

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF PSYCHOLOGY

MOTHER'S INFLUENCE ON INTERNAL STATE LANGUAGE OF CHILDREN

KELLIE THERESE HANNUM

Spring 2010

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Psychology
with honors in Psychology

Reviewed and approved* by the following:

Pamela M. Cole
Professor of Psychology
Thesis Supervisor

Jeanette Cleveland
Professor of Psychology
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

Abstract

After the first birthday, children acquire expressive language, i.e. begin to use words. In addition to helping children communicate, language also helps children understand their emotional worlds, including the internal states (desires, emotions, and thoughts) of others and themselves. The present study examined how maternal internal state language when children were 36 months of age influenced child internal state language. Specifically, the study investigated whether gender differences in child internal state language emerge during this developmental period and, if they do, whether this is due to differences in how mothers speak to their sons and daughters about internal states. Based on existing literature, it was predicted that mothers talk more about internal states with daughters than sons, which would account for girls using more internal state language than boys. The procedure involved coding transcripts from lab visits with mothers and their children while the mother reads wordless books to their children. The results of the study showed no gender differences with both the amount of internal state language that mothers used with their children, nor gender differences in the amount of internal state language that children used. These results could be due to the use of the wordless books which may unnaturally pull for use of internal state language with disregard to the child's gender, as well as a suggestion that gender differences in use of internal state language disappear once children reach 36 months of age.

TABLE OF CONTENTS

Acknowledgements.....	iii
Chapter 1. INTRODUCTION.....	1-5
Chapter 2. METHODS.....	6-9
Participants.....	6-7
Procedure.....	7-8
Coding.....	8-9
Chapter 3. RESULTS.....	10-14
Utterances and total ISL words spoken.....	11-12
Utterances and % ISL words spoken	12-14
Chapter 4. DISCUSSION.....	15-16
References.....	17-18

ACKNOWLEDGEMENTS

The successful completion of this Honors thesis was made possible by the contribution of several individuals. I would like to first and foremost take the time to thank Dr. Pamela Cole, whose expansive knowledge of clinical and developmental psychology regarding children was often my guiding light in pursuit of the completion of this project. I would also like to thank Ms. Emily LeDonne, who led us in our transcription of mother and child discourse during the family's lab visits, as well as Ms. Laura Marie Armstrong, who was always so patient in answering questions regarding the modification of our ISL manual. I also feel it is necessary to thank the families who participated in our visits, because without them we would have no opportunity to study the important questions about internal state language and child development. Finally, I would like to acknowledge the National Institute of Mental Health, RO1 MH61388, which provided the funds for the larger project, as well as the Office of Research Compliance, Penn State University, (IRB# 990642) who approved the work.

CHAPTER 1. Introduction

Internal state language is the lexicon of words used to describe personal states such as wants, needs, thoughts, perceptions, and emotions (Bretherton & Beeghly, 1982). Internal state language is a topic of interest in the study of socio-emotional development, because its use predicts a variety of socio-emotional skills that largely fall under the category of emotional competence (Izard, King, Trentacosta, Morgan, Laurenceau, et al., 2008). Having words to describe internal states aids children's learning to understand emotion signals from others and how to respond to them (Dunn, Bretherton, & Munn, 1987). In addition, internal state language aids a child's ability to talk about his or her emotions, a skill that is important to being able to clarify misunderstandings, as well as to discuss interpretations of life events (Dunn et al., 1987).

Evidence suggests that males and females differ in their development of internal state language. For instance, adult women report talking about emotions more often than men (Allen & Haccoun, 1976), but the child development literature does not provide conclusive evidence that girls and boys differ. Research from one laboratory consistently indicates that parents have a preference for speaking to their female children more about sadness than with their male children (Fivush, Brotman, Buckner, & Goodman, 2000; Adams, Kuebli, Boyle, & Fivush, 1995; Kuebli & Fivush, 1992) and that when speaking about emotions to either gender, parents more often talk about sadness with girls, and anger with boys (Fivush et al., 2000). Fostering girls ability to talk about sadness may be a causal factor in why females develop depression in adolescence at a higher rate than males (Nolen-Hoeksema, 1987).

Other studies show that mothers encourage more discussion about feelings with their daughters at age 18 months, which may explain girls' greater use of internal state language at age

24 months (Dunn et al., 1987). In addition, some studies show that across the preschool years, parents use more frequent and varied emotion language with girls than with boys. Perhaps more importantly, while it has been shown that girls and boys do not initially differ in their use of emotion language, by 70 months girls use emotion terms more often than boys do, as well as a larger variety of emotion words than boys do (Adams et al., 1995).

Although some studies find these gender differences, other studies find no gender differences in the degree to which mothers talk to their children about their internal states (LaBounty, Wellman, Olson, Lagattuta, & Liu, 2008; Fivush et al., 2000), and one study from a lab that consistently found gender differences in maternal talk about emotion did not find differences in the children's speech about internal states (Fivush et al., 2000).

The significance of internal state language is shown in longitudinal studies that reveal how early parental use of this form of language promotes children's emotion cognition. For instance, mothers' use of desire terms with her child at age 15 months predicts, not only child internal state language, but also emotion understanding nine months later (Taumoepeau & Ruffman, 2006). Moreover, if either parent talks to a child about internal states often when the child is 3 years old, the child is better able to make judgments about the emotions of unfamiliar adults at age 6 years (Dunn, Brown, & Beardsall, 1991). Therefore, any evidence that girls have an early advantage in internal state language is likely to contribute to gender differences in emotional competence at later ages.

A close examination of the literature on internal state language suggests that many studies have limitations that may influence whether or not they find gender differences. For example, not all studies examine all forms of internal language. That is, some studies focus

exclusively on emotion terms whereas others include all terms that describe unobservable internal states. There is no consensus on what constitutes emotion terms or internal state language. This can occur because of difficulty assigning a name to certain internal states (Dunn et al., 1987), or because children may not understand certain terms (e.g. cognitive state terms) when they are young and parents mainly refer to children's desires. In the latter case, it is also easier for a parent to guess or to point to what a young child wants whereas it is impossible to do this to refer to "thinking". It should also be noted, however, that mothers begin to talk about thinking more as the child grows (Taumoepeau et al., 2006), which could be a result of mothers believing that their children continue to develop their ability to understand knowledge and beliefs, and to recognize that others have their own thoughts, which therefore reinforces mothers to talk more about thoughts and knowledge. In this way, it is possible that mothers recognize changes in the child's conversational ability, which in turn helps the child to learn how to speak about their cognitions as well as the cognitions of others (Taumoepeau et al., 2006).

Another methodological limitation of many studies is small sample size (Dunn et al., 1987; Dunn et al., 1991; Fivush et al., 2000; Adams et al., 1995; Kuebli et al., 1992). It is also very common for studies to only focus on middle class families in this line of research, which limits the degree to which the results can be generalized to other groups (Dunn et al., 1987; Dunn et al., 1991; Fivush et al., 2000; Adams et al., 1995; Kuebli et al., 1992).

Other studies suggest that why parents talk to girls more than boys about sadness is because girls experience and express more sadness in daily interactions than boys, and therefore parents focus on this emotion when discussing past events with girls (Fivush et al., 2000), or that a child's own interest in and ability to talk about emotions may influence the mother's emotion

talk (Labounty et al., 2008). However, in a different study of the same sample used in this thesis, there were no observed gender differences in happiness or anger until children were 48 years old and then it was a differences of degree rather than of expression of different emotions (Klein, 2010). Other studies suggest that girls have more frequent opportunities than boys for expressing feelings, and receive frequent feedback, and a wider range of feedback about emotional aspects of their own and others' experiences. In addition, some studies involving internal state language do not account for the differences in environment in which internal state language is spoken. It is possible that gender differences may occur in the expression of emotions depending on the situations in which the discussion took place, such as who is present in the household/lab (Kuebli et al., 1992).

It has also been shown that some studies suggest that it is important as to which category of internal state language is most discussed at each stage in development, and that the timing of mental state input and the fit with the child's developmental level is important. Thus, it is suggested that mother references to thinking and knowing become important for increased mental state understanding (Taumoepeau et al., 2006; LaBounty et al., 2008). In addition, some studies do not answer the question of whether the mothers attempts to introduce mental states in a way that puts them into a child's experiential frame of reference (or talking about the child), before moving on to talk about mental states in other people's frame of reference has any effect on learning internal state language (Taumoepeau et al., 2006).

To address these limitations, the present study is designed with several innovations. First, the sample size is larger than most studies of internal state language, including 120 children. Second, the children are from economically-strained households, whereas most studies are

conducted with more advantaged families or very poor families. This is important as language input varies with socio-economic status (Hoff-Ginsberg, 1991), and it is necessary to study all types of families to understand how income or other factors relate to a family's use of internal state language. Finally, all categories of internal state language words are included. These methods will be used to test the hypothesis that mothers talk to their daughters more than their sons when most children have developed expressive language (age 36 months).

CHAPTER 2. Method

Participants

Recruitment and enrollment. The children were recruited from rural/semi-rural areas using a multi-step process which included utilizing a census-track data system to identify communities that fit criteria, and researching communities to become familiar with their history. Community leaders in education, medicine, politics, and religion were also contacted to further understand the communities, as well as for leaders to become acquainted with the researchers. In addition, undergraduate students went through published birth records to find eligible children in the communities and then sent out letters requesting their participation in the study. Next, the students went to community events, and also put flyers in daycares and preschools in order to find eligible children. The majority of the children included in the study came through the letters. Interested families were contacted by phone and given additional information about the study. The interviewer determined if each of the eligibility criteria was met by the family. Next, a second phone interview was conducted in which the project coordinator both gathered information on the family's demographics, as well as scheduled the first visit.

Families. The participants selected for the study were families from economically strained households, defined as having household annual income (all sources) at or below the national median for their family size, but above the poverty line by the United States government. All households were located in central Pennsylvania. There were 120 children who participated (65 boys and 55 girls). They were recruited based on certain criteria which included being 18 months of age at the first visit +/- 2 weeks, having lived with a primary caregiver since 3 months of age, and having no disabilities that would interfere with participation. At the first visit, 54 children were first born (45%), 45 were second born (38%), 15 were third born (12%),

and 6 were fourth or later born (5%). For the 18-month home and lab visits, the study sample included 120 families. Ninety four percent ($n = 113$) were Caucasian. The other seven families (5.8%) were of African American, Hispanic, or Asian ethnicities. The mean age of the mothers was 30.45 years old ($SD = 5.29$) at the beginning of the study. Twenty-three (19%) of the mothers had completed high school, nineteen (15.7 %) had attended vocational school, and seventy-six (63%) of the mothers had at least taken some college courses. Thirty-four mothers (28%) labeled themselves as unemployed or homemakers, thirty-nine mothers (32%) worked part-time, and forty-seven mothers (39%) worked full-time. The families' average household annual income at 18 months was \$40,655.70 ($SD = 14,996.57$), and the average household per capita income at 18 months was \$11,009.49 ($SD = 4,534.17$).

Procedure

The data used for the present study came from the larger longitudinal study. The children and their families participated in nine separate visits throughout the study. The visits began when the child was 18 months of age and they ended when the child was 5 years old. The visits were divided between four home visits and five lab visits. The aim of the larger study was to document developmental changes in children's emotional regulation. Only the procedures used for the present study are detailed in this method section. When the children began the study, they were 18.52 months of age on average ($SD = .51$). The assessments of internal state language were made both in the children's homes and in the laboratory.

36-Month Lab Visit. About two weeks after the home visit, the mother and her toddler participated in a laboratory-based assessment that took place at the Child Study Center at The Pennsylvania State University. All tasks were administered in a small, child friendly room with a child size table, two child size chairs, a cabinet, an adult size table and chair, and posters of the

alphabet and animals on the wall. All procedures were videotaped through a two-way mirror. Mothers filled out a financial compensation form at the end of the visit, and the children were given small gifts to take home, such as a D.O.T.S. t-shirt. One task from this visit was used for the present study

Picture book task. In this five-minute task, mothers and their children were asked to read two wordless picture books together (Mayer, 1973; Mayer & Mayer, 1975). The mothers were asked to describe the pictures to their children, or to create a story. The books included pictures in which the characters expressed a range of emotions. Some examples of the pictures included a turtle biting a puppy, a little boy playing with the frog, and a little boy being frightened and his glasses falling off his face. The mother and the child were asked to sit in the child-size chairs at the child-size table. The research assistant explained that the mother did not have to read for the whole five minutes if the child lost interest, but that she should do the best she could to engage the child in reading. A video camera was set up in the video booth behind the two-way mirror. The video record of the conversation was later transcribed and coded later by two trained coders.

Coding

All lab visit video records were transcribed. The natural speech occurring in the lab visits were transcribed using CLAN, a program created at Carnegie Mellon that is popularly used to transcribe speech into a standard form so that they can be analyzed using a program called CHAT (MacWhinney, 1991).

The ISL manual used was adapted from Dunn and Hughes (2005) Inner State Coding Manual. From the transcripts, all explicit internal state words were found and assigned to one of four categories: (a) desire, (b) emotion, (c) perception, and (d) cognition. Following that,

references were coded in regard to who made the reference, who the person was talking to, and whose inner state was being referred to. Trained undergraduate research assistants who were not given information on the study objectives coded the internal state language. Also ISL coding was officially begun once the undergraduate research assistant had reached a level of at least 80% accuracy with a master coder. After being trained, the coders were randomly assigned transcripts to code for ISL. Inter-rater reliability among internal state coders was calculated for 20% of the transcripts. The Amount of Internal State Language used by mothers and their children was calculated as a percentage: the frequency of ISL (sum of desire, emotion, perception, and cognition words) used by each person divided by the total number of words the person said during the visit. The variables measured in this present study include the age of the children at which they express the different categories of ISL with their mothers, as well as the gender of the child.

CHAPTER 3. Results

The types of internal state language are presented in Table 1. The list is not exhaustive, as new terms were included as coding took place, but does include the most common ISL words.

Table 1

List of most commonly used ISL words

Desire	Emotion	Perception/Sensation	Cognition
Hope	Afraid	Appear	Believe
Need	Angry	Feel	Bet
Want	Bored	Hear	Choose
Wish	Curious	Listen	Decide
Would like	Excited	Look	Dream
Feel + an adjective	Peek	Forget	
Happy/unhappy	Recognize	Guess	
Jealous	See	Know	
Like/don't like	Smell	Make up	
Love	Taste	Pretend	
Mad	Touch	Remember	
Sad	Watch	Think	
Scared	To be/feel awake	Wonder	
Upset	To be/feel hungry		
	To be/feel hurt		
	To be/feel sick		
	To be/feel thirsty		
	To be/feel tired		

The frequencies of mother and child references to internal state language are displayed in Table 2. Four types of information are provided: (a) Child Total ISL, (a) Child Total ISL , (b) Child % ISL, (c) Mother Total ISL, and (d) Mother % ISL. Percentages were calculated to correct for the differential frequency of ISL use across participants.

Table 2

Frequency of ISL references by child and mother

	N	Minimum	Maximum	Mean
	Statistic	Statistic	Statistic	Statistic
Reading: Child Total ISL	109	0	27	4.31
Reading: Child %ISL	109	.00	24.07	5.1126
Reading: Mom Total ISL	109	2	73	32.76
Reading: Mom %ISL	109	2.16	13.72	6.5844

Utterances and total ISL words spoken

In Table 3 the mean use of ISL in words uttered for mothers as a function of their child's gender is provided. To test whether there were significant differences in the variance in maternal use of ISL with boys compared to girls, Levene's Test for Equality of Variances was applied to the total ISL words used. As can be seen in Table 4, no significant difference based on the gender of the child was found. The mean number of maternal ISL words used was 33.53 for mothers with their sons and 31.86 for mothers with their daughters girls (Table 3). By assuming equal variances, the gender difference was not significant, $t(109) = .590$, $p > .05$.

In Table 5, the child's use of ISL words is presented. For this analysis, the Mann-Whitney U test was used. This test was chosen because of the distributions of word use were skewed, largely due to the low rate of ISL used in this sample. The Mann-Whitney U test indicated that there was no significant difference between boys and girls ($p > .05$).

Table 3

Mother's total ISL use based on child's gender

	child's gender	N	Mean	Std. Deviation	Std. Error Mean
Reading: Mom Total ISL	male	59	33.53	14.794	1.926
	female	50	31.86	14.559	2.059

Table 4

Test of equality of variances of Mother's total ISL use based on child's gender

Reading: Mom Total ISL	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.089	.767	.590	107	.556
Equal variances not assumed			.591	104.607	.556

*Note: *p<.05*

Table 5

Test of equality of means of Child's total ISL use based on child's gender

Null hypothesis	Test	Sig.	Decision
The distribution of child's total ISL is the same across categories for child's gender	Independent samples Mann-Whitney U Test	.828	Retain the null hypothesis.

*Note: *p<.05*

Utterances and % ISL words spoken

The analyses were repeated for the percent of ISL words used. These analyses accounted for the fact that dyads varied in the amount of speech they used. In Table 6 the % of ISL used by Mothers per words uttered is provided. By measuring the percentage, we believed that we could compensate for mothers who have a high use of verbal fluency and would thus speak more ISL

anyway. Again, Table 7 provides the significance for Mother's % of ISL words per words uttered using Levene's Test for Equality of Variances, and again no significant difference based on the gender of the child was found. When Mothers spoke to their children, the mean percentage of ISL spoken to boys was 6.5278, while it was 6.6512 for girls (Table 6). For Equal variances assumed, we found $t(109) = -.316, p > .05$. In Table 8, the results of comparing boys' and girls' percentage of use of ISL are presented. Using the Mann-Whitney U test, no significant difference between genders was found ($p > .05$).

Table 6

Mother's % use of ISL based on child's gender

	child's gender 18m	N	Mean	Std. Deviation	Std. Error Mean
Reading: Mom %ISL	male	59	6.5278	2.00556	.26110
	female	50	6.6512	2.06477	.29200

Table 7

Test of equality of variances of Mother's% ISL use based on child's gender

Reading: Mom Total ISL	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.819	.367	-.316	107	.753
Equal variances not assumed			-.315	103.034	.753

*Note: * $p < .05$*

Table 8

Test of equality of means of Child's % ISL use based on child's gender

Null hypothesis	Test	Sig.	Decision
The distribution of child's % ISL is the same across categories for child's gender	Independent samples Mann-Whitney U Test	.971	Retain the null hypothesis.

*Note: * $p < .05$*

Chapter 4. DISCUSSION

This study aimed to explore the gender differences in mother's use of ISL with her 36 month old child, as well as gender differences in children's reciprocal use of ISL. Although the literature generally reports evidence that mothers encourage more discussion about feelings with their daughters than mothers do with their sons (Dunn et al., 1987), it was predicted that mothers would use more internal state language with girls and that this would predict greater internal state term use in girls versus boys at age 36 months. However, neither mothers nor their children demonstrated a significant difference in the frequency or percentage of ISL terms used during a book reading task in which the characters engaged in substantial emotion expression.

In previous studies, home visits were used (Dunn et al., 1987), although in studies conducted by another research group, lab visits were used (Fivush et al., 2000). Thus, the results may be in accordance with another study that has suggested that the context for the observations may influence internal state language (Taumoepeau et al., 2006). In the latter research program, children and their mothers are asked to recall emotional events that happened in the past. This type of task is different than the one employed in the present study, in which mothers and children were reading a wordless book in which mothers narrated the emotional events in the story character's experiences. Talking about one's own past may elicit gender differences more than talking about story characters. The age of children in the present study should also be considered. Although age differences have been shown in mothers' use of ISL with toddlers and with preschoolers in the aforementioned studies, the use of a book-reading task with children who could not yet read also have hampered the detection of gender differences. The stories, which were chosen for their emotional evocativeness, may have elicited internal state terms regardless of the gender of the child with which the mother was reading. A natural conversation

in a familiar environment such as home, in which children may engage in different activities as a function of gender, may allow for detection of gender differences.

The large sample size in the present study is noteworthy and has the statistical power to detect even subtle gender effects. However, our results are consistent with past studies that have found no gender differences in the amount of internal state language that mothers use to talk to their children about their internal states (LaBounty et al., 2008; Fivush et al., 2000), and also with a study that found no gender differences in child's use of internal state language as well (Fivush et al., 2000).

In future studies, it would still be beneficial to use a large sample size. However, the ideal approach to the subject of gender differences would be to use three or more time points in which it could be seen whether, over time, mothers begin to engage in more gender-specific socialization of emotion in terms of their use of internal state language. Then it would also be possible to examine whether, over time, gender differences in children's use of ISL also emerges, and whether this is a function of earlier discourse with the mother. Future research should also include fathers as well as mothers, and should consider using a variety of tasks and settings so that the conditions under which the gender differences emerge could be better understood.

References

- Adams, S., Kuebli, J., Boyle, P., Fivush, R. (1995). Gender differences in parent-child conversations about past emotions: A longitudinal investigation. *Sex Roles, 33*, 309-323.
- Allen, J.G., & Haccoun, D.M. (1976). Sex differences in emotionality: A multidimensional approach. *Human Relations, 29*, 711-722.
- Bretherton, I., & Beeghly, M. (1982). Talking about internal states: the acquisition of an explicit theory of mind. *Developmental Psychology, 18*, 906-921.
- Dunn, J., Bretherton, I., & Munn, P. (1987). Conversations about feeling states between mothers and their young children. *Developmental Psychology, 23*, 132-139.
- Dunn, J., Brown, J., & Beardsall, L. (1991). Family talk about feeling states and children's later understanding of others' emotions. *Developmental Psychology, 23*, 448-455.
- Dunn, J., & Hughes, C.B. (2005). Inner State Coding Manual.
- Fivush, R., Brotman, M. A., Buckner, J. P. & Goodman, S. H. (2000). Gender differences in parent-child emotion narratives. *Sex Roles, 42*, 233-253.
- Hoff-Ginsberg, E. (1991). Mother-child conversation in different social classes and communicative settings. *Child Development, 62*, 782-796.
- Izard, C.E., King, K.A., Trentacosta, C.J., Morgan, J.K., Laurenceau, J., Krauthamer-Ewing, E.S., Finlon, K.J. (2008) Accelerating the development of emotion competence in Head

- Start children: Effects on adaptive and maladaptive behavior. *Development and Psychopathology*, 20, 369-397.
- Kuebli, J. & Fivush, R. (1992). Gender differences in parent-child conversations about past emotions. *Sex Roles*, 27, 682-698.
- Klein, M. (2010). *Gender differences in young children's expressions of anger and happiness in challenging situations* (Unpublished honor's thesis). The Pennsylvania State University Schreyer Honors College, University Park, Pennsylvania.
- LaBounty, J., Wellman, H. M., Olson, S., Lagattuta, K., & Liu, D. (2008). Mothers' and fathers' use of internal state talk with their young children. *Social Development*, 17, 757-775.
- MacWhinney, B. (1991). *The CHILDES Project: Tools for analyzing talk*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Mayer, M. (1973). *Frog on his own*. New York, NY: Dial Books for Young Readers.
- Mayer, M., & Mayer, M. (1975). *One frog too many*. New York, NY: Dial Books for Young Readers.
- Nolen-Hoeksema, S. (1987). Sex differences in unipolar depression: Evidence and theory. *Psychological Bulletin*, 101, 259-282.
- Taumoepeau, M. & Ruffman, T. (2006). Mother and infant talk about mental states relates to desire language and emotion understanding. *Child Development*, 77, 465-481.

ACADEMIC VITA of Kellie T. Hannum

Kellie T. Hannum

1506 Pamela Drive
Downingtown, PA 19335/ (484) 340-0653
KTH5030@psu.edu

EDUCATION

BA Psychology (May 2010, expected)
Pennsylvania State University
University Park, PA

Minor in Spanish

Minor in Law and Liberal Arts

Honors in Psychology

Thesis Title: Mother's Influence on Internal State Language of Children

Thesis Supervisor: Pamela Cole

CLUB MEMBERSHIPS

2007-present Circle K Club

2007-present National Society of Leadership and Success (Sigma Alpha Pi)

2008-present Liberal Arts Mentor Program

CLUB OFFICERSHIP

Fall 2008 Homecoming Co-Chair for Circle K

Fall 2009 Treasurer for Circle K

Spring 2010 Treasurer for Circle K

HONORS

Fall 2006 Dean's List

Spring 2007 Dean's List

Fall 2007 Dean's List

Spring 2008 Dean's List

Summer 2008 Dean's List

Fall 2008 Dean's List

Spring 2009 Dean's List

Fall 2009 Dean's List

PHILANTHROPIC ACTIVITES

Spring 2008 Relay For Life

Spring 2009 Relay For Life

SCHOLARSHIPS

Kraft Bus Scholarship Fall 2006

Deaver Elmer Foundation Scholarship Fall 2008/Spring 2009

Raskin Scholarship Fall 2008/Spring 2009/Fall 2009/Spring 2010

Karako Liberal Arts Scholarship Spring 2009

Matson Margaret Education Abroad Award Summer 2009

WORK EXPERIENCE

2009-present Undergraduate research assistant in Dr. Pamela Cole's "Development of Toddlers Study"