

Early Childhood Antecedents of Dehumanization Perpetration in Adult Romantic Relationships

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Abstract

Data from the Minnesota Longitudinal Study of Risk and Adaptation (MLSRA) were utilized to provide the first investigation into the early childhood antecedents of dehumanization (i.e., treating another as less than human) in adult romantic relationships. Drawing on a sample of 109 MLSRA participants, multiple assessments of maternal care and empathy were collected during infancy and early childhood. In adulthood, MLSRA participants and their romantic partners engaged in video recorded conflict discussions in which dehumanization perpetration was coded. Maternal hostility was a significant and unique predictor of dehumanization perpetration. This longitudinal association remained even when controlling for the partner's displays of dehumanization and several demographic covariates. This study provides the first evidence of early childhood antecedents of dehumanization and highlights how experiences during the first few years of life can have enduring downstream consequences for people's romantic relationships 20–30 years later.

Keywords

dehumanization, social learning theory, romantic relationships, maternal care, maltreatment

Dehumanization refers to the perception or treatment of another person as lacking qualities considered to be uniquely or essentially human (Haslam, 2006). Dehumanization has been studied in relation to a diverse range of contexts and phenomena. These include prejudice, racism, and power (Kahn et al., 2015); medical settings (Haque & Waytz, 2012); organizational settings (Andrighetto et al., 2017; Christoff, 2014); emotional domains (Buckels & Trapnell, 2013); and areas such as technology (Ferrari et al., 2016), economics (Harris et al., 2014), and language (Fasoli et al., 2016). Traditionally, dehumanization has been studied within the intergroup context, being viewed as an extreme phenomenon observed during moral atrocities or intense conflicts (e.g., Apartheid in South Africa, the Gaza–Israel conflict; Haslam, 2006). More recently, dehumanization has been acknowledged to also occur in everyday social interactions within close relationships (Adams, 2014; Bastian & Haslam, 2011; Pizzirani & Karantzas, 2019; Pizzirani, Karantzas & Mullins, 2019). Indeed, denying human attributes to other people and likening them to nonhumans can take the form of subtle, everyday acts that may occur in the absence of conflict and negative evaluations of others (e.g., Leyens et al., 2000, 2001, 2003; Loughnan & Haslam, 2007). For example, people attribute fewer uniquely human emotions to out-groups than to their in-group (Leyens et al., 2001, 2003).

Furthermore, research suggests that dehumanization experienced within interpersonal contexts is often perpetrated by

people from the target's social network, such as family and friends and coworkers (Adams, 2014). Emerging research has also confirmed that dehumanization occurs in romantic relationships (Pizzirani et al., 2019) and that the enactment of dehumanization is associated with the perpetration of interpersonal abuse over time (Pizzirani & Karantzas, 2019). These findings suggest that understanding the role dehumanization plays in intimate partner abuse may be important in helping to end cycles of conflict and violence within close relationships. Thus, our romantic relationships are interpersonal contexts in which dehumanization can and does take place, frequently at the hands of those to whom we typically turn for love, comfort, and security (Gillath et al., 2016). This raises an important question: What specific dehumanization behaviors are likely to be enacted within interpersonal contexts such as romantic relationships? Below, we unpack the different aspects

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of dehumanization, conceptualizing the phenomenon as a global construct that encompasses a variety of behaviors that may occur within close relationships.

Early Life Predictors of Dehumanization in Adult Romantic Relationships

According to Haslam (2006), even though the denial of humanness is considered a unitary concept, there are two related but distinct forms of dehumanization—the denial of human uniqueness and the denial of human nature. The denial of human uniqueness refers to the denial of characteristics that are thought to distinguish humans from animals, such as intelligence, self-control, civility, competency, social refinement, and maturity. When denied uniquely human attributes, people are likened to animals and seen as unintelligent, socially unrefined, primitive, irrational, or childlike (Haslam, 2006; Haslam et al., 2013). The denial of human nature refers to the denial of characteristics understood as features that are central to, or typical of, humans but not of mechanistic objects (Haslam, 2006). Such attributes include the ability to experience and express emotions, cognitive flexibility, and interpersonal warmth. When denied these attributes of human nature, people are likened to objects, machines, or automata and viewed as cold and heartless, rigid (i.e., preprogrammed), or valued only for the functions or purposes they can fulfill (Haslam, 2006; Haslam et al., 2013).

From an interpersonal perspective, dehumanization represents an omnibus construct that entails a wide variety of largely negative behaviors that are often researched and assessed in and of themselves. For example, Gottman (1999) proposed that contempt involves elevating one's self above another person and communicates an element of disgust that is intended to demonstrate disapproval of another. With contempt, the perpetrator has treated the target as inferior and less than humanand in doing so—has communicated to the target that they are flawed or debased. Conditional regard (being used or objectified or treated as a means to an end; Leary et al., 1998) has clear associations with the denial of human nature (being treated as an object or instrument). Thus, as with contempt and humiliation, conditional regard reflects a component or aspect of interpersonal dehumanization, and regardless of whether the perpetrator perceives the target to be less than human, in these instances, they have treated them as less than human. Indeed, in a recent psychometric paper that tested multiple conceptualizations of interpersonal dehumanization, the utility of conceptualizing dehumanizing as a higher order construct was demonstrated and shown to include behaviors in which the target is made to feel immature, emotionless, exploitable, and unrefined (Pizzirani et al., 2019). Specifically, being the target of dehumanization was moderately and positively associated with other negative relationship experiences including hostility, insensitivity, and ridicule and negatively associated with relationship quality.

To date, much of the research on what predicts dehumanization behavior has focused on individual differences in "dark"

traits (e.g., narcissism, psychopathy, Machiavellianism, and social dominance orientation; Bastian, 2019), diminished cognitive-affective empathy (Haslam et al., 2013; Waytz & Epley, 2012), or the degree to which people hold negative perceptions of others as being irrational, childish, or narrow-minded (Haslam, 2015). Drawing on social learning theory as it relates to aggression and other forms of maltreatment (Bandura, 1978, 1986), we suggest that the tendency to dehumanize within close adult relationships may be partly rooted in people's relationship histories in which they themselves have been subjected to, or witnessed, dehumanizing behavior. The negative interpersonal behaviors in which people engage, such as contempt, hostility, humiliation, and criticism, are reflective of dehumanization (Pizzirani & Karantzas, 2019) and most likely stem, at least in part, from social learning experiences encountered and observed earlier in life (Bevan & Higgins, 2002; Mihalic & Elliot, 1997; Stover, 2005). These formative experiences—through mechanisms that include the social learning of behavior (Bandura, 1978, 1986) and the intergenerational transmission of attachment patterns (Van IJzendoorn & Bakermans-Kranenburg, 2019; Verhage et al., 2018)—become internalized as part of people's social scripts and mental representations of adult relationships (Bowlby, 1973, 1980).

What early life experiences should predict the display of dehumanization behavior in adult romantic relationships? Given that an individual's most direct source of social learning early in life is their primary caregiver, variables related to the quality of the primary caregiving relationship are likely to be particularly important. Attachment research attests to the enduring legacy of the quality of the infant–caregiver bond in forecasting how individuals think, feel, and behave in their adult relationships many years later (e.g., Fraley & Roisman, 2019; Fraley et al., 2013). Indeed, child–caregiver relationships early in life that are characterized by greater hostility, neglect, and abuse tend to have negative downstream effects in the form of poorer romantic relationship functioning in adulthood (e.g., Labella et al., 2018).

In the current article, we investigate the interpersonal origins of dehumanization within adult romantic relationships by drawing on data from the Minnesota Longitudinal Study of Risk and Adaptation (MLSRA; Sroufe et al., 2005), a prospective investigation that spans from birth into middle adulthood. This extensive multimethod, multi-informant study provides a unique opportunity to trace the developmental origins of dehumanization behavior in adulthood in a sample that has been followed since birth. Of particular interest are infancy and early childhood variables contained in the MLRSA that index the quality of maternal care and peer-comparison ratings of empathy.

Maternal care was selected because it reflects a person's early life experiences with their primary caregiver—experiences that become internalized as mental representations of relationships (Bowlby, 1973, 1980) and can affect interactions with romantic partners later in life (Fraley & Roisman, 2019). We focused on two key features of maternal care—sensitivity (or lack thereof) and hostility.

Maternal sensitivity reflects a mother's ability to detect and accurately interpret her infant's signals and respond to them in a prompt, appropriate manner, thereby meeting the child's physical and socioemotional needs (Ainsworth et al., 1978). Low levels of maternal sensitivity are apparent in mothers who are unresponsive and may have little regard for their child's feelings and needs. From a dehumanization standpoint, being insensitive or discounting the feelings and needs of another person is analogous to denying that a person has the capacity to experience emotions and is more like a machine or robot than a human being (Pizzirani & Karantzas, 2019). Maternal hostility reflects a mother's expressions of anger and hostility toward her child, which can entail a lack of regard or the expression of rejection (Bosquet et al., 2016). From a dehumanization perspective, hostility conveys that a person is perceived or treated by another as if they are foolish, irrational, or flawed, which reflects the denial of human qualities such as intelligence and rationality (Pizzirani & Karantzas, 2019).

Empathy was also included because diminished empathy has been shown to predict dehumanization tendencies in prior cross-sectional studies (Haslam, 2015; Haslam et al., 2013; Waytz & Epley, 2012). According to Haslam (2015), "failure to empathize should be associated with a perception of the other that is shallow and emotionally impoverished, features of the mechanistic form of dehumanization" (p. 262). If, therefore, an individual lacks empathy, they may be more likely to view (and treat) another person as an object or machine.

Recent research on interpersonal dehumanization suggests that it can fluctuate over time (Pizzirani & Karantzas, 2019) and may be more pronounced in situations or interactions involving interpersonal conflict, such as trying to resolve an important issue with one's romantic partner. At different points beginning early in adulthood, MLSRA participants and their romantic partners engaged in the video-recorded Markman-Cox conflict (Cox, 1991) discussions in which they tried to resolve a major problem/issue in their relationship. We coded these discussions for evidence of overall dehumanization perpetration enacted by each partner. A benefit of Haslam's (2006) model is that it explicitly outlines aspects of dehumanization which are at times lost when defining the construct as unidimensional. From a practical standpoint, and when observing behavior, the Haslam conceptualization brings with it a precision and fidelity necessary to capture the full range of dehumanizing behaviors. However, recent research within interpersonal contexts has demonstrated that, empirically, the two dimensions are often highly correlated and it is thus appropriate to model the construct as a unidimensional score (Bastian et al., 2014; Pizzirani et al., 2019) as we have done in the current study. Based on our assumption that the perpetration of dehumanization in adult romantic relationships should be associated with specific early life experiences, we hypothesized that:

 MLSRA participants who received lower quality maternal care in early childhood (indexed by lower levels of maternal sensitivity and the presence of maternal hostility, based

- on observer ratings of mother-child interactions collected at multiple points during infancy and early childhood) would be more likely to enact dehumanization behaviors during conflict discussions with their adult romantic partners, and
- MLSRA participants who had lower levels of empathy during early childhood (based on ratings provided by participants' elementary school teachers) would be more likely to enact dehumanization behaviors during conflict discussions with their adult romantic partners.

Method

Participants

Participants were drawn from the MLRSA (Sroufe et al., 2005), an ongoing prospective, longitudinal investigation in which participants have been continuously studied from infancy into their early 40s. The original sample included 267 primiparous mothers living below the poverty line and receiving prenatal care from public health clinics in Minneapolis, MN. At the time of recruitment, 48% of the mothers were teenagers, 65% were single, and 42% had completed less than a high school education.

The current sample was comprised of 109 (61 males) participants who completed assessments in both infancy and childhood and with their romantic partners in adulthood (between the ages of 20 and 35 years). The remaining participants were either lost to attrition or did not complete the adult Markman-Cox conflict assessments because they were not involved in a romantic relationship when the assessments occurred. This sample size is adequate to detect medium effects ($f^2 \ge .12$ for regression models) at 80% power (Faul et al., 2009) and is comparable with previously published studies using the MLRSA data set (e.g., Englund, Egeland, & Collins, 2008; Raby et al., 2015). Of the current sample (N = 109), 68.5% of the participants were White/non-Hispanic and 31.5\% were biracial (African American, Asian American, Native American, or Hispanic descent). The mean age of participants was 23.60 years (SD = 4.91). The mean length of their relationships was 2.92 years (SD = 2.83).

Measures and Procedures

Maternal care. Maternal sensitivity ratings were based on observational assessments of mother—child interactions conducted at six ages: 3, 6, 24, 30, 42, and 72 months old. At 3 and 6 months, mother—infant dyads were observed in their homes during play and feeding time. Mother—infant interactions were videotaped. The mother's ability to perceive and accurately interpret her infant's signals and respond appropriately and promptly was rated using Ainsworth's Sensitivity Scale, which ranges from 1 (low) to 9 (high; Ainsworth et al., 1978). At the 24 and 42 months, mother—child interactions were observed in a laboratory setting while the children attempted to solve a series of tasks that gradually increased in complexity and eventually

became too difficult to complete independently. The extent to which each mother was positively engaged while interacting with her child and provided a supportive presence was rated using a scale from 1 (low) to 7 (high; for scale validity, see Sroufe et al., 2005). At 30 and 72 months, maternal sensitivity was assessed at home based on the extent to which the mother recognized and appropriately responded to the child's behavior (calculated using the Emotional and Verbal Responsivity of Mother subscale from the Home Observation for Measurement of the Environment protocol; Caldwell & Bradley, 1984). Interrater reliability for the sensitivity ratings was moderate to high (intraclass correlations ranged .84-.89; see Raby et al., 2015). All maternal sensitivity assessments were then standardized and averaged to create a composite score reflecting each child's cumulative experiences of sensitive maternal care during early childhood. This measure had good internal consistency $(\alpha = .74).$

Maternal hostility (i.e., each mother's expressions of anger, hostile behavior, or discounting/rejection of her child; Bosquet Enlow et al., 2016) was assessed at ages 24 and 42 months during the same laboratory-based tasks for which maternal sensitivity was assessed. Trained observers rated mothers as they interacted with their child on a 7-point scale from 1 (no signs of hostile behavior) to 7 (strong expressions of anger toward and rejection of the child; Englund, Egeland, Oliva, & Collins, 2008). Interrater reliability for the hostility ratings was high (intraclass correlations ranged .80–.85). Consistent with previous studies (e.g., Englund, Egeland, & Collins, 2008; Englund, Egeland, Oliva, & Collins, 2008; Siebenbruner et al., 2006), hostility scores for ages 24 and 42 months were averaged to create a composite score for maternal hostility in early childhood, which had good internal consistency ($\alpha = .85$).

Empathy. When MLSRA participants were in Grades 2 and 3 (approximately 7–9 years old), interviews were conducted with each child's classroom teacher. As part of these interviews, teachers were asked to rate the participant in terms of how sensitive and empathic to the needs and feelings of others they were. For the second-grade interviews, response options ranged from 1 (much less than the average child) to 5 (much more than the average child); for the third-grade interviews, response options ranged from 1 (rarely) to 5 (very frequently), but the interview item was the same. Teacher-based empathy ratings at Grades 2 and 3 (r = .40, p < .001) were averaged to create a composite score for empathy in middle childhood.

Dehumanization perpetration. Video-recorded couple interactions were available for MLSRA participants who completed at least one Markman–Cox (Cox, 1991) conflict resolution discussion with their romantic partner(s) at ages 20–21, 23–24, 26–28, or 35. (For MLSRA participants who participated in multiple assessment waves, the first available videotaped interaction was coded.). At these assessment waves, each MLSRA participant and their partner first completed a set of questionnaires (separately) that asked about their perceptions of their current romantic relationship. Both partners then listed the top three sources of conflict in their relationship. After this, each

couple jointly identified a major area of disagreement in their relationship using the relationship conflict form each partner had completed previously. Each couple then talked about and tried to resolve the problem as best they could. Each videotaped conflict discussion lasted 8 min.

The Dehumanization Behavioral Coding Scheme (DBCS; Karantzas et al., 2019) was used to score dehumanization perpetration behavior in each conflict discussion (see the Online Supplemental Material). A 7-point Likert-type scale ranging from 1 (low) to 7 (high) was used to assess the degree to which each MLSRA participant denied their romantic partner's humanness (i.e., characteristics seen as uniquely or essentially human). A blinded assessment of dehumanization perpetration was conducted by the lead author and a second coder based on observing each participant's verbal communication, nonverbal communication, and vocal tone during each conflict discussion. The DBCS can be used to calculate subscales of dehumanization which can be aggregated to form a global dehumanization perpetration score. In the present study, the denial of human nature and the denial of human uniqueness (r = .42, p < .05) were combined to create global scores for dehumanization. Twenty-five percent of the interactions were also coded by a second, independent coder. The interrater reliability (intraclass correlation) was .96.

Covariates. Five potential confounds regularly included in research examining the impact of early experiences (e.g., Bosquet Enlow et al., 2016; Labella et al., 2018; Raby et al., 2017) were included as covariates. These were each participant's sex, ethnicity (1 = White/non-Hispanic, 0 = other), childhood socioeconomic status (SES), maternal education, and time of assessment (for the video-recorded Markman-Cox conflict interactions). Childhood SES was assessed with Duncan's Socioeconomic Index (Stevens & Featherman, 1981; Stevens & Hyun Cho, 1985). In particular, SES scores were created by averaging each primary caregiver's occupational status (based on well-established occupation prestige scores) across seven assessments: when each MLSRA participant's child was 42 months old; 54 months old; in Grades 1, 2, 3, and 6; and at age 16 years. Maternal education was indexed by the number of years of education each mother had completed, averaged across seven assessments (3 months prior to the child's birth, 42 months, Grades 1–3, Grade 6, and age 16; see Labella et al., 2018).

In addition, we controlled for the partner's display of dehumanization in order to pinpoint the predicted effects more clearly to MLSRA participants' childhood variables. Partner's perpetration of dehumanization was also scored using the DBCS (Karantzas et al., 2019; see above).

Results

Data and code for the following results are available upon request. Descriptive statistics and zero-order correlations among the primary study variables are listed in Table 1. As shown in Table 1, observer-rated dehumanization perpetration

Variable	I	2	3	4	5	6	7	8	9	10
I. Sex (male)	_									
2. Ethnicity (White/non-Hispanic)	05	_								
3. Maternal education	I 7 *	.03	_							
4. Childhood SES	0 I	14	.64***							
5. Assessment (Wave I)	12	01	.16	01	_					
6. Maternal sensitivity	06	−.30*	.5 9 ***	.52**	.09					
7. Maternal hostility	03	.32**	2I*	3 4 **	.06	−. 53 ***	_			
8. Empathy	.24**	−.23**	02	.24*	.04	.22*	−. 29 **	_		
9. Dehumanization perpetration	0 I	01	18	09	16	2 8 **	.34**	22*	_	
10. Partner dehumanization	0I	.10	09	15	I 7 *	1 9 *	.15	14	.56***	_
Mean (% if dichotomous)	55%	68%	12.44	27.10	58%	0.06	1.82	3.25	1.75	1.77
Standard deviation	_	_	1.81	11.40	_	0.64	1.10	0.84	0.90	1.10

Table 1. Descriptive Statistics and Zero-Order Correlations Among the Primary Variables.

Note. N = 109. SES = socioeconomic status.

scores correlated significantly with all three of the early childhood predictor variables (i.e., maternal sensitivity, maternal hostility, and empathy) as well as the romantic partner's perpetration of dehumanization. No associations, however, were found between dehumanization perpetration scores and any of the demographic covariates (i.e., sex, ethnicity, SES, maternal education, and time of Markman–Cox assessment).

A three-step hierarchical multiple regression analysis was conducted to determine whether receiving lower quality maternal care during childhood (i.e., lower levels of maternal sensitivity and the presence of maternal hostility) or having lower levels of empathy during childhood were associated with dehumanization perpetration scores during the conflict in adult romantic relationships many years later. In Step 1, a set of covariates were included, namely, sex, ethnicity, SES, maternal education, and time of Markman—Cox assessment. As part of the covariates in Step 1, we also included the observational assessment of each partner's perpetration of dehumanization directed at the MLSRA participant. Composite scores for maternal sensitivity and maternal hostility were entered in Step 2, and the teacher ratings of empathy were entered in Step 3.¹

The hierarchical model was significant, explaining 45% of the variance in dehumanization perpetration (see Table 2). At Step 1, the only covariate that significantly predicted the dependent variable was the romantic partner's perpetration of dehumanization. The inclusion of quality of maternal care (i.e., maternal sensitivity and maternal hostility) in Step 2 significantly increased the amount of variance explained in the initial model. As shown in Table 2, maternal hostility was a significant and unique predictor of dehumanization perpetration, but maternal sensitivity was not. The inclusion of empathy in Step 3 also did not significantly increase the amount of variance explained in the model. At Step 3, two covariates, romantic partner's perpetration of dehumanization and SES, significantly predicted the dependent variable.

Discussion

This study provides the first evidence for the early childhood antecedents of interpersonal dehumanization in adult relationships. Our findings demonstrate that poorer maternal care during the first few years of life have enduring downstream consequences for people's romantic relationships 20–30 years later. This longitudinal association remained even when controlling for the romantic partner's perpetration of dehumanization and several demographic covariates.

The presence of maternal hostility, rather than the absence of maternal sensitivity, best predicted an individual's perpetration of dehumanization. From a social learning perspective (Bandura, 1978, 1986), it appears as if the overt and explicit rejection, lack of regard, and expression of anger by mothers toward their children may become internalized by children via mental representations of close relationships. These mental representations may then be carried forward into adulthood and manifested (at least in part) in the form of dehumanization (Bevan & Higgins, 2002; Mihalic & Elliot, 1997; Stover, 2005). The current findings are consistent with previous research that has revealed the important role that the quality of infant—caregiver bonds often assume in forecasting how individuals think, feel, and behave in their adult relationships (e.g., Fraley & Roisman, 2019; Fraley et al., 2013).

But why is maternal hostility more predictive of dehumanization behavior in adult romantic relationships than the absence of maternal sensitivity? We suggest that the highly overt, explicitly negative behaviors indicative of maternal hostility model features of dehumanization in ways that lack of sensitivity do not. When parents display hostility, they express irritation and anger and may often act in an antagonistic or spiteful manner (Bosquet et al., 2016). From a dehumanization perspective (Pizzirani & Karantzas, 2019), hostility directed toward a child may communicate that he/she is foolish or lacks competence, agency, or intelligence. Denials of human characteristics such as competence, intelligence, and agency constitute the perpetration of dehumanization (Bastian & Haslam, 2011). Being

p < .05. *p < .01. ***p < .001.

Step	В	95% CI (B)	β	Þ	sr ²	R^2	ΔR^2
I. Sex	10	[38, .18]	06	.470	06	.34 (p = .000)	
Ethnicity	09	[40, .22]	05	.571	05	,	
Maternal education	10	[20, .01]	20	.069	15		
SES	. 01	[01, .03]	.12	.286	.09		
Assessment	03	[16, .10]	04	.655	−.04		
Partner dehumanization	.44	[.31, .57]	.55	.000	.54		
2. Sex	09	[35, .17]	05	.504	05	.43 ($p = .000$)	(000.00)
Ethnicity	−.28	[59, .02]	15	.070	14	,	
Maternal education	07	[18, .04]	14	.223	09		
SES	.02	[.00, .03]	.202	.057	.15		
Assessment	05	[17, .07]	06	.436	06		
Partner dehumanization	.41	[.28, .53]	.52	.000	.50		
Maternal sensitivity	10	[40, .20]	08	.511	05		
Maternal hostility	.25	[.10, .39]	.31	.001	.25		
3. Sex	04	[30, .23]	02	.783	02	.45 ($p = .000$)	$.02 \ (p = .091)$
Ethnicity	30	[61, .00]	16	.051	15	,	,
Maternal education	09	[20, .02]	19	.118	12		
SES	.02	[.00, .03]	.24	.024	.17		
Assessment	04	[16, .09]	03	.554	04		
Partner dehumanization	.40	[.28, .52]	.51	.000	.49		
Maternal sensitivity	−.07	[37, .23]	06	.629	04		
Maternal hostility	.23	[.08, .37]	.29	.002	.23		
Empathy	15	[32, .02]	15	.091	13		

Table 2. Hierarchical Regression Predicting Dehumanization Perpetration From Maternal Care and Empathy Ratings.

Note. N = 109. SES = socioeconomic status.

subjected to higher levels of maternal hostility during child-hood, therefore, may be an individual's earliest exposure to dehumanization. Although the absence of maternal sensitivity can and often does negatively impact a child's development (e.g., Blandon & Scrimgeour, 2015; Firk et al., 2018), it does not entail dehumanization per se. Instead, lower levels of maternal sensitivity may be more likely to shape an individual's capacity to engage in responsive, prosocial behaviors toward others (Blandon & Scrimgeour, 2015; Hastings et al., 2007).

What may be most notable about our findings is not only that certain distal factors appear to have a lasting effect on the degree to which individuals dehumanize their adult romantic partners, but this association holds even when controlling for the dehumanization behaviors displayed by participants' romantic partners during the conflict. The present study—as well as current theorizing on dehumanization (Bastian, 2019; Bastian et al., 2014)—suggests that the perpetration of dehumanization is likely to be somewhat reciprocal and may at times be incited by maltreatment from partners during social interactions.

Empathy did not forecast individuals' perpetration of dehumanization against their romantic partners. In other words, empathy, which is believed to be associated with dehumanization (e.g., Haslam, 2015; Haslam et al., 2013; Waytz & Epley, 2012), did not attenuate dehumanization perpetration in adulthood, at least as measured during childhood in this study. This might be attributable to the fact that young children do not have the ability to fully experience and demonstrate empathy until later in development (Grusec & Lytton, 1988; Labouvie-Vief

et al., 2010; O'Brien et al., 2012). Although young children can express some degree of empathy for others, major neural changes in cortical and subcortical areas associated with perspective-taking and inferring other's mental states do not occur until adolescence (Decety, 2010). Furthermore, the complexity and richness of the social worlds of most adolescents provides opportunities to develop empathy more fully through the formation of new friendships and entering into romantic relationships (Eisenberg et al., 2009). Thus, for empathy to mitigate the perpetration of dehumanization in adulthood, complex cognitive-affective processes that underlie empathy may need to be more fully developed.

Finally, while no explicit predictions regarding the role of SES were made, it was found to be associated with the perpetration of dehumanization. This finding is consistent with previous research on economic hardship or disadvantage (i.e., harsh environments; see Del Giudice et al., 2016) in early life and the association, these factors have with maladaptive processes in romantic relationships. Within adult couple relationships, such experiences early in life are associated with the enactment of maladaptive behaviors (this can include various forms of maltreatment and highly conflictual behaviors that are reflective of dehumanization), greater relationship dissatisfaction, and instability (Kenrick et al., 2013).

Limitations and Conclusion

One factor expected to influence the enactment of dehumanization within a romantic relationship is that of context. Indeed, the context in which dehumanization was measured in the

current study included the discussion of relational issues that are likely to be considered by the couple as "serious," "frustrating," "distressing," and/or "emotionally hurtful." The discussion of these issues is likely to promote negative partner behaviors, and possibly, more dehumanization than would normally be present in interactions in which the discussion topic or interaction is considered nonconflictual. Future research, therefore, should attempt to confirm our findings by investigating the occurrence of dehumanization in more diverse relational contexts, including nonconflictual interactions. In addition, the current findings may be limited to people who began life below the poverty line and, therefore, may not necessarily generalize to other samples or life contexts.

This study breaks new ground by investigating dehumanization in adult relationships and suggesting that the origins of treating others as "less than human" can be traced back to the quality of care received during childhood. The results of the study provide preliminary insights into the interpersonal origins of dehumanization and demonstrate how experiences occurring early in development can play a pivotal role in the functioning of close relationships during adulthood.

Declaration of Conflicting Interests

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Supplemental Material

The supplemental material is available in the online version of the article.

Note

1. We conducted two alternative hierarchical regression analyses to determine whether the specific pattern of findings reported in Table 2 was dependent on the order in which the variables were entered in the model. In the first of these models, empathy was entered at Step 2 and the maternal variables were entered at Step 3. The purpose of this model was to determine whether the maternal variables contributed additional variance above and beyond the empathy ratings and control variables. In the second of these

models, we entered the two maternal variables in separate steps (maternal sensitivity prior to maternal hostility), given that these variables were moderately correlated. This ordering of variables provided a further test to confirm the predictive role of maternal hostility relative to maternal sensitivity. Neither of these hierarchical regression models altered the findings, with partner perpetration of dehumanization and maternal hostility still emerging as the only two significant predictors.

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