



Let's go forward, I forgive you! On motivational correlates of interpersonal forgiveness

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Abstract

The present paper explored the idea that forgiveness of others may be related with the victims' individual differences in three motivational factors, as described in the regulatory mode theory (Higgins et al. 2003) and in the need for cognitive closure theory (Kruglanski 2004): (1) individuals' tendencies towards psychological motion (as captured in the locomotion construct); (2) individuals' tendencies towards evaluation and comparison (as captured in the assessment construct); and (3) individuals' sensitivity to epistemic uncertainty (as captured in the need for closure construct). More specifically, we expected and found that assessment and need for cognitive closure (NFC), through different potential mechanisms (i.e., keeping in mind past transgressions in high assessment; and avoiding epistemic uncertainty in high NFC), are negatively related to peoples' propensity for forgiveness of others, while locomotion is positively related to it by motivating forward movement. The implications of the results are also discussed with reference to the motivational correlates of forgiveness of others.

Keywords Forgiveness of others · Locomotion · Assessment, need for closure

Introduction

Whether from a friend, a family member or a romantic partner, receiving an offensive action by another person is a painful experience. Social interactions, in fact, may not only be easy and help individuals in achieving their needs (both personal and social), but can also be difficult as conflicts may arise among people. The point is being able and motivated to overcome such conflicts, in order to restore, when appropriate, the relationship, the actors' well-being, and to move on. One way of doing so is to

forgive transgressors (Exline and Baumeister 2000; McCullough et al. 2000). However, not everyone, nor in all occasions, are equally prone and motivated to forgive others for their wrongs.

In the present article, we argue that the examination of the motivational factors related to a person's tendency to forgive an offender is important to fully understand what underlies this tendency. Although we admit the importance in the forgiveness process of a motivation linked to restoring the relationship and the actors' well-being (McCullough et al. 2000; Karremans et al. 2003), we argue that this idea is only part of the story.

In fact, forgiveness may also be positively related to (psychological) movement, which may facilitate overcoming of a received offense and, thus, movement towards future goals; and be negatively related to evaluative and comparative tendencies that lead to keeping in mind the received offense, thus remaining stuck on it. As will be shown later, these two motivational tendencies are well captured, respectively, in the locomotion and assessment orientations, as described in the regulatory mode framework (Higgins et al. 2003; Kruglanski et al. 2000). Moreover, forgiveness may also be negatively related to sensitivity to epistemic uncertainty, as described in the need for cognitive closure theory (Kruglanski & Webster 1996; Kruglanski 2004). In fact, receiving an offense is not only an unpredictable action in itself because the shared norms regulating good relationships are violated, but may also render unpredictable future transgressors' behavioral intentions. For

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instance, a person may think that if the transgressor has already violated a norm, future expectations about her behavior would be unclear, thus enhancing unpredictability and uncertainty.

In the following paragraphs, we first introduce our theoretical background and then we will more thoroughly present our hypotheses.

Forgiveness

Forgiveness can be seen as a motivational change whereby negative thoughts, feelings, and behaviors toward the offender are replaced with more positive ones (McCullough et al. 2000, paraphrased). Research in this field has shown that interpersonal forgiveness is influenced by four classes of factors: (1) characteristics of the transgression (e.g., whether it is perceived as severe or hurtful); (2) offenders' characteristics and behaviors (e.g., apology; attempts to reconcile); (3) relationship-related factors (e.g., commitment, closeness and importance); and (4) victims' characteristics (see Riek and Mania 2013).

Regarding this last point, there is evidence that forgiveness is positively correlated with agreeableness, self-esteem, and empathy and negatively correlated with neuroticism, narcissism, and need for structure (Brose et al. 2005; Eaton et al. 2006; Koustos et al. 2008; McCullough and Hoyt 2002; McCullough et al. 1997). This suggests that forgiveness imply the offended's openness towards others in terms of understanding their reasons and is impeded both by ruminating on the transgressions, and by the uncertainty linked with these transgressions.

In sum, research on this topic has shown that when people forgive, they transform their negative emotions and intentions into more positive tendencies towards the other, which restores a harmonious interpersonal relation with the offenders, regaining their social support (Bono et al. 2008); this, at the end, promotes the actors' well-being (McCullough et al. 2001; Karremans et al. 2003). In the same vein, several studies have revealed the positive link between forgiveness and physical and psychological mental health, life satisfaction, optimism, hope, gratitude, spiritual and existential well-being (see Kaleta and Mróz 2018; Karremans et al. 2003).

While research has largely sustained the idea that interpersonal forgiveness is, overall, motivated by the need to restore and maintain personal and relational well-being (McCullough et al. 2000; Karremans et al. 2003), other motivational variables have received minimal attention (for exceptions see, Fincham et al. 2005; Worthington Jr. et al. 2001). An exception, in this sense, is a recent study that has found that promotion focus positively predicts forgiveness because it motivates a person to attain the perceived benefits linked with repairing a relationship (i.e., social connection), while prevention focus positively predicts forgiveness because it motivates one to avoid the perceived costs linked

with not repairing a relationship (i.e., loneliness, relationship loss) (Molden and Finkel 2010).

These findings, thus, suggest that other motivational factors, other than (but still compatible with) restoring and protecting one's well-being, are also at play in the interpersonal forgiveness process.

Consistent with the above idea, it is proposed that the regulatory mode theory (Kruglanski et al. 2000; Higgins et al. 2003) and the need for cognitive closure theory (Kruglanski & Webster 1996) describe further motivational factors that might be involved in the interpersonal forgiveness process. Below these concepts are introduced and it is explained how the variables described in the regulatory mode theory and need for cognitive closure theory may be related to interpersonal forgiveness.

Regulatory Mode Orientations

In proposing the regulatory mode theory, Higgins and colleagues (2003; Kruglanski et al. 2000) described two independent functions of self-regulation: locomotion and assessment. Locomotion has been defined as “the aspect of self-regulation concerned with movement from state to state and with committing the psychological resources that will initiate and maintain goal-related movement in a straightforward and direct manner, without undue distractions or delays” (Kruglanski et al. 2000, p. 794). By contrast, assessment has been defined as “the comparative aspect of self-regulation concerned with critically evaluating entities or states, such as goals or means, in relation to alternatives in order to judge relative quality” (Kruglanski et al. 2000, p. 794). Locomotion and assessment have been theorized as two orthogonal variables that both vary across people as relatively stable individual differences (Kruglanski et al. 2000) and as momentary states induced by situational cues (Avnet and Higgins 2003; Pierro et al. 2013).

Whereas locomotion orientation is concerned with smooth movement and change from a current state to a different end-state, assessment orientation is concerned with making critical comparisons and evaluations between the current state with a desired one (Higgins et al. 2003). These primary concerns have important consequences, relevant in this regard. For instance, Mauro et al. (2009) have shown that high locomotion leads individuals to pursue speed at the expense of accuracy (allowing movement and change), while high assessment leads individuals to pursue accuracy at the expense of speed (causing inaction). This is consistent with research showing that assessors, contrary to locomotors, gravitate toward stasis rather than dynamic change (Kruglanski et al. 2007; Pierro et al. 2011). While locomotion positively correlates with optimism, self-esteem, psychological vitality, and negatively correlates with social anxiety and depression, assessment

positively correlates with neuroticism, social anxiety and depression, and negatively correlates with self-esteem (Kruglanski et al. 2000).

Of particular interest for the aims of the present research, Pierro et al. (2018) found in a series of four studies that locomotion tendencies promote self-forgiveness by focusing individuals toward the future (thus helping to put past mistakes to rest), while assessment tendencies inhibit self-forgiveness by focusing individuals towards the past (thus causing them to remain stuck on feelings of guilt). While individuals with high locomotion tendencies face past mistakes efficiently because they are motivated to overcome them and move forward, those who are motivated by assessment tendencies remain trapped in them by feelings of guilt, causing inaction.

The above conclusions open the possibility that the two regulatory mode orientations may be related to interpersonal forgiveness as well, and for the same reasons. In fact, high levels of locomotion may help to move past conflict, thus, facilitating forgiveness of transgressors, while high levels of assessment may inhibit such a motivation because their core tendencies block them on resentment. In this sense, indirect evidence is given by a recent study showing that individuals' predominance in locomotion over assessment tendencies help reconciliation in interpersonal conflict resolution (Webb et al. 2017). The authors argued that conflict resolution is instrumental to the motivation to "move on" (i.e., to going beyond the conflict), and individuals sensitive to this motivation, namely people predominant in locomotion over assessment tendencies, are, for this reason, more inclined towards reconciliation (Webb et al. 2017). Surprisingly, despite such clear implications for forgiveness of others, the role of regulatory modes have never been studied in this context.

Need for Cognitive Closure

As we anticipated earlier, receiving a transgression by another person raises epistemic uncertainty, thus, individual differences in sensitivity to epistemic uncertainty should be negatively related to interpersonal forgiveness. This tendency is well-captured by the need for cognitive closure (NFC) defined as a "desire for a firm answer to a question, any firm answer as compared to confusion and/or ambiguity" (Kruglanski 2004, p. 6). This motivation constitutes both a stable personal characteristic (Webster and Kruglanski 1994) and a situational state (e.g., induced by fatigue, noise, or time pressure; e.g., Webster et al. 1996). The strength of this motivational tendency is determined by the (perceived) costs and benefits of closure in relation to the costs and benefits associated with lack of closure (Kruglanski 2004; Roets et al. 2015). When people are characterized by high levels of NFC, situations, information, and stimuli that do not allow for immediate closure (i.e., ambiguity, uncertainty) are perceived as stressful and adverse

(Kruglanski & Webster 1996). Indeed, high NFC individuals are tendentially inclined to reach clear-cut decisions, whereby little space is left to indecision, ambiguity or uncertainty (Kruglanski 1989). Likewise, previous research has largely shown that the NFC induces individuals to *seize* and *freeze* on information that reduces epistemic uncertainty (Webster et al. 1996) by, for instance, keeping in mind stereotypical information (Pica et al. 2018a; Pica et al. 2018b) allowing for immediate judgments (Dijksterhuis et al. 1996).

Of relevance for the present research, high NFC leads people to be highly sensitive to norm violations, as this creates epistemic uncertainty (Livi et al. 2015). In the same vein, Pierro et al. (2004) found a positive correlation between NFC and aggressive response to normative violations, as measured in Pepitone's (1981) scale, whether they were targeted to the self or to the community at large. Consequently, high NFC contributes to individuals' adherence to group norms manifesting what have been called "group centrism," which includes, among other things, intolerance of deviance, and a tendency to prefer groups allowing for a strong shared reality (Kruglanski et al. 2006). In the same vein, related research has also demonstrated that NFC positively relates with (utilitarian) punishment aimed at preventing similar infractions on subsequent occasions (Giacomantonio and Pierro 2014; Giacomantonio et al. 2017), and with the tendency to support capital punishment (Jost et al. 1999)—both implying a resolution that is unambiguous and both aimed at preserving the social stability and the status quo.

All the above findings indirectly sustain our hypothesis about the negative relationship between NFC and forgiveness of transgressors; these individuals may be treated as norms violators, and therefore condemned for their violations (thus reducing the epistemic uncertainty these violations have aroused).

The Present Research

With the aim of adding to previous literature on interpersonal forgiveness, further motivational variables possibly involved in the process were investigated in the present research. More specifically, the hypothesis that interpersonal forgiveness may be related to individual differences in the locomotion and assessment regulatory mode orientations and in the NFC was tested. We expected that whereas a tendency toward locomotion may be positively related to interpersonal forgiveness because it allows for moving past the conflict and towards new goals, assessment and NFC, for two different reasons, may foster the very opposite effects. As we anticipated, in fact, while assessment should be negatively related to interpersonal forgiveness by remaining stuck on evaluating the received transgression, NFC should be negatively related to interpersonal forgiveness because of the uncertainty linked with the offense.

Method

Participants Our sample size was determined by a combination of power analyses, effect sizes found in previous similar studies (Eaton et al. 2006; Pierro et al. 2018; Webb et al. 2017), and an a priori stop rule, such that we terminated data collection before the pre-established period (1 month). Previous research showed positive correlations between locomotion and self-forgiveness, and between locomotion and reconciliation (i.e., Pearson's r ranging, on average, between .13 and .30; Pierro et al. 2018; Webb et al. 2017); and negative correlations between assessment and self-forgiveness, and between assessment and reconciliation (Pearson's r ranging, on average, between $-.10$ and $-.24$; Pierro et al. 2018; Webb et al. 2017). Other research showed that need for structure negatively correlate with dispositional forgiveness, as measured through the tendency to forgive scale (Pearson's $r = -.24$). To estimate the adequate sample size needed to test our hypotheses, we used an a priori power analysis on the G*Power calculator (Faul et al. 2007). Assuming small (Pearson's $r = .10$) to moderate (Pearson's $r = .30$) effect sizes for locomotion, assessment and NFC, and setting α error probability at .05 and power at .80, we would need data from 84 to 782 participants to detect effects ranging between these magnitudes. The sample of the present study was composed of 411 psychology students from the University of Rome "La Sapienza" (291 females; $M_{age} = 24.36$; $SD_{age} = 2.85$). All participants took part in the study on a voluntary basis. No participants were excluded from the analysis.

Procedure, Design, and Materials All participants completed the locomotion and assessment, and need for closure scales (predictor variables). They then completed a measure designed to assess dispositional tendency towards forgiveness of others (criterion variable).

Locomotion and Assessment Orientations To assess locomotion and assessment, participants responded to the Italian version of the two scales, each one is a 12-item self-report measure (Kruglanski et al. 2000). Participants are asked to assess the extent to which they agree with self-descriptive statements reflecting locomotion (e.g., "I am a 'doer'") and assessment (e.g., "I often critique work done by myself and others"). Ratings were made on a 6-point Likert type scale with the response alternatives anchored at the ends with 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). Two composite scores were calculated (one each for Locomotion and Assessment) by averaging across responses to each item. In a comprehensive set of studies, including Italian samples, the unidimensionality, internal consistency, and temporal stability of each scale were demonstrated (see Kruglanski et al. 2000). Furthermore, extensive psychometric work on the regulatory mode scales compared them to a variety of alternative

constructs to examine its convergent and discriminant validity (for details, see Horcajo et al. 2011; Kruglanski et al. 2000; Pierro et al. 2011). By now, locomotion and assessment scales have been translated into several languages (i.e., Italian, Spanish, Japanese etc.) and their psychometric properties indicate that they are universal orientations with similar effects across cultures (Higgins et al. 2008).

The internal consistency for the present sample was satisfactory both for locomotion ($\alpha = .83$) and assessment ($\alpha = .79$). Last, consistent with previous research (Kruglanski et al. 2000), the two regulatory mode measures were not correlated ($r = .01$), corroborating their conceptual orthogonality.

Need for Cognitive Closure (NFC) To assess the NFC, participants were asked to respond to the Italian version of the Revised NfCS (Pierro and Kruglanski 2005). This measure consists of a 14-item self-report scale that evaluates stable individual differences in the NFC. Respondents are asked to rate the extent to which they agree with each statement (e.g., "Any solution to a problem is better than remaining in a state of uncertainty"). Participants' responses are recorded on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite need for closure score was calculated by summing across responses to each item. Previous studies (Pierro and Kruglanski 2005; Horcajo et al. 2011) have shown that the revised version of NfCS has nomological validity (the disattenuated correlations between Rev. NfCS and original NfCS in U.S. and Italian samples are .92 and .93, respectively), convergent and discriminant validity, temporal stability (with test-retest correlations of .84 in Italian sample, .77 in Spanish sample), and satisfactory reliability ($\alpha = .80$ and $\alpha = .79$ in U.S. and Italian and Spanish samples, respectively). In the present sample, reliability of the Rev. NfCS scale was also satisfactory ($\alpha = .78$).

Assessing Dispositional Forgiveness of Others Participants responded to the 6 items derived from the dispositional Forgiveness of others subscale of the Heartland Forgiveness Scale (HFS; Thompson et al. 2005). This scale has demonstrated good psychometric properties using both students and non students samples (Thompson et al. 2005), and it has been translated and used across many countries (Thompson and Synder 2019).

Following the Thompson et al. (2005) procedure, participants were told that "In the course of our lives negative things may occur because of the actions of others. For some time after these events, we may have negative thoughts or feelings about others". To the point, participants were asked to think about how they *typically* respond to such negative events and, then, to respond to the following 6 items: "I continue to punish a person who has done something that I think is wrong" (R); "With time I am understanding of others for the mistakes

Table 1 Descriptive and correlations between variables

	M (SD)	Skeweness (SD)	Kurtosis (SD)	1	2	3	4	5	6
<i>(N</i> = 411)									
1. Forgiveness of others	4.27 (1.00)	−.04 (.12)	.06 (.24)	(.75)					
2. Locomotion	4.39 (.61)	−.37 (.12)	.51 (.24)	.10*	(.83)				
3. Assessment	3.72 (.69)	−.12 (.12)	−.07 (.24)	−.34***	.01	(.79)			
4. Need for Closure	3.25 (.63)	.04 (.12)	.51 (.24)	−.29***	−.09	.12*	(.78)		
5. Age	24.36 (2.85)	3.99 (.12)	24.30 (.24)	.07	.07	−.11*	.01	–	
6. Gender	–	−.92 (.12)	−1.16 (.24)	.01	.08	.00	−.03	−.01	–

*** $p < .001$; * $p < .05$. In bracket (Cronbach's α)

they've made"; "I continue to be hard on others who have hurt me" (R); "Although others have hurt me in the past, I have eventually been able to see them as good people"; "If others mistreat me, I continue to think badly of them" (R); "When someone disappoints me, I can eventually move past it". Participants' responses are recorded on a 7-point scale ranging from 1 (*Almost Always False of Me*) to 7 (*Almost Always True of Me*). A composite dispositional forgiveness of others score was computed by summing across responses to the 6 items ($\alpha = .75$). Higher scores reflect greater dispositional forgiveness of others tendency.

Results

Descriptive statistics and correlations among variables are reported in Table 1. As can be seen in Table 1, locomotion was positively and significantly correlated, while assessment and need for cognitive closure were negatively and significantly correlated with forgiveness of others.

To further test the differential and unique effects of locomotion, assessment and NFC on forgiveness of others a Multiple Regression Analysis was conducted. In this analysis, forgiveness of others was the criterion variable and locomotion, assessment and NFC were the predictor variables. Given that previous research has generally shown that females are more forgiving than males (Miller et al. 2008) and older individuals are more forgiving than younger individuals (Cheng and Yim 2008), gender (dummy coded; Male = 0; Female = 1), and age were entered as control variables in the equation. The summary of the findings of this analysis are reported in Table 2.

As Table 2 shows, the effects of participants' age ($\beta = .03$, $t = .61$, $p = .55$) and gender ($\beta = -.01$, $t = -.18$, $p = .85$) were not significantly related to forgiveness of others. As expected,

controlling for participants' age and gender, forgiveness of others was positively and significantly related to locomotion ($\beta = .10$, $t = 2.20$, $p = .03$) and, on the contrary, negatively and significantly related to assessment ($\beta = -.31$, $t = -6.83$, $p < .001$), and to NFC ($\beta = -.25$, $t = -5.51$, $p < .001$).¹

Discussion

The main aim of the present paper was to investigate further potential motivational factors involved in interpersonal forgiveness. Based on the regulatory mode theory (Higgins et al. 2003; Kruglanski et al. 2000) and the need for cognitive closure theory (Kruglanski 2004) and on previous literature on forgiveness related phenomena (see Giacomantonio and Pierro 2014; Pierro et al. 2018; Webb et al. 2017), we suggested that three motivational factors (described in the above theories) be related to the dispositional interpersonal forgiveness: (1) locomotion orientation (i.e., a tendency towards psychological motion and affect change); (2) assessment orientation (i.e., a tendency of making comparisons and evaluations); and (3) the need for cognitive closure (i.e., a need to eschew epistemic uncertainty). As such, the present study sought to extend previous research on motivational variables that might be related to interpersonal forgiveness—a contribution that has been substantially minimal within the forgiveness literature (e.g., Fincham et al. 2005, Molden and Finkel 2010; Worthington Jr. et al. 2001).

¹ To further explore the differential and unique effects of locomotion, assessment and NFC on forgiveness of others we also tested the two and three-way interaction effects between them. Results of this moderated multiple regression analysis did not reveal any significant interaction effects. Importantly, however, consistent with our main hypotheses, the positive relationship between forgiveness of others and locomotion ($\beta = .16$, $t = 2.15$, $p = .03$), and the negative relationship between forgiveness of others and assessment ($\beta = -.44$, $t = -6.74$, $p < .001$), and NFC ($\beta = -.40$, $t = -5.46$, $p < .001$) remained significant.

Table 2 Summary of multiple regression analyses

	Forgiveness of Others				
	β	<i>t</i>	<i>se</i>	<i>p</i>	95% C.I.
Locomotion	.10	2.20	.07	.03	.02 to .31
Assessment	-.31	-6.83	.07	<.001	-.58 to -.32
Need for Closure	-.25	-5.51	.07	<.001	-.54 to -.26
Gender	-.09	-.18	.10	.85	-.21 to .18
Age	.03	.61	.02	.55	-.02 to .04

Gender (Male = 0; Female = 1)

In the present study, we found, as hypothesized, that locomotion was positively correlated, while assessment and NFC were negatively correlated, with dispositional interpersonal forgiveness. Consistent with prior research on self-forgiveness (Pierro et al. 2018) and reconciliation (Webb et al. 2017), we reasoned that locomotion tendencies towards change and movement motivate individuals to *move forward*, overcoming past conflicts, thus positively influencing interpersonal forgiveness; while assessment tendencies to evaluate and compare lead people to keep in mind the received offense, thus negatively influencing forgiveness.

Furthermore, consistent with previous findings (Eaton et al. 2006), we reasoned that the epistemic uncertainty linked with the received transgression make high-NFC individuals less willing to forgive others. In fact, non-forgiveness may be seen as the fastest way to reach closure and reduce uncertainty. This is consistent with previous research showing that high NFC individuals facilitate interpersonal punishment (Giacomantonio and Pierro 2014), and are more sensitive to norm violations than their counterparts (Livi et al. 2015; Pierro et al. 2004).

Theoretically speaking, the present study extends previous literature on the motivational tendencies linked with interpersonal forgiveness by showing that the self-regulatory orientations (locomotion and assessment) and the need for cognitive closure are relevant factors involved in this process. More generally speaking, the above findings show that interpersonal forgiveness may not only be motivated by promoting and protecting (relational and personal) well-being, but may also be positively influenced by a tendency towards (psychological) movement (i.e., forgiveness implies in itself the possibility to continue moving towards future goals), and negatively related to factors, such as individual differences in the evaluative and comparative tendencies (i.e., forgiveness is impeded by these tendencies because they cause remaining stuck on received offense), and in the sensitivity to epistemic uncertainty (i.e., the epistemic uncertainty linked with transgressions impede forgiveness).

Our findings seem (see also the endnote) to suggest that assessment is always detrimental in promoting forgiveness,

however this might not be true especially when forgiveness requires (1) the understanding of the real reasons of the transgressor and (2) assessing the right way to overcoming the received transgressions. For instance, some level of assessment tendencies combined with high levels of locomotion might help when forgiveness requires not only moving away from the offense, but also on figuring out a new best equilibrium in the relationship as a desired end-state. This might be possible when the direction towards this new restored relationship is difficult to achieve, but still essential for both actors. This idea would be consistent with the complementary hypothesis of the regulatory mode theory (Lo Destro et al. 2016). Future studies may profitably explore the above possibility.

In the same vein, individuals' level of NFC may, in theory, not always impair interpersonal forgiveness. It might be possible that NFC promotes forgiveness when the broken relationship involves a very close and important other. Prior research, in fact, has shown that higher NFC was related to lower trust in distant others and with higher trust in close others (Acar-Burkay et al. 2014). Therefore, it might be hypothesized that high NFC individuals would forgive more close others than distant others. This possibility deserves future investigation.

Moreover, future studies might also test whether our hypotheses are still valid for specific transgressions and specific transgressors. For instance, the effects of our independent variables should also be tested in predicting state (momentary) interpersonal forgiveness, whereby participants respond to specific transgressions recalled from their memory.

A relevant implication of our findings concerns conflict resolution. The present study suggests that to promote forgiveness and, possibly, subsequent reconciliation between the actors involved, locomotion concerns needs to be rendered more desirable than assessment concerns and/or the need for epistemic certainty (i.e., NFC). Therefore, situationally activating locomotion concerns, and/or situationally activating strategies that may inhibit assessment and/or NFC characteristics, might be beneficial for forgiveness and conflict resolution. For instance, based on the previous research on self-forgiveness (Pierro et al. 2018), one may use strategies that activate a future temporal focus (e.g., making them thinking about future objectives they want to achieve) which would enable high assessors to break away with being stuck on past transgressions they have received and, possibly, report more positive forgiveness intentions. In such a way, potential negative consequences of assessment on interpersonal forgiveness may be buffered because their evaluative tendencies might be used for planning the best way to achieve their future objectives. This would be fundamental in helping overcome stasis due to the evaluative tendencies, and, thus, helping solve interpersonal conflicts, promoting the interpersonal and intrapersonal well-being (McCullough et al. 2001; Karremans et al. 2003).

Similarly, because high NFC individuals lack empathic concern for dissimilar others, via reduced perspective taking (Webster et al. 2003) and empathic concern actually helps forgiveness (McCullough et al. 1997), they might be induced to adopt the offenders' point of view creating a more complete understanding of the perpetrator's conduct. In such a way, the epistemic uncertainty linked with the received offenses may be reduced, and, possibly, this may facilitate forgiveness.

Although our findings are promising and shed new lights on motivational factors involved in interpersonal forgiveness, this study, however, is not without limitations. For instance, we did not manipulate our independent variables. This constitutes a limitation because the correlational nature of our data does not allow us to draw causal inferences. In fact, the lack of forgiveness might lead individuals to higher levels of assessment and NFC, while the presence of forgiveness might cause individuals to move towards their future goals (i.e., locomote). Although previous research have demonstrated the causal effects of locomotion and assessment on reconciliation in conflict resolution and self-forgiveness (Pierro et al. 2018; Webb et al. 2017), and of NFC on punishment, and condemnation of norms violation (Livi et al. 2015; Giacomantonio and Pierro 2014)—all forgiveness related phenomena— future studies should disambiguate their relationships with interpersonal forgiveness, by clearly establishing the causal paths among the variables considered here, using experimental or longitudinal designs.

Furthermore, it is important to note that the explanations we gave for the relationships hypothesized and found in this study, although derived from the regulatory mode and the need for closure theories (Higgins et al. 2003; Kruglanski 2004; Kruglanski et al. 2000), are only speculative and not directly tested through specific mediation designs. For instance, we sustained that assessment is negatively related to forgiveness because the evaluative tendencies of high-assessors lead them to remain stuck on resentment, thus inhibiting interpersonal forgiveness. We also sustained that the epistemic uncertainty aroused by the received transgression, which is seen as a violation to a socially shared norm, causes high-NFC individuals to be less willing to forgive the other. Therefore, though sustained by theory and previous findings, future research is called on to specifically and directly investigate the above mediational hypotheses in order to give empirical evidence to our hypothesized mechanisms.

Conclusion

In conclusion, the current study reveals that three motivational factors, described in the regulatory mode theory (locomotion and assessment) and in the need for cognitive closure theory (NFC), relate to interpersonal forgiveness. It has been shown that forgiveness is positively related with (1) tendencies to

psychological movement (i.e., locomotion); and negatively related with (2) evaluative tendencies (i.e., assessment), and (3) sensitivity to epistemic uncertainty (i.e., NFC). Overall, the present findings contribute to shed lights on possible motivational variables linked to forgiveness, giving hints for future research and help develop a fuller picture of the forgiveness process.

Data Availability The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Compliance with Ethical Standards

Competing Interests The authors declare that they have no competing interests.

Ethical Approval The present study was approved by the Ethical Committee of the Department of Developmental and Socialization Processes (University of Rome “La Sapienza” under protocol 63–11/23, titled: “The influence of Regulatory Mode Orientations on Forgiveness”); and was performed in accordance with the ethical standards of the University of Rome “La Sapienza” and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards for studies involving human participants.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Consent for Publication Not applicable.

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