

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

Francesca Prati¹, Richard J. Crisp², & Monica Rubini³

¹Oxford University, ²Durham University, ³Alma Mater Studiorum, University of Bologna

Correspondence concerning this article should be addressed to Francesca Prati, Department of Experimental Psychology, University of Oxford, New Radcliffe House, Oxford, OX2 6AE, UK. Email: francesca.prati@psy.ox.ac.uk.

This research was supported by a Marie Skłodowska-Curie Individual Fellowship awarded to the (790318) first author and UNIBO and RFO 2019 funds awarded to the last author.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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*

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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

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

16 *The Dual Identity Model*

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

1 ingroup and outgroup, leading to reduced sub-ingroup distinctiveness. For those with higher social
2 identification, this threat to intergroup distinctiveness motivates increased outgroup discrimination
3
4 (Crisp, Stone, & Hall, 2006; van Leeuwen, van Knippenberg, & Ellemers, 2003).
5

6
7 Dovidio and colleagues (1998) in the *Dual Identity Model*, acknowledging the motivation to
8
9 achieve distinctiveness in common ingroup contexts has proposed that individuals can identify
10
11 along two dimensions simultaneously, a super-ordinate identity that attenuates negative evaluations
12
13 towards outgroup members, and a sub-ordinate identity that avoids distinctiveness threat (e.g., it is
14
15 possible to be Italian and European at the same time). Evidence has indicated that dual identity
16
17 reduces outgroup discrimination, specifically for higher identifiers (Crisp et al., 2006). However,
18
19 like crossed categorization, the combination of only two social identities, such as dual identity, has
20
21 some limitations in reducing intergroup discrimination. When dual identities are defined by a high
22
23 degree of overlap (i.e., a high number of shared or common characteristics), ingroup projection
24
25 (Mummendey & Wenzel, 1999) is very likely, leading to the perception of sub-outgroup members
26
27 as deviant members of the common super-ordinate group.
28
29
30
31
32

33
34 According to the *Ingroup Projection Model* (Mummendey & Wenzel, 1999) ingroup
35
36 members might consider themselves as the best prototypes of the super-ordinate category. For
37
38 example, both German and French people might consider themselves as prototypes of the super-
39
40 ordinate category Europeans. In this vein, Greeks who are also included in the super-ordinate
41
42 category are perceived as non-normative exemplars and this can lead to increase rather than
43
44 decrease discrimination towards them. However, the exclusion of non-normative outgroup members
45
46 from super-ordinate groups does not occur when dual identities (subordinate and super-ordinate
47
48 group memberships) are uncorrelated or not overlapping (e.g., nationality and gender), because
49
50 there is no opportunity of ingroup projection and related negative consequences of dual identity.
51
52
53

54 ***Multiple social identities***

55
56
57 Many studies showed not just a link between self-perception and judgments about others,
58
59
60 but also that the salience of dual compared to simple social identity reduces outgroup bias,
61
62
63
64
65

1 independently of shared group memberships. For instance, writing a list of more than one group to
2 which one belongs weakened outgroup bias in comparison to writing about one's simple
3 identification (Hall & Crisp, 2005). Similarly, multiracial people, those who declare themselves to
4 belong to more than one ethnic group (e.g., African Americans), performed better than mono-racial
5 people (e.g., White Americans) in memorizing racially ambiguous faces. Thus, the awareness of
6 one's different identities improves individuals' evaluation of outgroup members in the direction of
7 their social inclusivity (Pauker & Ambady, 2009).
8
9

10 Furthermore, people who identify with two non-overlapping and even conflicting groups can
11 reduce reciprocal outgroup bias that are in fact reported by members who belong to only one of the
12 same opposing groups (Levy, Saguy, Halperin & Van Zomeren, 2017). Specifically, the so- called
13 *Gateway Groups* include individuals who are dual identifiers in a rare combination of groups (e.g.,
14 Israeli-Arabs, Indian-Muslims) that can be historically antagonists (e.g., the majority of Israeli are
15 Jews; the majority of Indians are Hindu). This unique categorization strategically places such
16 groups in between social categories, where they may potentially act as a gateway across group
17 boundaries. Evidence has shown that under this double identity condition attitudes and prosocial
18 behaviours towards the groups improve (Levy, et al., 2017).
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

39 ***Social Identity Complexity***

40 Research on *Social Identity Complexity* (SIC) highlights the intertwined relationship
41 between self-definition and the evaluation of others. The model specifies that one's identification
42 with multiple, dissimilar and non-overlapping groups reduces intergroup discrimination (Roccas &
43 Brewer, 2002). The idea behind this concept is that individuals identify with multiple groups (e.g.,
44 gender, age, religion, ethnicity, occupation, political organization, sport team). These groups are
45 subjectively combined in the mind of individuals to determine the perceived overall inclusivity of
46 one's social identity. Specifically, individuals may perceive the different groups to which they
47 belong as highly overlapping, that is, including the same members (e.g., being Catholic and being
48 Italian), or as highly similar, that is including people that share same characteristics (e.g., being a
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1 student and being young). The condition of high overlap and/or similarity among groups of
2 belongingness leads individuals to represent their different ingroups as forming a single convergent
3 social identity, including only those who share both identities (e.g., Italians that are Catholics). On
4 the contrary, when overlapping and similarity between one's multiple ingroups is perceived to be
5 relatively small, individuals identify with all distinct groups they belong to, including those who
6 share only one of their identities (e.g., all Italian people independently of their religious affiliation,
7 and all Catholic people independently of their nationality). In this case, the social identity structure
8 is larger and more inclusive than any of the ingroups alone.
9

10 High levels of SIC are associated with greater outgroup tolerance, including greater approval
11 of affirmative action and multiculturalism (Brewer & Pierce, 2005) and less prejudicial implicit
12 attitudes (Schmid, Hewstone, Tausch, Cairns, & Hughes, 2009). Such patterns are even found
13 among subordinated groups. Muslim immigrants in the Netherlands who reported highly complex
14 identities (i.e., reporting low overlap between ethnic and other ingroup identities) distanced
15 themselves less from the host national group and exhibited lower ingroup bias than immigrants with
16 a less complex identity structure (Verkuyten & Martinovic, 2012). Thus, low SIC predicts social
17 exclusion as it leads to perceiving outgroup members as different from oneself or one's own
18 ingroups.
19

20 ***The Differentiation-Discrimination Model of Multiple Categorization***

21 Building upon evidence from research on crossed categorization, Crisp and Hewstone's
22 (2007) *Differentiation-Discrimination Model of Multiple Categorization Effects* highlighted that the
23 combination of two categories is not always effective in reducing intergroup bias. For instance, as
24 noted above, perceivers' ingroup identification may increase or decrease the salience of subgroup
25 categories, thus moderating the impact of simple social categorization. These possible outcomes
26 indicate the need to go beyond the crossed categorization model to explore alternative ways of
27 changing how people use social categories to guide judgment. Given that people can process
28 information that involves up to four categorical dimensions simultaneously (Halford, Baker,
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

McCredde, & 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: *deategorization*.

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43

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.

44 *Shifting Mode of Processing*

45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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.

1 According to Crisp and Meleady (2012; see also Crisp, 2015), these cognitive abilities can
2 be considered the result of human cognitive adaptation to social diversity. In our past mono-cultural
3 ancestral environment, a fast (but less accurate) way of thinking may have been the most efficient
4 and adaptive one to detect enemies from allies – something essential for humans’ survival.

5
6
7
8
9 However, in present day multicultural societies, where there are more opportunities for intercultural
10 contact, a cognitive capability to go beyond simple social categorization is more adaptive in
11 building new “alliances” with members of different groups and promoting social integration.

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

The Categorization-Processing-Adaptation-Generalisation Model

1 Bringing the work described above to a single model of diversity-based cognition, Crisp and
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

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,

1 & Haslam, 2013; Viki, Osgood, & Phillips, 2013) as well as reduced prosocial behaviour (Cuddy,
2 Rock, & Norton, 2007; Vaes, Paladino, & Leyens, 2002). In a series of studies, Prati, Crisp,
3
4 Meleady, and Rubini (2016) tested an intervention comprising the presentation of outgroup targets
5
6 in simple (i.e., one categorical dimension) compared to multiple categorization (i.e., five categorical
7
8 dimensions). A pilot study was first conducted to confirm that University affiliation and the
9
10 additional social categories selected for the multiple categorization intervention were perceived as
11
12 equally meaningful by University student respondents. Moreover, before completing the
13
14 experiment, respondents were asked to indicate their affiliations on each of the social categories
15
16 used in the manipulation to ensure that only those who were “ingroup members” in each category
17
18 (i.e., Italians, young, same gender as the target described, students, without children, and living in
19
20 Bologna) were included. Respondents were then presented with a description of migrant people in
21
22 one of four conditions: simple categorization (e.g., immigrants), multiple ingroup categorization
23
24 (e.g., immigrants who are young, students, living in the same town, without children, and of the
25
26 same gender as the respondents), multiple outgroup categorization (e.g., immigrants who are middle
27
28 aged, workers, living in countryside, with children, and of the opposite gender of the respondents),
29
30 and multiple mixed categorization (e.g., youngsters, students, living in the same town, with
31
32 children, and of the opposite gender of the respondents). Following the procedure of Crisp,
33
34 Hewstone, and Rubin (2001), respondents were asked to write down their thoughts about the people
35
36 described to reinforce the manipulation and ensure that they formed an impression of the targets
37
38 before completing the questionnaire. Then, respondents were asked to complete either explicit
39
40 (Studies 1 and 2) or indirect measures of outgroup humanization (Study 3). Results across different
41
42 studies demonstrated that under multiple categorization immigrants were re-humanized to a greater
43
44 extent than when depicted through simple categorization. Notably, the re-humanizing effect was
45
46 found independently of the combination of multiple categories considered (ingroups, outgroups,
47
48 mixed). This indicated that it is not the number of shared memberships between perceivers and
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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 (Opatow, 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

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

Multiple Categorization as a Tool for Protecting Outgroup Members' Health

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

19 After that, intentional pro-social behaviour was measured by asking respondents to what
20 extent they were willing to cut regional funds for education to provide aid for immigrants' health.
21 The scenario involved a fake scientific report illustrating how a specific vaccination was essential
22 for immigrants just arrived in Italy from Africa and Middle East countries in order to prevent
23 serious infections that could lead to death. It was specified that the same infection was not as
24 threatening for the host population that was already vaccinated as for immigrants, and it required
25 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.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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

1 identities were more likely to be in favour of Arab people's right to political autonomy. This
2 outcome implies that they supported Arab Spring movements to get independence and freedom
3 instead of being afraid and feeling threatened by Arab people's power. The perceived complex
4 structure of one's own social identities seems to lead one to oppose disadvantaged people's
5 oppression and defend political freedom. Thus, the effectiveness of SIC was found to affirm social
6 equality, even for distal groups in other countries.
7
8
9

10 In this study, besides testing the link between SIC and support for Arabs' right to political
11 autonomy, the moderating role of SDO (Pratto et al., 1994) on Arabs' humanization was
12 investigated. Evidence from a large and heterogeneous group of Italian adults showed that those
13 low on social dominance orientation, who oppose social hierarchies and intergroup inequality, had a
14 more complex and inclusive organization of their own social identities. This, in turn, prevented
15 individuals from viewing subordinated group members as less than human.
16
17
18
19
20
21
22
23
24
25
26
27

28 This result is even more informative, given that it involved a very heterogeneous sample of
29 respondents in terms of age, gender, political affiliation and religiosity, who were recruited outside
30 the laboratory in the Italian context. In this vein, this study is one of the few that has investigated
31 the concept of SIC empirically, and it is the first attempt to examine the role of SIC in reducing
32 exclusion of dominated outgroup members from the human group. This research also extends
33 previous findings on the role of SIC in promoting intergroup tolerance (Brewer & Pierce, 2005) by
34 proving for the first time that higher SIC is associated with the endorsement of outgroup autonomy.
35 Respecting others as human beings, even people in groups who are vilified as a dangerous threat,
36 extends to respecting their right to self-determination.
37
38
39
40
41
42
43
44
45
46
47
48
49

50 However, given that this study was correlational, future studies are needed to experimentally
51 manipulate SIC and/or the humanity of subordinate groups (e.g., by informing respondents about
52 the group's emotional experiences) in order to provide a causal test of these effects of SIC. It is
53 worth noting that this contribution presented a reliable link between perceived relationships among
54 groups one belongs to and dehumanization of an entirely different group. This evidence also
55
56
57
58
59
60
61
62
63
64
65

1 highlights how emphasizing complex social identities, rather than simply reducing psychological
2 boundaries between self and low-power groups, may prevent dehumanization of distal and different
3 outgroups.
4
5

6
7 Further research provided consistent evidence on how the manner in which individuals
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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,

1 compared to exposure to stereotypical targets (i.e., a female nurse or a Romanian window-cleaner;
2 see Table 5). One strength of this contribution is the consistent finding across different types of
3 counter-stereotypes, from the subtle prejudice towards women to blatant and aggressive prejudice
4 towards ethnic minorities such as Romanians in Italy. This finding supports previous studies using
5 slightly different manipulation of counter-stereotypes (Vasiljevic & Crisp, 2013). Specifically,
6 respondents were asked to generate up to five or to ten counter-stereotypical category combinations,
7 and this manipulation lowered outgroup prejudice and enhanced outgroup trust.
8
9

10 This also supports Prati, Crisp, and Rubini (2015; Studies 2 and 3) who found a re-
11 humanizing effect of counter-stereotypical categorization across different outgroup targets, and
12 using multiple indirect and generative measures of re-humanization (see Figure 5). In the first study,
13 two independent coders, blind to the hypotheses of the experiment, coded respondents' descriptions
14 of outgroup target by distinguishing between humanizing (i.e., uniquely human and human nature
15 traits) and dehumanizing (i.e., not uniquely human and not human nature traits) attributes. In a
16 second study, respondents were asked to write down only emotional attributes referring to the target
17 presented to them. Again, two independent coders were instructed to distinguish between secondary
18 and primary emotions listed by each respondent. Whereas previous studies on dehumanization
19 adopted a fixed response format (i.e., asking respondents to rate a selection of human traits), this
20 research has produced a methodological advance by using a free generation format of humanization
21 traits (i.e., rating respondents' spontaneous use of human traits). The measures revealed the
22 generative role of counter-stereotypes in fostering individuals to freely use more uniquely human
23 than non-human attributions to describe the target in question. Considering the pervasiveness of
24 prejudicial thinking, this finding provides insights on how to implement efficient tools to deal with
25 this issue.
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53

54 The underlying processes of the outgroup re-humanization effect of counter-stereotypes was
55 also examined (see Table 4). The emotion of surprise, elicited by the counter-stereotypes leads to
56 awareness of expectancy violation that, in turn, explained the increased re-humanization of the
57
58
59
60
61
62
63
64
65

1 outgroup target in question (Prati, Crisp, & Rubini, 2015). The alternative model of sequential
2 mediation was not significant, corroborating the primary role of surprise in eliciting cognitive
3 awareness of expectancy violation to explain the re-humanizing effect of counter-stereotypes.
4
5 Indeed, surprise is one of the most basic and universal of emotions (e.g. Ekman, 1972) which
6
7 usually results in the interruption of ongoing thoughts and activities and motivates individuals to
8
9 pay attention to the unexpected information (e.g., Kunda et al., 1990). Surprise can be conceived as
10
11 the emotional link between perceived inconsistencies and awareness of expectancy violation,
12
13 enhancing motivation to resolve stereotypic-discrepancies. Again findings attested the intertwined
14
15 relationship between cognitive and affective processes that are influenced by a specific type of
16
17 multiple categorization.
18
19
20
21
22

23 ***Generalized Re-Humanization Effects of Counter-Stereotypic Categorization***

24 The above reviewed contributions substantiate the role of counter-stereotypes in challenging the
25
26 stereotypical and dehumanizing impression formation process towards the outgroup target in
27
28 question. However, according to the literature counter-stereotypes should elicit an epistemic
29
30 motivation to process information in greater depth that can affect not just the impression formation
31
32 of the target considered but any subsequent impression formation process (Crisp & Turner, 2011).
33
34 This was attested by research showing that counter-stereotypes increased cognitive flexibility in
35
36 many different ways (i.e., reduced Stroop interference, pointing towards increased cognitive control
37
38 and the inhibition of dominant automatic associations; Vasiljevic & Crisp, 2013) and improved
39
40 creative performance in subsequent unrelated tasks (Gocłowska, Crisp & Labuschagne, 2013;
41
42 Gocłowska & Crisp, 2013).
43
44
45
46
47
48
49
50

51 Prati, Vasiljevic, Crisp and Rubini (2015) tested whether exposure to gender counter-
52
53 stereotypical (i.e., female mechanic) compared to stereotypical targets (i.e., male mechanic)
54
55 increased re-humanization of different unrelated outgroups (see Table 5). The range of outgroups
56
57 included stereotypically distinct targets (i.e., asylum seekers, homeless; see Fiske et al., 2002). A
58
59 generalized outgroup re-humanization effect was observed across studies and using different
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
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).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
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.

37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
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

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

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

23 Similar results were shown by employing counter-stereotypical category combination.

24 Italian respondents were asked to think about and describe an ingroup or an outgroup target person.
25 In the counter-stereotypical category conditions, the targets were an Italian car window-cleaner or a
26 Romanian manager (unusual in the Italian context), whereas in the stereotypic condition the targets
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1 were an Italian manager or a Romanian car-window cleaner. The use of less abstract negative but
2 not positive terms to describe a counter-stereotypical in comparison to a stereotypical combination
3 of Romanians demonstrated reduced linguistic bias towards them from Italian native respondents.
4
5 Moreover, in the descriptions of counter-stereotypical combinations of ingroup (i.e., Italian car
6 window-cleaner) and outgroup (i.e., Romanian manager) targets, there was no significant variation
7
8 in the abstraction of positive and negative terms, showing an absence of linguistic intergroup
9
10 discrimination.
11
12
13
14

15
16
17 In both studies, the reduction of linguistic outgroup discrimination concerned only a
18 decrease of abstraction of negative terms without affecting the use of positive terms. It is well
19 established that individuals generally tend to portray others with positive language, whereas they
20 significantly vary the use of negative terms to achieve discrimination (see Maass et al., 1989;
21 Menegatti & Rubini, 2012; Rubini & Menegatti, 2008, 2014). This happens because negative rather
22 than positive terms are more diagnostic and informative about others' traits and behaviours (Jones
23 & Davis, 1965).
24
25
26
27
28
29
30
31
32

33
34 In line with previous works, individualization of immigrants explained the effects of
35 multiple categorization on reduced linguistic derogation in the descriptions provided by Italian
36 native respondents (Prati, Menegatti, & Rubini, 2015). Moreover, intergroup contact moderated this
37 mediation effect. In more specific terms, individuals with less contact with the outgroup decreased
38 linguistic outgroup bias when they considered the target in terms of multiple categories and thus, of
39 individuating information. Conversely, the higher the intergroup contact, the less the multiple
40 categorization effect on linguistic outgroup bias was mediated by individualization. This outcome
41 indicated a "compensation" role of intergroup contact in reducing linguistic outgroup derogation,
42 when perceivers were exposed to single categorization of the outgroup target. Furthermore, it
43 suggested that multiple categorization is an efficient strategy to attenuate intergroup discrimination
44 especially when groups have low contact and rare opportunities for interaction.
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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 stereotypical 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 stereotypical (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

1 that right-wingers are likely to have a higher need for cognitive closure (Jost et al., 2003; see also
2 Chirumbolo, 2002) compared to left-wingers and thus may be less tolerant of social diversity,
3
4 increasing the complexity of outgroup members through multiple categorization was a less effective
5
6 strategy of prejudice reduction for them than for left-wingers and moderate individuals. Moreover,
7
8 having frequent and positive contact with Romanians overrode the potential influence of
9
10 categorization type on prejudice, presumably because those with greater contact had low prejudice
11
12 against Romanians. Counter-stereotypical combination inhibits the reliance on simple
13
14 categorization of outgroup members, whereas contact weakens affective processes, such as anxiety
15
16 and threat from outgroup members. This result may explain why contact is more effective for right-
17
18 than for left-wingers.
19
20
21
22

23
24 In a second study, multiple compared to simple categorization of immigrants was
25
26 manipulated in the Italian context. Evidence showed a weaker effect of multiple categorization
27
28 intervention in reducing intergroup prejudice for right-wing compared to left-wing and moderate
29
30 respondents. Right-wing respondents were less likely to shift from categorization to
31
32 individualization of immigrants and were less likely to be influenced by multiple categorization in
33
34 reducing perceived threat from immigrants and in turn, to reduce their prejudice against immigrants.
35
36
37
38

39 *Summary*

40
41 Overall, this second part of the review has illustrated recent findings related to the beneficial
42
43 effects of multiple categorization, SIC and counter-stereotypical combination. The research
44
45 highlights how considering the complexity of others as well as oneself leads to multiple beneficial
46
47 effects, ranging from prejudice reduction at the explicit and implicit level, outgroup re-
48
49 humanization, prosocial behavioural intentions towards outgroup members. It is worth noting that
50
51 the re-humanizing effects of multiple categorization strategies can be extended beyond the target
52
53 group directly presented to the respondents, affecting their evaluation of different, unrelated
54
55 outgroups, thus promoting generalized social inclusivity. Moreover, the interplay between multiple
56
57 categorization and SIC in predicting both outgroup re-humanization and prosocial behavioural
58
59
60
61
62
63
64
65

1 intentions was addressed. Different types of re-humanization measures provided convergent results,
2 encouraging us to test the efficacy of these interventions on actual behaviours. Furthermore,
3 counter-stereotypic categorization is as effective as multiple categorization in predicting outgroup
4 re-humanization, and also other subtle forms of intergroup discrimination such as linguistic
5 outgroup derogation. Cognitive and affective mediating factors as well as personal moderating
6 factors, complement the role of perceiving and experiencing multiple categories and identities in
7 triggering beneficial effects by illustrating the different underlying processes of the addressed
8 strategies.
9

18 Conclusion

20 'No one is safe until everyone is safe' is the current slogan to inspire a humanitarian response
21 to counter the Covid-19 pandemic. One of the many things this experience makes clear is that all
22 human beings around the world, regardless their status, ethnicity, nationality or gender, are
23 similarly vulnerable and in need of assistance to stop this potentially severe infection. Therefore, if
24 before this pandemic social integration and intergroup equality represented fundamental goals for
25 contemporary societies (Pew Research Center, 2016, 2017), it is now, even more, the case that we
26 must address them to promote not just intergroup cooperation and harmony, but to prevent further
27 global catastrophes.
28

29 In this vein, the present review brings us good news by illustrating the strength of different
30 social cognitive strategies that can lead us to achieve social inclusivity, by increasing multiple and
31 counter-stereotypical information about others and oneself. Theories of social categorization and
32 social identities were compared, by examining separate approaches based first on dual group
33 memberships (i.e., crossed categorization and dual identity) and then those based on more than two
34 group memberships (i.e., multiple categorization and SIC). The aim was to highlight that being
35 exposed to others' or experiencing one's own increased complexity of social identity leads to
36 reduced outgroup bias and also to less extreme and subtle forms of intergroup discrimination.
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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

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

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

21 Moreover, a generalization effect should be highlighted as a secondary positive effect of
22 multiple categorization and SIC, in the sense that exposure to multiple group memberships of others
23 or oneself extended positive and tolerant attitudes to unrelated outgroups and yet usually targeted
24 with heinous prejudice (Prati, Vasiljevic, et al., 2015; Vasiljevic & Crisp, 2013). However, these
25 strategies were not always effective. Personal orientation and personality factors can undermine the
26 effectiveness of multiple and counter-stereotypical categorization approaches (Gocłowska et al.,
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

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

1
2 & Banaji, 1995) to assess dehumanization or implicit evaluations of others' humanness and the
3 efficiency of these strategies.
4

5 Another critical question is how exposure to multiple and counter-stereotypical portrayals of
6 people can be an everyday experience. Evidence on the compensatory role of intergroup contact on
7 multiple categorization interventions (Prati, Menegatti, & Rubini, 2015; Prati, Crisp, Pratto &
8 Rubini, 2016) suggests that encounters with outgroup members, in particular for majority group
9 members (e.g., Whites in Western cultures, heterosexuals), can be the answer. Evidence showed
10 that individuals with low intergroup contact who were exposed to outgroup multiple categorization
11 did not show a higher level of outgroup discrimination in comparison to individuals who reported
12 high contact with outgroup members and exposed to simple outgroup categorization. During
13 encounters with outgroup members, people gather and process first-hand multiple pieces of
14 information that can lead to avoiding reliance on stereotypes toward outgroups in the same way as
15 multiple categorization intervention does. In this vein, intergroup contact as a relational strategy of
16 prejudice reduction may lead to accurate cognitive processing. This implication is in line with what
17 has recently been highlighted by Hodson, Crisp, Meleady and Earle, (2018) and with a consistent
18 corpus of literature showing that contact between groups is a prime means to improve intergroup
19 attitudes (see Pettigrew & Tropp, 2006 for a meta-analysis). Nevertheless, interventions like
20 multiple categorization, counter-stereotypical exposure or even imagined contact (for a meta-
21 analysis see Miles & Crisp, 2014) can be effective tools when direct intergroup contact is less likely
22 to occur.
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48

49 The link between multiple categorization and intergroup contact is further supported by
50 research showing that contact can work at a deeper level challenging impressions not just towards
51 single outgroup member but towards their group as a whole. Intergroup contact "deprovincializes"
52 the mind, switching the focus of attention from the self and the ingroup as the focus of judgment to
53 others by rendering respondents more open to experience (e.g. Pettigrew, 1997; Verkuyten, Thijs &
54 Bekhuis, 2010). Specifically, direct contact can promote learning in ways that are not rigid or
55
56
57
58
59
60
61
62
63
64
65

1 specific to the experience itself, but rather it boosts cognitive functions leading to a more liberalized
2 mindset. Interestingly, contact challenges intergroup attitudes, even in the absence of motivations or
3
4 positive orientations to learn about outgroup members, as for individuals high in authoritarianism
5
6 and SDO (see Hodson, 2011). In this regard, recent findings (Meleady, Crisp, Dhont, Hoptthrow, &
7
8 Turner, 2019) demonstrated the role of intergroup contact in promoting a cognitively liberalized
9
10 mindset. A series of studies established that intergroup contact encourages more environmentally
11
12 responsible attitudes and behaviour by promoting less hierarchical and more egalitarian viewpoints.
13
14
15 Research is still needed to further understand the efficiency of intergroup contact in promoting
16
17 inclusive societies but also a more liberalized mindset towards different issues of modern and
18
19 globalized societies (i.e., pro-environment, support of poor countries, attitudes against dictatorships
20
21 around the world).
22
23
24

25 *Practical Implications*

26
27
28 Individuals can often control and prevent the influence of stereotypes on their manifest
29
30 behaviour. However, such correctional efforts can be cognitively demanding and rely on factors
31
32 such as perceivers' awareness, motivation and cognitive resources, each of which can be easily
33
34 undermined. Ideally, bias reduction research would aim to fight the initial activation of stereotypes
35
36 as opposed to controlling the subsequent influence of these biases on behaviour (Bodenhausen &
37
38 Macrae, 1998; Gawronski et al., 2008). In this vein, multiple and counter-stereotypic categorization
39
40 interventions should increase the use of, reliance on and accessibility to increasingly complex ways
41
42 of thinking about outgroup members to reduce discriminatory behaviours.
43
44
45
46

47
48 The use of multiple and counter-stereotypic categorization interventions can easily be
49
50 implemented through repeated exercises of thinking, describing, picturing outgroup members, and
51
52 can be generalized to different outgroup members. Interventions can be implemented in schools to
53
54 develop skills that can be applied to different contexts, but also in workplaces to promote good
55
56 practises and ameliorate the wellbeing of all members of work teams. For example studies show
57
58 that using pictures of people working in gender atypical roles, is a valuable strategy for overcoming
59
60
61
62
63
64
65

1 spontaneous gender stereotype in the short term (e.g., woman surgeon and man nurse; Finnegan,
2 Oakhill, & Garnham, 2015), or imagining to have an interaction with an outgroup member and after
3 that describing this person can reduce outgroup dehumanization (Prati & Loughnan, 2018).
4
5 Advertising campaigns in favour of discrimination reduction can rely on multiple and counter-
6
7 stereotypic categorization approaches to facilitate individuals' thinking about and memorizing the
8
9 perceived complexity of outgroup members that they do not have the opportunity to encounter or
10
11 usually avoid; overall multiple and counter-stereotypical categorization interventions as well as
12
13 focussing on one's own multiple social identities can constitute a tool to guide and favour
14
15 intergroup encounters by highlighting the relevance and value of social diversity. Nevertheless,
16
17 practices and policies favouring intergroup contacts within institutional and informal contexts
18
19 should be promoted and activated as "norms" of our contemporary societies.
20
21
22
23
24
25
26

2 In conclusion, current multicultural environments, characterized by increasing multiple and
3
4 inconsistent information, can, under the right conditions, foster cognitive adaptation and embracing
5
6 of social inclusivity (see Crisp & Meleady, 2012). The present review highlights the crucial role of
7
8 socio-cognitive strategies in enabling this outcome. First, consistent findings have shown that
9
10 perceiving and experiencing the identity complexity of others and the self can not only reduce
11
12 intergroup prejudice, but also attenuate one of the most heinous forms of discrimination -
13
14 dehumanization. Second, multiple, counter-stereotypic categorizations and SIC improve the
15
16 uncontrolled use of negative language abstraction and different measures of behavioural intentions
17
18 to aid outgroup members. This highlights the impact of these social cognitive strategies at multiple
19
20 levels of intergroup relations. Third, the perceived complexity of others and the self are
21
22 complementary facets in endorsing social inclusivity of outgroup members. Overall, social policies
23
24 to favour social integration can be informed by the evidence that encouraging multiple conceptions
25
26 of social categorization leads to multiple and extended benefits for intergroup relations and society
27
28 at large.
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

References

- Albarello, F., Crisp, R., & Rubini, M. (2018). Promoting beliefs in the inalienability of human rights by attributing uniquely human emotions through multiple categorization. *The Journal of Social Psychology, 158*, 309-321. doi: 10.1080/00224545.2017.1346581
- Albarello, F., & Rubini, M. (2012). Reducing dehumanisation outcomes towards Blacks: The role of multiple categorisation and of human identity. *European Journal of Social Psychology, 42*, 875-882. doi: 10.1002/ejsp.1902
- Allport, G. W. (1954). *The nature of prejudice*. Garden City, NY: Doubleday.
- Averhart, C. J., & Bigler, R. S. (1997). Shades of meaning: Skin tone, racial attitudes, and constructive memory in African American children. *Journal of Experimental Child Psychology, 67*, 363-388.
- Bastian, B., Denson, T. F., & Haslam, N. (2013). The roles of dehumanization and moral outrage in retributive justice. *PloS one, 8*, e61842. doi: 10.1371/journal.pone.0061842
- Berry, J.W. (1980). Acculturation as varieties of adaptation. In A. Padilla (Ed.), *Acculturation: Theory, models and some new findings* (pp. 9–25). Boulder, CO: Westview.
- Bigler, R. S., & Liben, L. S. (1993). A cognitive-developmental approach to racial stereotyping and reconstructive memory in Euro-American children. *Child Development, 64*, 1507-1518.
- Bigler, R. S., & Liben, L. S. (2007). Developmental intergroup theory: Explaining and reducing children's social stereotyping and prejudice. *Current Directions in Psychological Science, 16*, 162-166. doi:10.1111/j.1467-8721.2007.00496.x

1 Blair, I. V., & Banaji, M. R. (1996). Automatic and controlled processes in stereotype priming.

2 *Journal of Personality and Social Psychology*, 70, 1142-1163.

3
4 Blair, I. V., Ma, J. E., & Lenton, A. P. (2001). Imagining stereotypes away: the moderation of

5 implicit stereotypes through mental imagery. *Journal of Personality and Social Psychology*,

6
7
8
9 81, 828-841. doi:10.1037//0022-3514.81.5.828

10
11 Bodenhausen, G. V., Macrae, C. N., & Milne, A. B. (1998). Disregarding social stereotypes:

12
13
14 Implications for memory, judgment, and behavior. In *Intentional forgetting:*

15
16
17 *Interdisciplinary approaches* (pp. 349-368). Erlbaum.

18
19 Brandstätter, V., Ellemers, N., Gaviria, E., Giosue, F., Huguet, P., Kroon, M., ... & Perez, J. A.

20
21 (1991). Indirect majority and minority influence: An exploratory study. *European Journal of*

22
23
24 *Social Psychology*, 21, 199-211.

25
26
27 Brewer, M. B. (1991). The social self: On being the same and different at the same time.

28
29 *Personality and Social Psychology Bulletin*, 17, 475-482.

30
31
32 Brewer, M. B., Gonsalkorale, K., & van Dommelen, A. (2013). Social identity complexity:

33
34 Comparing majority and minority ethnic group members in a multicultural society. *Group*

35
36 *Processes & Intergroup Relations*, 16, 529-544. doi: 10.1177/1368430212468622

37
38
39 Brewer, M. B., Ho, H. K., Lee, J. Y., & Miller, N. (1987). Social identity and social distance among

40
41 Hong Kong schoolchildren. *Personality and Social Psychology Bulletin*, 13, 156-165.

42
43
44 Brewer, M. B., & Miller, N. (1984). Beyond the contact hypothesis: Theoretical perspectives on

45
46
47 desegregation. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of*

48
49
50 desegregation (pp. 281-302). San Diego, CA: Academic Press.

51
52
53 Brewer, M. B., & Pierce, K. P. (2005). Social identity complexity and outgroup tolerance.

54
55 *Personality and Social Psychology Bulletin*, 31, 428-437. doi:10.1177/014616720427171

56
57
58 Brown, R., & Wade, G. (1987). Superordinate goals and intergroup behaviour: The effect of role

59
60
61 ambiguity and status on intergroup attitudes and task performance. *European Journal of*

62
63
64
65 *Social Psychology*, 17, 131-142.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Chirumbolo, A. (2002). The relationship between need for cognitive closure and political orientation: The mediating role of authoritarianism. *Personality and Individual Differences*, 32, 603–610. doi: 10.1016/S0191-8869(01)00062-9
- Costabile, K. A., & Austin, A. B. (2018). A riot on campus: The effects of social identity complexity on emotions and reparative attitudes after ingroup- perpetrated violence. *Aggressive Behavior*, 44, 50-59. doi: 10.1002/ab.21723
- Crisp, R. J., & Hewstone, M. (1999). Subcategorization of physical stimuli: Category differentiation and decategorization processes. *European Journal of Social Psychology*, 29, 665–671. doi:10.1002/(SICI)1099-0992
- Crisp, R. J., & Hewstone, M. (2007). Multiple social categorization. *Advances in Experimental Social Psychology*, 39, 163-254. doi:10.1016/S0065-2601(06)39004-1
- Crisp, R. J., Hewstone, M., & Cairns, E. (2001). Multiple identities in Northern Ireland: Hierarchical ordering in the representation of group membership. *British Journal of Social Psychology*, 40, 501–514. doi:10.1348/014466601164948
- Crisp, R. J., Hewstone, M., & Rubin, M. (2001). Does multiple categorization reduce intergroup bias? *Personality & Social Psychology Bulletin*, 27, 76–89. doi:10.1177/0146167201271007
- Crisp, R. J., & Meleady, R. (2012). Adapting to a multicultural future. *Science*, 336, 853-855. doi:10.1126/science.1219009
- Crisp, R. J., Stone, C. H., & Hall, N. R. (2006). Recategorization and subgroup identification: Predicting and preventing threats from common ingroups. *Personality and Social Psychology Bulletin*, 32, 230–243. doi:10.1177/0146167205280908
- Crisp, R. J., & Turner, R. N. (2011). Cognitive adaptation to the experience of social and cultural diversity. *Psychological Bulletin*, 137, 242-266. doi:10.1037/a0021840
- Crisp, R. J., Walsh, J., & Hewstone, M. (2006). Crossed categorization in common ingroup contexts. *Personality and Social Psychology Bulletin*, 32, 1204–1218. doi:10.1177/0146167206289409

- 1
2 Cuddy, A. J., Rock, M. S., & Norton, M. I. (2007). Aid in the aftermath of Hurricane Katrina:
3 Inferences of secondary emotions and intergroup helping. *Group Processes & Intergroup*
4 *Relations*, 10, 107-118. doi:10.1177/1368430207071344
5
6
7 Deschamps, J. C. (1977). Effects of crossing category membership on quantitative judgment.
8
9 *European Journal of Social Psychology*, 7, 517–521.
10
11 Deschamps, J. C., & Brown, R. (1983). Superordinate goals and intergroup conflict. *British Journal*
12 *of Social Psychology*, 22, 189-195.
13
14
15 Deschamps, J.-C., & Doise, W. (1978). Crossed category membership in intergroup relations. In H.
16
17 Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of*
18 *intergroup relations* (pp.141-158). London: Academic.
19
20
21
22
23 Dixon, J. Elcheroth, G., Kerr, P., Drury, J., Al Bzour, M., Subašić, E., Durrheim, K., & Green, E. G.
24
25
26 T. (2020). It's not just "us" versus "them": Moving beyond binary perspectives on
27
28 intergroup processes, *European Review of Social Psychology*, 31, 40-75. doi:
29
30 10.1080/10463283.2020.1738767
31
32
33
34 Ekman, P. (1972). Universals and cultural differences in facial expressions of emotion. In J. Cole
35
36 (Ed.), *Nebraska symposium on motivation* (Vol. 19, pp. 207-283). Lincoln: University of
37
38 Nebraska Press.
39
40
41 Eurobarometer (2018). Integration of immigrants in the European Union. Retrieved from
42
43 [http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/searc](http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/search/immigrant/surveyKy/2169)
44
45 [h/immigrant/surveyKy/2169](http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/search/immigrant/surveyKy/2169)
46
47
48 Finnegan E., Oakhill J., Garnham A. (2015). Counter-stereotypical pictures as a strategy for
49
50 overcoming spontaneous gender stereotypes. *Frontiers in Psychology*, 6, 1291.
51
52 doi:10.3389/fpsyg.2015.01291
53
54
55
56 Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype
57
58 content: Competence and warmth respectively follow from perceived status and
59
60
61
62
63
64
65

competition. *Journal of Personality and Social Psychology*, 82, 878–902.

doi:10.1037/0022-3514.82.6.878

Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. In *Advances in Experimental Social Psychology* (Vol. 23, pp. 1-74). Academic Press.

Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, 4, 1-26.

Gawronski, B., Deutsch, R., Mbirkou, S., Seibt, B., & Strack, F. (2008). When “just say no” is not enough: Affirmation versus negation training and the reduction of automatic stereotype activation. *Journal of Experimental Social Psychology*, 44, 370-377. doi: 10.1016/j.jesp.2006.12.004

Gocłowska, M. A., & Crisp, R. J. (2013). On counter-stereotypes and creative cognition: When interventions for reducing prejudice can boost divergent thinking. *Thinking Skills and Creativity*, 8, 72-79. doi: 10.1016/j.tsc.2012.07.001

Gocłowska, M. A., Crisp, R. J., & Labuschagne, K. (2013). Can counter-stereotypes boost flexible thinking?. *Group Processes & Intergroup Relations*, 16, 217-231. doi:10.1177/1368430212445076

Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, 94, 292. doi:10.1037/0022-3514.94.2.292

Halford, G. S., Baker, R., McCredden, J. E., & Bain, J. D. (2005). How many variables can humans process?. *Psychological Science*, 16, 70-76. doi:10.1111/j.0956-7976.2005.00782.x

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Hall, N. R., & Crisp, R. J. (2005). Considering multiple criteria for social categorization can reduce intergroup bias. *Personality and Social Psychology Bulletin*, *31*, 1435-1444.
doi:10.1177/014616720527608
- Hall, N. R., Crisp, R. J., & Suen, M. W. (2009). Reducing implicit prejudice by blurring intergroup boundaries. *Basic and Applied Social Psychology*, *31*, 244-254.
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, *10*, 252-264. doi:10.1207/s15327957pspr1003_4
- Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology*, *58*, 1-23.
doi:10.1111/j.1464-0597.2008.00379.x
- Hastie, R., Schroeder, C., & Weber, R. (1990). Creating complex social conjunction categories from simple categories. *Bulletin of the Psychonomic Society*, *28*, 242-247.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the “contact hypothesis”. In M. Hewstone & R. Brown (Eds.), *Social psychology and society. Contact and conflict in intergroup encounters* (pp. 1-44). Cambridge, MA, US: Basil Blackwell.
- Hewstone, M., Islam, M. R., & Judd, C. M. (1993). Models of crossed categorization and intergroup relations. *Journal of Personality and Social Psychology*, *64*, 779–793.
- Hodson, G. (2011). Do ideologically intolerant people benefit from intergroup contact?. *Current Directions in Psychological Science*, *20*, 154-159. doi: 10.1177/0963721411409025
- Hodson, G., Crisp, R. J., Meleady, R., & Earle, M. (2018). Intergroup contact as an agent of cognitive liberalization. *Perspectives on Psychological Science*, *13*, 523-548.
doi:10.1177/1745691617752324
- Hutter, R. R. H., & Crisp, R. J. (2005). The composition of category conjunctions. *Personality and Social Psychology Bulletin*, *31*, 647–657. doi:10.1177/0146167204271575

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Hutter, R. R. H., & Crisp, R. J. (2006). Implications of cognitive busyness for the perception of category conjunctions. *Journal of Social Psychology, 146*, 253–256.
doi:10.3200/SOCP.146.2.253-256
- Hutter, R. R., Crisp, R. J., Humphreys, G. W., Waters, G. M., & Moffitt, G. (2009). The dynamics of category conjunctions. *Group Processes & Intergroup Relations, 12*, 673-686.
doi:10.1177/1368430209337471
- Johnston, L., & Hewstone, M. (1992). Cognitive models of stereotype change: 3. Subtyping and the perceived typicality of disconfirming group members. *Journal of Experimental Social Psychology, 28*, 360-386.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*, 339–375. doi: 10.1037/0033-2909.129.3.339
- Kang, S. K., & Bodenhausen, G. V. (2015). Multiple identities in social perception and interaction: Challenges and opportunities. *Annual Review of Psychology, 66*, 547-574. doi: 10.1146/annurev-psych-010814-015025
- Kunda, Z., Miller, D. T., & Claire, T. (1990). Combining social concepts: The role of causal reasoning. *Cognitive Science, 14*, 551-577.
- Levy, A., Saguy, T., Halperin, E., & van Zomeren, M. (2017). Bridges or barriers? Conceptualization of the role of multiple identity gateway groups in intergroup relations. *Frontiers in Psychology, 8*, 1097. doi:10.3389/fpsyg.2017.01097
- Leyens, J. P., Paladino, P. M., Rodriguez-Torres, R., Vaes, J., Demoulin, S., Rodriguez-Perez, A., & Gaunt, R. (2000). The emotional side of prejudice: The attribution of secondary emotions to ingroups and outgroups. *Personality and Social Psychology Review, 4*, 186-197. doi: 10.1207/S15327957PSPR0402_06
- Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology, 79*, 602-616. doi: 10.10371/0022-3514.79.4.602.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Macrae, C. N., & Bodenhausen, G. V. (2001). Social cognition: Categorical person perception. *British Journal of Psychology*, *92*, 239-255.
- Maass, A., Salvi, D., Arcuri, L., & Semin, G. R. (1989). Language use in intergroup contexts: The linguistic intergroup bias. *Journal of Personality and Social Psychology*, *57*, 981.
- Meleady, R., Crisp, R. J., Dhont, K., Hopthrow, T., & Turner, R. N. (2019). Intergroup contact, social dominance, and environmental concern: A test of the cognitive-liberalization hypothesis. *Journal of Personality and Social Psychology*. doi:10.1037/pspi0000196
- Moscattelli, S., Albarello, F., Prati, F., & Rubini, M. (2014). Badly off or better off than them? The impact of relative deprivation and relative gratification on intergroup discrimination. *Journal of Personality and Social Psychology*, *107*, 248-264. doi:10.1037/a0036704
- Moscattelli, S., Albarello, F., & Rubini, M. (2008). Linguistic discrimination in minimal groups: The impact of status differentials. *Journal of Language and Social Psychology*, *27*, 140-154. doi:10.1177/0261927X07313652
- Moscattelli, S., & Rubini, M. (2011). The impact of group entitativity on linguistic discrimination: Ingroup favoritism and outgroup derogation in the explanation of negative outcome allocations. *Social Psychology*, *42*, 292-299. doi:10.1027/1864-9335/a000071
- Mullen, B., Migdal, M. J., & Hewstone, M. (2001). Crossed categorization versus simple categorization and intergroup evaluations: a meta-analysis. *European Journal of Social Psychology*, *31*, 721-736. doi: 10.1002/ejsp.60
- Mummendey, A., & Wenzel, M. (1999). Social discrimination and tolerance in intergroup relations: Reactions to intergroup difference. *Personality and Social Psychology Review*, *3*, 158-174.
- Nicolas, G., la Fuente, M. D., & Fiske, S. T. (2017). Mind the overlap in multiple categorization: A review of crossed categorization, intersectionality, and multiracial perception. *Group Processes & Intergroup Relations*, *20*, 621-631. doi:10.1177/1368430217708862

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Oakes, P. J., Turner, J. C., & Haslam, S. A. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal of Social Psychology, 30*, 125-144.
- Opatow, S. (1990). Moral exclusion and injustice: An introduction. *Journal of Social Issues, 46*, 1-20.
- Pauker, K., & Ambady, N. (2009). Multiracial faces: How categorization affects memory at the boundaries of race. *Journal of Social Issues, 65*, 69-86. doi:10.1111/j.1540-4560.2008.01588.x
- Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin, 23*, 173-185.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751-783. doi:10.1037/0022-3514.90.5.751
- Pew Research Center. (2016). *International migration: Key findings from the U.S., Europe and the world*. Retrieved from <http://www.pewresearch.org/fact-tank/2016/12/15/international-migration-key-findings-from-the-u-s-europe-and-the-world>.
- Pew Research Center. (2017). *Origins and destinations of European Union migrants within the EU*. <http://www.pewglobal.org/interactives/origins-destinations-of-european-union-migrants-within-the-eu>.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67*, 741-763. doi: /10.1037/0022-3514.67.4.741
- Prati, F., Crisp, R. J., Meleady, R., & Rubini, M. (2016). Humanizing outgroups through multiple categorization: The roles of individuation and threat. *Personality and Social Psychology Bulletin, 42*, 526-539. doi:10.1177/0146167216636624
- Prati, F., Crisp, R. J., Pratto, F., & Rubini, M. (2016). Encouraging majority support for immigrant access to health services: Multiple categorization and social identity complexity as

antecedents of health equality. *Group Processes & Intergroup Relations*, 19, 426-438.

doi:10.1177/1368430216629814

Prati, F., Crisp R. J. & Rubini, M. (2015). Counter-stereotypes reduce emotional intergroup bias by eliciting surprise in the face of unexpected category combinations. *Journal of Experimental Social Psychology*, 61, 31-43. doi:10.1016/j.jesp.2015.06.004

Prati, F., & Giner-Sorolla, R. (2018). Perceiving mixed valence emotions reduces intergroup dehumanisation. *Cognition and Emotion*, 32, 1018-1031.

doi:10.1080/02699931.2017.1383885

Prati, F., & Loughnan, S. (2018). Imagined intergroup contact promotes support for human rights through increased humanization. *European Journal of Social Psychology*, 48, O51-O61.

doi:/10.1002/ejsp.2282

Prati, F., Menegatti, M., & Rubini, M. (2015). The beneficial role of multiple categorization and intergroup contact in reducing linguistic out-group derogation. *Journal of Language and Social Psychology*, 34, 475-500. doi:10.1177/0261927X14567777

doi:10.1177/0261927X14567777

Prati, F., Moscatelli, S., Pratto, F. & Rubini, M. (2016). Predicting support for Arabs' autonomy from social dominance: The role of identity complexity and dehumanization. *Political Psychology*, 37, 293-301. doi:10.1111/pops.12274

doi:10.1111/pops.12274

Prati, F., Moscatelli, S., Pratto, F., & Rubini, M. (2018). Multiple and counter-stereotypic categorization of immigrants: The moderating role of political orientation on interventions to reduce prejudice. *Political Psychology*, 39, 829-848. doi:10.1111/pops.12445

Prati, F., & Rubini, M. (2015). Categorizzazioni, appartenenze sociali multiple e riduzione del pregiudizio intergruppi. [Social categorizations, memberships and the reduction of intergroup prejudice]. *Psicologia Sociale*, 1, 13-34. doi:10.1482/79435

Prati, F., Vasiljevic, M., Crisp, R. J., & Rubini, M. (2015). Some extended psychological benefits of challenging social stereotypes: Decreased dehumanization and a reduced reliance on

1 heuristic thinking. *Group Processes and Intergroup Relations*, 18, 801-816.

2 doi:10.1177/1368430214567762

3
4 Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology*
5
6
7 *Review*, 6, 88–106. doi:10.1207/S15327957PSPR0602_01

8
9 Rosenthal, H. E. S., & Crisp, R. J. (2006). Reducing stereotype threat by blurring intergroup
10
11 boundaries. *Personality and Social Psychology Bulletin*, 32, 501–511.

12
13
14 doi:10.1177/0146167205281009

15
16 Rubini, M., & Menegatti, M. (2008). Linguistic bias in personnel selection. *Journal of Language*
17
18
19 *and Social Psychology*, 27, 168-181. doi:10.1177/0261927X07313653

20
21 Rubini, M., Moscatelli, S., Albarello, F., & Palmonari, A. (2007). Group power as a determinant of
22
23 interdependence and intergroup discrimination. *European Journal of Social Psychology*, 37,
24
25
26 1203-1221. doi:10.1002/ejsp.391

27
28 Rubini, M., Moscatelli, S., & Palmonari, A. (2007). Increasing group entitativity: Linguistic
29
30 intergroup discrimination in the minimal group paradigm. *Group Processes & Intergroup*
31
32
33 *Relations*, 10, 280-296. doi:10.1177/1368430207075156

34
35 Schmid, K., Hewstone, M., & Ramiah, A. A. (2013). Neighborhood diversity and social identity
36
37 complexity: Implications for intergroup relations. *Social Psychological and Personality*
38
39
40 *Science*, 4, 135-142. doi:10.1177/194855061244697972

41
42 Schmid, K., Hewstone, M., Tausch, N., Cairns, E., & Hughes, J. (2009). Antecedents and
43
44 consequences of social identity complexity: Intergroup contact, distinctiveness threat, and
45
46
47
48 outgroup attitudes. *Personality and Social Psychology Bulletin*, 35, 1085-1098. doi:
49
50
51 10.1177/0146167209337037

52
53 Sinclair, L., & Kunda, Z. (1999). Reactions to a black professional: motivated inhibition and
54
55
56 activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, 77, 885-
57
58
59 904.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Stangor, C., Lynch, L., Duan, C., & Glas, B. (1992). Categorization of individuals on the basis of multiple social features. *Journal of Personality and Social Psychology*, *62*, 207-218.
- Stangor, C., Sullivan, L. A., & Ford, T. E. (1991). Affective and cognitive determinants of prejudice. *Social Cognition*, *9*, 359-380.
- Staub, E. (1989). *The roots of evil: The origins of genocide and other group violence*. New York: Cambridge University Press.
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, *1*, 149–178.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-48). Pacific Grove, CA: Brooks/Cole.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*(4157), 1124-1131.
- United Nations Women, Annual Report 2018-2019 (2019). Progress and Equality for All. Retrieved from <https://www2.unwomen.org/-/media/annual%20report/attachments/sections/library/2019/un-women-annual-report-2018-2019-en.pdf?vs=4621>
- Vaes, J., Paladino, M. P., & Leyens, J. P. (2002). The lost e-mail: Prosocial reactions induced by uniquely human emotions. *British Journal of Social Psychology*, *41*, 521-534.
- Van Leeuwen, E., Van Knippenberg, D., & Ellemers, N. (2003). Continuing and changing group identities: The effects of merging on social identification and ingroup bias. *Personality and Social Psychology Bulletin*, *29*, 679-690. doi:10.1177/0146167203251210

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Vasiljevic, M., & Crisp, R. J. (2013). Tolerance by surprise: Evidence for a generalized reduction in prejudice and increased egalitarianism through novel category combination. *PloS one*, *8*, e57106. doi:10.1371/journal.pone.0057106
- Verkuyten, M., & Martinovic, B. (2012). Social identity complexity and immigrants' attitude toward the host nation: The intersection of ethnic and religious group identification. *Personality and Social Psychology Bulletin*, *38*, 1165-1177. doi:10.1177/0146167212446164
- Verkuyten, M., Thijs, J., & Bekhuis, H. (2010). Intergroup contact and ingroup reappraisal: Examining the deprovincialization thesis. *Social Psychology Quarterly*, *73*, 398-416. doi:10.1177/0190272510389015
- Viki, G. T., Osgood, D., & Phillips, S. (2013). Dehumanization and self-reported proclivity to torture prisoners of war. *Journal of Experimental Social Psychology*, *49*(3), 325-328. doi:10.1016/j.jesp.2012.11.006
- Weber, R., & Crocker, J. (1983). Cognitive processes in the revision of stereotypic beliefs. *Journal of Personality and Social Psychology*, *45*, 961-977.

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.

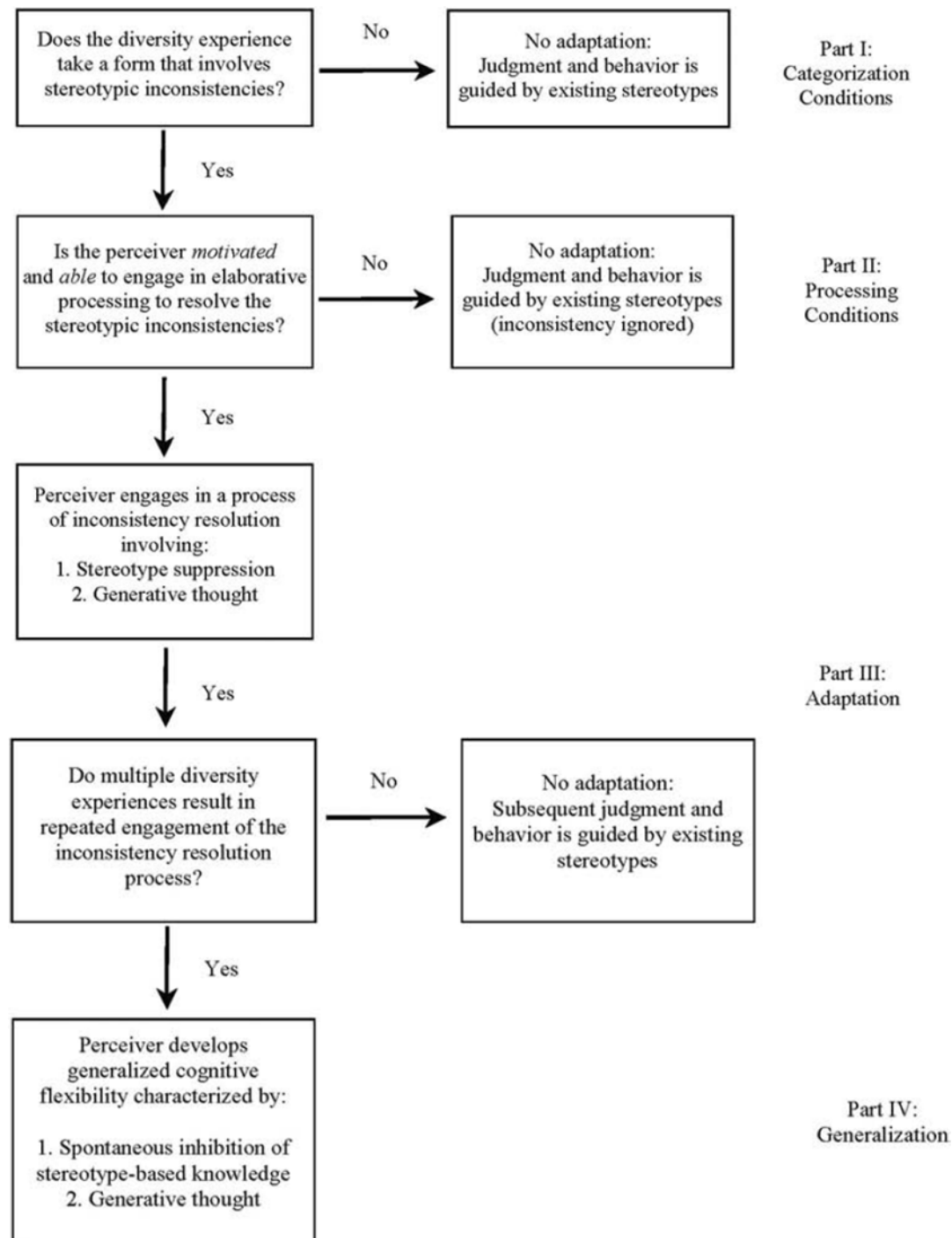


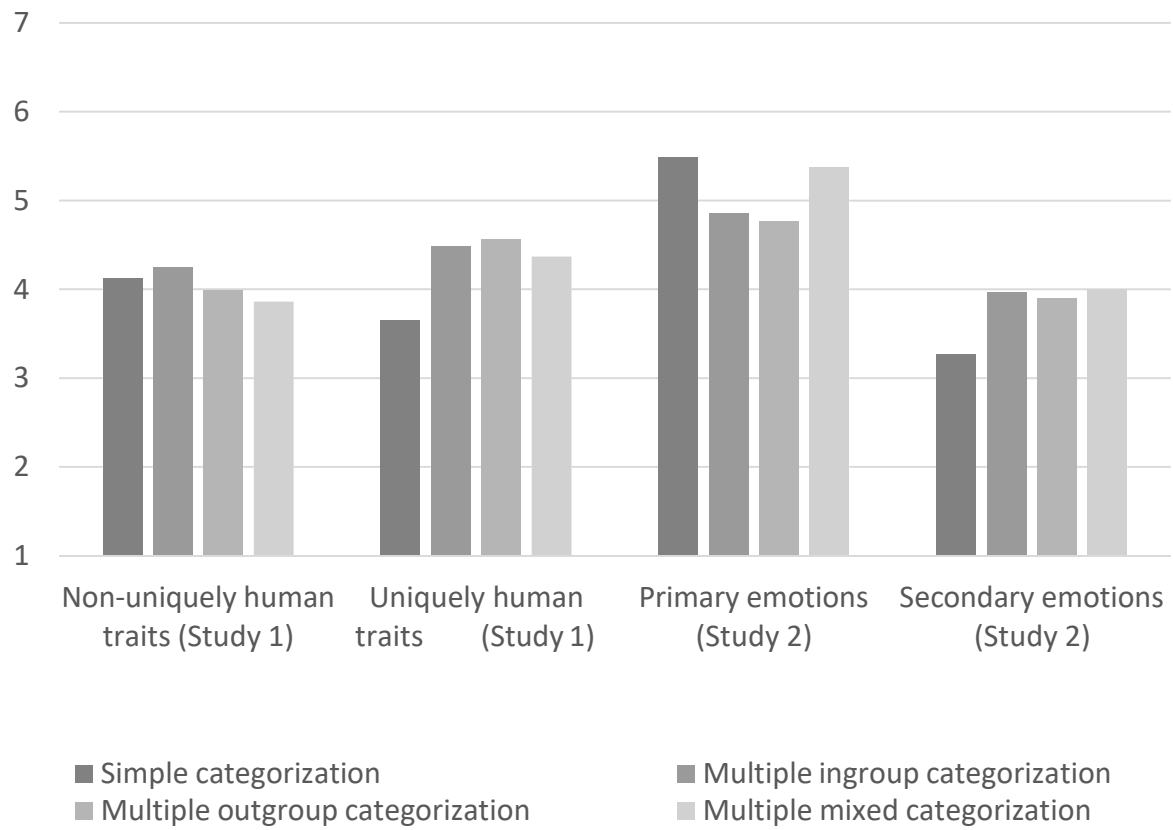
Figure 2.

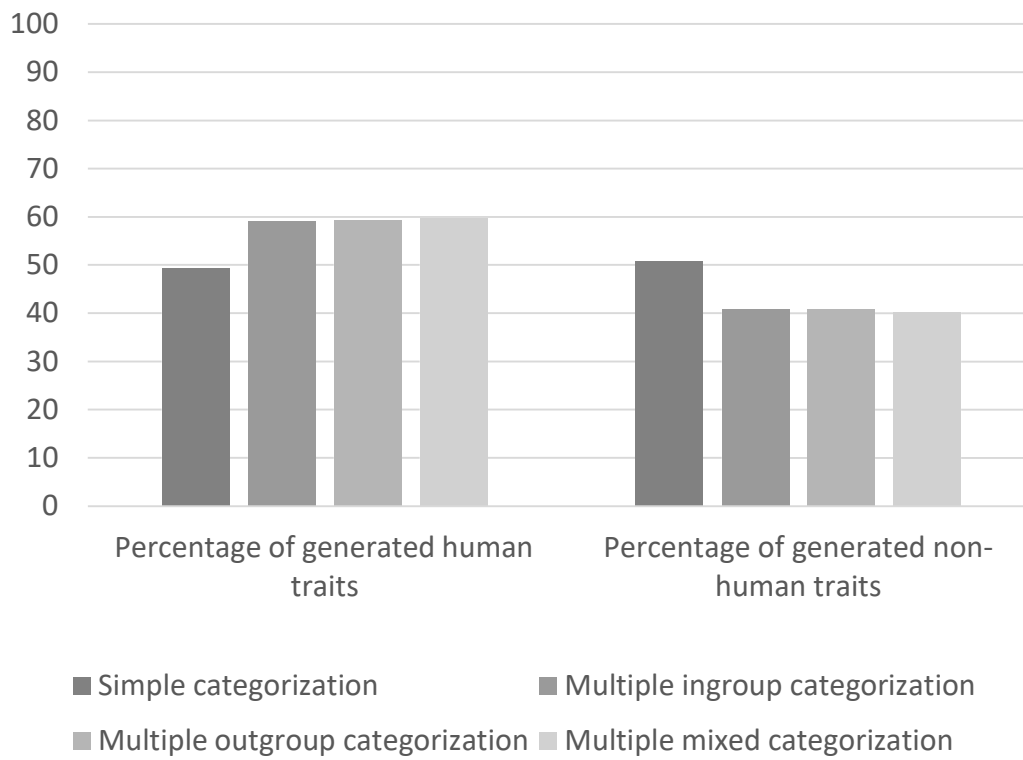
Figure 3.

Figure 4.

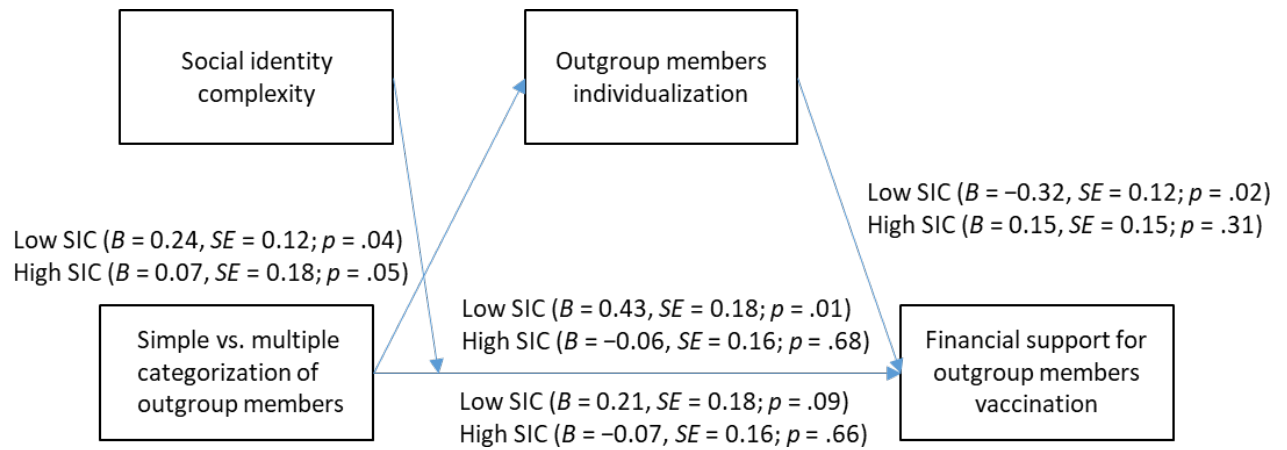


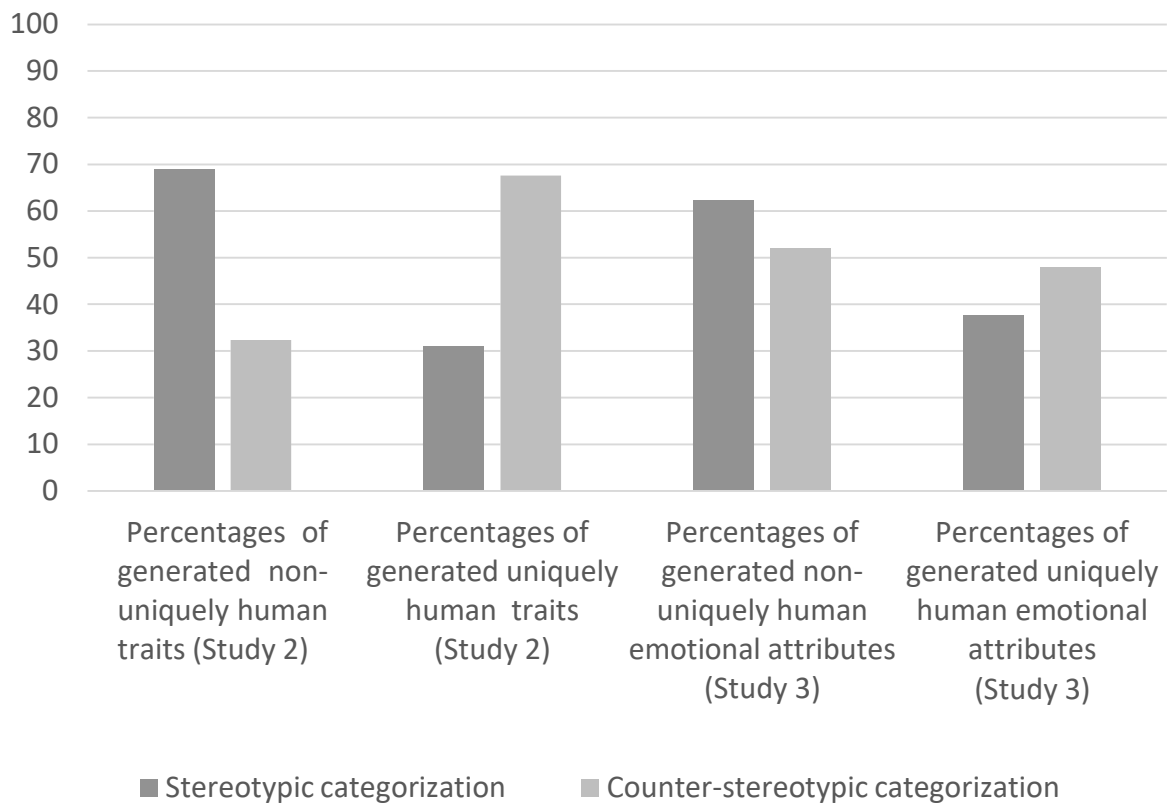
Figure 5.

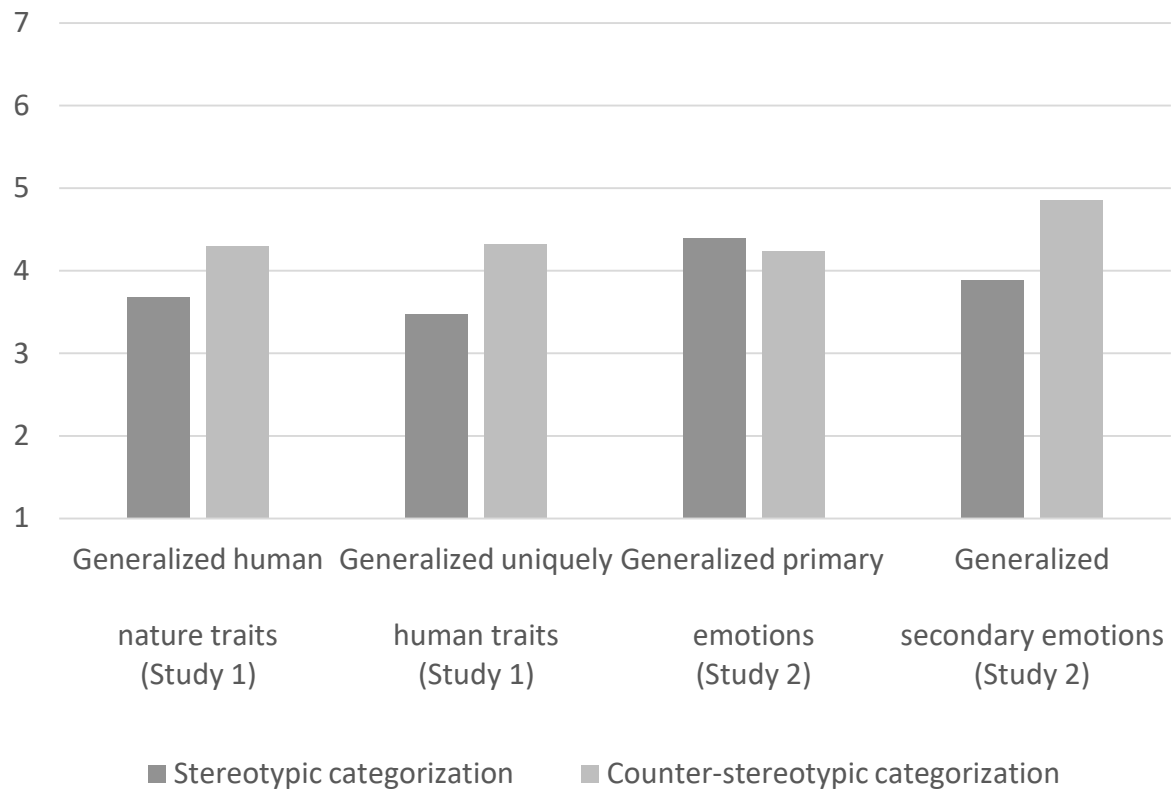
Figure 6.

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.

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

<i>Social Cognitive Strategies</i>	<i>Mediators</i>	<i>Measures</i>	<i>References</i>
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.

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

<i>Simple categorization</i>	<i>Multiple ingroup categorization</i>	<i>Multiple outgroup categorization</i>	<i>Multiple mixed categorization</i>
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

Table 4.

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

<i>Study</i>	<i>Categorization manipulation</i> → <i>First mediator</i>	<i>First mediator</i> → <i>Second mediator</i>	<i>Indirect total effect</i>
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

Table 5. Counter-stereotypic categorization manipulation

<i>References</i>	<i>Stereotypic categorization</i>	<i>Counter-stereotypic categorization</i>
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)	Romanian car window-cleaner, Italian manager	Romanian manager, Italian car window-cleaner
Prati, F., Moscatelli, S., Pratto, F., & Rubini, M. (2018)		
Prati, F., Menegatti, M., & Rubini, M. (2015)		