Origins of Mind
Possible Essay Questions

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For any of these questions, your answer may focus on a particular domain, such as core knowledge of objects or of number. You are not required to provide a comprehensive survey.

The readings suggested here are to get you started. Further reading can be found on the lecture handouts. You may discuss readings with your tutor in relation to your essay plan.

Contents

Mindreading

What is the puzzle about when humans can first represent others' beliefs? How might the puzzle be resolved?

—Reading

Kristine H. Onishi and Renée Baillargeon. 2005. "Do 15-Month-Old Infants Understand False Beliefs?" *Science* 308 (8): 255–258

Ágnes Melinda Kovács, Ernő Téglás and Ansgar Denis Endress. 2010. "The Social Sense: Susceptibility to Others' Beliefs in Human Infants and Adults". *Science* 330 (6012): 1830–1834. doi:10.1126/science.1190792

Renée Baillargeon, Rose M. Scott and Zijing He. 2010. "False-belief understanding in infants". *Trends in Cognitive Sciences* 14 (3): 110–118

Stephen A. Butterfill and Ian A. Apperly. 2013. "How to Construct a Minimal Theory of Mind". *Mind and Language* 28 (5): 606–637

Peter Carruthers. 2013. "Mindreading in Infancy" [in en]. *Mind & Language* 28 (2): 141–172. doi:10.1111/mila.12014

Jason Low et al. 2016. "Cognitive Architecture of Belief Reasoning in Children and Adults: A Primer on the Two-Systems Account" [in en]. *Child Development Perspectives* 10 (3): 184–9. Accessed 22 July 2016. doi:10.1111/cdep.12183

The Teleological Stance

Is it true that 'when taking the teleological stance one-year-olds apply the same inferential principle of rational action that drives everyday mentalistic reasoning about intentional actions in adults'?

—Reading

György Gergely and Gergely Csibra. 2003. "Teleological reasoning in infancy: the naive theory of rational action". *Trends in Cognitive Sciences* 7 (7): 287–292

György Gergely et al. 1995. "Taking the Intentional Stance at 12 Months of Age". *Cognition* 56:165–193

Amanda L. Woodward. 1998. "Infants Selectively Encode the Goal Object of an Actor's Reach". *Cognition* 69:1–34

Dorota Green et al. 2016. "Culture Influences Action Understanding in Infancy: Prediction of Actions Performed With Chopsticks and Spoons in Chinese and Swedish Infants". *Child Dev* 87 (3): 736–746. Accessed 14 November 2016. doi:10.1111/cdev.12500. http://onlinelibrary.wiley.com/doi/10.1111/cdev.12500/abstract

Moritz M. Daum et al. 2012. "Actions Seen through Babies' Eyes: A Dissociation between Looking Time and Predictive Gaze". *Frontiers in Psychology* 3. Accessed 20 October 2014. doi:10.3389/fpsyg.2012.00370

Corrado Sinigaglia and Stephen A. Butterfill. 2016. "Motor Representation in Goal Ascription". In *Foundations of Embodied Cognition 2: Conceptual and Interactive Embodiment*, edited by Yann Coello and Martin H. Fischer, 149–164. Hove: Psychology Press

Gergely Csibra and György Gergely. 2007. "Obsessed with goals': Functions and mechanisms of teleological interpretation of actions in humans". *Acta Psychologica* 124 (1): 60–78

Action

How and why are infants' abilities to perform actions linked to their abilities to track the goals of others' actions?

—Reading

Amanda L. Woodward. 2009. "Infants' Grasp of Others' Intentions". *Current Directions in Psychological Science* 18 (1): 53–57. Accessed 13 November 2016. doi:10.1111/j.1467-8721.2009.01605.x. pmid: 23645974. http://cdp.sagepub.com/content/18/1/53

Jessica A. Sommerville, Amanda L. Woodward and Amy Needham. 2005. "Action Experience Alters 3-Month-Old Infants' Perception of Others' Actions". *Cognition* 96 (1): B1–B11. Accessed 25 May 2011. doi:16/j.cognition.2004.07.004. http://www.sciencedirect.com/science/article/pii/S0010027704001507

Jessica A. Sommerville, Elina A. Hildebrand and Catharyn C. Crane. 2008. "Experience Matters: The Impact of Doing versus Watching on Infants' Subsequent Perception of Tool-Use Events." *Developmental Psychology* 44 (5): 1249–1256. Accessed 14 November 2016. doi:10.1037/a0012296. http://0-search.proquest.com.pugwash.lib.warwick.ac.uk/docview/614501978/abstract/F967B4D417054930PQ/1

Ettore Ambrosini et al. 2013. "Looking Ahead: Anticipatory Gaze and Motor Ability in Infancy". *PLOS ONE* 8 (7): e67916. Accessed 14 November 2016. doi:10.1371/journal.pone.0067916. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0067916

Anne Melzer, Wolfgang Prinz and Moritz M. Daum. 2012. "Production and Perception of Contralateral Reaching: A Close Link by 12 Months of Age". *Infant Behavior and Development* 35 (3): 570–579. Accessed 10 January 2016. doi:10.1016/j.infbeh.2012.05.003. http://www.sciencedirect.com/science/article/pii/S0163638312000549

Corrado Sinigaglia and Stephen A. Butterfill. 2016. "Motor Representation in Goal Ascription". In *Foundations of Embodied Cognition 2: Conceptual and Interactive Embodiment*, edited by Yann Coello and Martin H. Fischer, 149–164. Hove: Psychology Press

Gergely Csibra and György Gergely. 2007. "Obsessed with goals': Functions and mechanisms of teleological interpretation of actions in humans". *Acta Psychologica* 124 (1): 60–78 György Gergely and Gergely Csibra. 2003. "Teleological reasoning

in infancy: the naive theory of rational action". *Trends in Cognitive Sciences* 7 (7): 287–292

Joint Action

What is joint action? Could there be a role for joint action in explaining the developmental origins of knowledge?

—Reading

Michael E. Bratman. 2009. "Modest Sociality and the Distinctiveness of Intention". *Philosophical Studies* 144 (1): 149–165

Henrike Moll and Michael Tomasello. 2007. "Cooperation and human cognition: the Vygotskian Intelligence Hypothesis". *Philosophical Transactions of the Royal Society B* 362 (1480): 639–648

Malinda Carpenter. 2009. "Just How Joint Is Joint Action in Infancy?" [In en]. *Topics in Cognitive Science* 1 (2): 380–392. doi:10.1111/j.1756-8765.2009.01026.x

Michael Tomasello and Malinda Carpenter. 2007. "Shared Intentionality". *Developmental Science* 10 (1): 121–5

Deborah Tollefsen. 2005. "Let's Pretend: Children and Joint Action". *Philosophy of the Social Sciences* 35 (75): 74–97

Stephen A. Butterfill. 2012. "Joint Action and Development". *Philosophical Quarterly* 62 (246): 23–47

Referential Communication

What underpins one-year-olds' abilities to produce and comprehend pointing actions?

—Hint

You may consider this view as a target for discussion:

> 'infant pointing is best understood—on many levels and in many ways—as depending on uniquely human skills and motivations for cooperation and shared intentionality, which enable such things as joint intentions and joint attention in truly collaborative interactions with others (Bratman, 1992; Searle, 1995).' (Tomasello, Carpenter and Liszkowski 2007, p. 706)

> 'to understand pointing, the subject needs to understand more than the individual goal-directed behaviour. She needs to understand that by pointing towards a location, the other attempts to communicate to her where a desired object is located; that the other tries to inform her about something that is relevant for her' (Moll and Tomasello 2007, p. 6).

—Reading

Michael Tomasello, Malinda Carpenter and Ulf Liszkowski. 2007. "A New Look at Infant Pointing". *Child Development* 78 (3): 705–722

Ulf Liszkowski et al. 2004. "Twelve-month-olds point to share attention and interest". *Developmental science* 7 (3): 297–307

Ulf Liszkowski. 2007. "Infant Pointing at 12 Months: Communicative Goals, Motives, and Social-Cognitive Abilities". In *Roots of Human Sociality: Culture, Cognition and Interaction,* edited by N. J. Enfield and S. C. Levinson, 153–178. London: Berg

Ulf Liszkowski, Malinda Carpenter and Michael Tomasello. 2008. "Twelve-month-olds communicate helpfully and appropriately for knowledgeable and ignorant partners". *Cognition* 108 (3): 732–739

Henrike Moll and Michael Tomasello. 2007. "Cooperation and human cognition: the Vygotskian Intelligence Hypothesis". *Philosophical Transactions of the Royal Society B* 362 (1480): 639–648

K. Liebal et al. 2009. “Infants use shared experience to interpret a pointing gesture”. *Developmental Science* 12 (2): 264–271

compare Paul Grice. 1989. *Studies in the way of words.* Cambridge, Mass ; London: Harvard University Press

Dare Baldwin. 1995. “Understanding the Link Between Joint Attention and Language”. In *Joint Attention : Its Origins and Role in Development*, edited by Chris Moore and Douglas Frye. Hove: Erlbaum

Gergely Csibra. 2003. “Teleological and Referential Understanding of Action in Infancy”. *Philosophical Transactions: Biological Sciences* 358 (1431): 447–458

Language

Do 'children learn words through the exercise of reason'?

The reading for this is one-sided, which makes this question difficult.

—Reading

Paul Bloom. 2000. *How children learn the meanings of words.* Learning, development, and conceptual change. Cambridge, Mass. ; London: MIT Press

Dare Baldwin. 2000. "Interpersonal Understanding Fuels Knowledge Acquisition". *Current Directions in Psychological Science* 9 (2): 40–5

Mark Sabbagh and Dare Baldwin. 2001. "Learning Words from Knowledgeable versus Ignorant Speakers: Links Between Preschoolers' Theory of Mind and Semantic Development". *Child Development* 72 (4): 1054–1070

Danielle Matthews, Elena Lieven and Michael Tomasello. 2008. "How Toddlers and Preschoolers Learn to Uniquely Idenitfy Referents for Others: A Training Study". *Child Development* 78 (6): 1744–1759

Michael Dummett. 1993. "Language and Communication". In *The seas of language.* Oxford: Clarendon Press

Susan Goldin-Meadow. 2003. *The resilience of language : what gesture creation in deaf children can tell us about how all children learn language.* Essays in developmental psychology. New York, N.Y.: Psychology Press

Innateness

What if anything is innate in humans?

Hint: You should be careful to examine the notion of innateness (see Samuels 2004). Otherwise the reading is divided into topics; you should not try to cover all topics. I also suggest *not* structuring your essay by topic.

—Reading

Richard Samuels. 2004. "Innateness in Cognitive Science". *Trends in Cognitive Sciences* 8 (3): 136–41

—Reading: comparative (cross-species)

Cinzia Chiandetti and Giorgio Vallortigara. 2011. "Intuitive physical reasoning about occluded objects by inexperienced chicks" [in en]. *Proceedings of the Royal Society B: Biological Sciences* 278 (1718): 2621–2627. doi:10.1098/rspb.2010.2381

Daniel B.M. Haun et al. 2010. "Origins of spatial, temporal and numerical cognition: Insights from comparative psychology". *Trends in Cognitive Sciences* 14 (12): 552–560. doi:10.1016/j.tics.2010.09.006

—Reading: syntax

Note: this is one-sided.

Jeffrey Lidz, Sandra Waxman and Jennifer Freedman. 2003. "What infants know about syntax but couldn't have learned: experimental evidence for syntactic structure at 18 months". *Cognition* 89 (3): 295–303. doi:10.1016/S0010-0277(03)00116-1

Jeffrey Lidz and Sandra Waxman. 2004. "Reaffirming the poverty of the stimulus argument: a reply to the replies". *Cognition* 93 (2): 157–165. doi:10.1016/j.cognition.2004.02.001

—Reading: replying to Fodor's argument

Jerry Fodor. 1981. "The Present Status of the Innateness Controversy". In *Representations.* Brighton: Harvester

Susan Carey. 2009. *The Origin of Concepts.* Oxford: Oxford University Press chapters 4, 8

(There is also an exchange between Carey and Rey forthcoming in the journal Mind and Language—their papers may be available by the time you read this.)