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Socioemotional Selectivity Theory and  
Autobiographical Memory of College Students

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### Abstract

The differences in autobiographical memories of college students who were either graduating seniors or returning sophomores were investigated to analyze the implications of Carstensen's socioemotional selectivity theory. Sixteen graduating seniors and 16 returning sophomore participants reported one specific memory from the fall semester and one from the spring semester. Half of all participants in each class were assigned to an experimental condition that emphasized the approaching end of the school year. Class was not associated with any statistically significant differences in the use of positive or negatively valenced emotional state words, mentions of intimate social contacts, or a socially relevant theme. However, an emphasis on the ending of the school year was associated with an increased likelihood of all participants discussing socially intimate partners regardless of class as well as more personal emotional state words in seniors' spring semester memories compared to spring memories reported by senior control participants. These results support the application of socioemotional selectivity theory to the life transitions of younger adults.

## Socioemotional Selectivity Theory and Autobiographical Memory of College Students

We can all remember a moment that felt like a significant ending in our lives, a moment where we felt like we were about to close a door on an experience and never return. It could have been our high school or college graduation, an upcoming geographical move, or a job change. How do these endings affect us? How do they affect with whom we choose to surround ourselves and what we find meaningful about our time shared? How do these endings affect the way we remember our time spent in these experiences? Answers to these questions may emerge from an examination of socioemotional selectivity theory (SST) which aims to predict how people's perception of time is linked to their social goals and choices of social partners (e.g. Carstensen, 1992; Carstensen, Isaacowitz & Charles, 1999). SST classifies social goals into two wide-ranging categories: those that serve to regulate emotion and those that serve to gain knowledge. SST predicts that in situations in which people perceive an expansive future, knowledge-related goals will be pursued. Conversely, in situations where time is perceived as limited, people will pursue emotion regulating goals. SST asserts that social goal motivations can be reflected by choice of social partners (Carstensen, 1992). For example, a strong preference for close, emotionally intimate partners is indicative of a desire to regulate emotion. Conversely, preference for a novel or less familiar partner highlights a knowledge-seeking motivation.

Much of the research on socioemotional selectivity theory and memory has focused on age related patterns across the lifespan (e.g. Carstensen, 1992; Carstensen & Mikels, 2005; Comblain, D'Argembeau, & Van der Linden, 2005; Fredrickson, & Carstenson, 1990; Mather & Carstensen, 2005) and changes that occur at the end of life (Carstensen & Fredrickson, 1998).

One example of such work comes from Kennedy, Mather, & Carstensen (2004) who compared various responses of 300 women from the year 1987 and their memory for these 1987 responses 14 years later (i.e. retrospectively in 2001). The women ranged in age from 47 to 101 years old and all were specifically instructed to answer in retrospect as they believed they had in 1987. In addition, the participants were instructed to answer while focusing on either their current emotional state or accuracy. A control condition was not given a specific focus. Kennedy et al's results revealed that the older control participants (79 to 101 years of age) remembered the events of 1987 more positively than they originally reported, whereas the younger control participants (47 to 65 years of age) did not show this positivity effect bias in their recollections. Interestingly, when participants were instructed to focus on their emotional states, all participants regardless of age showed a positivity effect, a trend that did not hold true for the accuracy condition. These emotionally focused participants also differed from accuracy-focused participants in that they showed an improvement in their reports of current mood after recall.

Overall, the results of Kennedy et. Al (2004) showed that increasing age was associated with a positivity effect in memory and that this positivity effect is consistent with the emotional motivations predicted by socioemotional selectivity theory for persons nearing the end of life. This study suggests that approaching the end of life may lead to focus on emotional goals, which in turn may elicit a positivity effect for memory and as a consequence, enhance mood by increasing positive emotions. In other words, at the end of life, focusing on emotional goals results in a positivity bias for memory that may serve to regulate mood.

How applicable is SST to younger persons for endings less permanent than the end of life? Fredrickson (1995) observed the socioemotional behavior of 66 college students, 19 of whom were senior students who faced an upcoming graduation. All participants were asked to

complete a log of their social interactions for the final three weeks of their spring semester in which they recorded the type of partner engaged in interaction (close friend or acquaintance), time spent with each partner, and the emotional involvement of each interaction. Fredrickson found that senior students did not differ from their younger cohorts in time spent with different social partners. In other words, seniors reported the same number of social interactions with acquaintances and close friends as younger students. However, graduating seniors rated the emotional involvement with friends much higher than did other college participants. This difference in emotional involvement supports the idea of a motivational change predicted by socioemotional selectivity theory. In particular, it highlights that young people do show a motivational focus on emotion during times of upcoming transition. This study shows that SST is not restricted to older adults approaching life's end, but is also applicable to younger persons at times of transition. However, the research leaves open the question of whether younger persons approaching a transition show a positivity effect in their memory for the past. With this question in mind, the present study aimed to examine the retrospect reports of college seniors in comparison to those of younger students. Of primary interest was the extent to which the self-nominated memories reflected differences in motivational goals (knowledge-seeking vs. emotion regulating) and consequently differences in retrospective positivity.

Fivush, Edwards, & Mennuti-Washburn's (2003) conducted a memory study that supports the connection between an emotional focus and a positivity effect in memory. In their study they required 88 students coping with the events of September 11<sup>th</sup> to complete a daily journal surrounding the incident. The participants were instructed to write daily, focusing on their deepest thoughts and feelings. The researchers found that individuals who used more emotion and cognitive processing words in their accounts remembered their reaction to

September 11th more positively than they had originally reported. In addition, the students' writings showed a gradual increase in the use of positive emotion words over the days of journaling. Thus this study supports the findings of Kennedy et al. (2004) in that younger persons can and do show a positivity effect when encouraged to focus on emotional factors.

So what does this mean for the memories of college seniors approaching a life transition upon graduation? Are we likely to see evidence of a positivity effect and emotion regulating goals for senior students who are closer to the transition relative to those more distant? On the one hand the findings we have reviewed thus far highlight the idea that there is sufficient evidence to predict that seniors will show evidence of emotional goals (Fredrickson, 1995) and thus in turn a positivity effect as a consequence (Fivush et al., 2003; Kennedy et al., 2004). On the other hand, there are also logical reasons to believe that graduating seniors may not show these patterns. Whereas college graduation is likely to be seen as an important ending, it also represents a new "beginning" in life. Seniors have much to be planning for and as such it may be reasonable to show evidence of goals associated with knowledge seeking as opposed to the regulation of emotion.

As we have reviewed thus far, the positivity effect may function to regulate emotion. However, there are other ways to regulate emotion besides being more positive about the past. Wilson & Ross (2003) found in their examination that subjective distancing of past events and use of point of view may also serve to regulate emotion. In their study, participants who were encouraged to feel close to previous successes evaluated their current self more favorably than those who were persuaded to see the same successes as more remote. In contrast, participants who were encouraged to feel close to previous failures evaluated their current self less favorably than those who were persuaded to see the same failures as more remote. In other words

subjective distancing can moderate the impact of remembered events on emotional state. Wilson & Ross also found that negative events can be associated with less guilt by analyzing the past event in the third-person viewpoint. In other words a third-person perspective can also function as a distancing mechanism and can be associated with the extent to which an individual personalizes a memory. If the memory related positivity effect comes about primarily because of our desire to regulate emotional experience, then subjective distancing and perspective taking could be utilized to regulate emotion without compromising the accuracy of the memory. For younger persons, these methods may be somewhat more advantageous than the positivity bias because they maintain the factual nature of the memories and thus help us to grow, expand, and perhaps avoid the situation in the future. In other words, remembering the past more positively at a young age may be unfavorable because it may hinder our ability to avoid similar negative situations in the future.

With all of these issues in mind, the present study examined the memories of graduating college students for evidence of an emotional orientation as well as evidence of a positivity memory effect. To this end, college sophomores and seniors of a residential liberal arts college were asked to self-record two specific memories of the current college year in writing; one memory from the fall semester and one from the spring. Of primary interest was the extent to which their memories would show differences in emotional content, social partner mentions, and socially relevant themes.

### Method

The study was conducted in the period of the tenth to twelfth week of a fourteen week spring semester so as to capitalize on the saliency of an ending for the senior student participants. An experimental manipulation that emphasized the end of the school year was included to

examine if explicitly drawing participants' attention to this ending would affect memory outcomes.

### Participants

Thirty-two college students served as voluntary participants. In exchange for their participation students received either extra credit for their general psychology course or entrance into a raffle for a meal at a local dining establishment. Participants were 16 graduating seniors and 16 returning sophomores. Three additional participants participated in the study but their data were unusable. Two of these students were from academic classes not utilized (1 first-year, 1 junior) and one senior did not complete the survey entirely. Sophomore students were utilized as a comparison for the departing seniors instead of first-year students or junior students for three reasons. First, unlike first-year students, sophomore students were not new to the academic environment of college. Second, at the institution that this study took place, the junior year is frequently utilized by students to engage in study abroad experiences. We predicted that because of these experiences junior memories would be "special" in ways that would not be consistent with the issue at hand. Lastly, we predicted that junior students would be more likely to be experiencing graduation of friends and classmates and therefore may be experiencing an upcoming change that sophomore students were less likely to be experiencing.

### Procedure

The study was set up to be a 2 (class: sophomore, senior) x 2 (semester: fall, spring) x 2 (condition: emphasized, control) mixed design. Participants were either sophomore or senior students. All participants were asked for two memories; one from the fall semester and one from the spring semester. The order of the requests was counterbalanced. All participants experienced a memory appeal adapted from Pillemer, Goldsmith, Panter, & White (1988). These



requests asked for a specific memory from the current year. Participants were allowed 10 minutes to complete each memory request and were instructed to report the first memory that came to mind, to be as precise as possible, and to include any remembered details to matter how trivial they seemed. There was only a slight alteration to this appeal by condition. Half of all participants were in the “emphasized ending” condition. In this condition the memory appeals were preceded by the following phrase that was intended to emphasize the end of the year: “as this year comes to an end, another chapter in your life has come to a close”. In the control condition this clause was simply not present.

After all the participants reported their memories and the memories were set aside, participants were asked to rate the emotional content of each memory on a 1-5 Likert scale where 1 represented very negative; 2, negative; 3, neutral; 4, positive and 5, very positive. Participants then completed a short survey. The first part of the survey included three questions intended to assess whether the students were undergoing a significant transition in their life. The first two questions asked participants to report their agreement or disagreement with the statements, “I feel that a period in my life is coming to an end” and “I am moving permanently soon”, on a Likert scale from 1 to 5 where 1 was strongly disagree and 5 was strongly agree. The third question asked participants to report the percentage of close friends with whom they expected to have regular or frequent contact in 6 months. The last part of the survey section asked for information relating to the students’ college attendance and intentions for the future and requested demographic information (gender, class in college, anticipated date of graduation, years of attendance, and intention to return the following year).

Coding

Each memory was coded for three things: social mention, theme, and explicit mention of emotion. Coding categories for social mention were as follows:

1. **Family:** Mention of any relative of the participant (biological, step or in-law all included).
2. **Romantic:** Mention of romantic partners and those with whom the participant is intimately involved or with whom the participant is developing a close romantic relationship.
3. **Close Friend:** Mention of friends which are specifically indicated to be “close” or “best friends”.
4. **Friend:** Mention of any person in which an on-going relationship is assumed.
5. **Acquaintance:** Mention of any person in which the relationship was limited to one or two encounters.
6. **Classmate(s):** Mention of a relationship that is assumed to exist only within the confines of class.
7. **Professor:** Mention of a professor.
8. **Boss/Work:** Mention of a work related supervisor or an interaction taking place within the confines of a work environment.
9. **Alone:** The participant’s memory is primarily about themselves.
10. **Strangers:** Primary mention is of people with whom the participant does not have an established relationship (Includes strangers, audience members, bystanders, pets).
11. **Other:** Mention of anyone who does not fit in any of the above categories.

Each memory received only one code for social mention. These social mentions were further categorized into one of two larger categories: intimate social mention and non-intimate

social mentions. The category of intimate social mentions included family members, romantic partners, close friends, and friends. The non-intimate social mentions category included acquaintances, classmates, professors, work supervisors or work interactions, strangers, or of being alone. Each memory was then coded for the presence or absence of an intimate social mention as well as a non-intimate social mention.

### Theme

The coding categories for theme were as follows:

1. **Academics:** Primary mention is of class, homework, exams, faculty, or grades.
2. **Work:** Mention of working in either on or off-campus employment or internships.
3. **Housing:** Primary mention is of moving in or out, conflicts over living situations, or non-recreational residence hall activities (e.g. fire alarms, problems with heat/air conditioning)
4. **Individual Recreation:** Solo free-time, recreational activities such as those that occur after classes or on weekends and do not have an explicit social component.
5. **Success:** Primary mention is of success of the individual in a personal, work, or academic setting.
6. **Challenge:** Description of an ongoing personal challenge or quest.
7. **Social Recreation:** Free-time recreational activities such as those that occur after classes or on weekends that have a social component. Includes meet and greet activities, participation in sports, parties or social gatherings.
8. **Hello/Goodbye:** Primary mention is of parting with or reconnecting with a close friend, significant other, family member or roommate
9. **Other:** The theme is not adequately described by one of the above categories

Each memory received only one code for theme. These themes were then separated into two categories: socially relevant or not socially relevant. The socially relevant category included memories whose primary theme was of social recreation or of parting with or reconnecting with intimate social partners. The not socially relevant category included memories that had a primary academic, work related, housing, individual recreation, personal success or personal challenge theme. Each memory was then coded for the presence or absence of a socially relevant theme or a not-socially relevant theme.

#### Explicit mention of emotion

Explicit mention of emotion was coded by tallying each participant's use of emotional state words in their accounts. Only instances that the subject reported a specific mention of their own emotional state were included. Emotional state words were categorized as positively or negatively valenced emotion words. Positive emotion was described to be a specific statement of participant's positive feelings. Emotional descriptors such as happy, excited, fun, liking, confident, love and proud were included as were actions that implied positive emotion such as laughing. Negative emotion was described to be specific statements of the participant's negative feelings. Emotional descriptors such as anxious, bored, sad, angry, lonely, disappointed, hatred, feeling stressed, overwhelmed or unsure were included as were actions that implied negative emotion such as crying. Not included were any statements that implied emotion, such as the phrase, "I couldn't wait" or any actions, such as hugging, that could be construed as either positive or negative. Descriptors about the subject's physical state, such as being sick, hot, or tired were also not included. Lastly, a word count was taken. An independent coder analyzed 25% of the memories reported for reliability; coding disputes were resolved through discussion thus, agreement for all codes was 100%.

## Results

### Are Seniors Aware of an “Ending”?

The current exploration of socioemotional behavior hinges on the assumption that seniors are experiencing an “ending” occurring in their lives that sophomore students are not. To assess this assumption, I analyzed participants’ responses to the questions, “I feel that a period in my life is coming to an end” and “I am moving permanently soon.” Seniors were significantly more likely to report agreement with both statements than sophomores ( $F(1,30) = 7.00, p = .013, M_{Sr} = 4.13, M_{So} = 3.06$ ;  $F(1,29) = 37.26, p < .001; M_{Sr} = 4.33, M_{So} = 2.19$  for ending and moving statements respectively). Seniors also reported significantly lower availability of close friends in six months than sophomores reported ( $F(1,30) = 16.842, p < .001; M_{Sr} = 73.7\%, M_{So} = 37.5\%$ ).

### **How was the emotional content of responses affected by class of participant and condition?**

To compare the use of total internal state emotional words, positive emotional state words and negative emotional state words in the written memory accounts, I conducted 2 (class) x 2 (condition) x 2 (semester) mixed ANOVA for each category. Analysis of total internal state emotion words revealed no statistically significant main effect for class or condition (see Table 1). However there was a significant three-way interaction between class, condition and semester,  $F(1,28) = 11.89, p = .002$ . To understand this three-way interaction I examined each class separately. Follow up analyses revealed that condition was not having an effect on the use of emotional state words by either class in their fall memory reports. However condition had a different effect on class in the spring memory reports. For sophomore spring memories the emphasis of the ending in the experimental condition resulted in significantly fewer mentions of internal emotional state words relative to the control condition ( $F(1,14) = 6.74, p = .021$ ). For senior spring memories the emphasis on the ending resulted in significantly greater mentions of

internal emotional state words relative to the mention in the control condition ( $F(1,14) = 5.465$ ,  $p = .035$ ).

Analysis of positive internal state words showed no statistically significant main effect for class or condition (see Table 2). However, there was a significant three-way interaction between class, condition and semester  $F(1,28) = 12.257$ ,  $p < .01$ . Follow up analysis by class revealed that there were no significant effects or interactions for senior participants. However, sophomore participants had a significant condition by semester interaction ( $F(1,14) = 10.671$ ,  $p = .006$ ). For sophomore participants emphasis on the ending resulted in significantly more positive emotional state words in the fall memories compared to the spring. However, the control condition for sophomore participants was associated with more positive emotional state words in the spring than in the fall. Analysis of negative internal state words resulted in no statistically significant main effect for class or condition and no significant interactions (see Table 3).

#### **How did self report of emotional content differ by class of participant and condition?**

To compare participants' ratings of emotional content I conducted 2 (class) x 2 (condition) x 2 (semester) mixed ANOVA. Analysis of the participants' emotional content ratings found no statistically significant main effect for class or condition (see Table 4). Whereas one may be tempted to conclude from these results that the emotional ratings of participants' memories didn't vary by class, an exploration of the proportion of ratings provided for each of the Likert scale categories revealed otherwise. These data, displayed in figure 1, show an interesting pattern that appears to vary by class. Specifically, sophomore participants rated 42.75% of their memories collapsed across semester as very positive, 18.75% positive, 15.63% neutral, 15.63% negative, and 6.25% very negative. In contrast, seniors rated 40.63% of their memories as very positive, 40.63% positive, 6.25% neutral, 12.50% negative, and 0% very

negative. Thus it appears that seniors reported more positive memories than sophomores (81.25% versus 62.50% respectively). Also none of the seniors reported memories that they rated to be very negative. Despite these interesting patterns, it is important to note that these differences in the proportion of positive memories were not statistically significant.

What kinds of social contacts were participants mentioning in their accounts?

To compare any differences in whether the primary social mention was an intimate partner or a non-intimate partner, I conducted a 2 (class) x 2 (condition) x 2 (semester) mixed ANOVAs for the mention of intimate partner (i.e. family, romantic partner, close friend or friend). A significant effect of condition was found such that experimental participants who had an emphasis on the ending were more likely than control participants to talk about emotionally intimate partners ( $F(1,28) = 6.00, p = .021$ ). In contrast there was no statistically significant effect of class (see Table 5).

What kinds of themes were participants writing about?

To compare any differences in whether the primary theme was socially relevant or not-socially relevant I conducted a 2 (class) x 2 (condition) x 2 (semester) mixed ANOVA. No statistically significant main effects were found.

Did the responses vary in length?

To compare any differences in length of memory, I submitted the number of words contained in each memory to a 2 (class) x 2 (condition) x 2 (semester) mixed ANOVA (see Table 6). This analysis revealed a significant semester by class interaction ( $F(1,28)=8.506, p=.007$ ). Further analysis showed that whereas the length of fall memories was comparable for sophomores and seniors, seniors provided longer spring memories than sophomores.

## Discussion

The goal of this study was to address a significant gap in the research of socioemotional selectivity theory. There have been many studies that have demonstrated the existence of both emotionally oriented social partner choices and a positivity effect for memory in older adults (e.g. Carstensen, 1992; Carstensen & Mikels, 2005; Fredrickson & Carstensen, 1990; Kennedy, et al., 2004; Mather & Carstensen, 2005). There has also been evidence that has shown that younger persons show an emotional orientation in their social partner choices when approaching the end of life, (Carstensen & Fredrickson, 1998) graduation, (Fredrickson, 1995) or when asked to imagine approaching hypothetical endings (Fredrickson & Carstensen, 1990). With regard to their memories for past events, what has been shown is that younger people show the positivity effect when explicitly encouraged to focus on emotion (Fivush et al., 2001; Kennedy et al., 2004). However, there has been a significant lack of research aimed at examining whether younger persons' memories spontaneously show the positivity effect due to an approaching ending in their lives. Furthermore it is not clear to what extent their memories themselves will show differences in socioemotional focus as reflected by mentions of social partners and social themes.

This study fills this gap and demonstrates that the ideas of socioemotional selectivity theory apply to younger persons approaching transition. There are three findings that are particularly meaningful. First, I found that an emphasis on the ending of the current school year increased the likelihood of all participants discussing socially intimate partners regardless of class. This is particularly interesting considering the relatively mild nature of this emphasis: the memory requests in the "ending" condition were simply preceded with the statement "as this year comes to an end, another chapter of your life has come to a close". That an experimental manipulation can lead participants to emphasize emotional goals regardless of class or actual



proximity to an ending is consistent with the findings of Kennedy et al., (2001). The fact that when the end was emphasized in this way for seniors, their accounts of spring memories included significantly more personal emotional state words is also worth emphasizing. It is particularly interesting that the enhanced emotional processing emerged only in the spring memories. Perhaps the emphasis on the ending has a more potent effect when recalling events temporally closer to the social departure as opposed to more distant memories. However the certainty of this conclusion is compromised by the fact that the reports of sophomore's spring memories in the emphasized ending condition had significantly fewer mentions of emotional state words compared to the control condition. Thus emphasizing the ending had a very different effect on sophomores spring memories compared to seniors. It is unclear exactly what the implications of this finding are.

In addition to the differences caused by the experimental manipulation, it is important to note the pattern of class differences that emerged for participants' emotional ratings of their recollections. Although it appears that the seniors rated their own memories as more positive than the self-ratings of sophomores (see figure 1), this difference did not reach statistical significance. Nonetheless, the pattern is consistent with predictions based on SST and thus, merits further investigation in subsequent research.

With regard to length, fall semester memories were comparable for sophomores and seniors. In contrast the spring memories reported by seniors were significantly longer than those provided by sophomores. This difference in length cannot be solely attributed to recency effects as sophomores did not show a significant difference. This taken with the other differences found between spring and fall memory reports suggest that students may approach their reports of fall and spring memories somewhat differently as a function of their proximity to the

approaching end of the college experience. Again this class difference in the processing of fall and spring memories may be due to a differential need to elaborate on and emotionally attend to events that occurred in closer proximity to the ending of the school year.

Graduating seniors did not differ from returning sophomores nor did control participants differ from emphasized ending participants in whether their memory reports were centered on socially relevant themes or non-socially relevant themes. This finding suggests that participants were choosing to discuss similar types of events regardless of condition or class.

Finally, whereas the current findings provide some interesting patterns of results that are supported by the predictions of SST it is important to note that one of the limitations of this work is that it results from small sample size. In some ways this leaves open the possibility that with increased power even greater support for SST may be revealed.

### Conclusions

The present study supports the application of socioemotional selectivity theory to younger persons approaching a transition. Participants who had an emphasis on the upcoming end of the school year were more likely to discuss socially intimate partners in their memories than control participants. In addition, this emphasized ending was associated with more personal emotional state words in seniors spring semester memories compared to controls. These findings contribute to the growing support for socioemotional selectivity theory's application to younger persons approaching transitions.

Table 1

Mean number of explicit emotional state words as a function of class (sophomore and senior) and condition (control, emphasis on ending)

	Semester	
	Fall	Spring
Sophomore		
Control	2.375 (2.615)	2.875 (2.416)
Emphasis on ending	2.375 (1.506)	0.500 (0.756)
Senior		
Control	1.625 (1.506)	1.875 (1.642)
Emphasis on ending	1.250 (1.282)	2.875 (2.532)

Note: Standard Deviations are included in parenthesis

Table 2

Mean number of positive emotional state words as a function of class (sophomore and senior) and condition (control, emphasis on ending)

	Semester	
	Fall	Spring
Sophomore		
Control	0.500 (0.756)	1.750 (2.053)
Emphasis on ending	1.750 (1.282)	0.125 (0.354)
Senior		
Control	1.125 (1.246)	1.250 (1.282)
Emphasis on ending	0.750 (1.389)	1.750 (2.053)

Note: Standard Deviations are included in parenthesis

Table 3

Mean number of negative emotional state words as a function of class (sophomore and senior) and condition (control, emphasis on ending)

	Semester	
	Fall	Spring
Sophomore		
Control	1.750 (2.493)	1.125 (0.991)
Emphasis on ending	0.625 (1.061)	0.375 (0.744)
Senior		
Control	0.500 (1.069)	0.625 (0.744)
Emphasis on ending	0.500 (0.535)	1.125 (1.126)

Note: Standard Deviations are included in parenthesis

Table 4

Mean self report emotional rating as a function of class (sophomore and senior) and condition (control, emphasis on ending)

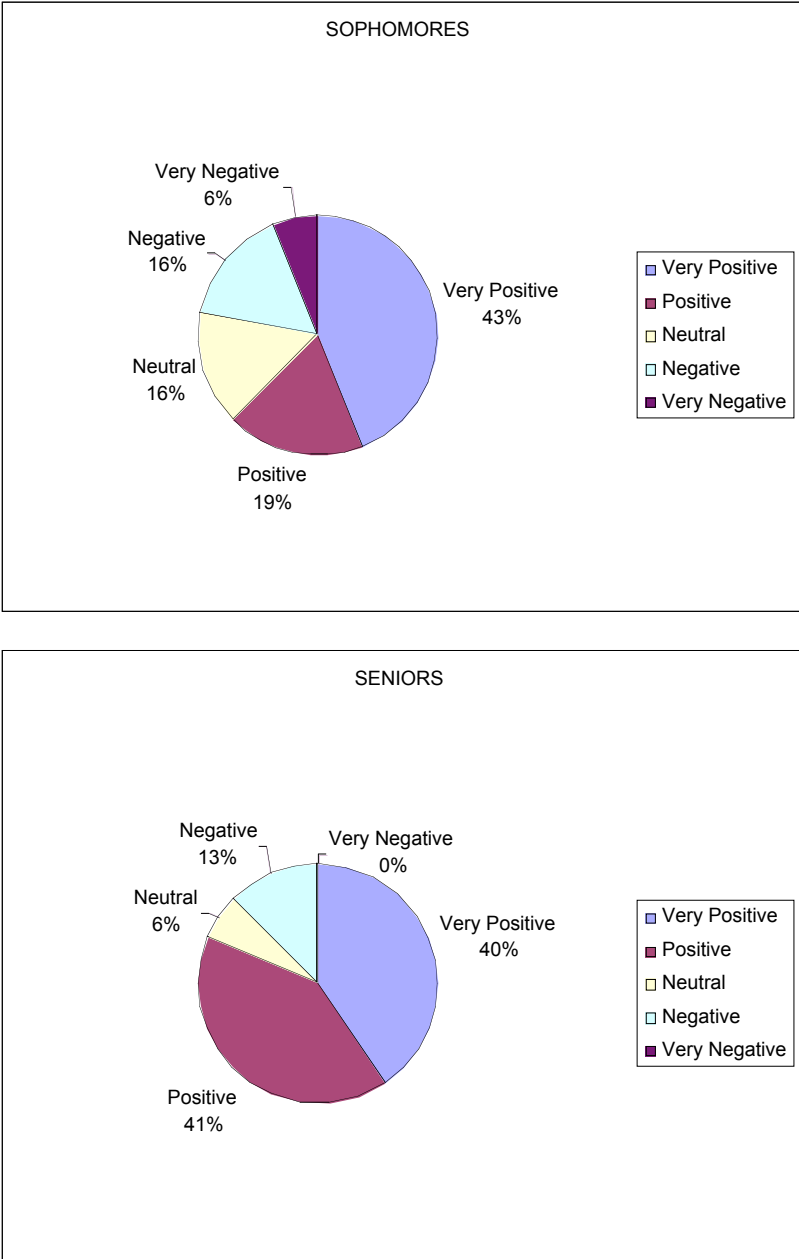
	Semester	
	Fall	Spring
Sophomore		
Control	3.625 (1.302)	3.750 (1.581)
Emphasis on ending	3.875 (1.356)	3.875 (1.356)
Senior		
Control	4.125 (0.991)	4.250 (0.707)
Emphasis on ending	3.625 (1.408)	4.375 (0.744)

Note: Standard Deviations are included in parenthesis

Figure 1

Percentages of self report emotional ratings by category as a function of class (sophomore and senior)

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Table 5

Intimate social partner mention as a function of class (sophomore and senior) and condition (control, emphasis on ending)

	Semester	
	Fall	Spring
Sophomore		
Control	0.625 (0.518)	0.375 (0.518)
Emphasis on ending	0.875 (0.354)	0.750 (0.463)
Senior		
Control	0.750 (0.463)	0.500 (0.535)
Emphasis on ending	0.500 (0.535)	0.875 (0.354)

Note: Standard Deviations are included in parenthesis

Table 6

Mean word count as a function of class (sophomore and senior) and condition (control, emphasis on ending)

	Semester	
	Fall	Spring
Sophomore		
Control	138.13 (45.57)	119.88 (40.96)
Emphasis on ending	141.00 (41.33)	127.13 (59.29)
Senior		
Control	160.50 (60.52)	238.88 (96.69)
Emphasis on ending	124.00 (46.62)	133.50 (66.89)

Note: Standard Deviations are included in parenthesis

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