elicit the negative emotion of pity, whereas groups stereotyped as high in competence and low in warmth (e.g., men and high SES people), evoke the negative emotion of envy. Groups stereotyped as low in warmth and incompetent (e.g., immigrants and homeless) elicit the extremely negative emotion of contempt. In contrast, those perceived as highly warm and competent (e.g., middle class and students) elicit positive emotions, such as admiration and pride.

Building on this conceptualization, Prati, Crisp, and Rubini (2015) tested whether emotions, like social judgments, can be experienced in a less biased fashion when more than one categorical criterion defining individuals' group membership is salient. Across two experiments conducted in the Italian context, results established that exposure to gender or ethnic counter-stereotypical targets (i.e., asking respondents to think and write down a description of a female mechanic or a Romanian manager) attenuated the reliance on pity and contempt towards respectively women and Romanians,

compared to exposure to stereotypical targets (i.e., a female nurse or a Romanian window-cleaner; see Table 5). One strength of this contribution is the consistent finding across different types of counter-stereotypes, from the subtle prejudice towards women to blatant and aggressive prejudice towards ethnic minorities such as Romanians in Italy. This finding supports previous studies using slightly different manipulation of counter-stereotypes (Vasiljevic & Crisp, 2013). Specifically, respondents were asked to generate up to five or to ten counter-stereotypical category combinations, and this manipulation lowered outgroup prejudice and enhanced outgroup trust.

This also supports Prati, Crisp, and Rubini (2015; Studies 2 and 3) who found a re-humanizing effect of counter-stereotypical categorization across different outgroup targets, and using multiple indirect and generative measures of re-humanization (see Figure 5). In the first study, two independent coders, blind to the hypotheses of the experiment, coded respondents' descriptions of outgroup target by distinguishing between humanizing (i.e., uniquely human and human nature traits) and dehumanizing (i.e., not uniquely human and not human nature traits) attributes. In a second study, respondents were asked to write down only emotional attributes referring to the target presented to them. Again, two independent coders were instructed to distinguish between secondary and primary emotions listed by each respondent. Whereas previous studies on dehumanization adopted a fixed response format (i.e., asking respondents to rate a selection of human traits), this research has produced a methodological advance by using a free generation format of humanization traits (i.e., rating respondents' spontaneous use of human traits). The measures revealed the generative role of counter-stereotypes in fostering individuals to freely use more uniquely human than non-human attributions to describe the target in question. Considering the pervasiveness of prejudicial thinking, this finding provides insights on how to implement efficient tools to deal with this issue.

The underlying processes of the outgroup re-humanization effect of counter-stereotypes was also examined (see Table 4). The emotion of surprise, elicited by the counter-stereotypes leads to awareness of expectancy violation that, in turn, explained the increased re-humanization of the

outgroup target in question (Prati, Crisp, & Rubini, 2015). The alternative model of sequential mediation was not significant, corroborating the primary role of surprise in eliciting cognitive awareness of expectancy violation to explain the re-humanizing effect of counter-stereotypes. Indeed, surprise is one of the most basic and universal of emotions (e.g. Ekman, 1972) which usually results in the interruption of ongoing thoughts and activities and motivates individuals to pay attention to the unexpected information (e.g., Kunda et al., 1990). Surprise can be conceived as the emotional link between perceived inconsistencies and awareness of expectancy violation, enhancing motivation to resolve stereotypic-discrepancies. Again findings attested the intertwined relationship between cognitive and affective processes that are influenced by a specific type of multiple categorization.

Generalized Re-Humanization Effects of Counter-Stereotypic Categorization

The above reviewed contributions substantiate the role of counter-stereotypes in challenging the stereotypical and dehumanizing impression formation process towards the outgroup target in question. However, according to the literature counter-stereotypes should elicit an epistemic motivation to process information in greater depth that can affect not just the impression formation of the target considered but any subsequent impression formation process (Crisp & Turner, 2011). This was attested by research showing that counter-stereotypes increased cognitive flexibility in many different ways (i.e., reduced Stroop interference, pointing towards increased cognitive control and the inhibition of dominant automatic associations; Vasiljevic & Crisp, 2013) and improved creative performance in subsequent unrelated tasks (Gocłowska, Crisp & Labuschagne, 2013; Gocłowska & Crisp, 2013).

Prati, Vasiljevic, Crisp and Rubini (2015) tested whether exposure to gender counter-stereotypical (i.e., female mechanic) compared to stereotypical targets (i.e., male mechanic) increased re-humanization of different unrelated outgroups (see Table 5). The range of outgroups included stereotypically distinct targets (i.e., asylum seekers, homeless; see Fiske et al., 2002). A generalized outgroup re-humanization effect was observed across studies and using different

measures, including fixed format attributions of uniquely human traits, and generation of secondary or uniquely human emotions. Thus, not just increasing the number, but the inconsistency of category combination to describe outgroup members provides a tool for tackling even generalized dehumanization (Figure 6).

Furthermore, this work demonstrated the mediating role of cognitive flexibility in leading to generalized outgroups re-humanization. Encouraging individuals' to rely less on stereotypes in forming an impression of a target leads them to adopt a more complex way of thinking in unrelated problem-solving tasks. In particular, respondents got higher scores indicating an improvement in their accuracy in avoiding both availability (when individuals estimate how likely or how frequent an event is on the basis of its accessibility) and representativeness (when individuals use categories or prototypes) heuristics (Tversky & Kahneman, 1974). This evidence suggests how to foster a resource-consuming but effective mindset in leading to accurate processing of multiple factors that are more often required in our everyday life. However, the temporary shifts in cognitive flexibility that ensue after thinking of counter-stereotypical targets should lead to chronic changes in individuals' cognitive style of thinking.

Overall, counter-stereotypic categorization research supported and extended the re-humanizing effect of multiple categorization, by showing its generalized effects on different unrelated outgroups. The evidence suggests the potential of this social cognitive strategy to promote a more complex way of thinking that can be applied to different task, improving individuals' lives not only in terms of social inclusion, but also in terms of cognitive performance.

The Attenuation of Subtle Forms of Intergroup Discrimination

The effectiveness of multiple and counter-stereotypical categorization approaches has also been demonstrated on subtle forms of intergroup prejudice, highlighting the influence of both strategies at a deeper level of cognitive processing. A series of studies were conducted on the impact of increasing the quantity (i.e., multiple categorization) or decreasing the overlap (i.e., counter-stereotypic categorization) of social categories to attenuate the spontaneous use of language

abstraction to transmit outgroup discrimination (Prati, Menegatti & Rubini, 2015). Given that abstract information is perceived as more endurable, less verifiable, and more likely to be repeated than concrete information (Maass et al., 1989), an unintended tendency to vary the use of language abstraction and valence leads to a more favourable representation of ingroup members (i.e., good *vs* help) and unfavourable representation of outgroup members (i.e., bad *vs* hit). Extensive work (Moscatelli et al., 2008; Moscatelli & Rubini, 2011; Moscatelli et al., 2014; Rubini, Moscatelli, & Palmonari, 2007; Rubini & Menegatti, 2008; Rubini, Moscatelli, Albarello, & Palmonari, 2007) where respondents provided spontaneous descriptions of ingroup and outgroup members behaviours in specific contexts, established a strong tendency in the use of language abstraction. This tendency contributes to the transmission and maintenance of ingroup favouritism and outgroup derogation.

Prati, Menegatti, and Rubini (2015) demonstrated that linguistic outgroup derogation (i.e., the use of abstract negative terms to describe outgroup members) disappeared when respondents were presented with counter-stereotypical or multiple pieces of information about outgroup targets (i.e., Romanians, immigrants) compared to that of stereotypical and simple categorization conditions respectively. Specifically, the abstraction of negative terms used to describe immigrants significantly decreased when these were previously presented with multiple—either shared or unshared—affiliations, rather than with single categorization to Italian native respondents. Interestingly, in the single categorization condition, immigrants were described in negative terms at a higher abstraction. However, this pattern was reversed when immigrants were presented as having multiple category affiliations. In this condition, negative terms used to describe immigrants were even more concrete than positive terms, suggesting that linguistic discrimination conveyed through language abstraction disappeared.

Similar results were shown by employing counter-stereotypical category combination. Italian respondents were asked to think about and describe an ingroup or an outgroup target person. In the counter-stereotypical category conditions, the targets were an Italian car window-cleaner or a Romanian manager (unusual in the Italian context), whereas in the stereotypic condition the targets

were an Italian manager or a Romanian car-window cleaner. The use of less abstract negative but not positive terms to describe a counter-stereotypical in comparison to a stereotypical combination of Romanians demonstrated reduced linguistic bias towards them from Italian native respondents. Moreover, in the descriptions of counter-stereotypical combinations of ingroup (i.e., Italian car window-cleaner) and outgroup (i.e., Romanian manager) targets, there was no significant variation in the abstraction of positive and negative terms, showing an absence of linguistic intergroup discrimination.

In both studies, the reduction of linguistic outgroup discrimination concerned only a decrease of abstraction of negative terms without affecting the use of positive terms. It is well established that individuals generally tend to portray others with positive language, whereas they significantly vary the use of negative terms to achieve discrimination (see Maass et al., 1989; Menegatti & Rubini, 2012; Rubini & Menegatti, 2008, 2014). This happens because negative rather than positive terms are more diagnostic and informative about others' traits and behaviours (Jones & Davis, 1965).

In line with previous works, individualization of immigrants explained the effects of multiple categorization on reduced linguistic derogation in the descriptions provided by Italian native respondents (Prati, Menegatti, & Rubini, 2015). Moreover, intergroup contact moderated this mediation effect. In more specific terms, individuals with less contact with the outgroup decreased linguistic outgroup bias when they considered the target in terms of multiple categories and thus, of individuating information. Conversely, the higher the intergroup contact, the less the multiple categorization effect on linguistic outgroup bias was mediated by individualization. This outcome indicated a "compensation" role of intergroup contact in reducing linguistic outgroup derogation, when perceivers were exposed to single categorization of the outgroup target. Furthermore, it suggested that multiple categorization is an efficient strategy to attenuate intergroup discrimination especially when groups have low contact and rare opportunities for interaction.

Further research supported and extended this finding, showing that counter-stereotypic categorization can affect other automatic and subtle forms of intergroup bias. Specifically, when perceivers process counter-stereotypical information with sufficient cognitive resources, they provided a complete reversal of stereotype priming, producing faster responses in counter-stereotypical trials than in stereotypic trials (Blair & Banaji, 1996). In contrast, stereotype priming was much more difficult to counter if cognitive resources were severely constrained. Similarly, respondents who engaged in gender-counter-stereotypical (i.e., strong woman) mental imagery produced substantially weaker implicit stereotypes compared with respondents who engaged in stereotypic (e.g., a weak woman or a strong man) or no mental imagery (Blair, Ma, & Lenton, 2001). This bias reduction suggested that implicit stereotypes are malleable, and that controlled strategies, such as the combination of mental imagery and counter-stereotypes, may influence the stereotyping process at its early as well as later stages.

The Moderators of Multiple and Counter-Stereotypical Categorization Effects

Personal orientation and contextual factors can influence the extent to which multiple categorization can overcome stereotypical and dehumanizing biases. Prati, Moscatelli, Pratto, and Rubini (2018) showed that political orientation and intergroup contact moderated the impact of multiple and counter-stereotypical categorization effects on outgroup bias. In a first study, Italian respondents were asked to think about and describe a counter-stereotypical (i.e., a Romanian manager) or a stereotypical (i.e., Romanian car-window cleaner) category combination of Romanians. After that they were asked to complete measures of outgroup prejudice (i.e., liking scale), political orientation and their previous contact with members of the outgroup.

Results demonstrated that increasing the complexity of outgroup-member categorization had an impact on prejudice, and this effect was moderated by political orientation. Moderates and left-wingers reduced their prejudice towards Romanians when primed with a counter-stereotypical compared with a stereotypical outgroup target. Conversely, right-wingers did not show a reduction of prejudice in counter-stereotypical compared with stereotypical combination conditions. Given

that right-wingers are likely to have a higher need for cognitive closure (Jost et al., 2003; see also Chirumbolo, 2002) compared to left-wingers and thus may be less tolerant of social diversity, increasing the complexity of outgroup members through multiple categorization was a less effective strategy of prejudice reduction for them than for left-wingers and moderate individuals. Moreover, having frequent and positive contact with Romanians overrode the potential influence of categorization type on prejudice, presumably because those with greater contact had low prejudice against Romanians. Counter-stereotypical combination inhibits the reliance on simple categorization of outgroup members, whereas contact weakens affective processes, such as anxiety and threat from outgroup members. This result may explain why contact is more effective for right- than for left-wingers.

In a second study, multiple compared to simple categorization of immigrants was manipulated in the Italian context. Evidence showed a weaker effect of multiple categorization intervention in reducing intergroup prejudice for right-wing compared to left-wing and moderate respondents. Right-wing respondents were less likely to shift from categorization to individualization of immigrants and were less likely to be influenced by multiple categorization in reducing perceived threat from immigrants and in turn, to reduce their prejudice against immigrants.

Summary

Overall, this second part of the review has illustrated recent findings related to the beneficial effects of multiple categorization, SIC and counter-stereotypical combination. The research highlights how considering the complexity of others as well as oneself leads to multiple beneficial effects, ranging from prejudice reduction at the explicit and implicit level, outgroup re-humanization, prosocial behavioural intentions towards outgroup members. It is worth noting that the re-humanizing effects of multiple categorization strategies can be extended beyond the target group directly presented to the respondents, affecting their evaluation of different, unrelated outgroups, thus promoting generalized social inclusivity. Moreover, the interplay between multiple categorization and SIC in predicting both outgroup re-humanization and prosocial behavioural

intentions was addressed. Different types of re-humanization measures provided convergent results, encouraging us to test the efficacy of these interventions on actual behaviours. Furthermore, counter-stereotypic categorization is as effective as multiple categorization in predicting outgroup re-humanization, and also other subtle forms of intergroup discrimination such as linguistic outgroup derogation. Cognitive and affective mediating factors as well as personal moderating factors, complement the role of perceiving and experiencing multiple categories and identities in triggering beneficial effects by illustrating the different underlying processes of the addressed strategies.

Conclusion

'No one is safe until everyone is safe' is the current slogan to inspire a humanitarian response to counter the Covid-19 pandemic. One of the many things this experience makes clear is that all human beings around the world, regardless their status, ethnicity, nationality or gender, are similarly vulnerable and in need of assistance to stop this potentially severe infection. Therefore, if before this pandemic social integration and intergroup equality represented fundamental goals for contemporary societies (Pew Research Center, 2016, 2017), it is now, even more, the case that we must address them to promote not just intergroup cooperation and harmony, but to prevent further global catastrophes.

In this vein, the present review brings us good news by illustrating the strength of different social cognitive strategies that can lead us to achieve social inclusivity, by increasing multiple and counter-stereotypical information about others and oneself. Theories of social categorization and social identities were compared, by examining separate approaches based first on dual group memberships (i.e., crossed categorization and dual identity) and then those based on more than two group memberships (i.e., multiple categorization and SIC). The aim was to highlight that being exposed to others' or experiencing one's own increased complexity of social identity leads to reduced outgroup bias and also to less extreme and subtle forms of intergroup discrimination.

The more recent evidence reviewed went beyond existing demonstrations of multiple categorization and SIC. First, the findings speak of the beneficial effects of both perceiving and experiencing multiple social identities in promoting outgroup members' inclusivity in the circle of human and moral concern. In this vein, evidence support the assumption that dealing with perceived complexity of others or the self improves the accuracy of social judgments (see also Prati & Giner-Sorolla, 2018). Our research has shown that multiple categorization can increase attribution of humanness in social judgements, and through the enhanced prosocial choices towards outgroup members even at the expense of ingroup members, at least at the important level of behavioral intentionality (Ajzen & Fishbein 2010). Together with SIC, this strategy can improve the ability to deal with an increasingly socially diverse world by enhancing a shift from a stereotypical and dehumanizing way of thinking.

Multiple categorization appeared an effective tool to increase social inclusivity only for individuals with less complex social identity. This highlighted the compensatory role of SIC in absence of multiple categorization priming (Prati, Crisp, Pratto & Rubini, 2016).

The interplay of cognitive and affective processes underlie the humanizing effects of multiple and counter-stereotypical categorizations. More specifically, increased individualization and reduced outgroup threat explained the effects of multiple categorization on outgroup re-humanization (Prati, Crisp, Meleady, & Rubini, 2016) and increased surprise and perceived expectancy violation are at the bases of counter-stereotypical categorization beneficial effects (Prati, Vasiljevic, et al., 2015).

Moreover, a generalization effect should be highlighted as a secondary positive effect of multiple categorization and SIC, in the sense that exposure to multiple group memberships of others or oneself extended positive and tolerant attitudes to unrelated outgroups and yet usually targeted with heinous prejudice (Prati, Vasiljevic, et al., 2015; Vasiljevic & Crisp, 2013). However, these strategies were not always effective. Personal orientation and personality factors can undermine the effectiveness of multiple and counter-stereotypical categorization approaches (Gocłowska et al.,

2013; Prati et al., 2018). Thus, intervention programs based on multiple categorizations and identities should take this into account to implement appropriate ways to promote intergroup relationships.

In sum, the evidence reviewed supports the view that we should overcome the binary conception of intergroup relations (ingroup *vs* outgroup) to foster more positive intergroup relations. In this vein, this contribution captures very well the model of Dixon et al. (2020), according to which the binary conception ingroup-outgroup might have been responsible for obscuring fundamental features of social relations in historically divided and unequal societies. The authors highlight the importance of focussing on the complexity of intergroup processes, by considering the role of third parties in intergroup dynamics. We illustrated the importance of perceiving and experiencing social complexity that involves more than two groups. This approach allows better understanding of the dynamics of conflict, inequality and also social change as our findings showed in relation to the support for immigrants' health (Prati, Crisp, Vasjlievic, & Rubini, 2015) or the support for Arabs' autonomy (Prati, Moscatelli, Pratto & Rubini 2016) as a consequence of multiple categorization. This evidence strengthen the notion suggested by Crisp and Meleady (2012) that multiple categorization as a means of going beyond binary conceptions or dichotomous categorization, paves the way to build intergroup allies in contemporary societies, rather than conceiving other groups as enemies.

Directions for Future Research

The evidence reviewed here points to issues that remain unresolved in order to reach a deeper understanding of the effectiveness of multiple categorization in the long term. First of all, it is necessary to examine the extent to which the effects obtained in the studies reviewed are long-lasting, and how many interventions lead to the persistent use of a more flexible and complex way of thinking. Notably, developmental studies have tested multiple categorization interventions longitudinally (Bigler & Liben, 1992; 1993). Five to 10 years old children who were trained to

classify information along multiple dimensions on a daily basis for an entire week showed significantly less gender stereotyping than other children. Therefore, multiple classification ability can be acquired as the capacity to understand that the same person or object can be considered under multiple perspectives simultaneously. Similar findings were found in an experimental study examining simple *versus* multiple identities. Indeed, 6 to 7 years old children who were assigned to multiple identities condition subsequently expressed greater flexibility at problem-solving and categorization than other children. These findings illustrate that something as simple as thinking about one's identity from multiple viewpoints may help to reduce rigid thinking, and this in turn increases open-mindedness in a society that is becoming increasingly diverse.

Nevertheless, future studies should test the extent to which the priming of multiple categorizations lasts, and how many interventions are required to elicit a persistent and frequent switch to a more complex way of thinking. Given that personality characteristics may undermine the effectiveness of these strategies (Gocłowska et al., 2013), research is still needed to detect whether different strategies can work better for specific groups. In a similar vein, we still need studies to compare each of the reviewed strategies to promote intergroup relationships to understand when and under what conditions each of them is more effective, also taking into account different groups (i.e., more or less discriminated). Furthermore, there is evidence on the different effects of multiple identities for majority and minority groups (e.g., Brewer, Gonsalkorale, & van Dommelen, 2013) and future studies should compare the impact of SIC on majority and minority groups (Brandstätter et al., 1991).

Research has addressed the negative or down-side implications related to multiple categorization, such as the cognitive resources required and the psychological efforts to go beyond others' diversity or to experience and combine it to one's own complexity (see Kang & Bodenhausen, 2015). Thus, studies are needed to understand when and how costs can overcome benefits related to these strategies. Future work should also employ implicit techniques (Greenwald

& Banaji, 1995) to assess dehumanization or implicit evaluations of others' humanness and the efficiency of these strategies.

Another critical question is how exposure to multiple and counter-stereotypical portrayals of people can be an everyday experience. Evidence on the compensatory role of intergroup contact on multiple categorization interventions (Prati, Menegatti, & Rubini, 2015; Prati, Crisp, Pratto & Rubini, 2016) suggests that encounters with outgroup members, in particular for majority group members (e.g., Whites in Western cultures, heterosexuals), can be the answer. Evidence showed that individuals with low intergroup contact who were exposed to outgroup multiple categorization did not show a higher level of outgroup discrimination in comparison to individuals who reported high contact with outgroup members and exposed to simple outgroup categorization. During encounters with outgroup members, people gather and process first-hand multiple pieces of information that can lead to avoiding reliance on stereotypes toward outgroups in the same way as multiple categorization intervention does. In this vein, intergroup contact as a relational strategy of prejudice reduction may lead to accurate cognitive processing. This implication is in line with what has recently been highlighted by Hodson, Crisp, Meleady and Earle, (2018) and with a consistent corpus of literature showing that contact between groups is a prime means to improve intergroup attitudes (see Pettigrew & Tropp, 2006 for a meta-analysis). Nevertheless, interventions like multiple categorization, counter-stereotypical exposure or even imagined contact (for a meta-analysis see Miles & Crisp, 2014) can be effective tools when direct intergroup contact is less likely to occur.

The link between multiple categorization and intergroup contact is further supported by research showing that contact can work at a deeper level challenging impressions not just towards single outgroup member but towards their group as a whole. Intergroup contact "deprovincializes" the mind, switching the focus of attention from the self and the ingroup as the focus of judgment to others by rendering respondents more open to experience (e.g. Pettigrew, 1997; Verkuyten, Thijs & Bekhuis, 2010). Specifically, direct contact can promote learning in ways that are not rigid or

specific to the experience itself, but rather it boosts cognitive functions leading to a more liberalized mindset. Interestingly, contact challenges intergroup attitudes, even in the absence of motivations or positive orientations to learn about outgroup members, as for individuals high in authoritarianism and SDO (see Hodson, 2011). In this regard, recent findings (Meleady, Crisp, Dhont, Hopthrow, & Turner, 2019) demonstrated the role of intergroup contact in promoting a cognitively liberalized mindset. A series of studies established that intergroup contact encourages more environmentally responsible attitudes and behaviour by promoting less hierarchical and more egalitarian viewpoints. Research is still needed to further understand the efficiency of intergroup contact in promoting inclusive societies but also a more liberalized mindset towards different issues of modern and globalized societies (i.e., pro-environment, support of poor countries, attitudes against dictatorships around the world).

Practical Implications

Individuals can often control and prevent the influence of stereotypes on their manifest behaviour. However, such correctional efforts can be cognitively demanding and rely on factors such as perceivers' awareness, motivation and cognitive resources, each of which can be easily undermined. Ideally, bias reduction research would aim to fight the initial activation of stereotypes as opposed to controlling the subsequent influence of these biases on behaviour (Bodenhausen & Macrae, 1998; Gawronski et al., 2008). In this vein, multiple and counter-stereotypic categorization interventions should increase the use of, reliance on and accessibility to increasingly complex ways of thinking about outgroup members to reduce discriminatory behaviours.

The use of multiple and counter-stereotypic categorization interventions can easily be implemented through repeated exercises of thinking, describing, picturing outgroup members, and can be generalized to different outgroup members. Interventions can be implemented in schools to develop skills that can be applied to different contexts, but also in workplaces to promote good practises and ameliorate the wellbeing of all members of work teams. For example studies show that using pictures of people working in gender atypical roles, is a valuable strategy for overcoming

spontaneous gender stereotype in the short term (e.g., woman surgeon and man nurse; Finnegan, Oakhill, & Garnham, 2015), or imagining to have an interaction with an outgroup member and after that describing this person can reduce outgroup dehumanization (Prati & Loughnan, 2018). Advertising campaigns in favour of discrimination reduction can rely on multiple and counter-stereotypic categorization approaches to facilitate individuals' thinking about and memorizing the perceived complexity of outgroup members that they do not have the opportunity to encounter or usually avoid; overall multiple and counter-stereotypical categorization interventions as well as focussing on one's own multiple social identities can constitute a tool to guide and favour intergroup encounters by highlighting the relevance and value of social diversity. Nevertheless, practices and policies favouring intergroup contacts within institutional and informal contexts should be promoted and activated as "norms" of our contemporary societies.

In conclusion, current multicultural environments, characterized by increasing multiple and inconsistent information, can, under the right conditions, foster cognitive adaptation and embracing of social inclusivity (see Crisp & Meleady, 2012). The present review highlights the crucial role of socio-cognitive strategies in enabling this outcome. First, consistent findings have shown that perceiving and experiencing the identity complexity of others and the self can not only reduce intergroup prejudice, but also attenuate one of the most heinous forms of discrimination - dehumanization. Second, multiple, counter-stereotypic categorizations and SIC improve the uncontrolled use of negative language abstraction and different measures of behavioural intentions to aid outgroup members. This highlights the impact of these social cognitive strategies at multiple levels of intergroup relations. Third, the perceived complexity of others and the self are complementary facets in endorsing social inclusivity of outgroup members. Overall, social policies to favour social integration can be informed by the evidence that encouraging multiple conceptions of social categorization leads to multiple and extended benefits for intergroup relations and society at large.

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Figure caption

Figure 1. The Categorization-Processing-Adaptation-Generalization (CPAG) model of cognitive adaptation to the experience of social and cultural diversity.
From Crisp & Turner (2011) in Psychological Bulletin 137, 242–266, © 2011 American Psychological Association.

Figure 2. Uniquely and non-uniquely human traits and emotions attributed to outgroup target as a function of categorization type (Prati, Crisp, Meleady, & Rubini, 2016; Studies 1 and 2).

Figure 3. Percentages of generated human and non-human traits to describe outgroup target as a function of categorization type (Prati, Crisp, Meleady, & Rubini, 2016; Study 3).

Figure 4. The interplay between multiple categorization and social identity complexity on support for health intergroup equality.
From Prati, F., Crisp, R. J., Pratto, F., & Rubini, M. (2016) in Group Processes & Intergroup Relations, 19(4), 426-438, © 2016 Sage.
Low SIC: low social identity complexity; High SIC: high social identity complexity. Simple categorization: 0; Multiple categorization: 1.

Figure 5. Percentages of generated human and non-human traits to describe outgroup target as a function of categorization type (Prati, Crisp, & Rubini, 2015; Studies 2 and 3)

Figure 6. Attributions of uniquely human and non-uniquely human traits and emotions to four different outgroups as a function of category combination type (Prati, Vasiljevic, Crisp, & Rubini, 2015; Studies 1 and 2).

Figure 1.

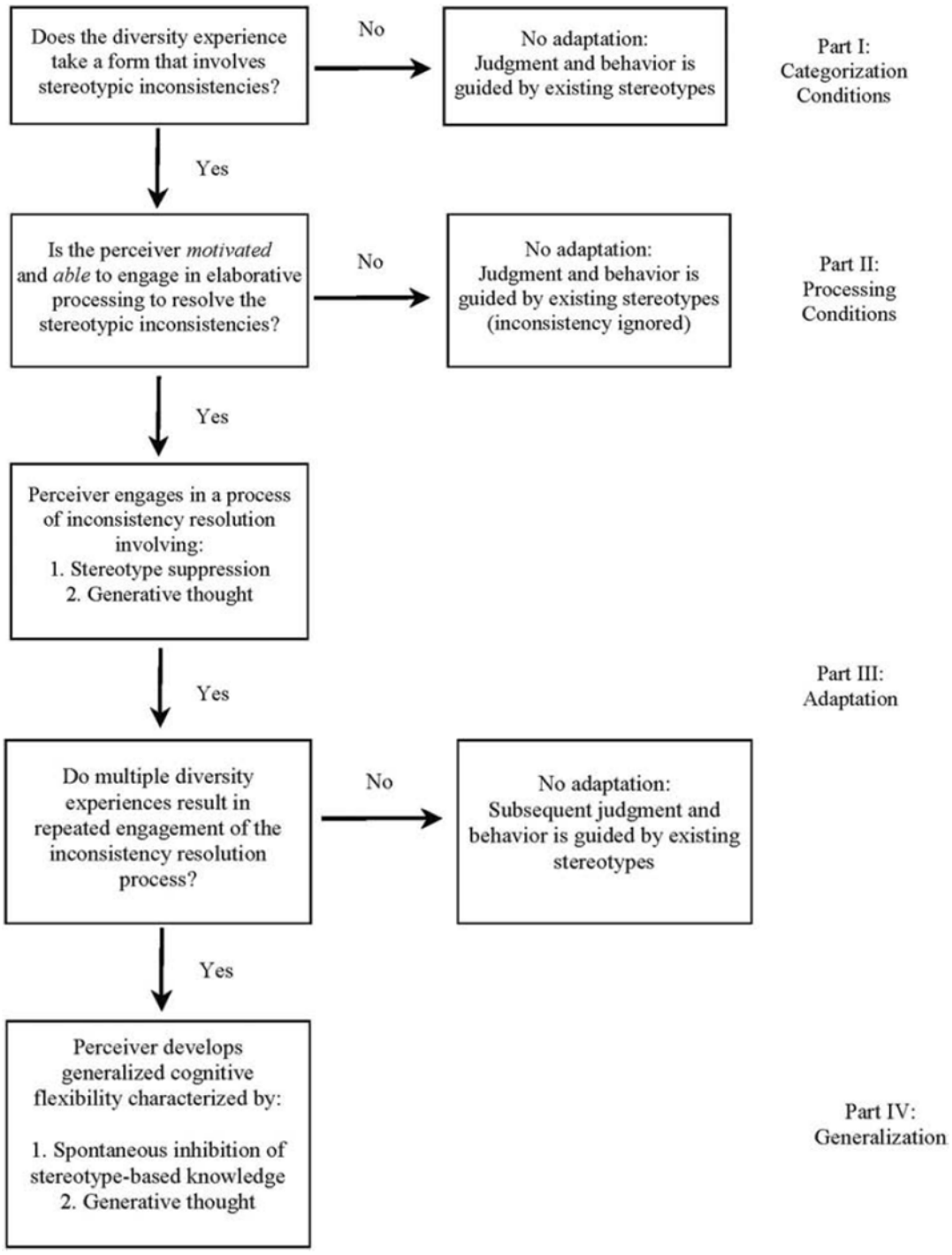
Does the diversity experience take a form that involves stereotypic inconsistencies?
No
No adaptation: Judgment and behavior is guided by existing stereotypes
Part I: Categorization Conditions
Yes
Is the perceiver *motivated* and *able* to engage in elaborative processing to resolve the stereotypic inconsistencies?
No
No adaptation: Judgment and behavior is guided by existing stereotypes (inconsistency ignored)
Part II: Processing Conditions
Yes
Perceiver engages in a process of inconsistency resolution involving:
1. Stereotype suppression
2. Generative thought
Yes
Part III: Adaptation
Do multiple diversity experiences result in repeated engagement of the inconsistency resolution process?
No
No adaptation: Subsequent judgment and behavior is guided by existing stereotypes
Yes
Perceiver develops generalized cognitive flexibility characterized by:
1. Spontaneous inhibition of stereotype-based knowledge
2. Generative thought
Part IV: Generalization

Figure 2.

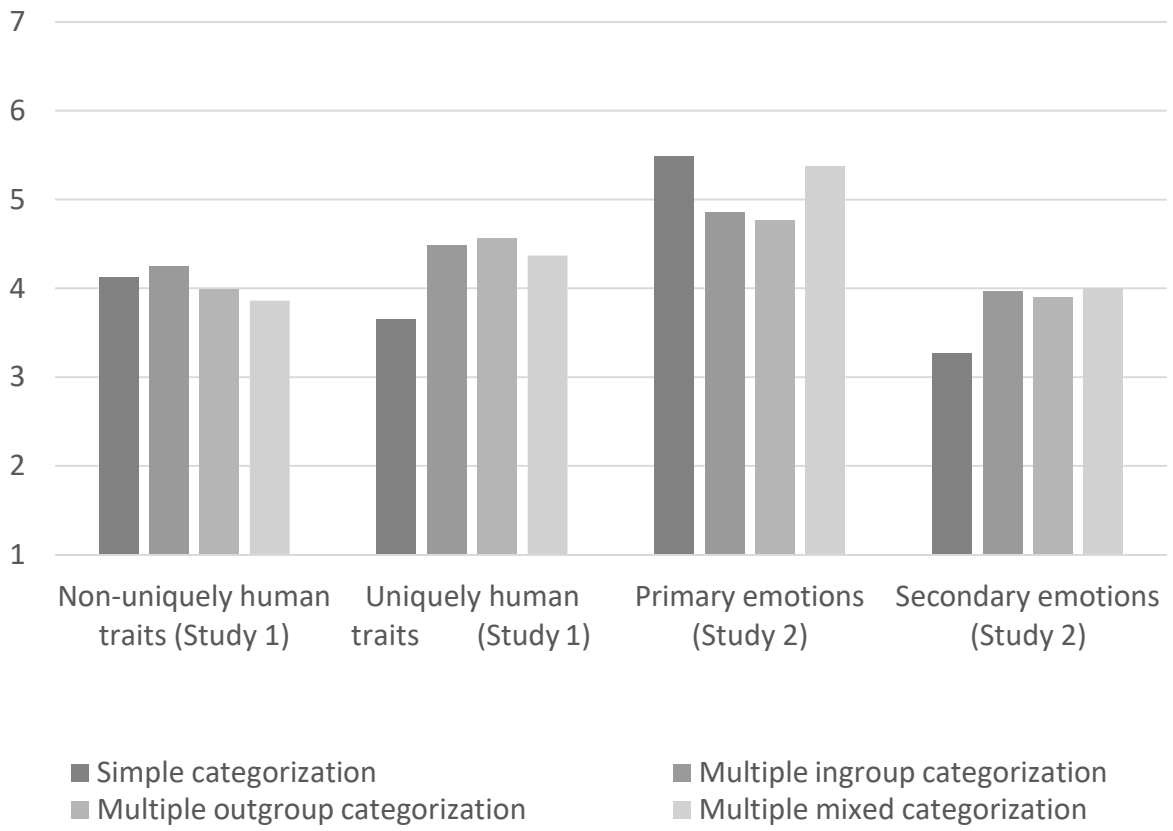
7
6
5
4
3
2
1
Non-uniquely human traits (Study 1)
Uniquely human traits (Study 1)
Primary emotions (Study 2)
Secondary emotions (Study 2)
Simple categorization
Multiple ingroup categorization
Multiple outgroup categorization
Multiple mixed categorization

Figure 3.

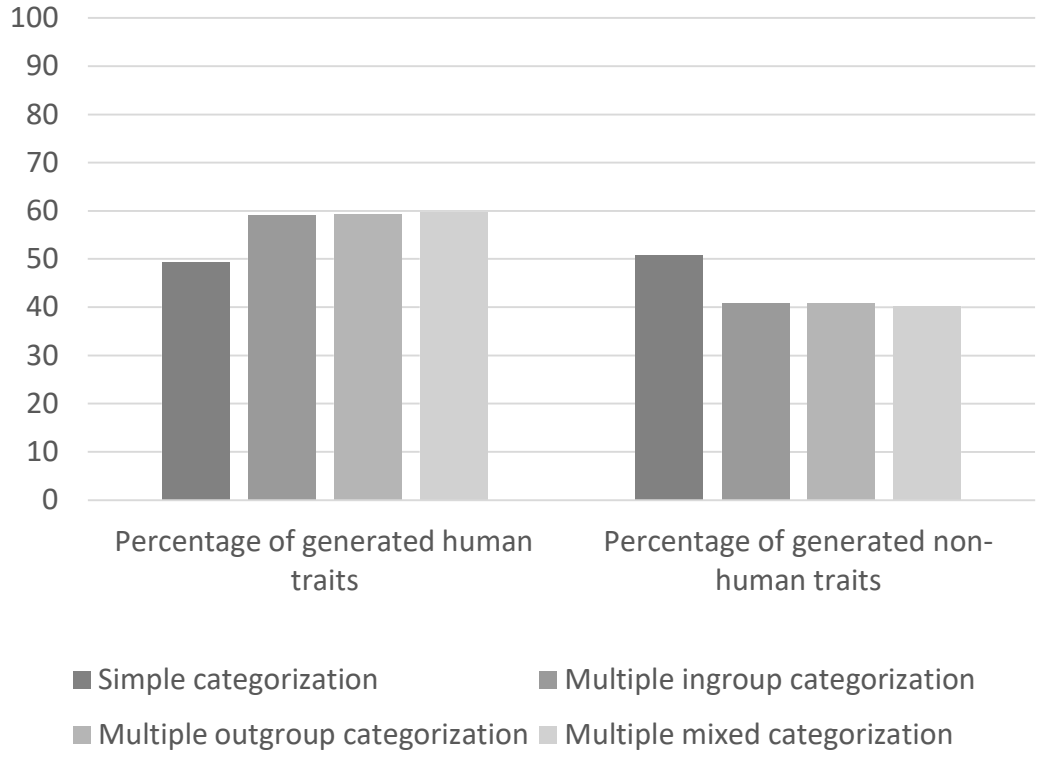
100
90
80
70
60
50
40
30
20
10
0
Percentage of generated human traits
Percentage of generated non-human traits
Simple categorization
Multiple ingroup categorization
Multiple outgroup categorization
Multiple mixed categorization

Figure 4.

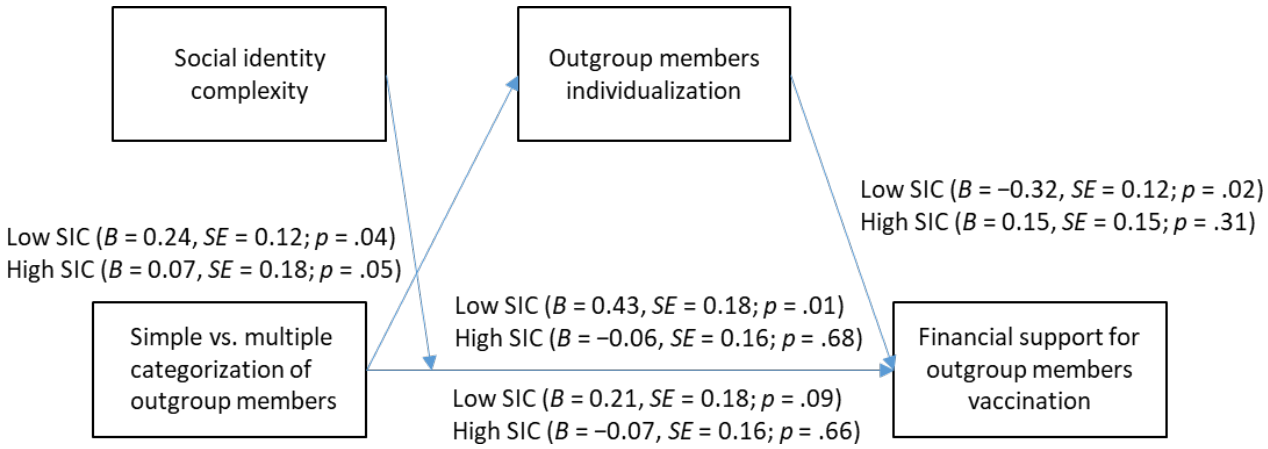
Social identity complexity
Outgroup members individualization
Low SIC (B = −0.32, SE = 0.12; p = .02)
High SIC (B = 0.15, SE = 0.15; p = .31)
Low SIC (B = 0.24, SE = 0.12; p = .04)
High SIC (B = 0.07, SE = 0.18; p = .05)
Low SIC (B = 0.43, SE = 0.18; p = .01)
High SIC (B = −0.06, SE = 0.16; p = .68)
Simple vs. multiple categorization of outgroup members
Financial support for outgroup members vaccination
Low SIC (B = 0.21, SE = 0.18; p = .09)
High SIC (B = −0.07, SE = 0.16; p = .66)

Figure 5.

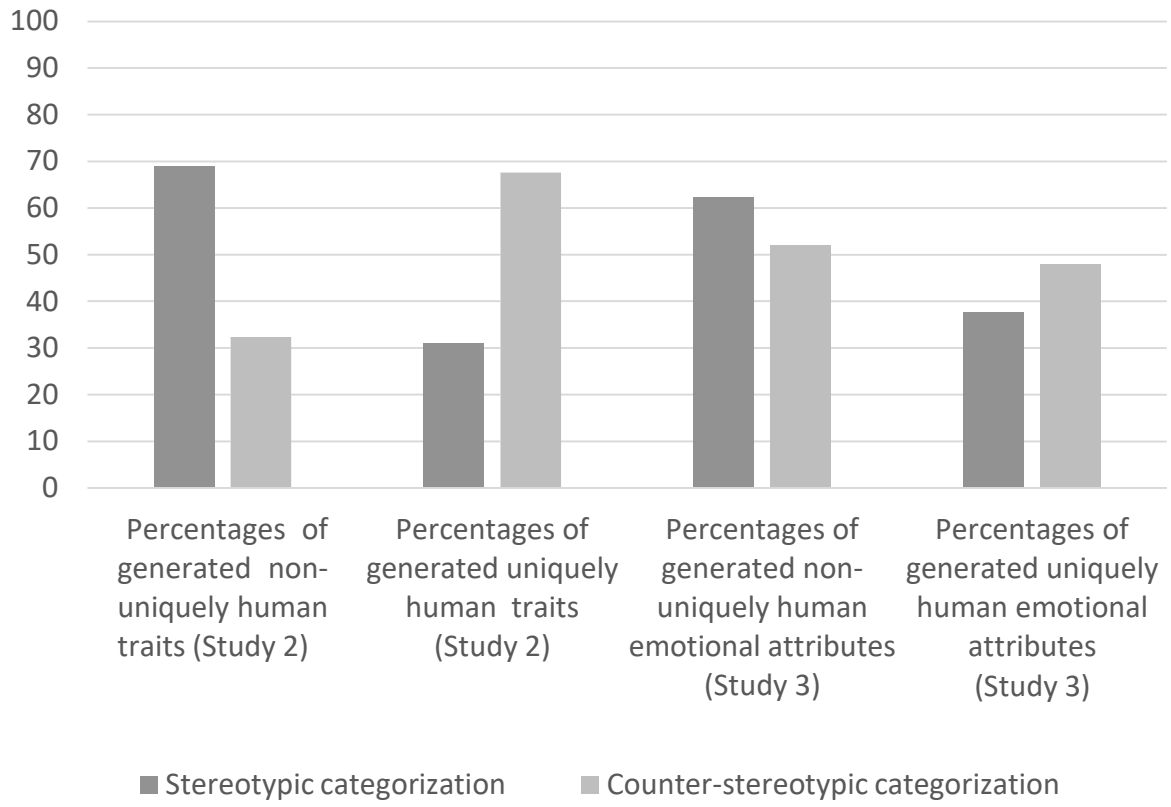
100
90
80
70
60
50
40
30
20
10
0
Percentages of generated non-uniquely human traits (Study 2)
Percentages of generated uniquely human traits (Study 2)
Percentages of generated non-uniquely human emotional attributes (Study 3)
Percentages of generated uniquely human emotional attributes (Study 3)
Stereotypic categorization
Counter-stereotypic categorization

Figure 6.

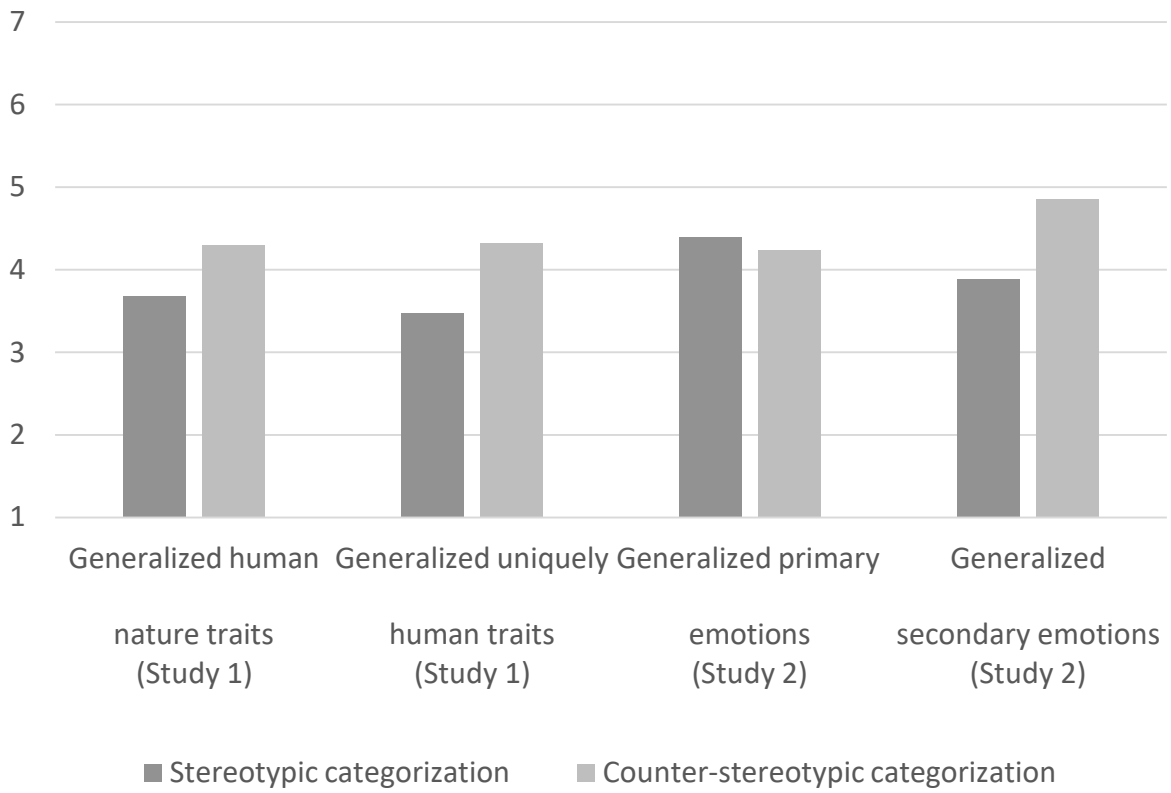
7
6
5
4
3
2
1
Generalized human nature traits (Study 1)
Generalized uniquely human traits (Study 1)
Generalized primary emotions (Study 2)
Generalized secondary emotions (Study 2)
Stereotypic categorization
Counter-stereotypic categorization

Table 1 Click here to access/download;Table;Table 1.docx

Table 1.

The four combined categories formed from crossing gender and race dimensions of categorization.

	Female (ingroup)	Male (outgroup)
White (ingroup)	White female (ingroup-ingroup)	White male (ingroup-outgroup)
Black (outgroup)	Black female (ingroup outgroup)	Black male (outgroup-outgroup)

Table 2 Click here to access/download;Table;Table2.docx

Table 2.

Synopsis of the studies on multiple categorization, counter-stereotypic categorization and social identity complexity.

Social Cognitive Strategies	*Mediators*	*Measures*	*References*
Multiple categorization	Individualization and perceived outgroup threat	Outgroup re-humanization: -attribution of human traits -secondary emotions -generation of human traits	Prati, F., Crisp, R. J., Meleady, R., & Rubini, M. (2016)
	Individualization	Pro-social behavioural intention: -support for immigrants' health	Prati, F., Crisp, R. J., Pratto, F. & Rubini, M. (2016)
Social identity complexity		Pro-social behavioural intention: -support for immigrants' health	Prati, F., Crisp, R. J., Pratto, F., & Rubini, M. (2016)
	Outgroup Re-humanization	Pro-social behavioural intention: -support for Arabs' autonomy	Prati, F., Moscatelli, S., Pratto, F. & Rubini, M. (2016)
Counter-stereotypic categorization	Cognitive flexibility	Outgroup re-humanization: -attribution of human traits -attribution of human traits to outgroups	Prati, F., Vasiljevic, M., Crisp, R. J. & Rubini, M. (2015)
	Surprise and expectancy violation	Outgroup re-humanization: -intergroup emotions -attribution of human traits -secondary emotions -generation of human traits	Prati, F., Crisp, R. J., & Rubini, M. (2015)
Counter-stereotypic and multiple categorization	Individualization (for multiple categorization)	Outgroup bias: -liking	Prati, F., Moscatelli, S., Pratto, F., & Rubini, M. (2018)
	Individualization (for multiple categorization)	Outgroup bias: -linguistic outgroup derogation	Prati, F., Menegatti, M., & Rubini, M. (2015)

Table 3 Click here to access/download;Table;Table 3.docx

Table 3.

Multiple social categorization manipulation (Prati, Crisp, Meleady & Rubini, 2016).

Simple categorization	*Multiple ingroup categorization*	*Multiple outgroup categorization*	*Multiple mixed categorization*
Immigrants	Immigrants, young female students, without children and living in town	Immigrants, middle aged, male workers, parents and living in the countryside	Immigrants, young, male students, parents and living in town

Click here to access/download;Table;Table 4.docx

Table 4.

Cognitive and affective mediators of humanizing effects of multiple and counter-stereotypic categorization.

Study	*Categorization manipulation* → *First mediator*	*First mediator* → *Second mediator*	*Indirect total effect*
Multiple categorization:			
Prati, Crisp, Meleady & Rubini (2016; Study 2)	Outgroup individualization: $B = .35$, $SE = .07$, $p = .001$	Threat from outgroup: $B = -.18$, $SE = .07$, $p = .022$	$B = 0.05$, $SE = .01$, 95% CI = 0.01 to 0.09
Prati, Crisp, Meleady & Rubini (2016; Study 3)	Outgroup individualization: $B = .21$, $SE = .06$, $p = .001$	Threat from outgroup: $B = -.16$, $SE = .08$, $p = .050$	$B = 0.11$, SE = .01, 95% CI = 0.01 to 0.04
Counter-stereotypic categorization:			
Prati, Crisp, & Rubini, 2015; Study 2)	Suprise: $B = 0.75$, $SE = 0.31$, $p = .050$	Expectancy violation: $B = 0.32$, $SE = 0.19$, $p = .020$	$B = 0.74$, $SE = 0.34$, 95% CI = 0.19 to 1.50
Prati, Crisp, & Rubini, 2015; Study 3)	Suprise: $B = 1.41$, $SE = 0.35$, $p = .005$	Expectancy violation: $B = 0.31$, $SE = 0.09$, $p = .005$	$B = 0.42$, $SE = 0.18$, 95% CI = 0.09 to 0.80

Click here to access/download;Table;Table 5.docx

Table 5. Counter-stereotypic categorization manipulation

References	*Stereotypic categorization*	*Counter-stereotypic categorization*
Prati, F., Vasiljevic, M., Crisp, R. J. & Rubini, M. (2015)	Female midwife, Male mechanic	Female mechanic, Male midwife
Prati, F., Crisp, R. J., & Rubini, M. (2015) Prati, F., Moscatelli, S., Pratto, F., & Rubini, M. (2018) Prati, F., Menegatti, M., & Rubini, M. (2015)	Romanian car window-cleaner, Italian manager	Romanian manager, Italian car window-cleaner