01:830:431
Advanced Topics in Developmental Psychology: Cognitive Development
Fall, 2018

Class Meeting: Wednesdays, 3:20-6:20, Tillett 224, Livingston Campus

Instructor: Judith Hudson**,** jhudson@rutgers.edu
Office Hours: Wednesdays, 1:30-2:30 pm and by appointment, Tillett 425

Course Overview
How do we get so smart? How do we go from being babbling babies held in the arms of others to walking talking toddlers (and beyond!)? How do we learn to perceive the world around us and what to pay attention to? How do we learn to talk, remember the past, or predict the future? How do experiences in infancy and childhood matter for building knowledge? These are the questions we will attempt to answer as we survey the major topics in cognitive development. 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 developmental processes.

Readings

Bjorklund, D. F. & Causey, K. B. (2017). *Children's thinking: Cognitive development and individual differences, 6th Edition*. Sage. ISBN 978-1-5063-3435-6

Text is available from Rutgers campus bookstore. However, students may locate copies, including e-books, from other sources. **Make sure that you get the 6th Edition published in 2017**.

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
*   **Readings.** Expect to dedicate considerable time outside of class to the readings -- it will be both demanding and rewarding. You are expected to complete the assigned readings before the class and to take an active role in the class.

*   **Class attendance and participation (40 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. I will take attendance each week and students should be prepared for class discussion every class meeting. Activities that disrupt the class environment (e.g., cell phone use, 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. Students will receive 2 points per class for attendance and an additional 2 points per class for participating in discussion (4 points per class total). You may miss two classes without penalty.

- **Online discussions (36 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 8:00 pm**. You may miss two weeks without penalty. No late submissions are allowed.

- **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 sign up for which days they will present using the Sign-up tool on Sakai. 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.

- **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 **Oct. 19** (submit online to Sakai). Observations should be completed for class discussion on **Oct. 10.**

- **Take-home essays (20 points each, 40 points total).** Students will complete two essays (1600-2000 words) due on Nov. 9 and Nov.30. Essay questions will be posted at least 2 weeks in advance.

- **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 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:
    - 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 articles from 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 15 (20 points). Students will also present their reviews to the class on December 5 and 12 (10 points) (use Sign-up tool on Sakai). Presentations should be brief –10 to 12 minutes -- and should be accompanied by PowerPoint slides.

Late Submissions
If you submit an assignment after its due date, your grade will be reduced by 50%. This is true whether you submit your assignment 1, 2, 3, 4, or 5 days late. After 5 days, late work will no longer be accepted without some documented medical or family emergency. Your best strategy is to submit assignments on time.

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, provide 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 2 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 <u>sign</u> 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.

If things go horribly wrong in this course, other courses, or your life, Rutgers has resources to help. The faculty and staff want you to thrive and to succeed academically and socially. Ask for help as soon as you realize there is a problem. Contact your Dean of Students and/or contact student-wellness services.

- **Counseling, ADAP & Psychiatric Services (CAPS)** (848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/. A University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.
- **Violence Prevention & Victim Assistance (VPVA)** (848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / http://www.vpva.rutgers.edu/. Provides confidential crisis intervention counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.
- **Scarlet Listeners** (732) 247-5555 / http://www.scarletlisteners.com/. Free, confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

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

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

Sept. 5: Course Overview and Requirements

Sept. 12: Foundations
Bjorklund & Causey, 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.

NOTE: For students who have not yet purchased the text, I have included copies of the first 2 chapters
from the previous version of the text on Sakai. ONLY READ THESE VERSIONS IF YOU DO NOT
HAVE THE CURRENT TEXT.

You may find these readings a bit dense. However, much of the material is a review of theories and
concepts covered in courses such as Infant and Child Development, and Cognition. Note which ideas
are ones that you are familiar with and which are new. Make a list of questions and concepts that you
find confusing. We can discuss these in class.

Sept. 19: No Class – Yom Kippur

Sept. 26: The Sociocultural Perspective
Bjorklund & Causey, 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.
***Pearson, E., & Rao, N. (2003). Socialization goals, parenting practices, and peer competence in
    Chinese and English preschoolers. *Early Child Development and Care, 173(1)*, 131-146. DOI:
    10.1080/0300443022000022486

Oct. 3: NO CLASS MEETING (Conduct observations at RPCDC this week; you may observe on several
    days, not just on Wednesday during our usual class time.)

Oct. 10: Infant Perception and Cognition/ In-Class Data Collation from Observations
Bjorklund & Causey, Chapter 4
Lee, K., Quiin, P. C., & Pascalis, O. (2017). Face race processing and racial bias in early development:
    A perceptual-social linkage. *Current Directions in Psychological Science, 26(3),* 256–262.

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

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.

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

***Xiao, N. G., Quinn, P. C., Liu, S., Ge, L., Pascalis, O., & Lee, K. (2018). Older but not younger infants associate own-race faces with happy music and other-race faces with sad music. *Developmental Science, 21*, 1-10. https://doi.org/10.1111/desc.12537

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

Oct. 17: Development of Representation and Symbolic Thinking

Bjorklund & Causey, 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.

Kirkorian, H. L. (2018). When and how Do interactive digital media help children connect what they see on and off the screen? Child Development Perspectives, 12(3), 210–214.

***Hartstein, L. E. & Berthier, N. E. (2017). Transition to success on the model room task: the importance of improvements in working memory. *Developmental Science, 21(2),* 1-9.

***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.

*** McClure, E. R., Chentsova-Dutton, Y. E., Barr, R. F., Holochwost, S. J. & Parrott,W. G. (2015). ''Facetime doesn't count'': Video chat as an exception to media restrictions for infants and toddlers. *International Journal of Child-Computer Interaction 6,* 1–6.

Friday, Oct. 19: Observation Report Due

Oct. 24: Core Knowledge Approach

Bjorklund & Causey, 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.

*** Ruffman, T., Puri, A., Galloway, O., Su, J., & Taumoepeau (2018). Variety in parental use of "want" relates to subsequent growth in children's theory of mind. *Developmental Psychology, 54(4)*, 677–688.

*** 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.

***Ding, X. P., Heyman, G. D., Fu, G., Zhu, B. & Lee, K. (2017). Young children discover how to deceive in 10 days: a microgenetic study. Developmental Science, *21(3), 1-7.*

Oct. 31: Information Processing, Problem-Solving, and Executive Function

Bjorklund & Causey, 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.

Watts, T. W., Duncan, G. J., & Quan, H. (2018). Revisiting the marshmallow test: A conceptual replication investigating links between early delay of gratification and later outcomes. *Psychological Science, 29(7),* 1159–1177

*** 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.
***Carlson, S. M., Ayduk, O., Schaefer, C., Wilson, N., Shoda, Y., Aber, L., Sethi, A., Peake, P.K., & Mischel, W. (2018), Cohort Effects in Children's Delay of Gratification. *Developmental Psychology, 54(8),* 1395–1407.

Nov. 7: Memory Development
Bjorklund & Causey, Chapter 8
Fivush, R. & Nelson, K. (2004). Culture and language in the emergence of autobiographical memory. *Psychological Science, 15(9),* 573-577.
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.
Akhtar, S., Justice, L. V., Morrison, C. M., & Conway, M. A. (2018). Fictional first memories. *Psychological Science,* 1-8.

*** 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.
*** 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.

Friday, Nov. 9: Essay 1 Due

Nov. 14: Language Development
Bjorklund & Causey, 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.

***Vouloumanos, A. (2018). Twelve-month-olds understand that foreign languages can communicate. *Cognition, 173*, 87–92
*** Bialystock, E. (2011). Coordination of executive functions in monolingual and bilingual .
*** Montag, J. L., Jones, M. N. & Smith, L. B. (2015). The words children hear: Picture books and the statistics for language learning. Psychological Science, 26(9), 1489–1496.

Nov. 21: NO CLASS (Friday Class Schedule)

Nov. 28: Social Cognition
Bjorklund & Causey, 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.
Halim, M. L. D. (2016). Princesses and superheroes: Social-cognitive influences on early gender rigidity. *Child Development Perspectives, 10(3),* 155-160.

*** 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.

*** Elinbass, L., Rizzo, M.T., Cooley, S. & Killen, M. (2016). Rectifying social inequalities in a resource allocation task. *Cognition, 155*, 176–187

*** 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, Nov. 30: Essay 2 Due

Dec. 5: Academics/Book Reviews (See Sign-Up Schedule on Sakai)

Bjorklund & Causey, 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.

Dec. 12: Book Reviews (See Sign-Up Schedule on Sakai)

Friday, December 14 -- Written Book Reviews Due