

PSYCH 3420
Cognitive Development in Childhood
Spring 2018

Instructor: Dr. Yuyan Luo Office hours: M/W 11-11:30 am or by appointment
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Teaching Assistant: Office hours: by appointment

Class: Tu/Th 11-12:15; 105 Strickland

Textbook (**OPTIONAL**): Siegler, R., & Alibali, M. W. (2005). *Children's Thinking*, 4th Ed. Upper Saddle River, NJ: Prentice Hall.

Article Summaries:

Each student is required to read 10 journal articles on different topics of cognitive development selected from a list given by the instructor (at the end of the syllabus) and write a 150- to 250-word summary for each article. This needs to be *in your own words*, not from the Abstract section of the article. This summary should include the following: **Purpose of the Research (about 1-2 sentences); Description of Methods (about 2-3 sentences); Description of Results (about 2-3 sentences); Description of Conclusion (about 2 sentences).**

These summaries *must* be in your own words and you *must* hand in a copy of the journal abstract with your summary IN CLASS. You are encouraged to bring to class questions you have about the article you read. These questions can be about anything you did not understand in the journal article including: methods, procedures, statistics, or problems with interpretation.

*Grading: Each article summary is worth 4 points: one point each for descriptions of research purposes, methods, results, and conclusions.
 Half a point off for a summary turned in one day late, one point off for two days late, and so on.*

There are twelve days in the semester when you can turn in an article summary. Ten article summaries count towards the grade.

Exams:

There will be 4 in-class exams. Each exam has multiple-choice questions and short-answer questions and is worth 20 points. Your highest three scores out of the four exams count towards the total score of your exams. If you do very well in three exams, you are not required to take all four exams. Therefore, *there is no makeup exam!*

Grading:

Each article summary is 4 points. You are required to do 10. The total is **40 points**.

Each exam is 20 points. We use the three highest scores, as described above. The total is **60 points**.

There are **5 bonus points** from random in-class assignments throughout the semester (no makeup!).

How to calculate your grade:

N1=out of 40 (article summaries)

N2=out of 60 (exams)

N3=out of 5 (random in-class assignments)

Grade = N1 + N2 + N3

Grading Scale:

A+: 97+; A: 93-96.9; A-: 90-92.9; B+: 87-89.9; B: 83-86.9; B-: 80-82.9 ...

Tentative Course Outline

<u>Date</u>	<u>Topic</u>	<u>Assignment</u>
1/16	Introduction to class	
1/18	Piaget's theory	<i>1st Article Summary Due</i>
1/23	Piaget Revisited	
1/25	Movie "Babies"	
1/30	Socio-cultural approach	<i>2nd Article Summary Due</i>
2/1	Perceptual development	
2/6	Infants' physical knowledge	<i>3rd Article Summary Due</i>
2/8	Infants' physical knowledge	
2/13	<i>Exam 1</i>	
2/15	Language Development	
2/20	Language Development	<i>4th Article Summary Due</i>
2/22	Memory Development	
2/27	Memory Development	<i>5th Article Summary Due</i>
3/1	Conceptual Development	
3/6	Conceptual Development	<i>6th Article Summary Due</i>
3/8	<i>class canceled</i>	
3/13	<i>Exam 2</i>	
3/15	Numerical Reasoning	<i>7th Article Summary Due</i>
3/20	Spatial Cognition and Problem Solving	
3/22	Naïve Physics	
3/27	<i>Spring Recess</i>	
3/29	<i>Spring Recess</i>	
4/3	Theory of Mind	<i>8th Article Summary Due</i>
4/5	Theory of Mind	
4/10	Infants' Notion of Mind	<i>9th Article Summary Due</i>
4/12	<i>Exam 3</i>	
4/17	Naïve Biology	<i>10th Article Summary Due</i>
4/19	Naïve Biology	
4/24	Magical beliefs	<i>11th Article Summary Due</i>
4/26	Schooling	
5/1	<i>Review</i>	<i>12th Article Summary Due</i>
5/3	<i>Exam 4</i>	

List of journal articles to choose from:

Johnson, S. P., Amso, D., Slemmer, J. A. (2003). Development of object concepts in infancy: Evidence for early learning in an eye-tracking paradigm. *Proceedings of the National Academy of Sciences*, 100, 10568-10573.

Baillargeon, R. (1987). Object permanence in 3.5- and 4.5-month-old infants. *Developmental Psychology*, 23, 655-664.

Hespos, S. J., & Baillargeon, R. (2001). Infants' knowledge about occlusion and containment events: A surprising discrepancy. *Psychological Science*, 12, 140-47.

Bergelson, E., & Swingley, D. (2012). At 6-9 months, human infants know the meanings of many common nouns. *Proceedings of the National Academy of Science*, *109*, 3253-3258.

Vouloumanos, A., Onishi, K. H., & Pogue, A. (2012). Twelve-month-old infants recognize that speech can communicate unobservable intentions. *Proceedings of the National Academy of Sciences*, *109*, 12933-12937.

Halberda, J., Mazocco, M. M. M., & Feigenson, L. (2008). Individual differences in non-verbal number acuity correlate with maths achievement. *Nature*, *455*, 665-668.

Wynn, K. (1992). Addition and subtraction by human infants. *Nature*, *358*, 749-750.

vanMarle, K., & Wynn, K. (2009). Infants' auditory enumeration: Evidence for analog magnitudes in the small number range. *Cognition*, *111*, 302-316.

Feigenson, L., Carey, S., & Hauser, M. D. (2002). The representations underlying infants' choice of more: object files versus analog magnitudes. *Psychological Science*, *13*, 150-156.

Xu, F. (2003). Numerosity discrimination in infants: Evidence for two systems of representations. *Cognition*, *89*, B15-25.

Saffran, J. R., Aslin, R. N., & Newport, E. L. (1996). Statistical learning by 8-month-old infants. *Science*, *274*, 1926-1928.

Xu, F., & Garcia, V. (2008). Intuitive statistics by 8-month-old infants. *Proceedings of the National Academy of Sciences of the United States of America*, *105*, 5012-5015.

Gergely, G., Nádasdy, Z., Csibra, G., & Bíró, S. (1995). Taking the intentional stance at 12 months of age. *Cognition*, *56*, 165-193.

Meltzoff, A. N. (1995). Understanding the intentions of others: Re-enactment of intended acts by 18-month-old children. *Developmental Psychology*, *31*, 838-850.

Woodward, A. L. (1998). Infants selectively encode the goal object of an actor's reach. *Cognition*, *69*, 1-34.

Kuhlmeier, V. A., Wynn, K., & Bloom, P. (2003). Attribution of dispositional states by 12-month-olds. *Psychological Science*, *14*, 402-408.

Luo, Y. (2011). Three-month-old infants attribute goals to a non-human agent. *Developmental Science*, *14*, 453-460.

Kovacs, A. M., Teglas, E., & Endress, A. D. (2010). The social sense: Susceptibility to others' beliefs in human infants and adults. *Science*, *330*, 1830-1834.

Onishi, K. H., & Baillargeon, R. (2005). Do 15-month-old infants understand false beliefs? *Science*, *308*, 255-258.

Southgate, V., & Vernetti, A. (2014). Belief-based action prediction in preverbal infants. *Cognition*, *130*, 1-10.

Choi, Y., & Luo, Y. (2015). 13-month-olds' understanding of social interactions. *Psychological Science*, *26*, 274-283.

Hamlin, J. K., Wynn, K., Bloom, P., & Mahajan, N., (2011). How infants and toddlers react to antisocial others. *Proceedings of the National Academy of Sciences*, *108*, 19931-19936.

- Kinzler, K. D., & Spelke, E. S. (2011). Do infants show social preferences for people differing in race? *Cognition*, *119*, 1-9.
- Sloane, S., Baillargeon, R., & Premack, D. (2012). Do infants have a sense of fairness? *Psychological Science*, *23*, 196-204.
- Bloom, P., & Markson, L. (1998). Intention and analogy in children's naming of pictorial representations. *Psychological Science*, *9*, 200-205.
- Kemler Nelson, D., Holt, M., & Egan, L. (2004). Two- and three-year-olds infer and reason about design intentions in order to categorize broken objects. *Developmental Science*, *7*, 543-549.
- Lyons, D. E., Young, A. G., & Keil, F. C. (2007). The hidden structure of overimitation. *Proceedings of the National Academy of Sciences of the United States of America*, *104*, 19751-19756.
- Setoh, P., Wu, D., Baillargeon, R., & Gelman, R. (2013). Young infants have biological expectations about animals. *Proceedings of the National Academy of Sciences of the United States of America*, *110*, 15937-15942.
- Cimpian, A., & Petro, G. (2014). Building theory-based concepts: Four-year-olds preferentially seek explanations for features of kinds. *Cognition*, *131*, 300-310.
- Casler, K., & Kelemen, D. (2007). Reasoning about artifacts at 24 months: The developing teleofunctional stance. *Cognition*, *103*, 120-130.
- Horwitz, S.R., Shutts, K., & Olson, K.R. (2014). Social class differences produce social group preferences. *Developmental Science*, *17*, 991-1002.
- Stahl, A. E., & Feigenson, L. (2015). Observing the unexpected enhances infants' learning and exploration. *Science*, *348*, 91-94.
- Deloache, J. S., Uttal, D. H., & Rosengren, K. S. (2004). Scale errors offer evidence for a perception-action dissociation early in life. *Science*, *304*, 1027-1029.
- Birch, S. A. J., Akmal, N., & Frampton, K. L. (2010). Two-year-olds are vigilant of others' nonverbal cues to credibility. *Developmental Science*, *13*, 363-369.
- Birch, S. A., Vauthier, S. A., & Bloom, P. (2008). Three- and 4-year-olds spontaneously use others' past performance to guide their learning. *Cognition*, *107*, 1018-1034.
- Carpenter, M., Uebel, J., & Tomasello, M. (2013). Being mimicked increases prosocial behavior in 18-month-old infants. *Child Development*, *84*, 1511-1518.
- Cirelli, L. K., Einarson, K. M., and Trainor, L. J. (2014). Interpersonal synchrony increases prosocial behavior in infants. *Developmental Science*, *17*, 1003-1011.
- Dunfield, K., & Kuhlmeier, V. A. (2010). Intention-mediated selective helping in infancy. *Psychological science*, *21*, 523-527.
- Heyman, G. D., & Gelman, S. A. (1999). The use of trait labels in making psychological inferences. *Child Development*, *70*, 604-619.

- Jaswal, V. K., & Neely, L. A. (2006). Adults don't always know best: Preschoolers use past reliability over age when learning new words. *Psychological Science, 17*, 757-758.
- Kidd, C., Palmeri, H., & Aslin, R. N. (2013). Rational snacking: young children's decision-making on the marshmallow task is moderated by beliefs about environmental reliability. *Cognition, 126*, 109–114.
- Koenig, M. A., Clement, F., & Harris, P. L. (2004). Trust in testimony: children's use of true and false statements. *Psychological Science, 15*, 694–698.
- Lane, J. D., & Harris, P. L. (2015). The role of intuition and informants' expertise in children's epistemic trust. *Child Development, 86*, 919-926.
- Mascaro, O., & Csibra, G. (2012). Representation of stable social dominance relations by human infants. *Proceedings of the National Academy of Sciences of the United States of America, 109*, 6862-6867.
- Mou, Y., Province, J. M., & Luo, Y. (2014). Can infants make transitive inferences? *Cognitive Psychology, 68*, 98-112.
- Over, H., & Carpenter, M. (2009). Eighteen-month-old infants show increased helping following priming with affiliation. *Psychological Science, 20*, 1189-1193.
- Pasquini, E. S., Corriveau, K. H., Koenig, M., & Harris, P. L. (2007). Preschoolers monitor the relative accuracy of informants. *Developmental Psychology, 43*, 1216–1226.
- Vaish, A., Carpenter, M., & Tomasello, M. (2010). Young children selectively avoid helping people with harmful intentions. *Child Development, 81*, 1661-1669.
- Goupil, L., Romand-Monnier, M., & Kouider S. (2016). Infants ask for help when they know they don't know. *Proceedings of the National Academy of Sciences of the United States of America, 113*, 3492-3496.

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