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# The Role of Future Time Perspective on Forgiveness: A Study of Transgressions Among Undergraduate University Students

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THE ROLE OF FUTURE TIME PERSPECTIVE ON FORGIVENESS: A STUDY OF  
TRANSGRESSIONS AMONG UNDERGRADUATE UNIVERSITY STUDENTS

by

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Submitted in Partial Fulfilment

of the requirements for the degree of

Bachelor of Arts

in

Honours Psychology

Faculty of Arts and Social Science

Huron University College

London, Canada

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HURON UNIVERSITY COLLEGE

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## Abstract

The present study examined the effect of *future time perspective (FTP)* on interpersonal forgiveness. Specifically, whether varying the degree of the perceived amount of time that individuals have left with a close friend in university would influence the forgiveness of that friend if he or she transgressed against them. Participants were randomly assigned to one of three versions of a questionnaire, which either encouraged them to view their time left at university with a close friend as limited, neutral, or extensive. It was hypothesized that perceiving future time left with a friend as limited would encourage individuals to focus on emotion-related goals, and in turn lead to an increased likelihood of forgiveness. Alternatively, perceiving future time left with a friend as extensive would encourage individuals to focus on knowledge-related goals, and thus lead to a decreased likelihood of forgiveness. The results revealed that there was no significant effect of FTP on forgiveness. In addition, there was no significant effect of forgiveness on the types of goals that individuals favoured. Implications of the findings and suggestions for future research are discussed.

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## **Introduction**

Time can be objective in nature, such as calendar or clock time. According to social psychologists, however, time can also be subjective in nature as well. For example, whether people feel that a past event is close or far away in time regardless of when it actually occurred (e.g., Ross & Wilson, 2003; Wilson & Ross, 2001) or whether people feel that their future is limited or open-ended in time irrespective of their age (e.g., Carstensen, Isaacowitz & Charles, 1999). The purpose of the present research was to examine whether individuals' subjective experience of time for a future event can influence their social interactions.

### **Socioemotional Selectivity Theory**

It has been argued that one's awareness of time is unavoidably connected to the ways in which social goals are attended to and pursued. This idea is rooted in *socioemotional selectivity theory*, a theory of social motivation regarding the life span, which states that the fundamental factor in the superiority of social goals and the ensuing desire for social partners is the awareness of time (Carstensen et al., 1999). One general principle of socioemotional selectivity theory is that it concentrates on the ways in which social goals guide behaviour. As proposed by socioemotional selectivity theory, a wide array of social goals can be organized into two general categories: goals concerned with acquiring knowledge and goals concerned with managing emotion.

According to Carstensen, Isaacowitz and Charles (1999), knowledge-related goals encompass avid behaviour that is directed towards increasing one's knowledge of his or her social and physical environment. Acquiring knowledge through the use of social interaction is frequently required to understand even non-social proficiencies, and

acquainting oneself with an extensive array of individuals, enables one to comprehend his or her social surroundings, recognize what he or she likes and dislikes, and start to compose evaluative assessments of oneself in comparison to others. As such, individuals who pursue knowledge-based goals are likely to focus on optimizing their future and will desire to seek out new experiences. In contrast, Carstensen et al. describe emotion-related goals as those that concern the adjustment of emotional states through communicating with others. In addition to striving towards experiencing positive conditions and steering clear of negative ones, emotion-related goals concern the aspiration to uncover significance in one's life, achieve emotional closeness, and create a sense of being socially embedded. Consequently, it is postulated that individuals who pursue emotion-based goals may concentrate on preserving pre-existing relationships with individuals with whom they feel a particularly secure bond, such as close friends and family members. Accordingly, knowledge-related goals and emotion-related goals jointly encompass a fundamental collection of objectives that encourage social interaction throughout one's life. On a daily basis, social goals battle against each other, and emotion-related goals frequently compete with their knowledge-related counterparts.

The fundamental principle of socioemotional selectivity theory is that one's appraisal of time occupies a key function with regard to the categorization and implementation of behaviours aimed at particular goals (Carstensen et al., 1999). According to the theory, *future time perspective*, which can be defined as the duration of an individual's own prospect of time remaining in the future, is considered a major factor that configures human impulses and objectives (Allemand, 2008). In particular, when individuals regard their future as extensive or open-ended, knowledge-oriented goals are



prioritized. This prioritization holds even when information-oriented goals result in emotion-related costs or the interruption of emotion-related rewards. Thus, individuals who view time as unlimited may attempt to find the best resolution to an issue in order to avoid the same problem from reoccurring in the future, despite the difficulty that may be involved. Conversely, when one's future is perceived as limited, the avid approach attached to limitless time is converted into a preoccupation with one's current state. This orientation is expected to prioritize objectives concerning states of emotion, obtaining emotional representation, and feeling emotional fulfilment (Carstensen et al., 1999). Therefore, when the management of emotions is the principal objective, individuals are very particular regarding their selection of social companions, almost always favouring individuals who are considered to be familiar, especially because emotions regarding these companions are foreseeable and tend to be relatively positive. Furthermore, when time is restricted, social relations are cautiously directed in an attempt to make certain that their emotional value is high. As such, individuals who view time as constrained may strive to find an immediate, but not necessarily the optimum, resolution to an issue in attempt to continue a relationship. Consequently, when goals regarding the acquisition of knowledge compete with goals concerning emotional control, the corresponding significance of the two types of goals is contrasted and, in turn, action may or may not result (Carstensen et al., 1999).

Due to the fact that an individual's chronological age is inseparable from, and negatively correlated with, the quantity of time left in one's life, age-associated patterns do appear. However, these patterns have the ability to be modified when individuals take on a time perspective that differs from what is expected with regard to their current

location within the life cycle (Carstensen et al., 1999). According to future time perspective, and demonstrated by empirical support, younger individuals who are nearing the end of life reveal motivational alterations that are comparable to older individuals (Allemand, 2008). In addition, Carstensen and Fredrickson (1998) tested the hypothesis that the awareness of time left to live, rather than chronological age *per se*, affects how individuals conceptualize social interactions. In one study, the researchers provided a card-sort paradigm involving similarity judgments to a sample of young gay men who were comparable in age, but particularly divergent in their health status. The men were in one of three conditions: (1) HIV negative, (2) HIV positive and asymptomatic, or (3) HIV positive and symptomatic. The experiment found that, when age was held constant, an increased advancement towards the end of life was correlated with an increase in emotion-based mental representations of social companions. In other words, having a limited time left to live is associated with an increased importance of affect towards significant others. These results consequently suggest that the awareness of restricted time, as opposed to chronological age, is the essential variable involved in controlling one's mental accounts of social companions.

### **Interpersonal Forgiveness and Future Time Perspective**

Regardless of the types of social goals that individuals pursue, interpersonal transgressions appear to be unavoidable, and as a result are experienced by each individual and occur throughout one's entire lifespan. Individuals may react to interpersonal transgressions in various ways; some individuals might attempt to seek revenge or steer clear of the perpetrator, whereas others may instead attempt to comprehend the perpetrator's point of view. One potential reaction to interpersonal

transgressions, as well as to the harmful outcomes that may be produced by them, may be to respond with forgiveness, the lay notion that individuals cite to illustrate the modification that takes place when the drive to pursue revenge and sustain separation from a transgressing relationship partner decreases, and the drive to seek reconciliation increases (McCullough, Rachal, Sandage, Worthington, Brown & Hight, 1998).

Older adults are usually identified by people of all ages as more knowledgeable, more insightful, and more forgiving than their younger counterparts. These assumed notions would suggest that older adults also tend to have more experience with regard to encountering interpersonal transgressions than do younger adults (Allemand, 2008). Using socioemotional selectivity theory, Allemand (2008) examined the roles of future time perspective and social proximity on the willingness to forgive across variable ages. The experimenters instructed younger and older adults to evaluate their motivation to forgive perpetrators of a transgression as a function of their social closeness with the perpetrator and their future time perspective of themselves and/or the perpetrator. Participants were presented with two sets of four imaginary situations in which the participants played the role of the victim of a transgression. Each situation included two pieces of information: (a) how close the participant was to the transgressor (friend vs. acquaintance), and (b) future time perspective (extensive vs. limited). One group of situations mentioned the future time perspective of the victim, while the other group mentioned the future time perspective of the transgressor. The results revealed that the older adults showed more forgiveness than did younger adults. Social proximity did not play a significant role in the forgiveness process for older adults, but younger adults showed an increased likelihood to forgive a friend in contrast to a mere acquaintance.

Therefore, the results suggest that future time perspective plays a role in the forgiveness process.

Yet, as Carstensen and Fredrickson (1998) have revealed, it is not chronological age, but rather the perception of one's remaining time as limited that is the key factor in determining one's emotional connections with social partners. Nevertheless, some empirical research has examined the role of future time perspective on social interactions using variables other than chronological age. In addition, even fewer studies have investigated future time perspective using features of time other than one's remaining time left to live, such as the amount of time remaining with a social partner. In addition, few studies have applied future time perspective to specific situations or experiences that may occur in one's life rather than to one's life in general, such as whether time left in university can be perceived as limited or extensive. One example of this limited research includes an experiment conducted by Allemand, Hill, Ghaemmaghami, and Martin (2012), who examined the impact of age on future time perspective and forgiveness. The researchers performed a cross-sectional study that examined the extent to which future time perspective moderates the connection between forgiveness and subjective well-being among adults. The results of the study found that future time perspective and forgiveness were significantly correlated with positive well-being, with individuals who possessed a limited future time perspective reporting more forgiveness and a larger sense of well-being than those with an open-ended future time perspective. The study also revealed that the significant influence of forgiveness and future time perspective as predictive of subjective well-being controlled for age and gender. Therefore, this study provided

additional evidence that the moderating influence of future time perspective involves remaining time rather than one's age.

Another aspect of future time perspective that lacks empirical research concerns whether socioemotional selectivity theory can be extended to examine future time perspective for specific experiences, such as situations encountered in university. The majority of research regarding future time perspective has involved comparisons between young and old adults within the same situation, or between exclusively older adults in distinctive situations. The only experiment that has exclusively explored the assessment of the future time perspective among young adults is one by Fredrickson (1995) regarding the socioemotional behaviour of senior college students before their expected social separation following graduation. This study investigated the daily sequence of social contact among college students who experienced social and/or environmental detachment related to college graduation. The results of the investigation showed that, in contrast to students who did not experience social detachment, graduating college seniors demonstrated an increase in emotional connections with close friends relative to acquaintances. Therefore, these results imply that the ways in which individuals interpret prospective social interactions has an impact on their emotional devotion in terms of social connections, providing further support for socioemotional selectivity theory. However, although this study was informative, it did not specifically focus on future time perspective, nor did it examine forgiveness, which reveals a clear lack of evidence regarding this type of social interaction.

Overall, the perception of remaining time has been shown to be an essential component of social interaction and social conduct. Additionally, given the importance of

interpersonal transgressions in terms of emotional and social distress, it is essential to comprehend how individuals react to interpersonal transgressions. It is also necessary to investigate the aspects that anticipate differences with regard to how individuals handle transgressions in order to clarify how to improve upon reactions to interpersonal problems, such as preventing oneself from becoming upset, individual welfare, maintaining functional relationships, and achieving forgiveness (Allemand, 2008).

### **The Present Study**

The objective of the present study was to investigate the effect of future time perspective on willingness to forgive. Specifically, the present study examined university students' perception of how much time they have left at university and whether it affects their willingness to forgive a friend who transgressed against them. Perceiving future time left with a close friend as limited should encourage individuals to focus more on emotion-based goals (e.g., finding an immediate, but not necessarily the best solution to a problem to continue with the relationship), which in turn should lead to an increased likelihood of forgiveness. In contrast, perceiving future time left with a close friend as open-ended or extensive should encourage individuals to focus more on knowledge-based goals (e.g., finding the best solution to a problem to avoid the same problem in the future), which in turn should lead to a decreased likelihood of forgiveness.

In the present research, individuals were asked to imagine themselves in a specific scenario in which they have been the victim of a hypothetical transgression that was instigated by a close friend. Previous research has typically manipulated future time perspective by asking people to imagine either themselves or their perpetrators as having a serious illness versus being completely healthy (Carstensen & Fredrickson, 1998). In

the present study, a different manipulation was used, one that examined individuals' perceptions of how much time they have left with a close friend at university. Those in the limited future time perspective condition were encouraged to view their time left at university with their friends as rather brief. Alternatively, those in the extensive future time perspective condition were encouraged to view their time left at university with their friends as prolonged. Lastly, those in the neutral future time perspective condition were not encouraged to view their length of time left at university with their friends as being of any particular length. It was therefore hypothesized that individuals who are led to view their future time as limited will be inclined to concentrate on social goals concerning emotion, whereas individuals who are led to view their future time as extensive will be inclined to concentrate on social goals concerning knowledge. Moreover, it was further hypothesized that individuals who were led to view their future time left with their friends at university as limited, as opposed to extensive or neutral, would be more likely to focus on emotion-related goals, and in turn would be more likely to forgive their friends for a hypothetical transgression if it were to actually occur.

## **Method**

### **Participants**

A total of 56 undergraduate students (22 men and 34 women) participated in the study in return for partial course credit. All participants were undergraduate students who were enrolled in an introductory psychology course at Huron University College, a liberal arts university college affiliated with the University of Western Ontario. Participants ages ranged from 18 to 45 years ( $M = 19.23$ ,  $SD = 3.72$ ).

## **Materials and Procedure**

Participants were recruited through a post on Huron University College's online participation pool website (SONA). The study was advertised to potential participants as "reactions to events involving close friends" and required them to complete a computerized questionnaire in the laboratory that involved providing their reactions to a hypothetical scenario regarding themselves and a close friend of their choice. Each session was limited to a maximum of three students due to the size of the room.

The participants were randomly assigned to one of three versions of the questionnaire, versions that either encouraged participants to view their time left at Huron University College as limited, extensive, or neutral. In the limited time condition, participants were told that the four years they would spend completing an undergraduate degree is a short period of time, and therefore they would not have very long to decide what to pursue after they graduate (for the full description see Appendix I). In the extensive time condition, participants were told that the four years they would spend completing an undergraduate degree is a rather lengthy period of time, and therefore they would have quite a bit of time to decide what to pursue after they graduate (for the full description see Appendix II). Finally, in the neutral time condition, there was no mention of time with respect to their experience at Huron (for the full description see Appendix III).

The questionnaire required all participants to begin the study by thinking of an individual whom they considered to be a close friend and who also attends Huron University College, to type their initials into the questionnaire, and to keep this person in mind throughout the duration of the study. Participants were subsequently asked to read a



scenario that concerned a transgression between two individuals and to imagine themselves as the victim of the wrongdoing and their friend as the transgressor. The scenario described the actions of the friend that eventually led to the participant and friend being accused of plagiarism (for the full description see Appendix IV). Following the scenario, participants were presented with a manipulation check to test the effectiveness of the future time perspective manipulation. The manipulation check assessed the extent to which participants felt as though their time left at Huron University College was limited using a 5-point rating scale ranging from 1 = *definitely* to 5 = *not at all*.

Participants then completed the 18-item Transgression-Related Interpersonal Motivations (TRIM) Inventory (TRIM; McCullough, Root, & Cohen, 2006) in order to assess their forgiveness of the transgressor in the scenario. The TRIM Inventory consists of three subscales: avoidance, revenge, and benevolence. The avoidance subscale contains seven items that measure the motivation to circumvent personal and psychological interaction with the transgressor (e.g., “I would keep as much distance between us as possible”). The revenge subscale contains five items that measure the motivation to obtain vengeance or to see the transgressor experience harm (e.g., “I would make him/her pay”). The benevolence subscale contains five items that measure the motivation to forgive the transgressor and attempt to mend the friendship (e.g., “Despite what he/she did, I would want us to have a positive relationship again”). Prior studies have showed moderate test-retest reliability and construct validity for the subscales (see McCullough & Hoyt, 2002; McCullough et al., 1998; McCullough, Fincham & Tsang, 2003). Responses were reported on a 5-point rating scale and ranged from 1 = *strongly*

*disagree* to 5 = *strongly agree*. Each subscale was internally consistent (avoidance,  $\alpha = .83$ ; revenge,  $\alpha = .64$ ; benevolence,  $\alpha = .90$ ), and an average for each subscale was computed<sup>1</sup>. A single-item measure of forgiveness was included as an auxiliary measure. Participants were asked the extent to which they would forgive the transgressor if the scenario were to actually occur and indicated their response on a 5-point rating scale ranging from 1 = *definitely would not* to 5 = *definitely would*.

Next, participants were asked questions involving their goal priorities, including the extent of their emotion-related and knowledge-related goals. Two items were created by the experimenter to measure emotion-related goals that assess the extent to which participants focused on maintaining their pre-existing friendships rather than forming new ones. One item assessed how interested participants would be in meeting new people versus spending time with pre-existing close friends. A second item assessed the extent to which participants focused on the good aspects of their friendships and attempted to look past any issues. Two items were also created by the experimenter to measure knowledge-related goals that assess the extent to which participants focused on the future of their friendships and gaining new information about their friendships. One item assessed the degree to which participants attempt to sort out issues within their friendships in order to prevent future conflicts. A second item measured how interested participants were in trying new experiences with their friends in order to gain new knowledge about them. The four goal priority items were scored on a 5-point rating scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* (see Appendix V). The two emotion-related goal items,  $r(56) = -.03$ ,  $p = .83$ , and the two knowledge-related goals,

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<sup>1</sup> Alpha scores were calculated within the current study.

$r(56) = .12, p = .40$ , however, were not correlated. As such, each goal item was analyzed separately.<sup>2</sup>

Participants were then asked to answer some questions regarding their general thoughts and feelings towards the scenario and the friend about whom they chose to think during the study. Specifically, participants were asked how vivid their image of the scenario was (1 = *no image at all* and 5 = *perfectly*), how close they felt to their friend (1 = *very* and 5 = *not at all*), and how realistic and severe they felt the scenario was (1 = *not at all* and 5 = *very*). Participants were also asked to indicate how long they have known their friend in months (see Appendix VI).

Next, participants were asked to recall their favourite experience that they have shared with the close friend in order to relieve any discomfort they may have experienced while imagining themselves within the provided scenario.

Lastly, participants were asked to answer several demographic questions, including their age and gender.

## Results

### Preliminary Analyses

**Manipulation check.** To test the effectiveness of the future time perspective manipulation (FTP), a one-way between-subjects ANOVA was conducted with FTP (limited vs. neutral vs. extensive) as the independent variable and perceived time

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<sup>2</sup> Additional analyses revealed that there was a significant correlation between the item assessing the extent to which participants try to work out problems in their relationship to avoid future conflict (knowledge goal) and the extent to which they focus on the positive aspects of their relationship and look past any problems (emotion goal),  $r(56) = .30, p = .03$ . There was also a significant correlation between the item assessing the extent to which participants want to spend time with their existing friends rather than making new friends (emotion goal) and the item assessing the extent to which they was to try new experiences with their friends to learn more about them (knowledge goal),  $r(56) = -.33, p = .01$ . The meaning between each pair of items was unclear, and therefore, each goal priority item was analyzed separately in the main analysis.

remaining at Huron as the dependent variable. The results revealed no effect among the three conditions: limited ( $M = 2.17$ ,  $SD = .79$ ), neutral ( $M = 2.32$ ,  $SD = 1.06$ ), and extensive ( $M = 2.58$ ,  $SD = 1.07$ ),  $F(2, 53) = .84$ ,  $p = .44$ , partial  $\eta^2 = .03$ , although the means were in the predicted direction.

**Forgiveness measures.** A correlational analysis was conducted to examine the relationship between the single-item measure of forgiveness and each of the three TRIM subscales (avoidance, revenge, and benevolence). As expected, the single-item measure of forgiveness and the TRIM subscales were correlated. The single-item was positively correlated with avoidance, revenge, and benevolence. In addition, the TRIM subscales were correlated with each other, such that avoidance was positively correlated with revenge, benevolence and the single-item; revenge was positively correlated with benevolence and the single-item; and finally, benevolence was positively correlated with the single-item. Table 1 presents the internal consistency reliabilities as indexed by Cronbach's alpha, correlations, and descriptive statistics for each measure.

Table 1

*Internal Consistency Reliabilities, Correlations, and Descriptive Statistics for the Forgiveness Measures*

Measure	1	2	3	4	<i>M (SD)</i>
1. Single-item	-	.51**	.25	.75**	3.73 (.80)
2. Avoidance		.83	.37**	.49**	2.62 (.69)
3. Revenge			.64	.27*	2.31 (.56)
4. Benevolence				.90	3.62 (.67)

*Note.* \*\* $p < .001$ . \* $p < .05$ , 1-tailed.

**Control variables.** A number of variables were measured to ensure that the quality of friendships and perceptions of the scenario were consistent across conditions. Specifically, a one-way MANOVA was conducted with FTP (limited vs. neutral vs. extensive) and gender as the independent variables and: (1) how close the participants felt they were with their friends; (2) how realistic the participants felt the scenario was; (3) how severe the participants felt the scenario was; (4) how vivid the participants' image of the scenario was; (5) and length of relationship with their friend were entered as dependent variables. Gender was included in the analysis to uncover any possible gender effects. The results revealed that there was no significant effect of FTP, Pillai's Trace = .10,  $F(10, 94) = .48$ ,  $p = .90$ , partial  $\eta^2 = .05$ . Interestingly, there was a significant effect of gender, Pillai's Trace = .26,  $F(5, 46) = 3.28$ ,  $p = .01$ , partial  $\eta^2 = .26$ . Specifically, women ( $M = 3.12$ ,  $SD = 1.37$ ) perceived the scenario as more realistic than men ( $M = 2.18$ ,  $SD = 1.37$ ),  $F(1, 50) = 5.36$ ,  $p = .03$ , partial  $\eta^2 = .10$ . Women ( $M = 4.18$ ,  $SD = .72$ ) also perceived the scenario as more severe than men ( $M = 3.27$ ,  $SD = 1.24$ ),  $F(1, 50) = 12.22$ ,  $p = .001$ , partial  $\eta^2 = .20$ . Table 2 presents the descriptive statistics for each control variable by each FTP condition.

Table 2

*Descriptive Statistics for Control Variables*

Variable	Grand Mean ( <i>SD</i> )	Limited	Neutral	Expansive
		<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Closeness	4.20 (.80)	4.33 (.69)	4.21 (.63)	4.05 (1.03)
Realism	2.75 (1.43)	2.89 (1.45)	2.84 (1.34)	2.53 (1.54)
Severity	3.82 (1.05)	3.83 (1.04)	3.74 (1.05)	3.89 (1.10)
Vividness	3.71 (.99)	3.89 (.96)	3.89 (.94)	3.37 (1.01)
Relationship Length (in months)	27.13 (52.65)	17.61 (19.08)	34.26 (81.14)	29.00 (37.34)

## Primary Analyses

**Forgiveness.** To test the main hypothesis that the future time perspective adopted would affect forgiveness, a two-way MANOVA was performed with FTP and gender as the independent variables and the single-item measure of forgiveness and the TRIM subscales (avoidance, revenge, and benevolence) as the dependent variables. No specific predictions were made for gender, but it was included as a factor in the analysis to rule out any possible gender effects. The results revealed no significant effect of FTP on the dependent variables, Pillai's Trace = .14,  $F(8, 96) = .92$ ,  $p = .50$ , partial  $\eta^2 = .07$ . Interestingly, a significant gender main effect emerged, Pillai's Trace = .22,  $F(4, 47) = 3.27$ ,  $p = .02$ , partial  $\eta^2 = .22$ . The results revealed that there was a significant gender effect for the revenge subscale, such that men ( $M = 2.49$ ,  $SD = .70$ ) reported stronger revenge motivations in comparison to women ( $M = 2.19$ ,  $SD = .41$ ),  $F(1, 50) = 3.88$ ,  $p = .05$ , partial  $\eta^2 = .07$ . There was also a marginally significant gender effect observed for the avoidance subscale, such that women ( $M = 2.75$ ,  $SD = .66$ ) reported stronger avoidance motivations in comparison to men ( $M = 2.42$ ,  $SD = .72$ ),  $F(1, 50) = 3.41$ ,  $p = .07$ , partial  $\eta^2 = .06$ . However, gender did not have a significant effect on benevolence,  $F(1, 50) = .65$ ,  $p = .43$ , partial  $\eta^2 = .01$ , or the single-item measure of forgiveness,  $F(1, 50) = .43$ ,  $p = .52$ , partial  $\eta^2 = .01$ . There was also no significant interaction between FTP and gender on any measures of forgiveness, Pillai's Trace = .06,  $F(8, 96) = .36$ ,  $p = .94$ , partial  $\eta^2 = .03$ .

Given that the manipulation was ineffective, correlations were conducted among perceived FTP (i.e., the manipulation check item), the single item measure of forgiveness, and the three TRIM subscales. The results revealed that perceived FTP was not correlated



with avoidance,  $r(56) = -.01, p = .95$ , revenge,  $r(56) = -.06, p = .67$ , benevolence,  $r(56) = -.11, p = .44$ , or the single-item of forgiveness,  $r(56) = .06, p = .69$ . Therefore, how participants viewed their future time left with their friend was not related to the participants' likelihood of seeking revenge, avoidance, or benevolence or granting forgiveness if the transgression with their friend were to actually occur.

### **Goal Priorities**

The second hypothesis was to test whether the future time perspective adopted would affect the type of goal that participants would focus on. To test this hypothesis, a two-way MANOVA was conducted with FTP and gender as the independent variables and each goal priority item as the dependent variables. The results showed that there was no significant effect of FTP, Pillai's Trace = .19,  $F(8, 96) = 1.23, p = .29$ , partial  $\eta^2 = .09$ , or gender, Pillai's Trace = .16,  $F(4, 47) = 2.23, p = .08$ , partial  $\eta^2 = .16$ . Finally, there was no significant interaction between FTP and gender, Pillai's Trace = .09,  $F(8, 96) = .57, p = .80$ , partial  $\eta^2 = .05$ .

A correlation analysis was conducted to examine whether perceived FTP (i.e., the manipulation check item) was correlated with each of the goal priority items. Results showed that perceived FTP was not correlated with any of the goal priority items, all  $ps \geq .08$ . In addition, none of the goal priority items correlated with any of the forgiveness measures, all  $ps \geq .10$ .

### **Discussion**

The results of the current experiment did not support the hypothesis that individuals who are encouraged to perceive future time remaining at university with their close friend as limited, rather than extensive or neutral, would be more likely to focus on

emotion-related goals, and therefore be more forgiving towards their friend if a transgression instigated by the friend were to occur.

The results of the study showed that the FTP manipulation was ineffective, such that participants' views of their time left at Huron University College was not altered by the FTP condition that they were placed in. However, the means were in the predicted direction, such that participants in the limited time condition perceived their time at university to be the most limited followed by the neutral time condition, and then by the extensive time condition. In addition, responses to the manipulation check item that assessed participants' perception of future time at the university did not correlate with any of the forgiveness measures. A possible explanation for this outcome could be the fact that the manipulation was not worded strongly enough to influence participants' views of the length of time they have left at university. Whereas past studies elicited awareness of future time by utilizing the remaining time their participants had left to live (e.g., Allemand et al., 2008; Carstensen & Fredrickson, 1998), the current study focused on a particular experience within one's life, time remaining to obtain a university degree, and varied the *perception* of how much time was left of the experience. Furthermore, whereas Fredrickson (1995) measured awareness of social detachment by utilizing participants who were graduating college seniors, the current experiment utilized participants that were university freshmen, and thus was required to manipulate the participants' experience of having a certain amount of future time left at university rather than being able to utilize their actual perception of remaining future time.

The main analysis showed that there was no significant effect of FTP on any of the forgiveness measures. Although gender effects were not expected, there was evidence

that men and women may have different avoidance and revenge motivations, such that men reported stronger revenge motivation, whereas women reported slightly stronger avoidance motivation. However, there was no difference between men and women for benevolence motivation. These findings suggest that men and women may respond differently to harms and may require different strategies or tactics to forgive a close friend who transgressed against them. Past research examining the effects of gender and age on forgiveness of authentic transgressions revealed that younger men were more inclined to seek revenge in comparison to middle-aged and older men (Allemand, Ghaemmaghami & Martin, 2011). However, no differences were revealed for women, nor did the study disclose how close the participants were with the individuals involved within their transgressions. Therefore, more research concerning the interaction between gender and forgiveness in young adults should be performed.

The goal priority items were not significantly correlated into emotion-related and knowledge-related goal subsets, which revealed that the items were not distinct enough for the participants to notably feel more oriented towards goals that either concern knowledge or emotion. Moreover, when the goal priority items were analyzed separately, no significant results were found, which revealed that the items were also not distinct enough for the participants to feel more likely to utilize certain goals within their friendships over others.

The results of the control variables included in this study showed that relationship quality and perceptions of the transgression were equivalent across all three FTP conditions. A closer examination of the means for each of these variables revealed that participants viewed the closeness of their relationship with their friend to be fairly close

and considered the severity and vividness of the scenario to be somewhat high, but did not consider the scenario to be very realistic. This suggests that participants may find it very unlikely that a close friend would transgress against them in such a drastic way as plagiarism. The results also revealed that gender influenced how severe and realistic the scenario was perceived to be, with female participants identifying the scenario as more realistic and severe in comparison to male participants. This suggests that females may be more sensitive towards certain aspects of transgressions concerning their friends in comparison to males.

In attempt to improve future versions of the present experiment, the FTP conditions should be altered in order to present participants with stronger differences between conditions by using real experiences rather than hypothetical scenarios. For instance, future participants should consist of first-year university students as well as students who are about to graduate university, similar to the method used by Fredrickson (1995) in his study of emotional detachment of university students. This would provide researchers with participants who are actually experiencing different levels of future time perspective so that differences in social interactions can be examined among those who are limited versus extensive in their future time perspective of their university experience. First-year students should perceive their time at university as more extensive relative to those who are graduating.

Also, future research should further study the role of gender on forgiveness using the TRIM inventory. Past research on this topic is lacking in terms of these types of relationships between the participants and their close friends (e.g., Allemand et al., 2011), and therefore further research on the subject matter would aid in expanding the

forgiveness literature concerning whether one's gender has a significant impact on different aspects of forgiveness.

Regardless of its limitations, the current study helps increase the current forgiveness literature by moving away from the standard method of manipulating FTP using the length of one's life and instead using one's perception of the length of time that they have left in a certain situation or with a certain individual. By examining whether FTP for a particular experience, such as time left with a close friend at university, can affect interpersonal forgiveness, hopefully a more macro understanding of forgiveness may be exposed that has the ability to be generalizable among more individuals as opposed to only those whose lives are coming to an end. In addition, this line of research can help individuals in their day-to-day lives by revealing how our perception of time remaining in certain situations can affect how we prioritize our social goals and interpret the importance of our relationships. Furthermore, this line of research can also help explain the factors that determine whether or not individuals choose to forgive others for transgressing against them. This may be able to help individuals who are harbouring pain or resentment associated with individuals who have transgressed against them, since possessing such negative feelings could possibly lead to emotional or mental health issues if not resolved.

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## Appendix I

### Scenario Introduction for the Limited Future Time Perspective Condition

Most undergraduate programs at Huron only take about four years to complete, so the time that you spend at Huron is actually quite short and you really don't have a lot of time to decide what you want to do. Even though your time at Huron is quite limited, there is no doubt that you will go through many different kinds of experiences. Many of these experiences will be new, some of which will be more pleasant than others, and we would like to know how you might respond to some of these experiences. Please take a few minutes and imagine the following situation between you and your friend (the person who you were thinking about at the beginning of the study). You should close your eyes and imagine the situation in as much detail as possible.



## Appendix II

### Scenario Introduction for the Neutral Future Time Perspective Condition

Most undergraduate programs at Huron take about four years to complete, and you will be able to decide what you want to do during this time. During your time at Huron, there is no doubt that you will go through many different kinds of experiences. Many of these experiences will be new, some of which will be more pleasant than others, and we could like to know how you might respond to some of these experiences. Please take a few minutes and imagine the following situation between you and your friend (the person who you were thinking about at the beginning of this study). You should close your eyes and imagine the situation in as much detail as possible.

### Appendix III

#### Scenario Introduction for the Extensive Future Time Perspective Condition

Most undergraduate problems at Huron take about four years to complete, so the time that you spend at Huron is actually quite long and you have a lot of time to decide what you want to do. Even though you will be at Huron for quite a while, there is no doubt that you will go through many different kinds of experiences. Many of these experiences will be new, some of which will be more pleasant than others, and we would like to know how you might respond to some of these experiences. Please take a few minutes and imagine the following situation between you and your friend (the person who you were thinking about at the beginning of the study). You should close your eyes and imagine the situation in as much detail as possible.

## Appendix IV

### Forgiveness Scenario

*You and your friend have an assignment due in several days. You have already finished the assignment for the class, but your friend says that he/she is under a lot of time pressure and asks you to lend him/her your assignment in order to gain some ideas. You agree, but your friend simply retypes your assignment word for word and hands it in as his/her own. The professor recognizes the identical papers, calls both of you to her office, takes 10% off of both of your marks, and says you are lucky that she doesn't put you both on academic probation.*

## Appendix V

## Goal Priority Assessment

Below is a set of personal statements that one may relate to. Use the following scale to indicate your agreement to each statement.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

- a. \_\_\_\_\_ I try to work out any problems in my relationships to help me avoid future conflicts.
- b. \_\_\_\_\_ I am uninterested in meeting new students and would rather spend time with my close friends.
- c. \_\_\_\_\_ I accept my relationships as they are, focus on what is good about them and try to look past any problems.
- d. \_\_\_\_\_ I like to try new experiences with my friends to learn more about them.

## Appendix VI

## Vividness, Closeness, Severity, and Realism Assessments

In order to help the researcher fully understand your feelings towards your friend and the provided scenario, please complete the following additional questions.

Using the scale below, rate of vivid your image of the scenario is:

1	2	3	4	5
No image at all	Vague	Neutral	Reasonably	Perfectly

Using the scale below, rate how close you feel to this friend:

1	2	3	4	5
Very	Slightly	Neutral	Not very	Not at all

Using the scale below, rate how severe you think the provided scenario would be if it were to occur:

1	2	3	4	5
Not at all	Not very	Neutral	Slightly	Very

Using the scale below, rate how realistic you find the situation to be:

1	2	3	4	5
Not at all	Slightly	Neutral	Somewhat	Very

## Curriculum Vitae

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