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## Term Information

Effective Term Spring 2023

## General Information

Course Bulletin Listing/Subject Area Psychology  
Fiscal Unit/Academic Org Psychology - D0766  
College/Academic Group Arts and Sciences  
Level/Career Graduate  
Course Number/Catalog 6220  
Course Title Cognitive and Developmental Bases of Behavior  
Transcript Abbreviation COG DEVO BASES BX  
Course Description This course provides graduate students with core background in the theory, methods, and central topics of Cognitive and Developmental Psychology. Additionally, the course will cover the intersection of Cognitive and Developmental Psychology with an emphasis on synthesizing methods and findings across disciplines.  
Semester Credit Hours/Units Fixed: 3

## Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week  
Flexibly Scheduled Course Never  
Does any section of this course have a distance education component? No  
Grading Basis Letter Grade  
Repeatable No  
Course Components Lecture  
Grade Roster Component Lecture  
Credit Available by Exam No  
Admission Condition Course No  
Off Campus Never  
Campus of Offering Columbus

## Prerequisites and Exclusions

Prerequisites/Corequisites Instructor permission required. Course is only open to doctoral students in the clinical psychology program.  
Exclusions  
Electronically Enforced Yes

## Cross-Listings

Cross-Listings

## Subject/CIP Code

Subject/CIP Code 42.2701  
Subsidy Level Doctoral Course  
Intended Rank Doctoral

## Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

## Course Details

### Course goals or learning objectives/outcomes

- Gain familiarity with cognitive and developmental bases of behavior
- Gain familiarity with common methodologies in cognitive and developmental psychology
- Integrate findings from cognitive and developmental psychology
- Use effective communication and interaction skills with people of diverse abilities, backgrounds, and cultural perspectives

### Content Topic List

- Perception
- Attention
- Memory
- Learning and early abilities
- Language and language development
- Attachment
- Social development

### Sought Concurrence

No

## Attachments

- Psych 6220-Cog-Dev-Grad-Syllabus-feb25.pdf: Syllabus  
*(Syllabus. Owner: Paulsen, Alisa Marie)*

## Comments

- Please see Panel feedback e-mail sent 02/24/22. *(by Cody, Emily Kathryn on 02/24/2022 10:55 AM)*
- Please suggest a more appropriate CIP code, if needed. *(by Paulsen, Alisa Marie on 01/30/2022 06:04 AM)*

## Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Paulsen, Alisa Marie	01/30/2022 06:05 AM	Submitted for Approval
Approved	Paulsen, Alisa Marie	01/30/2022 06:05 AM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	02/08/2022 02:57 PM	College Approval
Revision Requested	Cody, Emily Kathryn	02/24/2022 10:55 AM	ASCCAO Approval
Submitted	Paulsen, Alisa Marie	02/28/2022 04:41 PM	Submitted for Approval
Approved	Paulsen, Alisa Marie	02/28/2022 04:42 PM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	03/03/2022 02:33 PM	College Approval
Pending Approval	Cody, Emily Kathryn Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	03/03/2022 02:33 PM	ASCCAO Approval

**Cognitive & Developmental Bases of Behavior  
Psych 6220**

**3 credit hours**

**Tuesdays, 2- 4:45pm**

**Location TBA**

**Instructor Info:**

Laura Wagner  
Office: 241 Psychology  
Phone: 614-634-2648 (cell)  
Office hours: By appointment  
Email: [wagner.602@osu.edu](mailto:wagner.602@osu.edu)

**Course Objectives:**

This course provides graduate students with core background in the theory, methods, and central topics of Cognitive and Developmental Psychology.

**Course Materials:**

All materials will be made available on the course Carmen site. Each “Theory” week will consist of two review papers to read; the remaining classes will consist of one review/overview reading, one empirical article, and one “extra” article which may be of either type.

**Course Assignments:**

- *Weekly Reflection Questions (30% of your grade).* Each week, students are expected to read all required readings before they attend class. To facilitate discussion in class, students will submit a weekly Carmen “quiz” consisting of (1) An open-ended question asking them to summarize the main finding of one of the papers assigned for that week and (2) An open-ended question asking them to identify one aspect of each reading that they found confusing or provocative. Note that students may be required to read their responses aloud during class and to expand upon them. These reflections must be turned in before class each week, and no late reflections will be accepted.

- *Spot Check Quizzes (20% of your grade).* At unspecified points during the semester, students will be asked to take brief quizzes requiring them to demonstrate their understanding of the course material. Please note that if you are not in class when these quizzes are administered, you will not be able to make up the points.

- *Integration paper (50% of your grade).* At the end of the semester, students will write a paper that integrates their knowledge from the course with their own primary research interest. The format of the paper is that of an NIH Small R03 grant (<https://grants.nih.gov/grants/funding/r03.htm>). It is expected that the studies proposed in this grant will connect the students’ research area to the literatures on both cognitive and developmental psychology. Students should note that this grant has a page limit of 6

pages for the content portion; additionally, students should include a reference section containing at least 12 references (including at least 4 papers from the Cognitive and Developmental Psych literatures that were not used in this course. This paper will be due at the end of finals period. Late papers will be accepted only if you request an extension in advance of the due date.

• *Attendance.* It is expected that students will attend all classes and participate in class discussions. If you are unable to come to a particular session, it is your responsibility to learn the material that was covered in class. (Please see my contact information above if you wish to make an appointment.). As noted above, assignments linked to class time (reflections and pop quizzes) cannot be made up at a later date. However, if you inform me in advance of an absence, I will work with you to create alternative assignments for those points. Please note that the difficulty of these alternative assignments is at my discretion. If you request this option more than once, you should anticipate that you will be asked to turn in moderate to substantial pieces of writing.

**Grading:**

The following grade pattern will be used:

		A	93 – 100	A-	90 - 92
B+	87 – 89	B	83 – 86	B-	80 – 82
C+	77 – 79	C	73 – 76	C-	70 – 72
D+	67 – 69	D	60 - 66		
		E	below 60		

**Technology:**

This course requires computer use and internet access. I will post all relevant course material for the class on Carmen. Periodic announcements will be sent via EMAIL, and I will be using the email address linked to your Carmen account (this is almost always your OSU email address). **I expect you to check this email address once a day and to respond promptly to any email requests you receive.**

**Academic integrity policy:**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

## **Disability services**

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue.

## **Mental health**

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting [ccs.osu.edu](http://ccs.osu.edu) or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org).

## **Title IX & Safety**

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator at [titleix@osu.edu](mailto:titleix@osu.edu)

## **Diversity**

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity,

understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

## Sample Course Schedule

[dates reflect a possible schedule for Spring 2023]

Week	Topic	Readings
<b>Cognitive Psychology</b>		
1 Jan 10	Theoretical Overview	<ul style="list-style-type: none"> <li>• Sternberg et al. (2012) Chapter 1 (Introduction to Cognitive Psychology)</li> <li>• Chater et al. (2010). Bayesian models of cognition</li> <li>• MacLean (2016). Unraveling the evolution of uniquely human cognition.</li> </ul>
2 Jan 17	Perception in the domain of Vision	<ul style="list-style-type: none"> <li>• Sternberg et al. (2012) Chapter 3 (Visual Perception)</li> <li>• Dowd &amp; Golomb (2019). Object-feature binding survives dynamic shifts of spatial attention</li> <li>• Kosslyn et al. (1978). Visual images preserve metric spatial information</li> </ul>
3 Jan 24	Attention	<ul style="list-style-type: none"> <li>• Jensen et al. (2011). Change blindness and Inattention blindness</li> <li>• Gomez et al. (2019). Graspable objects grab attention more than images do.</li> <li>• Hayhoe &amp; Rothkopf (2011). Vision in the natural world</li> </ul>
4 Jan 31	Memory	<ul style="list-style-type: none"> <li>• Ricker et al. (2010). Working Memory</li> <li>• Himmer et al. (2017). Sleep mediated memory consolidation depends on the level of integration at encoding.</li> <li>• Miller (1956): The magic number 7 +/-2</li> </ul>
5 Feb 7	Representing and Using Knowledge	<ul style="list-style-type: none"> <li>• Fischhoff (2010). Judgment &amp; Decision making</li> <li>• Tiedens (2001). The effect of anger on the hostile inferences of aggressive and nonaggressive people</li> <li>• Armstrong et al. (1983). On what some concepts might not be.</li> </ul>
6 Feb 14	Learning and Expertise	<ul style="list-style-type: none"> <li>• Ericsson &amp; Towne (2010). Expertise.</li> <li>• Solomon (1990). Psychology of novice and expert wine talk.</li> <li>• Biederman &amp; Shiffrar (1987). Sexing day-old chicks.</li> </ul>
7 Feb 21	Language	<ul style="list-style-type: none"> <li>• Brentari and Coppola (2013). What sign language creation teaches us about language.</li> <li>• Nappa &amp; Arnold (2014). The road to understanding is paved with the speaker's intentions.</li> <li>• Casserly &amp; Pisoni (2010). Speech perception and perception</li> </ul>

### Developmental Psychology

1 Feb 28	Theoretical Overview	<ul style="list-style-type: none"> <li>• Newcombe (2013). Cognitive development: changing views of cognitive change.</li> <li>• Mather (2010). Aging and cognition</li> </ul>
2 Mar 7	Early Abilities: 4 Case Studies	<ul style="list-style-type: none"> <li>• DeCasper et al. (1994). Fetal reaction to recurrent maternal speech</li> <li>• Saffran et al. (1996). Statistical learning by 8 month olds.</li> <li>• Meltzoff &amp; Moore (1977). Imitation of facial and manual gestures by human neonates.</li> <li>• Gibson &amp; Walk (1960). Visual Cliff</li> </ul>
3 Mar 21	Attachment (development of emotional connection)	<ul style="list-style-type: none"> <li>• Fraley (2019). Attachment in adulthood</li> <li>• Schoppe-Sullivan et al. (2007). Attachment and sensitivity in family context</li> <li>• Johnson et al. (2007) Evidence for infants' internal models of attachment</li> </ul>
4 Mar 28	Language Development	<ul style="list-style-type: none"> <li>• Wagner &amp; Hoff (2012). Language Development.</li> <li>• Fisher et al. (2010). Syntactic bootstrapping</li> <li>• Quam &amp; Creel (2020). Impacts of acoustic-phonetic variability on perceptual development for spoken language.</li> </ul>
5 Apr 4	Concept Development	<ul style="list-style-type: none"> <li>• Hespos &amp; Van Marle (2012). Physics for Infants.</li> <li>• Shtulman et al. (2019). When Allah meets Ganesha: Developing supernatural concepts in a diverse society.</li> <li>• Tardiff et al. (2017) Some consequences of normal aging for generating conceptual explanations: A case study of vitalist biology</li> </ul>
6 Apr 11	Social development	<ul style="list-style-type: none"> <li>• Meltzoff (2007). "Like me": a foundation for social cognition</li> <li>• Kelly et al. (2007). The other-race effect develops during infancy.</li> <li>• Rakoczy et al. (2018). Theory of mind and wisdom: The development of different forms of perspective-taking in late adulthood</li> </ul>
7 Apr 18	Gender development	<ul style="list-style-type: none"> <li>• Martin &amp; Ruble (2009). Patterns of gender development</li> <li>• Bian et al. (2017). Gender stereotypes about intellectual ability emerge early and influence children's interests</li> <li>• Olson et al. (2015) Gender cognition in transgender children.</li> </ul>



## Paper References

- Armstrong, S. L., Gleitman, L. R., & Gleitman, H. (1983). What some concepts might not be. *Cognition*, 13(3), 263-308.
- Biederman, I., & Shiffrar, M. M. (1987). Sexing day-old chicks: a case study and expert systems analysis of a difficult perceptual-learning task. *Journal of Experimental Psychology: Learning, memory, and cognition*, 13(4), 640.
- Brentari, D., & Coppola, M. (2013). What sign language creation teaches us about language. *Wiley Interdisciplinary Reviews: Cognitive Science*, 4(2), 201-211.
- Cassery, E. D., & Pisoni, D. B. (2010). Speech perception and production. *Wiley Interdisciplinary Reviews: Cognitive Science*, 1(5), 629-647.
- Chater, N., Oaksford, M., Hahn, U., & Heit, E. (2010). Bayesian models of cognition. *Wiley Interdisciplinary Reviews: Cognitive Science*, 1(6), 811-823.
- DeCasper, A. J., Lecanuet, J. P., Busnel, M. C., Granier-Deferre, C., & Maugeais, R. (1994). Fetal reactions to recurrent maternal speech. *Infant behavior and development*, 17(2), 159-164.
- Dowd, E. W., & Golomb, J. D. (2019). Object-feature binding survives dynamic shifts of spatial attention. *Psychological science*, 30(3), 343-361.
- Ericsson, K. A., & Towne, T. J. (2010). Expertise. *Wiley interdisciplinary reviews. Cognitive science*, 1(3), 404-416.
- Fischhoff, B. (2010). Judgment and decision making. *Wiley Interdisciplinary Reviews: Cognitive Science*, 1(5), 724-735.
- Fisher, C., Gertner, Y., Scott, R. M., & Yuan, S. (2010). Syntactic bootstrapping. *Wiley Interdisciplinary Reviews: Cognitive Science*, 1(2), 143-149.
- Fraley, R. C. (2019). Attachment in adulthood: Recent developments, emerging debates, and future directions. *Annual review of psychology*, 70, 401-422.
- Gibson, E. J., & Walk, R. D. (1960). The "visual cliff". *Scientific American*, 202(4), 64-71.
- Gomez, M. A., Skiba, R. M., & Snow, J. C. (2018). Graspable objects grab attention more than images do. *Psychological Science*, 29(2), 206-218.
- Hayhoe, M. M., & Rothkopf, C. A. (2011). Vision in the natural world. *Wiley Interdisciplinary Reviews: Cognitive Science*, 2(2), 158-166.
- Herrmann, E., Call, J., Hernández-Lloreda, M. V., Hare, B., & Tomasello, M. (2007). Humans have evolved specialized skills of social cognition: The cultural intelligence hypothesis. *science*, 317(5843), 1360-1366.
- Hespos, S. J., & VanMarle, K. (2012). Physics for infants: Characterizing the origins of knowledge about objects, substances, and number. *Wiley Interdisciplinary Reviews: Cognitive Science*, 3(1), 19-27.
- Himmer, L., Müller, E., Gais, S., & Schönauer, M. (2017). Sleep-mediated memory consolidation depends on the level of integration at encoding. *Neurobiology of Learning and Memory*, 137, 101-106.

- Jensen, M. S., Yao, R., Street, W. N., & Simons, D. J. (2011). Change blindness and inattentional blindness. *Wiley Interdisciplinary Reviews: Cognitive Science*, 2(5), 529-546.
- Johnson, S. C., Dweck, C. S., & Chen, F. S. (2007). Evidence for infants' internal working models of attachment. *PSYCHOLOGICAL SCIENCE-CAMBRIDGE-*, 18(6), 501.
- Kelly, D. J., Quinn, P. C., Slater, A. M., Lee, K., Ge, L., & Pascalis, O. (2007). The other-race effect develops during infancy: Evidence of perceptual narrowing. *Psychological science*, 18(12), 1084-1089.
- Kosslyn, S. M., Ball, T. M., & Reiser, B. J. (1978). Visual images preserve metric spatial information: evidence from studies of image scanning. *Journal of experimental psychology: Human perception and performance*, 4(1), 47.
- MacLean, E. L. (2016). Unraveling the evolution of uniquely human cognition. *Proceedings of the National Academy of Sciences*, 113(23), 6348-6354.
- Martin, C. L., & Ruble, D. N. (2010). Patterns of gender development. *Annual review of psychology*, 61, 353-381.
- Mather, M. (2010). Aging and cognition. *Wiley Interdisciplinary Reviews: Cognitive Science*, 1(3), 346-362.
- Meltzoff, A. N., & Moore, M. K. (1977). Imitation of facial and manual gestures by human neonates. *Science*, 198(4312), 75-78.
- Meltzoff, A. N. (2007). 'Like me': a foundation for social cognition. *Developmental science*, 10(1), 126-134.
- Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological review*, 63(2), 81.
- Nappa, R., & Arnold, J. E. (2014). The road to understanding is paved with the speaker's intentions: Cues to the speaker's attention and intentions affect pronoun comprehension. *Cognitive Psychology*, 70, 58-81.
- Newcombe, N. S. (2013). Cognitive development: changing views of cognitive change. *Wiley Interdisciplinary Reviews: Cognitive Science*, 4(5), 479-491.
- Olson, K. R., Key, A. C., & Eaton, N. R. (2015). Gender cognition in transgender children. *Psychological science*, 26(4), 467-474.
- Quam, C., & Creel, S. C. (2021). Impacts of acoustic-phonetic variability on perceptual development for spoken language: A review. *Wiley Interdisciplinary Reviews: Cognitive Science*, e1558.
- Rakoczy, H., Wandt, R., Thomas, S., Nowak, J., & Kunzmann, U. (2018). Theory of mind and wisdom: The development of different forms of perspective-taking in late adulthood. *British Journal of Psychology*, 109(1), 6-24.
- Ricker, T. J., AuBuchon, A. M., & Cowan, N. (2010). Working memory. *Wiley interdisciplinary reviews: Cognitive science*, 1(4), 573-585.
- Saffran, J. R., Aslin, R. N., & Newport, E. L. (1996). Statistical learning by 8-month-old infants. *Science*, 274(5294), 1926-1928.

Schoppe-Sullivan, S. J., Diener, M. L., Mangelsdorf, S. C., Brown, G. L., McHale, J. L., & Frosch, C. A. (2006). Attachment and sensitivity in family context: The roles of parent and infant gender. *Infant and Child Development*, 15(4), 367-385.

Shtulman, A., Foushee, R., Barner, D., Dunham, Y., & Srinivasan, M. (2019). When Allah meets Ganesha: Developing supernatural concepts in a religiously diverse society. *Cognitive Development*, 52, 100806.

Solomon, G. E. A. (1990). Psychology of novice and expert wine talk. *The American Journal of Psychology*, 495-517.

Sternberg, R. J., Sternberg, K., & Mio, J. (2012). *Cognitive psychology*. Cengage Learning Press.

Tardiff, N., Bascandzjev, I., Sandor, K., Carey, S., & Zaitchik, D. (2017). Some consequences of normal aging for generating conceptual explanations: A case study of vitalist biology. *Cognitive Psychology*, 95, 145-163.

Tiedens, L. Z. (2001). The effect of anger on the hostile inferences of aggressive and nonaggressive people: Specific emotions, cognitive processing, and chronic accessibility. *Motivation and Emotion*, 25(3), 233-251.

Wagner, L. & Hoff, E. (2012). Language Development. In Lerner, R. M., Easterbrooks, M. A., & Mistry, J. (eds) *Handbook of Psychology, Volume 6: Developmental Psychology, 2<sup>nd</sup> edition*. NY: Wiley Press. 173 – 196.