

**PSYC GU4202 THEORIES OF CHANGE IN HUMAN
DEVELOPMENT
PAST TO PRESENT**

4 points

Instructor: Prof. Dima Amso, Ph.D.

Class Time: TBA

Class Location: TBA

Office Hours: TBA

Course Bulletin Description: What are the agents of developmental change in human childhood? How has the scientific community graduated from nature versus nurture, to nature *and* nurture? This course offers students an in-depth analysis of the fundamental theories in the study of cognitive and social development.

Prerequisites: PSYC UN1001 The Science of Psychology or an equivalent introductory psychology course and PSYC UN2280 Introduction to Developmental Psychology or an equivalent developmental psychology course.

Contact hours: Seminar meets 2 hours a week, and readings, presentations, and writing assignments are expected to take an additional 10 hours of work time per week.

Full Description And Learning Objectives:

- (1) To provide breadth by reviewing the major theoretical approaches, classic tasks, and paradigms for studying and understanding development (constructivist, nativist, biological, information processing, and systems approaches).
- (2) To provide depth by considering the strengths and shortcomings of each theory and the pros and cons of different research strategies for investigating the central questions of cognitive and social development.
- (3) To provide a background on goals of developmental studies (characterizing change, underlying change mechanisms, generality of change, and stability of behaviors across individuals and circumstances).

Readings: Readings will comprise empirical and review papers. Journal articles and review chapters will be posted to Canvas as pdfs. The course will include classic and current readings.

Role In The Psychology Department Curriculum: PSYC GU4202 is a seminar course open to PhD students and advanced undergraduate students in Psychology. It fulfills the following requirements:

- For PhD students, this course could be used to fulfill one of the seminar requirements for the MA or the MPhil.
- For Neuroscience & Behavior majors, this course could be used to fulfill the P5 Advanced Psychology Seminar requirement.
- For Psychology majors and concentrators, this course could fulfill the seminar requirement and/or the Group I distribution requirement.
- PhD students in Psychology and Psychology and Neuroscience & Behavior majors will have enrollment priority.

Grading And Evaluation

- (1) Class participation (10%). Attendance is mandatory. Participation in discussions is expected of every student. This provides an opportunity to debate and discuss with mutual respect for other scientific opinions.
- (2) Article presentations (30%). You will be asked to present two articles to the class over the course of the semester and to lead a discussion.
- (3) Two short (3-5 page) essay discussions on a topic to be announced in class (30%).
- (4) Final Paper (30%). You will write a review and analysis (10-12 pages, double-spaced) of recent research in an area of development of interest to you. How can a developmental approach shed novel insight into your questions? Topics need to be approved by instructor. More detail in class.

Grading: Details regarding expectations and grading will be provided in class.

>=97.5-100: A+	>=87-90: B+	>=77-80: C+	60-70: D
>=94-97.5: A	>=84-87: B	>=74-77: C	<60: F]
>=90-94: A-	>=80-84: B-	>=70-74: C-	

Assignment Due Dates:

1. 9/28 Essay 1 Due
2. 10/26 Essay 2 Due
3. 12/7 Final Paper Due
4. 12/14 Brief Presentations on Final Paper

Fostering an Inclusive Classroom: My aim is to foster a learning environment that supports a diversity of perspectives and experiences and honors your identities. Please reach out to me with any concerns or suggestions you may have to better address your learning needs and to improve the effectiveness of this course. I look forward to working together to create a classroom community built on mutual respect and inclusivity.

Students with special needs who may require classroom/test accommodations should make an appointment with me before or during the first week of class. You should also contact the Office of Disability Services (ODS) in Lerner Hall before the start of the course to register for these accommodations. The procedures for registering with ODS can be found at <http://health.columbia.edu/content/disability-services> or by calling (212) 854-2388.

Promoting Wellness: Many of us have periods in which our mental health and well-being suffer. I urge you to take care of yourselves – and of each other. Please prioritize your mental health and wellbeing and know that there are many resources available to you both within our classroom community and throughout the university:

<https://health.columbia.edu/content/counseling-and-psychological-services>
<http://blogs.cuit.columbia.edu/nightline/>
<https://universitylife.columbia.edu/student-resources-directory#health>

We are in this together. Please reach out for help if you need it, and, if you see others who are struggling, please make sure they know how to find the support they need.

Ensuring Academic Integrity: As members of this academic community, we are responsible for maintaining the highest level of personal and academic integrity, which includes presenting only our own work on assignments and exams. You can find detailed definitions and examples in Columbia University’s Guide to Academic Integrity: (<http://www.college.columbia.edu/academics/academicintegrity>).

Any questions of academic integrity will be automatically referred to Columbia’s office of Student Conduct and Community Standards. The semester progresses very quickly, and there is a lot of material to learn. If you find yourself in a situation – e.g., starting an assignment too late – in which it seems like the best option may be to violate your academic integrity, please see me. Together, we can work out a solution. It is far better to have a few points deducted from an assignment than to compromise your academic integrity and potentially put your academic standing at the university in jeopardy. Plagiarism—whether intentional or inadvertent—is a serious violation of academic integrity. If you have any questions about what constitutes plagiarism and/or how to properly cite sources, please come to me. I am more than happy to help.

TENTATIVE COURSE SCHEDULE

9/14– INTRODUCTION TO COURSE & UNDERSTANDING AGE

1. Hartman, D. P. (1992). Design, measurement, and analysis: Technical issues in developmental research. In M. H. Bornstein and M. E. Lamb (Eds.), *Developmental psychology: An advanced textbook* (pp. 59-71). Hillsdale, NJ: Erlbaum.
2. Wohlwill, J. P. (1970). The age variable in psychological research. *Psychological Review*, 77, 49-64.
3. Adolph, K. E. & Robinson, S. R. (2011). Sampling development. “Tools of the Trade” section, *Journal of Cognition and Development*, 12, 411-423.

9/21 -CONSTRUCTIVIST STAGE THEORIES (PIAGET)

1. Piaget, J. *The construction of reality in the child*. New York: Basic Books. pp 350-386.
2. Siegler, R. (1997). *Children’s thinking* (3rd ed.). Chapter 2: Piaget’s theory of development, pp. 24-62. Englewood Cliffs, NJ: Prentice Hall.
3. Baillargeon, R., Spelke, E. S., & Wasserman, S. (1985). Object permanence in five-month-old infants. *Cognition*, 20, 191-208.

9/28 –CONSTRUCTIVIST STAGE THEORIES Part 1– A THEMATIC COLLECTION

1. Schilling, T. H. (2000). Infants' looking at possible and impossible screen rotations: The role of familiarization. *Infancy*, 1, 389-402.
2. Bogartz, R. S., Shinskey, J. I., Schilling, T. H. (2000). Object permanence in five- and-a-half-month-old infants? *Infancy*, 1, 403-428.
3. Cashon, C. H. & Cohen, L. B. (2000). Eight-month-old infants' perceptions of possible and impossible events. *Infancy*, 1, 429-446.
4. Baillargeon, R. Reply to Bogartz, Shinskey, and Schilling; Schilling; and Cashon and Cohen. *Infancy*, 1, 447-462.

10/5 –CONSTRUCTIVIST STAGE THEORIES Part 2– A THEMATIC COLLECTION

1. Aslin, R. N. (2000). Why take the cog out of infant cognition? *Infancy*, 1, 463- 470.
2. Munakata, Y. (2000). Challenges to the violation of expectation paradigm: Throwing the conceptual baby out with the perceptual processing bathwater? *Infancy*, 1, 471-477.
3. Bogartz, R. S., Cashon, C. H., Cohen, L. B., Schilling, T. H., Shinskey, J. L. (2000). Reply to Baillargeon, Aslin, and Munakata. *Infancy*, 1, 479-490.

10/12 – SOCIAL CONSTRUCTIVIST APPROACHES – VYGOTSKY & ALTERNATIVES

1. Wertsch, J. V. (1999). Vygotsky, Lev Semenovich. In R. A. Wilson & F. C. Keil (Eds.), *The MIT encyclopedia of the cognitive sciences*. Cambridge, MA: MIT Press. pp 878-879.
2. Kozulin, A. (1985). Vygotsky in context. Frontpiece to Vygotsky, L (1986). *Thought and language*. Cambridge, MA: The MIT press. pp xi-lvi
3. Meltzoff, A. N. & Brooks, R. (2001). "Like me" as a building block for understanding other minds: Bodily acts, attention, and intention. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality: Foundations of social cognition* (pp. 171-191). Cambridge, MA: MIT Press.
4. Tomasello, M., Kruger, A. C., & Ratner, H. H. (1993). Cultural learning. *Behavioral and Brain Sciences*, 16, 495-552.

10/19 – EMBODIED COGNITION

1. Gibson, E. J. (1988). Exploratory behavior in the development of perceiving, acting and the acquiring of knowledge. *Annual Review of Psychology*, 39, 1- 41.
2. Smith, L. B., Thelen, E., Titzer, R., & McLin, D. (1999). Knowing in the context of acting: The task dynamics of the A-not-B error. *Psychological Review*, 106, 235-260.
3. Thelen, E. (2000). Grounded in the world: Developmental origins of the embodied mind. *Infancy*, 1, 3-28.

10/26 – NATIVISM– HABITUATION, FAMILIARIZATION

1. Spelke, E. Initial knowledge: Six suggestions. *Cognition*, 50, 431-445.
2. Spelke, E. (1998). Nativism, empiricism, and the origins of knowledge. *Infant Behavior and Development*, 21, 181-200.
3. Haith, M. (1998). Is rich interpretation too costly. *Infant Behavior and Development*, 21(2), 167-79.

11/2 – NO CLASS

11/9- THEORY – Theory & Origin of Concepts

1. Gopnik, A. (1999). Theory of mind. In R. A. Wilson & F. C. Keil (Eds.), *The MIT encyclopedia of the cognitive sciences*. Cambridge, MA: MIT Press. pp 838-841.
2. Gopnik, A. (2003). "The theory theory as an alternative to the innateness hypothesis". *Book chapter in: In L. Antony and N. Hornstein (Eds.), Chomsky and his critics*. Oxford: Blackwells. Retrieved 2013-04-26.
3. Carey, S. (2011). Precis of the origin of concepts. *BBS*, 34(3), 129-30.
4. Gopnik, A. (2011) A unified account of abstract structure and conceptual change: Probabilistic models and early learning mechanisms. *Brain and Behavioral Sciences*, 34(3), 129-30.

11/16 – SIMPLE ASSOCIATION AND STATISTICAL LEARNING MODELS. NEOCONSTRUCTIVIST MODELS.

1. Rovee-Collier, C.K., Sullivan, M.W., Enright, M., Lucas, D., Fagen, J.W. (1980). Reactivation of infant memory. *Science*, 208, 1159-116
2. Saffran, J., Aslin, R., & Newport, E. (1998). Statistical learning by 8-month-old infants. *Science*, 274, 1926-1928.
3. Lewkowicz, D. J., Leo, I., & Simion, F. (2010). Intersensory perception at birth: Newborns match non-human primate faces & voices. *Infancy*, 15(1), 46-60.
4. Tummeltshammer, K. & Amso, D. (2017). Top-down contextual knowledge guides visual attention in infancy. *Developmental Science*, 21(4), e12599.

11/23 – MATURATIONAL ACCOUNT AND NEUROCONSTRUCTIVISM

1. Greenough, W. T., Black, J. E., & Wallace, C. S. (1987/1993). Experience and brain development. In M. Johnson (Ed.) *Brain development and cognition: A reader*. Oxford: Blackwell Publishers, pp. 290-322.
2. Johnson, M.H. (2000). Functional brain development in infants: Elements of an Interactive Specialization Framework. *Child Development*, 71(1), 75-81.
3. Karmiloff-Smith, A. (2009). Nativism versus neuroconstructivism: Rethinking the study of developmental disorders. *Developmental Psychology*, 45(1), 56-63.

11/30 – NEUROCONSTRUCTIVISM AND DEVELOPMENTAL COGNITIVE NEUROSCIENCE. WHAT HAVE WE LEARNED?

1. Karmiloff-Smith A. (2015). An alternative to domain-general or domain-specific frameworks for theorizing about human evolution and ontogenesis. *AIMS neuroscience*, 2(2):91-104.

2. Johnson, M. H., Jones, E. J. H., & Gliga, T. (2015). Brain adaptation and alternative developmental trajectories. *Development and Psychopathology*, *27*(2), 425–442. <https://doi.org/10.1017/S0954579415000073>.
3. Tottenham, N. (2017). The fundamental role of early environments to developing an emotionally healthy brain. *Policy Insights from the Behavioral and Brain Sciences*, *5*(1), 98-103.

12/7 – ECOLOGICAL APPROACHES AND ENVIRONMENTAL SHAPING

1. Werchan, D. & Amso, D. (2017). A novel ecological account of prefrontal cortex functional development. *Psychological Review*, *124*(6), 720-739.
2. Ellis, B.J., Bianchi, J., Griskevicius, V., & Frankenhuis, W.E. (2017). Beyond risk and protective factors: an adaptation-based approach to resilience. *Perspectives on Psychological Science*, *12*(4), 561-587.

12/14- FINAL PRESENTATION

