



# What Drives the Dehumanization of Consensual Non-Monogamous Partners?

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## Abstract

We built upon a recent study by Rodrigues, Fasoli, Huic, and Lopes (2018) by investigating potential mechanisms driving the dehumanization of consensual non-monogamous (CNM) partners. Using a between-subjects experimental design, we asked 202 Portuguese individuals (158 women;  $M_{\text{age}} = 29.17$ ,  $SD = 9.97$ ) to read the description of two partners in a monogamous, open, or polyamorous relationship, and to make a series of judgments about both partners. Results showed the expected dehumanization effect, such that both groups of CNM partners (open and polyamorous) were attributed more primary (vs. secondary) emotions, whereas the reverse was true for monogamous partners. Moreover, results showed that the dehumanization effect was driven by the perception of CNM partners as less moral and less committed to their relationship. However, these findings were observed only for individuals with unfavorable (vs. favorable) attitudes toward CNM relationship. Overall, this study replicated the original findings and extended our understanding of why people in CNM relationships are stigmatized.

**Keywords** Dehumanization · Consensual non-monogamy · Morality · Commitment · Stigmatization

## Introduction

Non-traditional forms of romantic relationships, and especially those that depart from the typical monogamous norm, have been getting attention from researchers in recent years (Balzarini et al., 2017; Conley, Matsick, Moors, & Ziegler, 2017; Conley, Ziegler, Moors, Matsick, & Valentine, 2013b; Levine, Herbenick, Martinez, Fu, & Dodge, 2018; Séguin et al., 2017). Broadly, monogamy implies an agreement for sexual and emotional exclusivity, whereas in consensual non-monogamy (CNM) both partners agree to have sex or romantic relationships with other people (Rubel & Bogaert, 2015). Research shows that CNM and monogamous relationships have both similarities and differences (Balzarini et al., 2018, 2019; Moors, Matsick, & Schechinger, 2017). For example, partners in CNM relationships can be as committed and satisfied with their relationship (Mogilski, Memering, Welling, & Shackelford, 2017; Rodrigues, Lopes, & Smith, 2017b), and

in some cases even more satisfied (Conley, Piemonte, Guskova, & Rubin, 2018; Rodrigues, Lopes, & Pereira, 2016; Rodrigues, Lopes, Pereira, de Visser, & Cabaceira, 2019b), when compared to their monogamous counterparts. Although these findings usually rely on individual data, both partners are likely to be committed, satisfied and have quality of life insofar as they assortatively match in important individual variables (e.g., sociosexuality). Despite these findings, research showed that the experiences CNM people have in their relationships are not mirrored in the perceptions of others.

In their seminal work, Conley, Moors, Matsick, and Ziegler (2013a) and Moors, Matsick, Ziegler, Rubin, and Conley (2013) showed that CNM relationships were perceived to be of inferior quality, and the people involved in those relationship to be perceived as less moral and to have less cognitive abilities, in comparison with their monogamous counterparts. Balzarini et al. (2018) extended this negative halo effect surrounding non-monogamy and showed that people in CNM relationships are also perceived to be more promiscuous and more likely to have sexual health problems. Not only are people in CNM relationships heavily stigmatized, they are also likely to be dehumanized.

Dehumanization occurs when a person (or group of people) is deprived of attributes that are uniquely human (Haslam, 2006). This form of stigmatization has been observed in

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different domains including gender, sexual orientation, race or ethnicity (for a review, see Haslam & Loughnan, 2014). One form of dehumanization occurs when others are perceived as lacking specific traits (e.g., intelligence, self-control, civility). For example, Fasoli et al., (2016) showed that a homosexual (vs. heterosexual) target was attributed less human-related words (e.g., person) after participants were primed with a homophobic epithet (e.g., faggot). By being negated of their humanness, dehumanized people can either be equated to animals and perceived as primitive and irrational, or to objects and perceived as cold and heartless (Haslam & Loughnan, 2014). For example, Morris, Goldenberg, and Boyd (2018) found that women objectified by their sexuality (e.g., pornographic film actress) or physical appearance (e.g., fashion model) were dehumanized by being attributed less uniquely human traits (e.g., competent) and perceived as less able to feel pain, when compared to a female graduate student. Another form of dehumanization occurs when others are perceived as lacking specific emotions (Leyens et al., 2000, 2001; also called *infracommunication*, Haslam, 2006). According to this theoretical framework, secondary emotions (e.g., compassion, embarrassment) are uniquely human because complex emotional states require a higher level of cognitive processing (see also LeDoux & Brown, 2017). In contrast, primary emotions (e.g., anger, pleasure) are shared by both humans and non-human animals (see also Ekman, 1992). For our purposes, secondary emotions indicate uniquely human attributes, whereas primary emotions indicate non-uniquely human attributes (for a review, see Demoulin et al., 2004). By being attributed more primary (and fewer secondary) emotions, others are denied of their humanity and therefore perceived as less human (Vaes, Leyens, Paladino, & Miranda, 2012). For example, MacInnis and Hodson (2012) found that asexual people (vs. other sexual minority groups) were dehumanized by being attributed less uniquely human (e.g., optimism) or human nature (e.g., happiness) emotions. The authors also found evidence of negative attitudes toward asexual individuals, and greater intention to discriminate against asexual people (e.g., less willingness to rent or hire asexual individuals). Indeed, dehumanization constitutes a subtle form of differentiating individuals and/or groups (Leyens et al., 2000, 2001) that has been linked to negative interpersonal outcomes including sexist attitudes (Tipler & Ruscher, 2019), microaggression (Dover, 2016) and violence (Kteily, Bruneau, Waytz, & Cotterill, 2015; Viki, Osgood, & Phillips, 2013).

Research showed that CNM relationships are equated to promiscuity and infidelity (Balzarini et al., 2018; Burris, 2014). Considering that sexual behavior and sexual desire is shared by humans and non-human animals (and therefore non-uniquely human), people in CNM relationships would likely be perceived as having more primary than secondary emotions, and therefore dehumanized. This hypothesis was originally tested by Rodrigues, Fasoli, Huic, and Lopes (2018)

in a cross-national experimental study. Rodrigues et al. asked participants to read descriptions of two romantic partners in either a monogamous or a CNM relationship, and to attribute primary (e.g., lust, desire, fear anger) and secondary (e.g., happiness, love, guilt, embarrassment) emotions to these partners. Consistent with their hypothesis, participants attributed more secondary (vs. primary) emotions to monogamous partners, and in contrast attributed more primary (vs. secondary) emotions to CNM partners. Results were independent of the valence of the emotions (see also Haslam & Loughnan, 2014; MacInnis & Hodson, 2012), and whether the descriptions depicted gay or heterosexual partners (for similar results with stigmatization, see Moors et al., 2013). Notably, these findings were consistent across Portugal, Italy, and Croatia.

Notwithstanding their findings, Rodrigues et al. (2018) discussed three main limitations to their study. First, the use of a within-subjects design could have made the goal of the study salient to the participants and facilitated comparisons between all descriptions. Second, the authors used a measure of dehumanization that included primary emotions related to sexuality (e.g., desire). The description of CNM partners as having a sexually open relationship could have implicitly communicated greater sexual activity (vs. monogamous partners) and consequently biased the attribution of primary emotions. Third, CNM partners were described as having a sexual agreement, but it was not specified if they could also have other romantic relationships. We built upon the original study and used a between-subjects design, a measure of dehumanization in which primary emotions were unrelated with sexuality or sexual activity, and disentangled between open and polyamorous relationships by having separate experimental conditions. Following the original findings, we expected participants to attribute more secondary (vs. primary) emotions to monogamous partners, and more primary (vs. secondary) emotions to open and polyamorous partners (H1).

People in CNM relationships are stigmatized in different individual (e.g., Grunt-Mejer & Campbell, 2016), interpersonal (e.g., Conley et al., 2013a) and social characteristics (e.g., Hutzler, Giuliano, Herselman, & Johnson, 2016). To the extent that people in CNM relationships are perceived as less able to experience secondary emotions (e.g., love; Rodrigues et al., 2018), have consensual extradyadic sex, and that extradyadic sex is typically perceived as a consequence of relationship problems (Rubel & Bogaert, 2015), those people could be perceived as lacking relationship quality. Indeed, past research also showed that CNM partners are perceived to be less sexually satisfied and less committed than monogamous partners (Conley et al., 2013a). We expected to replicate this negative halo effect, such that CNM (vs. monogamous) partners were expected to be perceived as more promiscuous, less moral, less sexually satisfied and less romantically committed (H2). In their original study, Rodrigues et al. (2018) did not examine the mechanism underlying the dehumanization

of CNM partners. Instead, the authors discussed the possibility that CNM partners were dehumanized because they were perceived to be immoral and promiscuous (see also Balzarini et al., 2018; Conley et al., 2013a). Indeed, dehumanization is often linked with perceived deviations from morality and promiscuity (Bastian & Haslam, 2010; Brandt & Reyna, 2011; Castano & Giner-Sorolla, 2006; Haslam, Bastian, Laham, & Loughnan, 2012). Hence, we also expected CNM partners to be dehumanized because of this negative halo (H3).

Findings about the perception of open and polyamorous relationships have been inconsistent. In line with the negative appraisal of CNM relationships, Grunt-Mejer and Campbell (2016) showed that open and polyamorous partners were perceived as being less satisfied with their relationship and less moral, when compared to monogamous partners. This negative appraisal was more evident for open (vs. polyamorous) partners. The authors argued that these latter findings could be explained by the type of agreement both partners have. Whereas open partners agree on having multiple sexual partners (typically in the absence of affective bonds), polyamorous partners agree on having multiple romantic and sexual relationships. Hence, these findings suggest that people perceive deviations from the sexual monogamous norm more negatively, when compared to deviations from the affective monogamous norm. In line with this argument, Matsick, Conley, Ziegler, Moors, and Rubin (2014) found that open partners were perceived more negatively than polyamorous partners in certain attributes (e.g., lower morality; less ability to express emotion). However, the authors found no differences in other attributes (e.g., equally responsible, mature and happy). More recently, Balzarini et al. (2018) showed that partners in open and polyamorous relationships were perceived as more promiscuous and more likely to have sexually transmitted infections, when compared to partners in monogamous relationships. Participants were also less willing to have close social contact with partners from both CNM relationships. However, this negative appraisal was more evident for polyamorous (vs. open) partners. Given these mixed findings, we did not advance a priori hypotheses regarding differences in dehumanization of open and polyamorous partners, or in the mechanism underlying the dehumanization of both groups.

Lastly, we explored a possible boundary condition for the dehumanization of CNM partners. Research consistently showed that contact and positive attitudes toward a target group can buffer discrimination of that group (Ajzen & Cote, 2008; Paluck, Green, & Green, 2019; Pettigrew & Tropp, 2006). A similar process seems to occur for people in CNM relationships. For example, Hutzler et al. (2016) showed that familiarity with, and greater knowledge about, people in polyamorous relationships were positively associated with attitudes toward this relationship agreement. Balzarini et al. (2018) also showed that the typical stigmatization of CNM

relationships was less evident for people who identified as non-monogamous. Hence, we explored whether the dehumanization of CNM partners occurred through a negative perception of these relationships, but only for people with unfavorable (vs. favorable) CNM attitudes (H4).

## Method

### Participants

The sample comprised 202 Portuguese individuals (158 women) aged between 19 and 60 years ( $M=29.17$ ,  $SD=9.97$ ). Participants identified themselves as heterosexual (88.1%), homosexual (7.9%), or bisexual (3.5%), or asexual (0.5%). Most participants resided in metropolitan areas (86.6%), had graduate (51.0%) or post-graduate degrees (32.7%) and were religious (56.4%). Participants were either not romantically involved (34.5%) or in a self-reported monogamous relationship (65.3%).

This study used a 2 (Emotion: Primary vs. Secondary)  $\times$  3 (Relationship Agreement: Monogamous vs. Open vs. Polyamorous) experimental design, with the first being a within-subjects factor.

### Procedure and Measures

Individuals were invited, through public posts on social networking sites, to participate in a web survey about the perception of romantic relationships. In accordance with the ethics guidelines issued by Iscte—Instituto Universitário de Lisboa, participants were randomly allocated to one of the three conditions after providing informed consent. They read a description of two partners in a romantic relationship: (a) “Both partners are highly committed to each other in a long-term exclusive romantic relationship (i.e., neither partner is allowed to have sex or romantic relationships with other people—a monogamous relationship”); (b) “Both partners are highly committed to each other in a long-term sexually non-exclusive romantic relationship (i.e., each partner can only have sexual encounters, but not romantic relationships, with other people—an open relationship”); or (c) “Both partners are highly committed to each other in a long-term non-exclusive romantic relationship (i.e., each partner can have sexual encounters and romantic relationships with other people—a polyamorous relationship”).

Participants were then asked to indicate to what extent they considered both romantic partners to be promiscuous, moral, sexually satisfied with each other, and romantically committed (from 1 = *Not at all* to 7 = *A lot*). These items were presented in random order. Next, participants indicated to what extent they considered both romantic partners to experience 16 different emotions (from 1 = *Not at all* to 7 = *A lot*), also

presented in random order. These included eight positive (cheerfulness, fun, tranquility, and enthusiasm;  $\alpha = .77$ ) and negative (fear, sadness, tension, and boredom;  $\alpha = .82$ ) primary emotions, and eight positive (love, hope, optimism, and contentment;  $\alpha = .86$ ) and negative (bitterness, melancholy, worry, and shame;  $\alpha = .77$ ) secondary emotions (Martínez, Rodríguez-Bailón, Moya, & Vaes, 2017). Following past findings showing that the dehumanization of CNM partners is independent from valence (e.g., Rodrigues et al., 2018), we computed a mean score of primary and secondary emotions. Afterward, participants indicated their attitudes toward individuals in open and polyamorous relationships (two items; from 1 = *Not favorable at all* to 7 = *Very much favorable*),  $r(202) = .90, p < .001$ . At the end, participants provided demographic information (e.g., age, education, residence) and were thanked and debriefed about the purpose of the study (average completion time = 11 min).

## Results

### Attribution of Emotions: Dehumanization Effect

We hypothesized that CNM partners would be dehumanized, by being attributed more primary and less secondary emotions, when compared to monogamous partners (H1). Results of a 2 (Emotion: Primary vs. Secondary)  $\times$  3 (Relationship Agreement: Monogamous vs. Open vs. Polyamorous) mixed repeated measures ANOVA showed a main effect of emotion, Wilk's  $\Lambda = .90, F(1, 199) = 21.37, p < .001, \eta_p^2 = .097$ . Overall, participants attributed more primary ( $M = 4.06, SE = .05$ ) than secondary emotions ( $M = 3.87, SE = .05$ ).

As expected, there was an interaction between emotion and relationship agreement, Wilk's  $\Lambda = .84, F(2, 199) = 18.58, p < .001, \eta_p^2 = .157$  (see mean scores in Table 1). Planned contrasts showed that participants attributed more secondary than primary emotions to monogamous partners,  $t(199) = 2.28, p = .023$ . In contrast, participants attributed more primary than secondary emotions to open partners,  $t(199) = 5.64, p < .001$ , and to polyamorous partners,  $t(199) = 4.80, p < .001$  (see Fig. 1).

Examining differences across relationship agreement, planned contrasts showed that participants attributed more secondary emotions to monogamous than to open,  $t(199) = 2.22, p = .028$ , or polyamorous partners,  $t(199) = 4.34, p < .001$ . Participants also attributed more secondary emotions to open than to polyamorous partners,  $t(199) = 2.18, p = .030$ . In contrast, participants attributed more primary emotions to open than monogamous,  $t(199) = 2.49, p = .014$ , or polyamorous partners,  $t(199) = 2.76, p = .006$ . No significant differences emerged between these latter groups,  $t < 1$ .

### Attribution of Characteristics: Negative Halo

We also hypothesized a halo effect for CNM relationships, such that CNM partners would be perceived as more promiscuous, less moral, less sexually satisfied and less committed, when compared to monogamous partners (H2). Results of a 3 (Relationship Agreement: Monogamous vs. Open vs. Polyamorous) multivariate ANOVA showed a main effect of relationship agreement, Wilk's  $\Lambda = .64, F(8, 392) = 12.30, p < .001, \eta_p^2 = .201$  (see Table 1). As expected, pairwise comparisons with Bonferroni correction showed that monogamous partners were perceived as less promiscuous, more moral, more sexually satisfied and more committed than

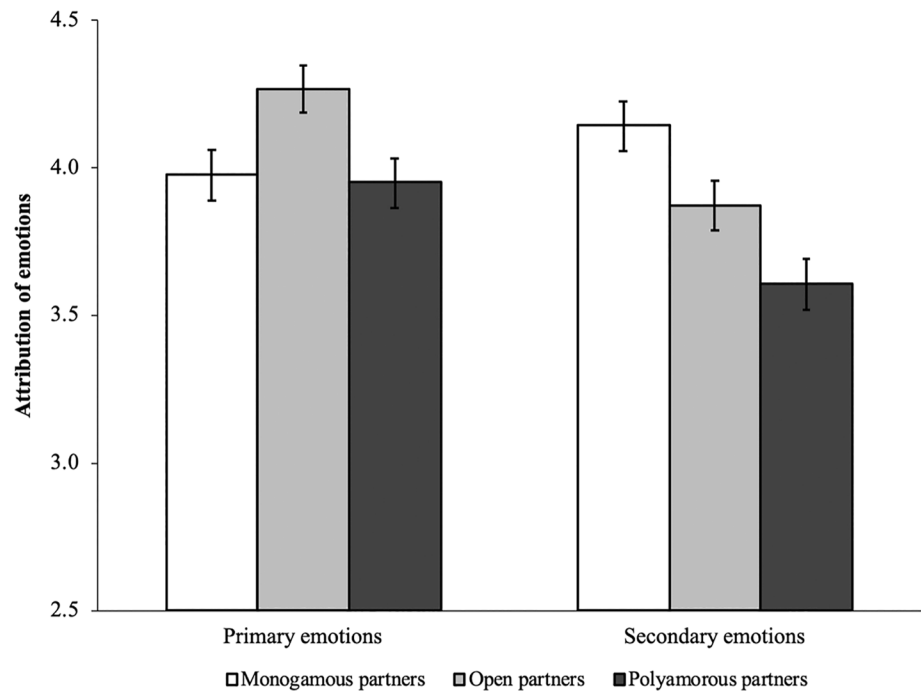
**Table 1** Mean scores for judgments in each experimental condition

|                         | Relationship agreement (experimental conditions) |   |  |
|-------------------------|--|---|--|
|                         | Monogamous partners<br><i>M</i> ( <i>SE</i> )    | Open partners<br><i>M</i> ( <i>SE</i> ) | Polyamorous partners<br><i>M</i> ( <i>SE</i> ) |
| Primary emotions        | 3.98 <sup>a</sup> (.08)                          | 4.26 <sup>b</sup> (.08)                 | 3.95 <sup>a</sup> (.08)                        |
| Secondary emotions      | 4.14 <sup>a</sup> (.09)                          | 3.87 <sup>b</sup> (.09)                 | 3.61 <sup>c</sup> (.09)                        |
| Index of dehumanization | − 0.17 <sup>a</sup> (.07)                        | 0.39 <sup>b</sup> (.07)                 | 0.34 <sup>b</sup> (.07)                        |
| Promiscuity             | 2.34 <sup>a</sup> (.22)                          | 3.67 <sup>b</sup> (.21)                 | 4.18 <sup>b</sup> (.22)                        |
| Morality                | 5.55 <sup>a</sup> (.21)                          | 3.87 <sup>b</sup> (.20)                 | 4.02 <sup>b</sup> (.20)                        |
| Sexual satisfaction     | 5.39 <sup>a</sup> (.23)                          | 3.77 <sup>b</sup> (.22)                 | 4.28 <sup>b</sup> (.23)                        |
| Commitment              | 5.92 <sup>a</sup> (.23)                          | 3.47 <sup>b</sup> (.22)                 | 3.64 <sup>b</sup> (.22)                        |
| CNM attitudes           | 3.57 (.25)                                       | 3.20 (.24)                              | 3.28 (.24)                                     |

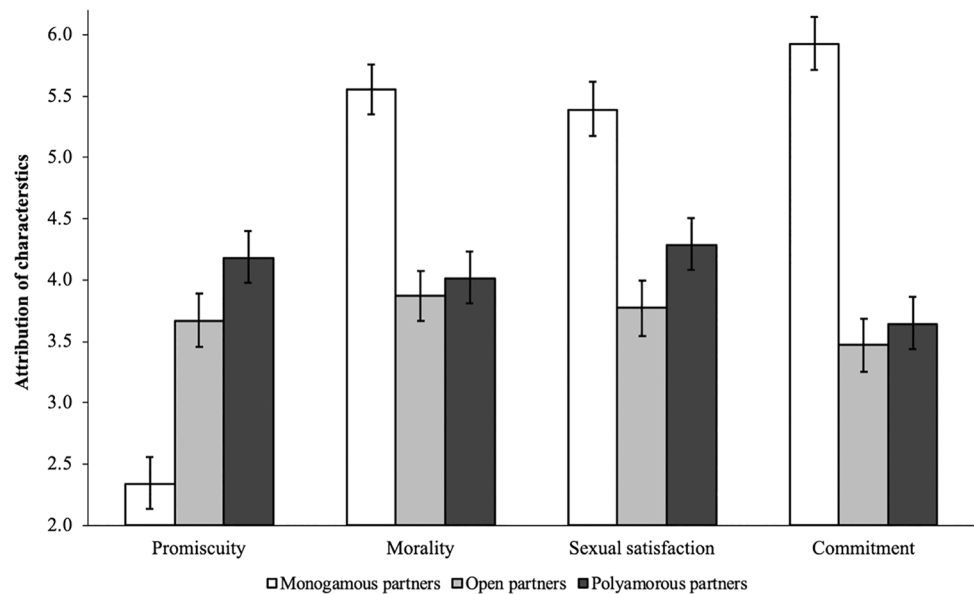
Index of dehumanization = primary—secondary emotions. *CNM* consensual non-monogamy

Different superscripts (<sup>a</sup>, <sup>b</sup>) indicate significant differences, all  $ps < .050$ , for each variable across experimental conditions

**Fig. 1** Attribution of primary and secondary emotions to partners of each relationship agreement (experimental conditions). Error bars indicate standard errors



**Fig. 2** Attribution of characteristics to partners of each relationship agreement (experimental conditions). Error bars indicate standard errors



open, all  $ps < .001$ , or polyamorous partners, all  $ps < .003$ . No differences in either characteristic emerged for these latter groups, all  $ps > .296$  (see Fig. 2).

### Mechanisms Driving the Dehumanization of CNM Partners

We hypothesized that dehumanization occurs because of the negative halo surrounding CNM (H3). For sake of statistical parsimony in the mediational analysis, we categorized

our data. First, we computed an index of dehumanization by subtracting secondary from primary emotion scores, such that higher scores indicated the attribution of more primary emotions. A 3 (Relationship Agreement: Monogamous vs. Open vs. Polyamorous) ANOVA showed a main effect in the dehumanization index,  $F(2, 199) = 18.58$ ,  $p < .001$ ,  $\eta_p^2 = .157$ . Pairwise comparisons with Bonferroni correction (see Table 1) showed that monogamous partners received lower scores on this index when compared to open,  $p < .001$ , and polyamorous partners,  $p < .001$ . Again,

no significant differences emerged between these latter groups,  $p = 1.00$ . Based on the lack of differences between open and polyamorous in this index or the attribution of characteristics (see above), we collapsed both experimental conditions into a CNM relationship agreement.

To test our hypothesis, we computed a mediation model using PROCESS (Model 4; Hayes, 2017) with 10,000 bootstrap samples. Relationship agreement (0 = monogamous; 1 = CNM) was the independent variable, attributions of promiscuity (M1), morality (M2), sexual satisfaction (M3) and commitment (M4) were parallel mediators, and the index of dehumanization was the dependent variable (Y). Results are depicted in Fig. 3.

As expected, CNM partners were perceived as more promiscuous,  $p < .001$ , less moral,  $p < .001$ , less sexually satisfied,  $p < .001$ , and less committed,  $p < .001$ . However, only less morality,  $p = .010$  (indirect effect:  $b = 0.11$ ,  $SE = .05$ , 95% CI [0.019, 0.209]), and lower commitment,  $p = .004$  (indirect effect:  $b = 0.20$ ,  $SE = .07$ , 95% CI [0.055, 0.347]) were significantly associated with the attribution of more primary emotions to CNM partners. Despite these mediators, the direct effect of relationship agreement on the index of dehumanization was significant,  $p = .026$ .

### Boundary Condition for Dehumanization

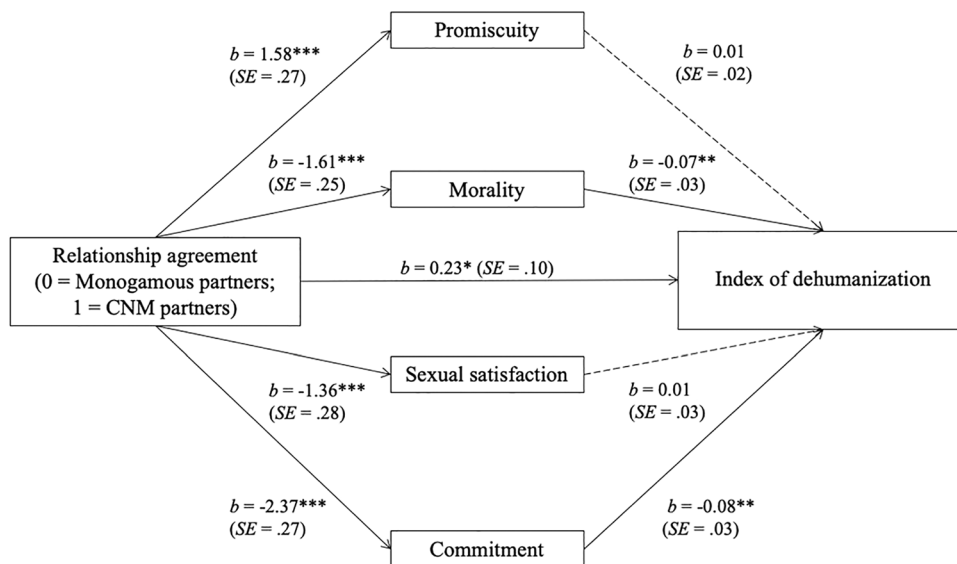
To examine whether there were a priori differences in the attitudes toward CNM partners, we conducted a 3 (Relationship Agreement: Monogamous vs. Open vs. Polyamorous) one-way ANOVA. Results showed no differences,  $F < 1$  (see Table 1).

To test our hypothesis that positive CNM attitudes buffered dehumanization of CNM partners (H3), we computed a moderated mediation model using PROCESS (Model 58; Hayes, 2017) with 10,000 bootstrap samples. Based on the findings from our previous analysis, relationship agreement (0 = monogamous; 1 = CNM) was the independent variable, perceived morality (M1) and commitment (M2) were the parallel mediators, and the index of dehumanization was the dependent variable (Y). Attitudes toward CNM relationships was the moderator variable (W). Variables were centered prior to the analysis. Results are summarized in Table 2.

Results showed that CNM partners were perceived as less moral,  $p < .001$ , and less committed,  $p < .001$ , than monogamous partners. There were significant interactions between relationship agreement and CNM attitudes for both mediators, both  $p < .002$ . Simple slope analyses revealed that the associations were stronger for people with unfavorable CNM attitudes ( $-1$  SD), both  $ps < .001$ , albeit significant for those with favorable CNM attitudes ( $+1$  SD), both  $ps < .011$ . Moreover, attributions of less morality and lower commitment to CNM partners were significantly associated with the attribution of more primary emotions, both  $ps < .017$ . No interactions with CNM attitudes were found, both  $ps > .344$ .

Examining the indirect effects, and as expected, CNM partners were dehumanized because they were perceived as less moral and less committed, but only by participants with unfavorable CNM attitudes ( $-1$  SD; indirect effect of morality:  $b = 0.17$ ,  $SE = .09$ , 95% CI [0.014, 0.366]; indirect effect of commitment:  $b = 0.29$ ,  $SE = .10$ , 95% CI [0.096, 0.490]). In contrast, no significant results emerged for participants with favorable CNM attitudes ( $+1$  SD; indirect effect of morality:

**Fig. 3** Mechanism underlying the dehumanization of CNM partners



Note. Index of dehumanization = primary - secondary emotions. CNM = consensual non-monogamous.  
\*  $p \leq .050$ . \*\*  $p \leq .010$ . \*\*\*  $p \leq .001$ .

**Table 2** Results for the moderated mediation model

|                            | (Model 58) |           | Morality (M1) |           | Commitment (M2) |           | Index of dehumanization (Y) |           |
|----------------------------|------------|-----------|---------------|-----------|-----------------|-----------|-----------------------------|-----------|
|                            | <i>b</i>   | <i>SE</i> | <i>b</i>      | <i>SE</i> | <i>b</i>        | <i>SE</i> | <i>b</i>                    | <i>SE</i> |
| Relationship agreement (X) | −1.57***   | .23       | −2.29***      | .24       | 0.24*           | .10       |                             |           |
| CNM attitudes (W)          | 0.26***    | .06       | 0.41***       | .06       | −0.02           | .02       |                             |           |
| X × W                      | 0.38**     | .12       | 0.48***       | .12       | −               | −         |                             |           |
| Unfavorable CNM attitudes  | −2.31***   | .34       | −3.23***      | .35       | −               | −         |                             |           |
| Favorable CNM attitudes    | −0.83*     | .32       | −1.34***      | .33       | −               | −         |                             |           |
| M1                         | −          | −         | −             | −         | −0.06*          | .03       |                             |           |
| M1 × W                     | −          | −         | −             | −         | 0.01            | .01       |                             |           |
| M2                         | −          | −         | −             | −         | −0.07*          | .03       |                             |           |
| M2 × W                     | −          | −         | −             | −         | 0.01            | .01       |                             |           |

Relationship agreement: 0 = monogamous partners, 1 = consensual non-monogamous (CNM) partners

\* $p \leq .050$ , \*\* $p \leq .010$ , \*\*\* $p \leq .001$

$b = 0.04$ ,  $SE = .03$ , 95% CI [−0.008, 0.115]; indirect effect of commitment:  $b = 0.06$ ,  $SE = .06$ , 95% CI [−0.050, 0.180]). Still, the direct effect of relationship agreement on the index of dehumanization was significant,  $p = .016$ .

## Discussion

We elaborated on the limitations identified by Rodrigues et al. (2018) and replicated their findings by showing that people dehumanize CNM partners. Indeed, our results showed that people attributed more secondary (vs. primary) emotions to monogamous partners, and in contrast attributed more primary (vs. secondary) emotions to open and polyamorous partners. We also extended the original findings by showing that the overall dehumanization effect was independent of the relationship agreement. This finding converges with past research showing the stigmatization of non-monogamy as a romantic relationship configuration and the partners engaged in it (Conley et al., 2013a; Moors et al., 2013), and extends past evidence on the dehumanization of others based on gender or sexuality (e.g., Fasoli, Paladino, Carnaghi, Jetten, Bastian, & Bain, 2016; MacInnis & Hodson, 2012; Morris et al., 2018). Given that dehumanization and stigmatization are associated with psychological and physical violence toward other groups and/or people (e.g., Dover, 2016; Kteily et al., 2015; Tipler & Ruscher, 2019; Viki et al., 2013), our findings also highlight that CNM partners, be it on open or polyamorous relationships, are at risk of being targets of violence.

A more detailed examination to the attribution of each emotion separately revealed subtle differences worth noticing. We found the expected pattern in the attribution of secondary emotions when comparing relationship agreements, such that monogamous partners were attributed more secondary emotions. For primary emotions, however, that was only the case of monogamous and open partners, such that open

partners were attributed more primary emotions. Instead, no differences emerged between monogamous and polyamorous partners in the attribution of primary emotions, thus suggesting a distancing of polyamorous (vs. open) partners from non-human animals. However, at the same time, the attribution of less secondary emotions to polyamorous (vs. monogamous) partners also suggests a distancing from human uniqueness. Hence, there seems to be a duality in the way people understand polyamory as a relationship agreement, and the dynamics of polyamorous partners. Indeed, Séguin et al. (2017) showed that people perceive polyamory as beneficial and acceptable, but also as perverse, amoral and unappealing. Interestingly, this dual perception seems to be reflected in the actual experiences polyamorous partners have in their relationships. For example, Balzarini et al. (2017) examined the perceptions of polyamorous partners about their primary and secondary relationships, and found that they experienced greater relationship quality with their primary partner (i.e., more secondary emotions) but at the same time spent more time in sexual activity with their secondary partner (i.e., more primary emotions). Our results also resonate with studies showing that open and polyamorous relationships are stigmatized differently (Balzarini et al., 2018; Grunt-Mejer & Campbell, 2016; Matsick et al., 2014). Based on our findings, we speculate that people differentiate between open and polyamorous but only in certain attributes. For example, open relationships may resemble to infidelity and be perceived as driven by a lack of sexual satisfaction with the primary partner. In contrast, polyamory may be perceived as less prototypical of a romantic relationship and thus people indicate greater social distance, but at the same time acknowledge that these partners are more able to express emotion because they have multiple romantic partners. Future studies should seek to understand in greater detail how, why and under which conditions people stigmatize open and polyamorous partners,

and the actual implications of such stigmatization for the psychological and physical well-being of CNM partners.

In our study, CNM partners were perceived to be more promiscuous, less moral, less sexually satisfied, and less committed to their romantic relationship, when compared to monogamous partners. Notably, open and polyamorous partners were stigmatized to a similar extent in these characteristics, despite any difference in the attribution of primary and secondary emotions. These findings align with the typical negative halo surrounding CNM relationships and the people engaged in it (Balzarini et al., 2018; Grunt-Mejer & Campbell, 2016; Moors et al., 2013). Moreover, we showed for the first time that CNM partners were dehumanized because they were perceived as less moral, and less romantically committed to their relationship. The former finding is in line with past research showing that perceptions of morality are an important mechanism underlying the dehumanization of different groups such as criminal offenders (Bastian, Denson, & Haslam, 2013), political outgroups (Pacilli, Rocco, Pagliaro, & Russo, 2016), and partners who decide on abortion (Pacilli, Giovannelli, Spaccatini, Vaes, & Barbaranelli, 2018). Interestingly, the importance of morality is not only restricted to the dehumanization of others. For example, Kouchaki, Dobson, Waytz, and Kteily (2018) showed that people felt less human after they engaged in immoral behaviors. Hence, not only do people dehumanize others based on the perception of morality, they also dehumanize themselves based on the same principle.

To the best of our knowledge, the finding for romantic commitment is novel in the literature. Apart from research showing that CNM partners are perceived as unable to experience secondary emotions (Rodrigues et al., 2018), and to have more relationship problems (e.g., Conley et al., 2013a; Grunt-Mejer & Campbell, 2016), no research has examined dehumanization in interpersonal relationships and the role of commitment in such phenomenon. Arguably, this stems from the fact that research on dehumanization is particularly focused on social groups rather than close dyadic relationships. Nonetheless, our results converge with those from studies on interpersonal objectification. Loughnan et al. (2010) found that objectified others were perceived as having lower cognitive abilities and overall more depersonalized. Arguably, these findings show that objectified others are also dehumanized. In a dyadic relationship context, research also showed that the objectification of the romantic partner is associated with less relationship quality (Strelan & Pagoudis, 2018; Zurbriggen, Ramsey, & Jaworski, 2011). Following these results, it comes as no surprise that romantic commitment—a component of relationship quality—is one of the mechanisms underlying the objectification of romantic relationships that depart from monogamy.

Although CNM partners were perceived more negatively in all characteristics, perceiving them as more promiscuous

and less sexually satisfied with their primary partner did not emerge as significant mediators of dehumanization. One possible explanation for this finding is an overlap with commitment. For example, extradyadic sex is perceived as a consequence of relationship problems (Rubel & Bogaert, 2015; Shaw, Rhoades, Allen, Stanley, & Markman, 2013). Hence, people who perceive others as more committed should also perceive them as less likely to have extradyadic behaviors and to be more sexually satisfied in their relationship. Another possible explanation is that CNM partners are dehumanized mostly because they violate fundamental aspects of romantic relationships—commitment as the experience of interdependence and psychological attachment to the partner—and not because they are more likely to have sex with other people. Indeed, commitment is consistently identified as one of the most important aspects for relationships to thrive (for a review, see Rusbult, Agnew, & Arriaga, 2012), and as long as people are committed to their relationship, they are also more likely to activate pro-relationship mechanisms such as forgiveness (Finkel, Rusbult, Kumashiro, & Hannon, 2002), derogation of attractive alternatives (Rodrigues, Lopes, & Kumashiro, 2017a), or accommodation (Rodrigues, Huic, Lopes, & Kumashiro, 2019a).

Lastly, our findings were moderated by CNM attitudes. Overall, participants reported fairly negative attitudes toward CNM relationships, regardless of their experimental group. Nonetheless, our findings also showed that perceived morality and commitment explained dehumanization, but only for individuals with unfavorable CNM attitudes. These findings align with research on discrimination (Ajzen & Cote, 2008; Paluck et al., 2019; Pettigrew & Tropp, 2006), and with research on CNM relationships (Balzarini et al., 2018; Hutzler et al., 2016), by showing that dehumanization was buffered by having favorable attitudes toward non-normative relationships.

We must acknowledge some limitations in this study. We defined open partners as two highly committed people that were not sexually exclusive and consensually agreed on having extradyadic sexual encounters. Based on this definition, there is a possibility that some of our participants thought of an open relationship, whereas others thought of a swinging relationship. Indeed, the former is typically defined as partners that allow each other to have extradyadic sex, and the latter as partners that engage in extradyadic sex typically in a specific social setting (Rubel & Bogaert, 2015). Research showed that CNM relationships share certain attributes and differ in others. For example, Matsick et al. (2014) showed that open and swinging relationships are equally perceived as less moral than polyamorous relationships. The authors also showed that open and polyamorous relationships are equally perceived as more responsible than swinging relationships, and that partners in all CNM relationships are perceived as equally unhappy. Hence, the lack of differences between



open and polyamorous partners in our study may have been a result of a lack of clarity in defining the open partners group. Another limitation relates to our mediation analysis. First, the association between the dependent and mediator variables was correlational (Pirlott & MacKinnon, 2016) and causality should be interpreted with caution. Second, the direct effect of emotion attribution remained significant even after including the mediators in the analysis, indicating there are likely other mechanisms operating on the dehumanization of CNM partners. For example, one such mechanism could be perceived faithfulness between CNM partners. Arguably, this might be more central to dehumanization than perceptions of promiscuity, especially given that 97–99% of Europeans believe that faithfulness is important for successful partnerships (EVS, 2011), and dehumanization occurs when targets are not perceived as sharing normative values (Schwartz & Struch, 1989). Another possible mechanism is the perception that CNM relationships are more exposed to sexually transmitted infections. Indeed, research shows that monogamy is equated with protection against these infections and is even advocated as a preventive technique (Conley, Matisick, Moors, Ziegler, & Rubin, 2015). Moreover, Balzarini et al. (2018) found that the perceived likelihood of having an infection was predictive of greater social distance toward open and polyamorous relationships, whereas perceptions of promiscuity were not.

Future studies should extend our results and investigate other forms of dehumanization, namely whether the dehumanization of CNM partners assumes both its “mechanistic” and “animalistic” form (for a distinction, see Haslam & Loughnan, 2014). To the extent that MacInnis and Hodson (2012) found an association between religious fundamentalism and discrimination against asexual people, future studies should also seek to examine whether religious beliefs (e.g., Catholics vs Buddhists) or religious fundamentalism are associated with the dehumanization of CNM partners. Further, future studies should seek to disentangle whether people in CNM relationships are dehumanized because they are perceived as less able to sustain any type of committed relationship (e.g., friendships, cooperative relationships), or if this mechanism is specific to romantic relationships. Lastly, future studies should disentangle if dehumanization occurs because people have an animalistic view about CNM partner, or rather have a simplistic view about them. One possibility is to examine denial of mind, a unique form of dehumanization (Waytz, Gray, Epley, & Wegner, 2010). To the extent that members of certain sexual outgroups (i.e., people with AIDS, gay men) are perceived as less human by denial of mind (Monroe & Plant, 2019), a similar effect could be generalized to CNM partners.

## Conclusion

This study replicated the finding that CNM partners compared to monogamous partners are dehumanized. This stigmatization was observed by the attribution of more primary (vs. secondary) emotions. The study further extended our understanding of why partners in CNM relationships are stigmatized. We found a negative halo effect surrounding CNM partners, which were perceived as more promiscuous, less moral, less sexually satisfied, and less committed. However, only perceptions of morality and relationship commitment emerged as the mechanisms underlying this dehumanization. At the same time, we showed that having favorable attitudes toward CNM relationships buffers the dehumanization of these partners. This finding is particularly important given the link between dehumanization and potential violence against dehumanized groups.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures involving human participants were performed in accordance with the ethical guidelines of Iscte-Instituto Universitário de Lisboa.

**Informed Consent** Electronic, informed consent was obtained from all participants prior to their participation in the study.

## References

- Ajzen, I., & Cote, N. G. (2008). Attitudes and the prediction of behavior. In W. D. Crano & R. Prislin (Eds.), *Frontiers of social psychology. Attitudes and attitude change* (pp. 289–311). East Sussex, England: Psychology Press.
- Balzarini, R. N., Campbell, L., Kohut, T., Holmes, B. M., Lehmilller, J. J., Harman, J. J., & Atkins, N. (2017). Perceptions of primary and secondary relationships in polyamory. *PLoS ONE*, *12*(5), e0177841. <https://doi.org/10.1371/journal.pone.0177841>.
- Balzarini, R. N., Dharma, C., Kohut, T., Campbell, L., Lehmilller, J. J., Harman, J. J., & Holmes, B. M. (2019). Comparing relationship quality across different types of romantic partners in polyamorous and monogamous relationships. *Archives of Sexual Behavior*, *48*(6), 1749–1767. <https://doi.org/10.1007/s10508-019-1416-7>.
- Balzarini, R. N., Shumlich, E. J., Kohut, T., & Campbell, L. (2018). Dimming the “halo” around monogamy: Re-assessing stigma surrounding consensually non-monogamous romantic relationships as a function of personal relationship orientation. *Frontiers in Psychology*, *9*, 894. <https://doi.org/10.3389/fpsyg.2018.00894>.
- Bastian, B., Denson, T. F., & Haslam, N. (2013). The roles of dehumanization and moral outrage in retributive justice. *PLoS ONE*, *8*(4), e61842. <https://doi.org/10.1371/journal.pone.0061842>.
- Bastian, B., & Haslam, N. (2010). Excluded from humanity: The dehumanizing effects of social ostracism. *Journal of Experimental Social Psychology*, *46*(1), 107–113. <https://doi.org/10.1016/j.jesp.2009.06.022>.

- Brandt, M., & Reyna, C. (2011). The chain of being: A hierarchy of morality. *Perspectives on Psychological Science*, 6(5), 428–446. <https://doi.org/10.1177/1745691611414587>.
- Burris, C. (2014). Torn between two lovers? Lay perceptions of polyamorous individuals. *Psychology & Sexuality*, 5(3), 258–267. <https://doi.org/10.1080/19419899.2013.779311>.
- Castano, E., & Giner-Sorolla, R. (2006). Not quite human: Infrahumanization in response to collective responsibility for intergroup killing. *Journal of Personality and Social Psychology*, 90(5), 804–818. <https://doi.org/10.1037/0022-3514.90.5.804>.
- Conley, T. D., Matsick, J. L., Moors, A. C., & Ziegler, A. (2017). Investigation of consensually nonmonogamous relationships: Theories, methods, and new directions. *Perspectives on Psychological Science*, 12(2), 205–232. <https://doi.org/10.1177/1745691616667925>.
- Conley, T. D., Matsick, J. L., Moors, A. C., Ziegler, A., & Rubin, J. D. (2015). Re-examining the effectiveness of monogamy as an STI-preventive strategy. *Preventive Medicine*, 78, 23–28. <https://doi.org/10.1016/j.ypmed.2015.06.006>.
- Conley, T. D., Moors, A., Matsick, J., & Ziegler, A. (2013a). The fewer the merrier?: Assessing stigma surrounding consensually non-monogamous romantic relationships. *Analyses of Social Issues and Public Policy*, 13(1), 1–30. <https://doi.org/10.1111/j.1530-2415.2012.01286.x>.
- Conley, T. D., Piemonte, J. L., Gusakova, S., & Rubin, J. D. (2018). Sexual satisfaction among individuals in monogamous and consensually non-monogamous relationships. *Journal of Social and Personal Relationships*, 35(4), 509–531. <https://doi.org/10.1177/0265407517743078>.
- Conley, T. D., Ziegler, A., Moors, A., Matsick, J., & Valentine, B. (2013b). A critical examination of popular assumptions about the benefits and outcomes of monogamous relationships. *Personality and Social Psychology Review*, 17, 124–141. <https://doi.org/10.1177/1088868312467087>.
- Demoulin, S., Leyens, J.-P., Paladino, M.-P., Rodriguez-Torres, R., Rodriguez-Perez, A., & Dovidio, J. (2004). Dimensions of “uniquely” and “non-uniquely” human emotions. *Cognition and Emotion*, 18, 71–96. <https://doi.org/10.1080/02699930244000444>.
- Dover, M. A. (2016). The moment of microaggression: The experience of acts of oppression, dehumanization, and exploitation. *Journal of Human Behavior in the Social Environment*, 26(7–8), 575–586. <https://doi.org/10.1080/10911359.2016.1237920>.
- Ekman, P. (1992). An argument for basic emotions. *Cognition & Emotion*, 6, 169–200. <https://doi.org/10.1080/02699939208411068>.
- EVS. (2011). *European values study 2008: Integrated dataset (EVS 2008)*. GESIS Data Archive, Cologne. ZA4800 Data file version 3.0.0. <https://doi.org/10.4232/1.11004>.
- Fasoli, F., Paladino, M. P., Carnaghi, A., Jetten, J., Bastian, B., & Bain, P. G. (2016). Not “just words”: Exposure to homophobic epithets leads to dehumanizing and physical distancing from gay men. *European Journal of Social Psychology*, 46, 237–248. <https://doi.org/10.1002/ejsp.2148>.
- Finkel, E., Rusbult, C., Kumashiro, M., & Hannon, P. (2002). Dealing with betrayal in close relationships: Does commitment promote forgiveness? *Journal of Personality and Social Psychology*, 82(6), 956–974. <https://doi.org/10.1037/0022-3514.82.6.956>.
- Grunt-Mejer, K., & Campbell, C. (2016). Around consensual nonmonogamies: Assessing attitudes toward nonexclusive relationships. *Journal of Sex Research*, 53(1), 45–53. <https://doi.org/10.1080/00224499.2015.1010193>.
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, 10(3), 252–264. [https://doi.org/10.1207/s15327957pspr1003\\_4](https://doi.org/10.1207/s15327957pspr1003_4).
- Haslam, N., Bastian, B., Laham, S., & Loughnan, S. (2012). Humanity, dehumanization, and moral psychology. In M. Mikulincer & P. Shaver (Eds.), *The social psychology of good and evil* (pp. 203–218). St. Paul, MN: APA Press.
- Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual Review of Psychology*, 65, 399–423. <https://doi.org/10.1146/annurev-psych-010213-115045>.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). New York: Guilford Press.
- Hutzler, K., Giuliano, T., Herselman, J., & Johnson, S. (2016). Three’s a crowd: Public awareness and (mis)perceptions of polyamory. *Psychology & Sexuality*, 7(2), 69–87. <https://doi.org/10.1080/19419899.2015.1004102>.
- Kouchaki, M., Dobson, K. S. H., Waytz, A., & Kteily, N. S. (2018). The link between self-dehumanization and immoral behavior. *Psychological Science*, 29(8), 1234–1246. <https://doi.org/10.1177/0956797618760784>.
- Kteily, N., Bruneau, E., Waytz, A., & Cotterill, S. (2015). The ascent of man: Theoretical and empirical evidence for blatant dehumanization. *Journal of Personality and Social Psychology*, 109(5), 901–931. <https://doi.org/10.1037/pspp0000048>.
- LeDoux, J. E., & Brown R. (2017). A higher-order theory of emotional consciousness. *Proceedings of the National Academy of Sciences*, 114, E2016–E2025. <https://doi.org/10.1073/pnas.1619316114>.
- Levine, E. C., Herbenick, D., Martinez, O., Fu, T.-C., & Dodge, B. (2018). Open relationships, nonconsensual nonmonogamy, and monogamy among U.S. adults: Findings from the 2012 National Survey of Sexual Health and Behavior. *Archives of Sexual Behavior*, 47(5), 1439–1450. <https://doi.org/10.1007/s10508-018-1178-7>.
- Leyens, J.-P., Paladino, M. P., 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(2), 186–197. [https://doi.org/10.1207/s15327957PSPR0402\\_06](https://doi.org/10.1207/s15327957PSPR0402_06).
- Leyens, J.-P., Rodriguez-Perez, A., Rodriguez-Torres, R., Gaunt, R., Paladino, M.-P., Vaes, J., & Demoulin, S. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology*, 31(4), 395–411. <https://doi.org/10.1002/ejsp.50>.
- Loughnan, S., Haslam, N., Murnane, T., Vaes, J., Reynolds, C., & Suitner, C. (2010). Objectification leads to depersonalization: The denial of mind and moral concern to objectified others. *European Journal of Social Psychology*, 40(5), 709–717. <https://doi.org/10.1002/ejsp.755>.
- MacInnis, C., & Hodson, G. (2012). Intergroup bias toward “Group X”: Evidence of prejudice, dehumanization, avoidance, and discrimination against asexuals. *Group Processes & Intergroup Relations*, 15(6), 725–743. <https://doi.org/10.1177/1368430212442419>.
- Martínez, R., Rodríguez-Bailón, R., Moya, M., & Vaes, J. (2017). Interacting with dehumanized others? Only if they are objectified. *Group Processes & Intergroup Relations*, 20(4), 465–482. <https://doi.org/10.1177/1368430215612219>.
- Matsick, J., Conley, T., Ziegler, A., Moors, A., & Rubin, J. (2014). Love and sex: Polyamorous relationships are perceived more favourably than swinging and open relationships. *Psychology & Sexuality*, 5, 339–348. <https://doi.org/10.1080/19419899.2013.832934>.
- Mogilski, J., Memering, S., Welling, L., & Shackelford, T. (2017). Monogamy versus consensual non-monogamy: Alternative approaches to pursuing a strategically pluralistic mating strategy. *Archives of Sexual Behavior*, 46(2), 407–417. <https://doi.org/10.1007/s10508-015-0658-2>.
- Monroe, A. E., & Plant, E. A. (2019). The dark side of morality: Prioritizing sanctity over care motivates denial of mind and prejudice toward sexual outgroups. *Journal of Experimental Psychology: General*, 148(2), 342–360. <https://doi.org/10.1037/xge0000537>.
- Moors, A. C., Matsick, J. L., & Schechinger, H. A. (2017). Unique and shared relationship benefits of consensually non-monogamous and monogamous relationships. *European Psychologist*, 22(1), 55–71. <https://doi.org/10.1027/1016-9040/a000278>.

- Moors, A. C., Matsick, J., Ziegler, A., Rubin, J., & Conley, T. (2013). Stigma toward individuals engaged in consensual nonmonogamy: Robust and worthy of additional research. *Analyses of Social Issues and Public Policy*, 13(1), 52–69. <https://doi.org/10.1111/asap.12020>.
- Morris, K. L., Goldenberg, J., & Boyd, P. (2018). Women as animals, women as objects: Evidence for two forms of objectification. *Personality and Social Psychology Bulletin*, 44, 1302–1314. <https://doi.org/10.1177/0146167218765739>.
- Pacilli, M. G., Giovannelli, I., Spaccatini, F., Vaes, J., & Barbaranelli, C. (2018). Elective abortion predicts the dehumanization of women and men through the mediation of moral outrage. *Social Psychology*, 49(5), 287–302. <https://doi.org/10.1027/1864-9335/a000351>.
- Pacilli, M. G., Roccato, M., Pagliaro, S., & Russo, S. (2016). From political opponents to enemies? The role of perceived moral distance in the animalistic dehumanization of the political outgroup. *Group Processes & Intergroup Relations*, 19(3), 360–373. <https://doi.org/10.1177/1368430215590490>.
- Paluck, E. L., Green, S. A., & Green, D. P. (2019). The contact hypothesis re-evaluated. *Behavioural Public Policy*, 3(2), 129–158. <https://doi.org/10.1017/bpp.2018.25>.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751–783. <https://doi.org/10.1037/0022-3514.90.5.751>.
- Pirlott, A. G., & MacKinnon, D. P. (2016). Design approaches to experimental mediation. *Journal of Experimental Social Psychology*, 66, 29–38. <https://doi.org/10.1016/j.jesp.2015.09.012>.
- Rodrigues, D. L., Fasoli, F., Huic, A., & Lopes, D. (2018). Which partners are more human? Monogamy matters more than sexual orientation for dehumanization in three European countries. *Sexuality Research and Social Policy*, 15(4), 504–515. <https://doi.org/10.1007/s13178-017-0290-0>.
- Rodrigues, D. L., Huic, A., Lopes, D., & Kumashiro, M. (2019a). Regulatory focus in relationships and conflict resolution strategies. *Personality and Individual Differences*, 142, 116–121. <https://doi.org/10.1016/j.paid.2019.01.041>.
- Rodrigues, D. L., Lopes, D., & Kumashiro, M. (2017a). The “I” in us, or the eye on us? Regulatory focus, commitment and derogation of an attractive alternative person. *PLoS ONE*, 12(3), e0174350. <https://doi.org/10.1371/journal.pone.0174350>.
- Rodrigues, D. L., Lopes, D., & Pereira, M. (2016). “We agree and now everything goes my way”: Consensual sexual nonmonogamy, extradyadic sex, and relationship satisfaction. *Cyberpsychology, Behavior, and Social Networking*, 19(6), 373–379. <https://doi.org/10.1089/cyber.2016.0114>.
- Rodrigues, D. L., Lopes, D., Pereira, M., de Visser, R., & Cabaceira, I. (2019b). Sociosexual attitudes and quality of life in (non) monogamous relationships: The role of attraction and constraining forces among users of the Second Love web site. *Archives of Sexual Behavior*, 48(6), 1795–1809. <https://doi.org/10.1007/s10508-018-1272-x>.
- Rodrigues, D. L., Lopes, D., & Smith, C. V. (2017b). Caught in a “bad romance”? Reconsidering the negative association between sociosexuality and relationship functioning. *Journal of Sex Research*, 54(9), 1118–1127. <https://doi.org/10.1080/00224499.2016.1252308>.
- Rubel, A., & Bogaert, A. (2015). Consensual nonmonogamy: Psychological well-being and relationship quality correlates. *Journal of Sex Research*, 52(9), 961–982. <https://doi.org/10.1080/00224499.2014.942722>.
- Rusbult, C., Agnew, C., & Arriaga, X. (2012). The investment model of commitment processes. In P. Van Lange, A. Kruglanski, & E. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 2, pp. 218–232). Thousand Oaks, CA: Sage.
- Schwartz, S., & Struch, N. (1989). Values, stereotypes, and inter-group antagonism. In D. Bar-Tal, C. Grauman, A. Kruglanski, & W. Stroebe (Eds.), *Stereotypes and prejudice: Changing conceptions* (pp. 151–167). Berlin: Springer.
- Séguin, L. J., Blais, M., Goyer, M.-F., Adam, B. D., Lavoie, F., Rodrigue, C., & Magontier, C. (2017). Examining relationship quality across three types of relationship agreements. *Sexualities*, 20(1–2), 86–104. <https://doi.org/10.1177/1363460716649337>.
- Shaw, A. M. M., Rhoades, G. K., Allen, E. S., Stanley, S. M., & Markman, H. J. (2013). Predictors of extradyadic sexual involvement in unmarried opposite-sex relationships. *The Journal of Sex Research*, 50(6), 598–610. <https://doi.org/10.1080/00224499.2012.666816>.
- Strelan, P., & Pagoudis, S. (2018). Birds of a feather flock together: The interpersonal process of objectification within intimate heterosexual relationships. *Sex Roles*, 79(1–2), 72–82. <https://doi.org/10.1007/s11199-017-0851-y>.
- Tipler, C. N., & Ruscher, J. B. (2019). Dehumanizing representations of women: The shaping of hostile sexist attitudes through animalistic metaphors. *Journal of Gender Studies*, 28(1), 109–118. <https://doi.org/10.1080/09589236.2017.1411790>.
- Vaes, J., Leyens, J.-P., Paladino, M. P., & Miranda, M. P. (2012). We are human, they are not: Driving forces behind outgroup dehumanisation and the humanisation of the ingroup. *European Review of Social Psychology*, 23(1), 64–106. <https://doi.org/10.1080/10463283.2012.665250>.
- 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. <https://doi.org/10.1016/j.jesp.2012.11.006>.
- Waytz, A., Gray, K., Epley, N., & Wegner, D. M. (2010). Causes and consequences of mind perception. *Trends in Cognitive Sciences*, 14(8), 383–388. <https://doi.org/10.1016/j.tics.2010.05.006>.
- Zurbriggen, E. L., Ramsey, L. R., & Jaworski, B. K. (2011). Self- and partner-objectification in romantic relationships: Associations with media consumption and relationship satisfaction. *Sex Roles*, 64(7–8), 449–462. <https://doi.org/10.1007/s11199-011-9933-4>.

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