

01:830:431
Advanced Topics in Developmental Psychology: Cognitive Development
Fall, 2016

Class Meeting: Wednesdays, 10:20-1:20, Tillett 230, Livingston Campus

Instructor: Judith Hudson, judson@rutgers.edu

Office Hours: Wednesdays, 1:30-2:30 pm and by appointment, Tillett 425

Course Overview

Human beings are unique among species in their ability to think abstractly and flexibly. In this class, we will seek insight into these abilities by considering their developmental origins. In the first years of life, children's thinking undergoes dramatic change. For nearly a century, researchers have sought to understand the causes of these developmental changes. We will survey both classic and contemporary approaches to these issues. We will consider the contributions of nature and nurture, the extent to which cognition differs across cultures, and the insights that can be gleaned from comparisons across species and from atypical development in people. The class will involve active group discussion and analysis of the course readings, as well as lectures that set the stage for discussion. Assignments include weekly contributions to online discussions, in-class presentations, an observation assignment, a book review, and two take-home essay exams.

Learning Goals

The learning goals of this course contribute to the more general goals of the Department of Psychology and of the Rutgers School of Arts and Sciences:

1. Students will be able to characterize the transitions that occur in the cognitive capacities of children over the course of infancy and childhood.
2. Students will be able to characterize major theoretical conceptions of cognitive development and the research evidence supporting these.
3. Students will be able to apply knowledge of cognitive development to understanding applied issues in childcare and education.
4. Students will use critical thinking, skeptical inquiry, and, when possible, the scientific approach to ask, answer and understand questions related to mental processes.

Readings

Bjorklund, D. F. (2012). *Children's thinking: Cognitive development and individual differences*, 5th Edition. Wadsworth. ISBN 978-1111346058

Text is available from Rutgers campus bookstore. However, students may locate used copies from internet sources at lower cost. Please make sure that you get the 5th Edition published in 2012.

Readings that are not in the textbook will be available via the Sakai website for this course. Each week, primary papers or chapters are assigned. Students are to complete all the readings for the week prior to class and respond to discussion questions posted on Sakai (see below).

Requirements

- **Class attendance and participation (50 points).**
Because this class will rely on the active analysis of course readings during class discussion, class participation is essential both to getting something from the class and for the course grade. Students are expected to be prepared for class discussion during every class meeting. Activities that disrupt the class environment (e.g., cell phone interruptions, e-mail or internet use) are prohibited. Students who violate this rule will be asked to leave the class. Students who anticipate a course conflict due to religious observance should contact me well in advance to make alternative arrangements.
- **Online discussions (30 points).** Each week, several discussion questions will be posted on the Sakai site. Students must respond to 2 of the online questions by Tuesday at 7:00 pm.
- **Take-home essays (20 points each, 40 points total).** Students will complete two essays (1600-2000 words) due on October 14 and Dec. 2. Exam questions will be posted at least 2 weeks in advance.
- **In-class presentations (10 points).** Each student will give one presentation, reporting to the class on an empirical paper relevant to the week's topic. Students may sign up for which days they will present on the Sakai site using the Sign-up tool. The student's job is to present the article to the class, describing (1) the research question, (2) the methods used, (3) the findings, and (4) the conclusions drawn. The student should then critically evaluate the study and the conclusions. Do the data provide support for the conclusions drawn? Is the finding consistent or inconsistent with other work considered in the class? The presentation should be tightly organized and focused, lasting no longer than 15 minutes and should be accompanied by PowerPoint slides; slides must be submitted to Sakai on the Monday before the class presentation.
- **Book Review (30 points).** Students will select a book to read from a list provided by the instructor that addresses one or more of the issues we have discussed in class. Students can select a book using the Sign-up tool on Sakai. The books are generally written to inform parents or teachers about some aspect of children's cognitive development. Your task is to review the book and evaluate how accurate and useful it is for the intended audience based on the information you have learned in the course. Reviews should be 1600-2000 words (about 5-6 pages) and should follow the format of PsycCRITIQUES:
 - Summarize the main points of the book, but do not write chapter-by-chapter summaries!
 - Evaluate the book in the context of the field; cite at least three seminal articles relevant to the book that we have covered in class; select issues or chapters to discuss to highlight strengths/weaknesses.
 - Mention who would find the book of interest and why.
 - Give your overall evaluation; is the book a good resource and why or why not.
 Students will submit their written review on Sakai by Friday, December 16 (20 points). Students will also present their reviews to the class (10 points) (use Sign-up tool on Sakai). Presentations should be brief – no more than 10 minutes and should be accompanied by PowerPoint slides.
- **Observation Paper Assignment (20 points).** Because this is a small class, you will also have the opportunity to visit the Douglass-Psychology Child Study Center and observe preschool children in a classroom setting. You will be asked to observe a particular aspect of their behavior (private speech) and write a report of your observations that is due on **Nov. 4** (submit online to Sakai).

Observations should be completed for class discussion on **Oct. 19.**

Academic Integrity

You are expected to be honest with yourself and fair to your fellow students. I will enforce the University's regulations on academic integrity, and I ask your individual assistance in reporting any suspected violations to me or to the Office of Student Conduct. The University's regulations are appropriately strict, so please read the regulations and potential consequences: [Rutgers policy on academic integrity](#)

Be especially careful to avoid inadvertent PLAGIARISM when completing written assignments:

1. If you copy something that is in print ANYWHERE (books, journals, popular magazines, on-line blogs, etc.), you are plagiarizing.
2. Taking someone else's words and substituting a word here or there is still plagiarism.
3. Paraphrasing someone else's words but "borrowing" their line of argument and reasoning is plagiarism.
4. When you do refer to someone's ideas, providing a citation to the work that contains those ideas.
5. Plagiarism is stealing. Better to hand in something that is yours but not polished, than to hand in something that is perfect but stolen.

For more guidelines on plagiarism, see http://wire.rutgers.edu/research_plagiarism.html

Contacting the Professor

- You do not need an appointment to attend office hours. If I am not available for office hours, I will announce the change in class.
- Questions relating to the course should be asked in class – most students are interested and the answers are best shared.
- Do not email me about questions regarding class schedule, policies, and other information that is available on the syllabus or on Sakai – it is a good idea to check before sending any email.
- If you have a personal issue, email is useful, but allow up to 3 days for an answer. I cannot answer students' email every day. If I don't get back to you in that time, email again; I do my best to keep up with email, but sometimes messages get overlooked when a lot come in at once. Please don't think that I am ignoring you.
- Any emails sent after 7 pm on the evening before class may not get read before class; keep it in mind.
- Remember to sign your emails (first and last name) and include an appropriate subject.; it is best to indicate which class you are in as well. Messages with no subject or with ambiguous subjects (e.g., "Hi!") will automatically be deleted.

Course Schedule, Readings and Assignments
(subject to change – check Sakai for announcements).

*** Articles for class presentation requirement; NOT assigned for the class

Sept. 7: Introduction

Course overview and requirements

Sept. 14: Foundations

Bjorklund, Chapters 1 & 2

Galotti, K. M. (2011). *Cognitive Development, Chapter 2: Major Theories, frameworks, and research methods*, pp. 17-48. Sage Publications Inc.: Thousand Oaks, CA.

Westermann, G., Mareschal, D., Johnson, M. H., Sirois, S., Spratling, M. W., & Thomas, M. S. C. (2007). Neuroconstructivism. *Developmental Science, 10(1)*, 75-83.

Sept. 21: Infant Perception and Cognition

Bjorklund, Chapter 4

Bar-Haim, Y., Ziv, T., Lamy, D., Hodes, R. (2006). Nature and nurture in own-race face processing. *Psychological Science, 17(2)*, 159-163.

Hood, B. M. (2004). Is looking good enough or does it beggar belief? *Developmental Science, 7*, 415-417.

Leslie, A. M. (2004). Who's for learning? *Developmental Science, 7*, 417-419.

Bremner, A. J., & Mareschal, D. (2004). Reasoning...what reasoning? *Developmental Science, 7*, 419-421.

Baillargeon, R. (2004). Can 12 large clowns fit in a Mini Cooper? Or when are beliefs and reasoning explicit and conscious? *Developmental Science, 7*, 422-424.

The articles listed above are commentaries on Baillargeon's original article that uses looking time and surprise as a measure for studying infant cognition. Baillargeon's findings are summarized in Bjorklund's chapter

*** Cassia, V. M., Luo, L., Pisacane, A., Li, H. & Lee, K. (2014). How race and age experiences shape young children's face processing abilities. *Journal of Experimental Child Psychology, 120*, 87-101.

*** Rochat, P. & Striano, T. (2002). Who's in the mirror? Self-other discrimination in specular images by four- and nine-month-old infants. *Child Development, 73(1)*, 35-46.

*** Stahl, A. E., & Feigenson, L. (2015). Observing the unexpected enhances infants' learning and exploration. *Science, 348 (3)*, 91-94.

Sept. 28: Development of Representation and Symbolic Thinking

Bjorklund, Chapter 5

DeLoache, J. S. (2004). Becoming symbol-minded. *Trends in Cognitive Sciences, 8(2)*, 66-70.

DeLoache, J. S., & Chiong, C. (2009). Babies and baby media. *American Behavioral Scientist*, 52(8), 1115-1135.

Lauricella, A. R., Pempek, T. A., Barr, R., & Calvert, S. L. (2010). Contingent computer interactions for young children's object retrieval success. *Journal of Applied Developmental Psychology*, 31, 362-369.

*** Moser, A., Zimmermann, L., Dickerson, K., Grenell, A., Barr, R., & Gerhardstein, P. (2015). They can interact, but can they learn? Toddlers' transfer learning from touchscreens and television. *Journal of Experimental Child Psychology*, 137, 137-155.

Oct. 5: The Sociocultural Perspective

Bjorklund, Chapter 3; Also section on "Language and Thought" pp. 391-394

Correa-Chavez, M. & Rogoff, B. (2009). Children's attention to interactions directed to others: Guatemalan and European-American patterns. *Developmental Psychology*, 45(3), 630-641.

Read the two articles below to understand how private speech is measured and think of hypotheses you might have regarding use of private speech by preschool children. You will be observing private speech in preschool children, so think about which methods work best for you and how you will set up your observation session and record private speech.

Daugherty, M., & White, C. S. (2008). Relationships among private speech creativity in Head Start and low-socioeconomic status preschool children. *Gifted Child Quarterly*, 52 (1), 30-39.

Winsler, A., Carlton, M. P., & Barry, M. J. (2000). Age-related changes in preschool children's systematic use of private speech in a natural setting. *Journal of Child Language*, 27, 665-687.

*** Mejia-Arauz, R., Rogoff, B., & Paradise, R. (2005). Cultural variation in children's observation during a demonstration. *International Journal of Behavioral Development*, 29, 282-291.

Oct. 12: NO CLASS – Yom Kippur

Friday, Oct. 14: Essay 1 Due

Oct. 19: Core Knowledge Approach/In-Class Data Collation from Observations

Bjorklund, Chapter 6

Spelke, E. S., & Kinzler, K. D. (2007). Core knowledge. *Developmental Science*, 10(1), 89-96.

Baillargeon, R., Scott, R. M., & He, Z. (2012). False-belief understanding in infants. *Trends in Cognitive Sciences*, 14(3), 110-118.

*** Buttelmann, D., Carpenter, M., & Tomasello, M. (2009). Eighteen-month old infants show false belief understanding in an active helping paradigm. *Cognition*, 112, 337-342.

*** Shahaieian, A., Peterson, C.C., Slaughter, V., & Wellman, H. M. (2011). Culture and the Sequence of Steps in Theory of Mind Development. *Developmental Psychology, 47*(5), 1239–1247

*** Wu, Z. & Su, Y. (2014). How do preschoolers' sharing behaviors relate to their theory of mind understanding? *Journal of Experimental Child Psychology, 120*, 73–86

Oct. 26: Information Processing, Problem-Solving, and Executive Function

Bjorklund, Chapter 7

Evans, A. D., & Lee, K. (2011). Verbal deception from late childhood to middle adolescence and its relation to executive functioning skills. *Developmental Psychology, 47*(4), 1108-1116.

Diamond, A., & Lee, K. (2011). Interventions shown to aid executive function development in children 4 to 12 Years Old. *Science, 333*, 959-964.

*** Lillard, A. S., Drell, M. B., Richey, E. M., Boguszewski, K., & Smith, E. D. (2015). Further examination of the immediate impact of television on children's executive function. *Developmental Psychology, 51*(6), 792-805.

*** Barker, J. E., Semenov, A. D., Michelson, L., Provan, L. S., Snyder, H. R., & Munakata, Y. (2014). Less-structured time in children's daily lives predicts self-directed executive functioning. *Frontiers in Psychology, 5* (593), doi: 10.3389/fpsyg.2014.00593.

*** Hammond, S. I, Muller, U., Carpendale, M., Bibok, M. B., & Lieberman-Finestone, D. P. (2011). Effects of parental scaffolding on preschoolers' executive functioning. *Developmental Psychology,*

*** Short-Myerson, K., Sandrin, S., & Edwards, C. (2016). Gender influences on parent-child science problem-solving behaviors. *Journal of Research in Childhood Education, 30*(3), 334-348.

Nov. 2: Memory Development

Bjorklund, Chapter 8

Fivush, R. & Nelson, K. (2004). Culture and language in the emergence of autobiographical memory. *Psychological Science, 15*(9), 573-577.

Wang, Q. (2006). Relations of maternal style and child self-concept to autobiographical memories in Chinese, Chinese-immigrant and European American 3-year-olds. *Child Development, 77*(6), 1794-1809.

Jack, F., Simcock, G. & Hayne, H. (2012). Magic memories: Young children's verbal recall after a 6-year delay. *Child Development, 83*(1), 159-172.

*** Principe, G. F., Kanaya, T., Ceci, S. J. (2006). Believing is seeing: How rumors can engender false memories in preschoolers. *Psychological Science, 17*(3), 243-248.

*** Dahl, J. J., Kingo, O. S., & Krøjgaard, P. (2015). The magic shrinking room revisited: The presence of props at recall facilitates memory in 3-year-olds. *Developmental Psychology*, *51*(12), 1704-1716.

*** Reese, E., Hayne, H., & MacDonald, S. (2008), Looking back to the future: Maori and Pakaha mother-child birth stories. *Child Development*, *79*, 114-125.

Friday, Nov. 4: Observation Paper Due

Nov. 9: Language Development

Bjorklund, Chapter 9

Hoff, E. (2003). The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, *74*(5), 1368–1378.

Saffran, J. R. (2003). Statistical language learning: Mechanisms and constraints. *Current Directions in Psychological Science*, *12*, 110-11

Hindeman, A. H., Wasik, B. A., & Snell, E. K. (2016). Closing the 30 million word gap: Next steps in designing research to inform practice, *Child Development Perspectives*, *10*(2), 134-139.

*** Senghas, A., & Coppola, M. (2001). Children creating language: How Nicaraguan sign language acquired a spatial grammar. *Psychological Science*, *12*, 323-328.

*** Bowers, J. S., Mattys, S. L., & Gage, D. H. (2009). Preserved implicit knowledge of a forgotten childhood language. *Psychological Science*, *20*(9), 1064-1069.

*** Bialystock, E. (2011). Coordination of executive functions in monolingual and bilingual children. *Journal of Experimental Child Psychology*. *110*. 461–468.

Nov. 16: Academics

Bjorklund, Chapter 11

Feigenson, L., Dehaene, S., & Spelke, E. (2004). Core systems of number. *Trends in Cognitive Sciences*, *8*, 308-314.

Lortie-Forgues, H., & Siegler, R. S. (2014). An Integrative Theory of Numerical Development. *Child Development Perspectives*, *8*(3), 144-150.

Siegler, R. S., & Ramani, G. B. (2009). Playing linear number board games—but not circular ones—improves low-income preschoolers’ numerical understanding. *Journal of Educational Psychology*, *101*(3), 545-560.

*** vanMarle, K. (2013). Infants use different mechanisms to make small and large number ordinal judgments. *Journal of Experimental Child Psychology*, *114*, 102-110.

*** Son, S-H. C. & Tineo, M. F. (2016). Mothers’ attention-getting utterances during shared Book reading: Links to low-income preschoolers’ verbal engagement, visual attention, and early literacy. *Infant and Child Development*, *25*, 259–282

Nov. 23: NO CLASS (Friday Class Schedule)

Nov. 30: Social Cognition

Bjorklund, Chapter 10, pp. 427-439

Bigler, R. S., & Liben, L. S. (2007). Developmental intergroup theory: Explaining and reducing children's social stereotyping and prejudice. *Current Directions in Psychological Science*, 16(3), 162-166.

Rutland, A., & Killin, M. (2015). A developmental science approach to reducing prejudice and social exclusion: Intergroup processes, social-cognitive development, and moral reasoning. *Social Issues and Policy Review*, 9(1), 121--154

Hughes, J. M., Bigler, R. S., & Levy, S. R. (2007). Consequences of learning about historical racism among European American and African American children. *Child Development*, 78(6), 1689 – 1705.

Pahlke, E., Bigler, R. S., & Suixxo, M-A., (2012). Relations between colorblind socialization and children's racial bias: Evidence from European American mothers and their preschool children. *Child Development*, 83(4), 1164–1179.

Halim, M. L. D. (2016). Princesses and superheroes: Social-cognitive influences on early gender rigidity. *Child Development Perspectives*, 10(3), 155-160.

*** Hamlin, J. K., and Wynn, K. (2011). Young infants prefer prosocial to antisocial others. *Cognitive Development*, 26, 30–39. doi: 10.1016/j.cogdev.2010.09.001

*** Hamlin, J. K., Mahajan, N., Liberman, Z., & Wynn, K. (2013). Not like me = bad: Infants prefer those who harm dissimilar others. *Psychological Science*, 24(4), 589-594.

*** Bagci, S. C., Rutland, A., Kumashiro, M., Smith, P. K., & Blumberg, H. (2014). Are minority status children's cross-ethnic friendships beneficial in a multiethnic context? *British Journal of Developmental Psychology*, 32, 107-115.

*** Coyle, E. F., & Liben, L. S. (2016). Affecting girls' activity and job interests through play: The moderating roles of personal gender salience and game characteristics. *Child Development*, 87(2), 414-428.

Friday, Dec. 2: Essay 2 Due

Dec. 7 & 14: Book Reviews (See Sign-Up Schedule on Sakai)

Friday, December 14 -- Written Book Reviews Due