READINGS (BY WEEK OF DISCUSSION)

Week 1 **Biology of Change, Johnson (Chapter 1)**

Introduction to the course and overview
What is developmental cognitive neuroscience?
Levels of analysis: computational, behavioral, neural
Levels of explanation: genetics, evolution, experience

Week 2 **Methods and Populations, Johnson (Chapter 2)**

Gottlieb, G. (2007). Probabilistic epigenesis. *Developmental Science, 10,* 1-11.

Stiles, J. (2009). On genes, brains, and behavior: Why should developmental psychologists care about brain development? *Child Development Perspectives, 3,* 196-202.

Aslin, R. & Fisher, J. (2005). Methodological challenges for understanding cognitive development in infants. *Trends in Cognitive Sciences, 9,* 92-98.

Week 3 **From Gene to Brain, Johnson (Chapter 3)**

Fox, S., Levitt, P., & Nelson, C. (2010). How the timing and quality of early experiences influence the development of brain architecture. *Child Development, 81,* 28-40.

Thompson, B., Levitt, P, & Stanwood, G. (2009). Prenatal exposure to drugs: effects on brain development and implications for policy and education. *Nature Reviews Neuroscience, 10,* 303-312. **(CYNTHIA)**

Tierney, A. & Nelson, C.A. (2009). Brain development and the role of experience in the early years. *Zero to Three,* 9-13.

Week 4 **Building a Brain, Johnson (Chapter 4)**

Sur, M. & Rubenstein, J. (2005). Patterning and plasticity in the cerebral cortex. *Science, 310,* 805-810.

Galvan, A. (2010). Neural plasticity of development and learning. *Human Brain Mapping, 31,* 879-890.

Kuhl, P. K. (2004). Early language acquisition: Cracking the speech code. *Nature Reviews Neuroscience, 5,* 831-843. **(MOLLY)**

Week 5 **Vision, Orienting, and Attention, Johnson (Chapter 5)**

Richards, J.E. (2010). The development of attention to simple and complex visual stimuli in infants: Behavioral and psychophysiological measures. *Developmental Review, 30,* 203-219. **(KATIE)**

O'Connor, D., Fukui, M., Pinsk, M., & Kastner, S. (2002). Attention modulates responses in the human lateral geniculate nucleus. *Nature Neuroscience, 5,* 1203-1209.

Richards, J., Reynolds, G., & Courage, M. (2010). The neural bases of infant attention. *Current Directions in Psychological Science, 19,* 41-46.

Week 6 **Perceiving and Acting on the Physical World, Johnson (Chapter 6)**

Cordes, S. & Brannon, E.M. (2009). The relative salience of discrete and continuous quantity in young infants. *Developmental Science, 12,* 453-463. **(DEANNA)**

Csibra, G., Davis, G., Spratling, M., Johnson, M. (2000). Gamma oscillations and object processing in the infant brain. *Science, 290,* 1582-1585.

Campos, J., Berthenthal, B., & Kermoian, R. (1992). Early experience and emotional development: the emergence of wariness of heights. *Psychological Science, 3,* 61-64.

Week 7 **Perceiving and Acting on the Social World, Johnson (Chapter 7)**

Johnson, M., Griffin, R., Csibra, G., Halit, H., Farroni, T., De Haan, M., Tucker, L., Baron-Cohen, S., & Richards, J. (2005). The emergence of the social brain network: evidence from typical and atypical development. *Development and Psychopathology, 17,* 599-619. **(KAITLIN)**

Sommerville, J., Woodward, A., & Needham, A. (2005). Action experience alters 3-month-old infants' perception of others' actions. *Cognition, 96,* B1-B11.

Csibra, T., Volein, A., & Csibra, G. (2010). Verbal labels modulate perceptual object processing in 1-Year-Old Children. *Journal of Cognitive Neuroscience, 22,* 2781-2789.

Week 8 **Learning and Long-Term Memory, Johnson (Chapter 8)**

Bauer, P. (2007). Toward a neuro-developmental account of the development of declarative memory. *Developmental Psychobiology, 50,* 19-31. **(JENNI)**

Riggins, T., Miller, N., Bauer, P., Georgieff, M., & Nelson, C. (2009). Electrophysiological indices of memory for temporal order in early childhood:

implications for the development of recollection. *Developmental Science, 12,* 209-219.

Bauer, P. (2006). Constructing a past in infancy: a neuro-developmental account. *Trends in Cognitive Sciences, 10,* 175-181.

Week 9 **Language, Johnson (Chapter 9)**

Margoliash, D., & Nusbaum, H. (2009). Language: the perspective from organismal biology. *Trends in Cognitive Sciences, 13,* 505-510. **(RUSSELL)**

Dehaene-Lambertz, G., Hertz-Pannier, L., & Dubois, J. (2006). Nature and nurture in language acquisition: anatomical and functional brain-imaging studies in infants. *Trends in Neurosciences, 29,* 367-373.

Kuhl, P. K. & Rivera-Gaxiola, M. (2008). Neural substrates of early language acquisition. *Annual Review of Neuroscience, 31,* 511-534.

Week 10 **Prefrontal Cortex, Working Memory, & Decision-Making, Johnson (Chapter 10)**

Holmboe, K., Nemoda, Z., Fearon, R. M. P., Csibra, G., Sasvari-Szekely, M., & Johnson, M. H. (2010). Polymorphisms in dopamine system genes are associated with individual differences in attention in infancy. *Developmental Psychology, 46,* 404-416. **(JANILL)**

Week 11 **Cerebral Lateralization, Johnson (Chapter 11) (IRIS)**

Yeo, R., Gangestad, S., Thoma, R., Shaw, P., & Repa, K. (1997). Developmental instability and cerebral lateralization. *Neuropsychology, 11,* 552-561.

Sun, T. et al. (2005). Early asymmetry of gene transcription in embryonic human left and right cerebral cortex. *Science, 308,* 1794-1798.

*Bisazza, A., Rogers, L., & Vallortigara, G. (1998). The origins of cerebral asymmetry: a review of evidence of behavioural and brain lateralization in fishes, reptiles, and amphibians. *Neuroscience and Biobehavioral Reviews, 22,* 411–426.

Week 12 **Interactive Specialization & An Integrated Developmental Cognitive Neuroscience, Johnson (Chapters 12 & 13)**

Meltzoff, A. N., Kuhl, P. K., Movellan, J., & Sejnowski, T. J. (2009). Foundations for a new science of learning. *Science, 325,* 284-288.

Nath, A., Fava, E. & Beauchamp, M. (2011). Neural correlates of interindividual differences in children's audiovisual speech perception. *Journal of Neuroscience,* 28, 13963-13971.

Karmiloff-Smith, A. (2010). Neuroimaging of the developing brain: taking "developing" seriously. *Human Brain Mapping, 31,* 934-941.