



Dehumanization of outgroup members and cross-group interactions

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Subtle and blatant dehumanization exacerbates negative intergroup relations while intergroup contact ameliorates them. An emerging body of research has started to examine the link between intergroup contact and dehumanization as a potential method for promoting harmony and social cohesion between different social groups. In this article, we examine how direct and indirect contact strategies can reduce both subtle and blatant dehumanization and how humanization can increase willingness for contact with outgroup members. This suggests a range of ways in which exploring contact and dehumanization might contribute to improved intergroup relations. Last, we explore how enhanced empathy, trust, prejudice, and inclusive norms toward outgroups, along with lower anxiety, explain the link between contact and dehumanization.

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"You wouldn't believe how bad these people are (immigrants). These immigrants aren't people—these are animals."

—*Donald Trump, former president of the United States (2018).*

"We (French people) are closer to Christian Europeans... Arab or Muslim immigrants are too unlike us, and it is more and more difficult to acculturate and assimilate them".

— *Eric Zemmour, French far-right politician (2022).*

Dehumanization is defined as the process of denying others positive human traits, thus implying that a group of people are perceived as less human and more animal-like compared with others. Dehumanization is mostly expressed in subtle and blatant forms.

Whereas subtle dehumanization occurs when members of the group are denied some but not all traits of humanity, blatant dehumanization occurs when members of a group are deliberately considered more animal-like than human [1,3,7]. In this paper, we review the existing literature on various forms of dehumanization and intergroup contact and propose future directions on how the link between these factors defines the nature of intergroup relations.

Both subtle and blatant dehumanization have been shown to negatively impact intergroup relations. For example, people attribute complex secondary emotions (more closely associated with humans than animals) to ingroup members more than outgroup members, a process called *infracumanization* [4,5]. Building on the idea of infracumanization, scholars have shown that subtle dehumanization can take the form of animalistic dehumanization, meaning that individuals deny outgroups' uniquely human traits that differentiate humans from animals (such as cognitive aptitude and civility), and mechanistic dehumanization involving denying others human nature (HN) traits that are typical of and fundamental to humans but not necessarily unique relative to other animals

(such as warmth and emotionality) [2,6]. As a result, outgroups denied unique human qualities are often compared with animals, and groups denied HN to inanimate objects such as robots or automata [6]. Finally, recent research has shown that people who deliberately dehumanize outgroup members (i.e. rating them as more similar to apes than humans) are more likely to portray them in threatening terms, withhold sympathy from them, and support actions designed to harm them [8,9], and can also expect to be dehumanized themselves by the outgroup simultaneously — a process known as *meta-dehumanization* [8,10,14].

Intergroup contact is defined as cross-group interactions between members of different groups, either directly (i.e. via personal exchanges with outgroup members) or indirectly (i.e. parasocial contact through media, extended contact via family and friends, vicarious contact via videos or stories in which one sees ingroup members positively interacting with outgroups, imagined contact through mental simulation of the self in a positive interaction with an outgroup member, and electronic contact via virtual communities). Intergroup contact is an effective means to promote social cohesion and improve intergroup relations [11–13].

Accordingly, positive cross-group interactions should be able to reduce both subtle and blatant dehumanization, and lower dehumanization (i.e. more humanization) should increase willingness for direct contact experiences or enhance the important role of indirect contact strategies (i.e. bidirectional cycle) [14,15]. To date, a relatively small proportion of research in social and political psychology has examined either the associations between direct and extended contact and dehumanization or the effect of indirect contact strategies on dehumanization and vice versa [16]. Additionally, the underlying mechanism is another factor that still requires further consideration.

Contact and dehumanization in improving intergroup relations

When people directly or indirectly experience positive contact with outgroup members, they may better understand outgroup members' emotions and cognitive skills and consider them equally evolved and civilized. Simultaneously, the more people view outgroup members as equal human beings in terms of humaneness, the greater their willingness to engage in intergroup contact will be. Accordingly, research in multiple contexts has shown that positive direct contact predicts lower blatant dehumanization of outgroups and lower perceived blatant dehumanization by those groups [16]. Reciprocally, humanizing outgroup members in terms of acknowledging their unique humanity is related to a greater desire for contact with outgroup members [17].

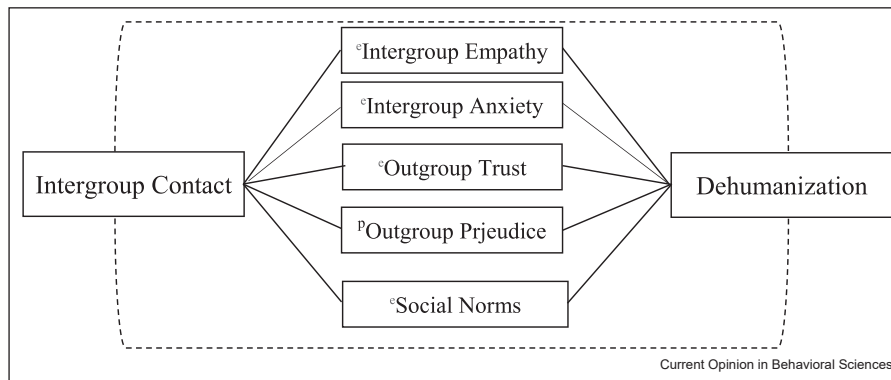
Furthermore, a meta-humanizing (versus meta-dehumanizing) intervention has been found to increase people's willingness to engage in intergroup contact [18]. Indeed, meta-humanization — the belief that the outgroup humanizes the ingroup — has been found to predict reciprocal humanization, thus reducing outgroup prejudice [18,19]. Therefore, we reason that positive direct contact with outgroup members should also predict lower subtle dehumanization by enhancing people's tendency to acknowledge human emotions and human uniqueness in outgroup members. Additionally, humanizing outgroup members and feeling humanized by them may encourage willingness for intergroup contact and improve intergroup relations.

Furthermore, cross-group friendships and extended contact also increase the likelihood that people will expect outgroup members to humanize them concerning secondary emotions and empathy [20]. In addition, both experimental and longitudinal research has shown that, compared with a control condition, a positive imagined contact condition decreases dehumanization concerning human emotions and human uniqueness [21–23]. Similar findings have also been observed using virtual contact. Specifically, positive virtual contact (versus a control condition) designed to facilitate positive cross-group interactions was associated with reductions in blatant dehumanization over time [16]. Given these findings, we suggest that cross-group membership and extended contact with outgroup members may also be able to reduce blatant dehumanization, while positive virtual contact with them may be able to mitigate subtle dehumanization.

Finally, research has shown that giving participants stories of positive interactions between ingroup and outgroup members (i.e. vicarious contact), such as outgroup members helping ingroup members, increases individuals' perceptions of humanity toward outgroups, while negative portrayals of outgroups (i.e. parasocial contact) in media, such as depictions that suggest that immigrants spread infectious diseases, increase both subtle and blatant dehumanization [24,25]. Therefore, we argue that more positive and human depictions of outgroup members — both in social and mass media — will result in greater willingness for direct contact with them as well as more interest in cross-group friendships [26]. The positive and human portrayal of outgroup members in media may also assist people in experiencing less anxiety when they are placed in a virtual contact possibility with outgroup members or asked to envision a positive interaction positively with them.

Taken together, the emerging research suggests that positive contact is associated with increased humanization of outgroups and thus improving social cohesion.

Figure 1



Mediators of the link between contact and dehumanization. Note that (e) means that the mediator was established in the literature, while (p) means that the mediators were proposed.

The process of humanization also occurs as a result of positive extended, imagined, vicarious, virtual, and cross-group friendship interactions. Positive parasocial intergroup contact enhances the perception of humanness toward outgroup members (or reduces dehumanization). However, negative parasocial contact increases dehumanization toward outgroup members (or reduces humanization). These findings have been observed when considering various intergroup relationships based on religion [16], nationality [17], and ethnicity [27,31] within both majority and minority groups [8]. Nevertheless, it should be noted that most of these studies examined WEIRD¹ samples, and a comprehensive human model examining non-WEIRD samples is still lacking.

Mediators of the relationship between contact and (de)humanization

In this section, we focus on factors that are both theoretically and empirically likely to explain the relationship between contact and dehumanization, such as intergroup affect (i.e. intergroup empathy, anxiety, and trust), outgroup prejudice, social norms, and cognitive processes (see Figure 1). When considering the positive contact-dehumanization reduction relationship, *empathy* is one of the most commonly measured affective variables. Empathy relates to an affective process that originates from and conforms to other people's perceived needs, and is frequently followed by taking the other's viewpoint to consider their situation [28,29]. For example, research indicates that a meta-humanizing (versus a meta-dehumanizing) intervention enhances outgroup empathy, which then influences willingness for intergroup contact, even while controlling for outgroup liking [14]. Furthermore, both quality of contact and

extended contact were associated with an increased sense of human uniqueness through enhanced intergroup empathy [30]. As such, it is reasonable to expect that other forms of contact, such as imagined, virtual, vicarious, parasocial, and cross-group friendships, may have the means to increase a sense of human uniqueness in outgroup members via intergroup empathy. Simultaneously, these contact strategies should contribute to reducing the blatant dehumanization of outgroup members via enhanced intergroup empathy [31].

Along with empathy, *intergroup anxiety* is also an important factor that should be considered. Intergroup anxiety refers to the discomfort one experiences when preparing for or engaging in intergroup interactions [32,33]. Quality of contact and extended contact, for example, were both associated with increased humanity (i.e. more attribution of human uniqueness) via reduced intergroup anxiety [30]. Consequently, it could be expected that quality of contact and extended contact can reduce blatant dehumanization through a reduction in intergroup anxiety. In the same vein, other forms of contact (e.g. imagined, virtual, vicarious, parasocial, and cross-group friendships) may be effective in reducing both subtle and blatant forms of dehumanization as a result of a reduction in intergroup anxiety [34,35].

Another factor relevant to outgroup humanity is *outgroup trust*. Indeed, outgroup trust is critical for the development of harmonious relations between groups [36,37]. Research has shown that positive imagined contact is positively associated with outgroup trust, which in turn is related to perceived human emotions and human uniqueness [17,22]. Therefore, more research should be devoted to examine the mediating role of trust in the relationship between imagined contact and blatant dehumanization. Furthermore, whether trust mediates the relationship between direct contact and other forms of

¹ Western, educated, industrialized, rich, and democratic

indirect contact and dehumanization remains to be explored. Since trust mediates the link between contact and intergroup attitudes, including behavior tendencies [38,39], it is reasonable to expect that contact would enhance trust in outgroup members and, as a consequence, reduce both subtle and blatant dehumanization. In contrast, dehumanization (especially blatant dehumanization) would decrease people's trust in outgroup members and thus resulting in less willingness to engage in intergroup contact.

Note that besides these affective processes, cognitive processes such as increased outgroup knowledge can also in part explain the contact-dehumanization link. To our knowledge, however, this tentative hypothesis has not yet been examined. In addition to outgroup knowledge, group salience can also mediate the relationship between intergroup contact and dehumanization [16]. Moreover, group salience is associated with affective intergroup processes, prejudice, and social norms [30,40].

Further, *outgroup prejudice* is an important factor in intergroup relations [41,42]. Considering that research has shown that dehumanization and prejudice appear to be distinct factors [43,44], we suggest that dehumanization (especially blatant dehumanization) would increase prejudice that in turn would reduce willingness for contact. Conversely, contact would decrease prejudice and thus reduce both subtle and blatant dehumanization. In fact, research has shown that outgroup prejudice (i.e. irrational views about outgroups) mediated the effect of contact on people's reactions and considerations concerning outgroup members [45].

Finally, *social norms* are defined as collective representations of what others do (descriptive norms) and what they think should be done (prescriptive norms) in a given situation [46–48]. Thus, norms are most likely to be effective mediators when the contact situation provides some favorable information about other ingroup members' attitudes or behaviors in relation to outgroup members [49,50]. For example, social norms mediate the association between extended contact and humanization concerning human emotions [51].

As a result, we suggest that norms should also play a mediating role in the relationship between extended contact and blatant dehumanization. Similarly, we suggest that norms should mediate the link between other contact forms and both subtle and blatant dehumanization.

In sum, a small proportion of research has investigated whether empathy, intergroup anxiety, and trust explain the link between direct, extended, and imagined contact and enhanced intergroup humanity. Even so, further research is needed not only to replicate these findings, but also to

extend them by examining the underlying mechanisms through the use of virtual, vicarious, and parasocial contact. There is also limited research on the role that outgroup prejudice and social norms play in mediating the effects of contact on the dehumanization of outgroups. Further research is therefore needed to investigate whether prejudice and norms mediate the effect of direct or indirect strategies (i.e. imagined, vicarious, virtual, and parasocial contact) on both subtle and blatant dehumanization. In fact, testing the mediating role of norms in the relationship between indirect strategies and dehumanization would be of critical importance in understanding how to design effective interventions that result in increased outgroup humanization.

Concluding remarks

The research reviewed in this article corroborates the important link between direct and indirect intergroup contact strategies and dehumanization in promoting social cohesion and thus improving intergroup relation. The presence of both active (e.g. direct, imagined, and virtual) and passive (e.g. extended, vicarious, and parasocial) cross-group interactions reduces the dehumanization of outgroup members. Simultaneously, the humanization of outgroups encourages a greater willingness to have contact with outgroups. The positive contact-dehumanization relationship appears to be explained by increased empathy, trust, social norms, and lower levels of anxiety. Yet, other mediating processes could potentially play a role, too. Thus, more research is needed to explore the relationship between different contact strategies and both subtle and blatant forms of dehumanization, as well as the mechanisms underlying this relationship.

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Data Availability

No data were used for the research described in the article.

Conflict of interest statement

Authors do not have any actual or potential conflict of interest.

References and recommended reading

Papers of particular interest, published within the period of review, have been highlighted as:

- of special interest
- of outstanding interest

1. Murray AJ, Durrheim K, Dixon J: **Everyday dehumanization: negative contact, humiliation, and the lived experience of being treated as 'less than human'**. *Br J Soc Psychol* 2022, 1050-1066.

2. Kteily NS, Landry AP: **Dehumanization: trends, insights, and challenges.** *Trends Cogn Sci* 2022, 222-240.
- Overview on recent work shedding new light on different forms of dehumanization, such as subtle versus blatant types, and animalistic versus mechanical types.
3. Markowitz DM, Slovic P: **Social, psychological, and demographic characteristics of dehumanization toward immigrants.** *PNAS* 2020, 28:9260-9269.
4. Leyens JP, Paladino PM, Rodriguez-Torres R, Vaes J, Demoulin S, Rodriguez-Perez A, Gaunt R: **The emotional side of prejudice: the attribution of secondary emotions to ingroups and outgroups.** *Pers Soc Psychol Rev* 2000, 4:186-197.
- Pioneering work on infrahumanization indicating that individuals attribute complex secondary emotions (more closely associated with humans than animals) to members of their own group than an outgroup.
5. Pereira C, Vala J, Leyens JP: **From infra-humanization to discrimination: the mediation of symbolic threat needs egalitarian norms.** *J Exp Soc Psychol* 2009, 45:336-344.
6. Haslam N, Bain P, Douge L, Lee M, Bastian B: **More human than you: attributing humanness to self and others.** *J Pers Soc Psychol* 2005, 89:937.
7. Bruneau E, Kteily N, Laustsen L: **The unique effects of blatant dehumanization on attitudes and behavior towards Muslim refugees during the European 'refugee crisis' across four countries.** *Eur J Soc Psychol* 2018, 48:645-662.
8. Kteily N, Hodson G, Bruneau E: **They see us as less than human: metadehumanization predicts intergroup conflict via reciprocal dehumanization.** *J Pers Soc Psychol* 2016, 110:343-370.
9. Borinca I, Çelik P, Storme M: **Can conservatives who (de) humanize immigrants the most be able to support them? The power of imagined positive contact.** *J Appl Soc Psychol* 2022, 363-375.
10. Pavetich M, Stathi S: **Meta-humanization reduces prejudice, even under high intergroup threat.** *J Pers Soc Psychol* 2021, 120:651.
11. In : **Intergroup contact theory.** In *Social Psychology in Action*. Edited by Christ O, Kauff M. Springer; 2019.
12. White FA, Borinca I, Vezzali L, Reynolds KJ, Blomster Lyshol JK, Verrelli S, Falomir-Pichastor JM: **Beyond direct contact: the theoretical and societal relevance of indirect contact for improving intergroup relations.** *J Soc Issues* 2021, 77:132-153.
- A theoretical work delving into the importance of (in)direct contact strategies in improving intergroup attitudes and the underlying mechanisms that explain contact strategies' success in creating intergroup harmony.
13. Pettigrew TF, Tropp LR: **A meta-analytic test of intergroup contact theory.** *J Pers Soc Psychol* 2006, 90:751.
14. Borinca I, Tropp LR, Ofosu N: **Meta-humanization enhances positive reactions to prosocial cross-group interaction.** *Br J Soc Psychol* 2021, 60:1051-1074.
15. Haslam N: **Dehumanization and the lack of social connection.** *Curr Opin Psychol* 2022, 43:312-316.
16. Bruneau E, Hameiri B, Moore-Berg SL, Kteily N: **Intergroup contact reduces dehumanization and meta-dehumanization: cross-sectional, longitudinal, and quasi-experimental evidence from 16 samples in five countries.** *Pers Soc Psychol Bull* 2021, 47:906-920.
- Large data sets and diverse studies demonstrating that contact reduces outgroup dehumanization in various intergroup contexts.
17. Capozza D, Di Bernardo GA, Falvo R: **Intergroup contact and outgroup humanization: is the causal relationship uni or bidirectional?** *PLoS One* 2017, 1-19.
18. Pavetich M, Stathi S: **Meta-humanization reduces prejudice, even under high intergroup threat.** *J Pers Soc Psychol* 2021, 120:651-671.
- A large number of studies indicate that meta-humanization can improve intergroup relations by raising perceptions of humanity between different ethnic and religious groups.
19. Vezzali L, Capozza D, Di Bernardo GA, Falvo R, Stathi S, Hodson G: **Strategies for the promotion of humanity attribution to outgroups.** *Eur Rev Soc Psychol* 2021, 27:1-40.
20. Capozza D, Falvo R, Di Bernardo GA: **Does the outgroup recognize our mental skills? Crossgroup friendships, extended contact, and the expectation of humanizing perceptions from the out-group.** *J Appl Soc Psychol* 2020, 50:524-537.
21. Falvo R, Capozza D, Hichy Z, Di Sipio A: **Imagined contact favors humanization of individuals with intellectual disabilities: a two-wave study.** *Life Span Disabil* 2014, 17:39-57.
22. Vezzali L, Capozza D, Stathi S, Giovannini D: **Increasing outgroup trust, reducing infrahumanization, and enhancing future contact intentions via imagined intergroup contact.** *J Exp Soc Psychol* 2012, 48:437-440.
23. Prati F, Loughnan S: **Imagined intergroup contact promotes support for human rights through increased humanization.** *Eur J Soc Psychol* 2018, 48:O51-O61.
24. Davies T, Yogeewaran K, Verkuyten M, Loughnan S: **From humanitarian aid to humanization: when outgroup, but not ingroup, helping increases humanization.** *PLoS One* 2018, 1-15.
25. Esses VM, Medianu S, Lawson AS: **Uncertainty, threat, and the role of the media in promoting the dehumanization of immigrants and refugees.** *J Soc Issues* 2013, 69:518-536.
26. Borinca I, Falomir-Pichastor JM, Andrighetto L: **"How can you help me if you are not from here?" Helper's familiarity with the context shapes interpretations of prosocial intergroup behaviors.** *J Exp Soc Psychol* 2020, 87:103944.
27. Pintel EC, Yawger GC, Long AE, Rampy N, Brenna R, Finnell SK: **Human like me: evidence that i-sharing humanizes the otherwise dehumanized.** *Br J Soc Psychol* 2017, 56:689-704.
28. Batson CD: **The Altruism Question: toward A Social-psychological Answer.** Erlbaum; 1991.
29. Reimer NK, Hughes J, Blaylock D, Donnelly C, Wölfer R, Hewstone M: **Shared education as a contact-based intervention to improve intergroup relations among adolescents in postconflict Northern Ireland.** *Dev Psychol* 2022, 58:193.
30. Capozza DO, Falvo R, Favara I, Trifiletti EL: **The relationship between direct and indirect cross-group friendships and outgroup humanization: emotional and cognitive mediators.** *TPM — Test Psychom Methodol Appl Psychol* 2013, 20:383-398.
31. Borinca I, Falomir-Pichastor JM, Andrighetto L, Halabi S: **Overcoming negative reactions to prosocial intergroup behaviors in post-conflict societies: the power of intergroup apology.** *J Exp Soc Psychol* 2021, 95:104140.
32. Stephan WG: **Intergroup anxiety: theory, research, and practice.** *PSPR* 2014, 18:239-255.
33. Finchilescu G: **Intergroup anxiety in interracial interaction: the role of prejudice and metastereotypes.** *J Soc Issues* 2010, 66:334-351.
34. Malott KM, Wahesh E, Moreton A, Crawford E: **Reducing intergroup anxiety: applying an imagined contact intervention with counselors-in-training.** *J Multicult Couns Dev* 2022, 44-57.
35. Hatoum AH, White FA: **Advancing E-contact to reduce intergroup anxiety and increase positive attitudes towards individuals who identify as bisexual.** *J Sex Res* 2022, 15:1-4.
36. Cehajic S, Brown R, Castano E: **Forgive and forget? Antecedents and consequences of intergroup forgiveness in Bosnia and Herzegovina.** *Polit Psychol* 2008, 29:351-367.
37. Taylor LK, O'Driscoll D, Merrilees CE, Goeke-Morey M, Shirlow P, Cummings EM: **Trust, forgiveness, and peace: the influence of adolescent social identity in a setting of intergroup conflict.** *Int J Behav Dev* 2022, 46:101-111.
38. Rozich BC, Kenworthy JB, Voci A, Hewstone M: **What's past is prologue: intergroup emotions and trust as mediating the links**

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- between prior intergroup contact and future behavioral tendencies. *TPM – Test Psychom Methodol* 2018, 179-191.
39. McKeown S, Psaltis C: **Intergroup contact and the mediating role of intergroup trust on outgroup evaluation and future contact intentions in Cyprus and Northern Ireland.** *PAC* 2017, **23**:392.
 40. Spruyt B, van der Noll J: **The “Islamized stranger”: on “chronic” versus “contextual” salience in the measurement of anti-Muslim prejudice.** *Polit Psychol* 2017, **38**:977-989.
 41. Spiegler O, Christ O, Verkuyten M: **National identity exploration attenuates the identification–prejudice link.** *GPIR* 2022, **25**:902-923.
 42. Verkuyten M, Voci A, Pettigrew TF: **Deprovincialization: its importance for plural societies.** *Soc Issues Policy Rev* 2022, **16**:289-309.
 43. Kteily N, Bruneau E, Waytz A, Cotterill S: **The ascent of man: theoretical and empirical evidence for blatant dehumanization.** *J Exp Soc Psychol* 2015, **109**:901.
 44. Fourie MM, Deist M, Moore-Berg SL: **Hierarchies of being human: intergroup dehumanization and its implication in present-day South Africa.** *PAC* 2022, 345-360.
- Ground-breaking study showing that dehumanization ratings in South Africa still mirror the apartheid-inspired hierarchy between ethnic-cultural groups. This poses a critical challenge for interventions (e.g. based on contact) aiming to reduce dehumanization in post-conflict settings.
45. Çirakoğlu OC, Demirutku K, Karakaya O: **The mediating role of perceived threat in the relationship between casual contact and attitudes towards Syrian refugees in Turkey.** *J Refug Stud* 2021, **34**:2984-2999.
 46. Cialdini RB, Kallgren CA, Reno RR: **A focus theory of normative conduct: a theoretical refinement and reevaluation of the role of norms in human behavior.** *Adv Exp Soc Psychol* 1991, **24**:201-234.
 47. Meyers C, Williams A, Pauker K, Apfelbaum EP: **The impact of social norms on navigating race in a racially diverse context.** *GPIR* 2022, **25**:853-870.
 48. Harwood J: **The contact space: a novel framework for intergroup contact research.** *J Lang Soc Psychol* 2010, **29**:147-177.
 49. Borinca I, Andrighetto L, Valsecchi G, Berent J: **Ingroup norms shape understanding of outgroup prosocial behaviors.** *GPIR* 2022, **25**:1084-1106.
 50. Ata A, Bastian B, Lusher D: **Intergroup contact in context: the mediating role of social norms and group-based perceptions on the contact–prejudice link.** *Int J Intercult Relat* 2009, **33**:498-506.
 51. Cappelletti D, Rossella F, Elena T, Pagani AF: **Cross-group friendships, extended contact, and humanity attributions to homosexuals.** *Procedia Soc* 2014, **114**:276-282.