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## FALL 2018 – PERSON AND NEUROSCIENCE (PH 4712)

This is a tentative syllabus, please retrieve the latest version of the syllabus when classes start.

### MEETING INFORMATION

**Room:** TBA

**Time:** Wednesdays at 9.40

**Instructor:** Marga Vega, [mvega@dspt.edu](mailto:mvega@dspt.edu)

**Office Hours:** By appointment

### DESCRIPTION

We understand ourselves as persons who have memories, emotions, capacity for decision, and moral, social, religious and artistic attitudes. However, some interpretations of the neuroscientific evidence seem to suggest that our brains are responsible for most of these behaviors in a way that places us as spectators instead of actors of our personal life. At the same time, studies in neuroscience seem to provide evidence to support and scientifically illustrate many of our intuitions as persons who have agency and can destine themselves towards goals that are not given ahead of time. This course presents how philosophy can provide an interpretative framework for neuroscience, and how philosophers can gain knowledge about the human condition through neuroscientific research. The course addresses the following questions: What are the conceptual presuppositions in neuroscience that demand a philosophical analysis? How can neuroscience enrich our understanding of what a person is? How can philosophy help correct some of the conceptual mistakes that lie underneath some experimental presuppositions in neuroscience? Prerequisites: No previous background in neuroscience is required, certain familiarity with the Aristotelian-Thomistic tradition of philosophical anthropology would help, but it will also be provided. Theory of Knowledge or anthropology are recommended courses.

### COURSE ORGANIZATION- METHODOLOGY

This is a seminar course. The class will consist in presentation and discussion of the weekly readings and other video materials provided to the students. There will be also guest speaker presentations in some topics TBD.

### STUDENT LEARNING GOALS

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1. Review and refresh the philosophical milestones of the notion of personhood, with particular emphasis in the Aristotelian-Thomistic tradition, as well as newer personalist proposals.
  2. Analyze the main philosophical presuppositions about the person that operate within Neuroscience.
  3. Become familiar with Neuroscientific research in topics related to decision making, morality, emotion, sense of self, freedom of the will, the unconscious, and religious experience.
  4. Apply philosophical tools that can help assess the outcome and conclusions of neuroscientific data.

## STUDENT LEARNING OUTCOMES

1. To goal 1. The student will exhibit command of the metaphysical and anthropological framework of the notion of personhood, and ability to relate them with the evidence provided by Neuroscience (Institutional Goal A1: Integrative).
2. To goal 2. The student will demonstrate familiarity with the philosophical assumptions behind neuroscientific evidence related to the unconscious, bottom-up and top-down causation, the mereological fallacy, and computational approaches to neuronal processing, in a way that is both open to the scientific evidence and full of intellectual philosophical acuity (Institutional Goal A2: Intellectual Humility)
3. To goal 3. The student will be able to assess the validity of neuroscientific evidence, and in particular experiments that conclude on the inexistence or existence of freedom of the will.
4. To goal 4. The student will be able to present to the class some of the readings assigned in a way that shows argumentative skills, critical thought, integrative thinking (Institutional Goal A1: Integrative Thinking), and pedagogical style (Institutional Goal B: Effective Leadership). The student will gather an annotated bibliography that relates to his area of interest and will write a short research paper (Institutional Goal A3: Self-direction). The student will be able to participate actively with her classmates, relate topics with her/his own interests, background and other philosophical disciplines.

## ASSIGNMENTS

- **Annotated bibliography:** Each student will submit a bibliography of five sources, accompanied by your own précis of each entry (100-250 words). The bibliography will cover the five most important essays related to the student's topic of interest (ideally, and if applicable, relating s/his thesis topic and this class). The student will need to use the philosopher's index to complete this exercise. S/he will be graded on the quality of the annotations, and the significance of the selections.
- **Presentations:** Each week students will take turns presenting the assigned reading and leading the discussion. This presentation should lead to the active participation by all the students on the topic studied that week.

- **Research Paper:** Ideally the paper will be based on the student's presentations and on her annotated bibliography. It will be a short paper ten pages long including references. Due on December 12<sup>th</sup>.
- The grade for the course will be: 25% for presentations, 25% for annotated bibliography, 50% for research paper.

## READINGS & BIBLIOGRAPHY

Some of the reading materials will be provided by the instructor through Moodle or Dropbox. It is recommended to wait until the first week of classes for instructions before acquiring the readings.

To purchase:

- Bennett, M. R., and P. M. S. Hacker. *History of Cognitive Neuroscience*. First Edition. Chichester, West Sussex, United Kingdom: Wiley-Blackwell, 2012. 41.80 \$ [ISBN-10: 1118346343](#), [ISBN-13: 978-1118346341](#)
- Murphy, Nancey. *Bodies and Souls, or Spirited Bodies?* Cambridge, UK ; New York: Cambridge University Press, 2006, 26 \$. [ISBN-10: 0521676762](#), [ISBN-13: 978-0521676762](#).

The readings in the schedule refer to the following books and papers:

Auletta, Gennaro, Ivan Colage, and Marc Jeannerod, eds. *Brains Top Down - Is Top-Down Causation Challenging Neuroscience?* First Edition. New Jersey: World Scientific Publishing Company, 2013.

Bennett, M. R., and P. M. S. Hacker. *Philosophical Foundations of Neuroscience*. First Edition. Malden, MA: Wiley-Blackwell, 2003.

———. *History of Cognitive Neuroscience*. First Edition. Chichester, West Sussex, United Kingdom: Wiley-Blackwell, 2012.

Blakemore, Sarah-Jayne. "The Social Brain in Adolescence." *Nature Reviews Neuroscience* 9, no. 4 (April 2008): 267–277.

Brown, Warren. *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*. Edited by Nancey Murphy and H. Newton Malony. First Edition. Minneapolis: Fortress Press, 1998.

Daprati, E, N Franck, N Georgieff, J Proust, E Pacherie, J Dalery, and M Jeannerod. "Looking for the Agent: An Investigation into Consciousness of Action and Self-Consciousness in Schizophrenic Patients." *Cognition* 65, no. 1 (December 1997): 71–86.

Deacon, Terrence W. "Universal Grammar and Semiotic Constraints." In *Language Evolution*, edited by Morten H. Christiansen and Simon Kirby, 111–139. Oxford University Press, 2003.

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Dunbar, R. I. M. “The Social Brain: Mind, Language, and Society in Evolutionary Perspective.” *Annual Review of Anthropology* 3 (2003): 163–181.

Jeeves, Malcolm, ed. *From Cells to Souls-And Beyond: Changing Portraits of Human Nature*. Grand Rapids, Mich: Wm. B. Eerdmans Publishing Company, 2004.

———. *Human Nature: Reflections on the Integration of Psychology and Christianity*. First Edition. Philadelphia: Templeton Press, 2006.

———, ed. *Rethinking Human Nature: A Multidisciplinary Approach*. First Edition. Grand Rapids, Mich: Eerdmans, 2011.

———, ed. *The Emergence of Personhood: A Quantum Leap?* Grand Rapids, Michigan: Eerdmans, 2015.

Jeeves, Malcolm, and Warren S. Brown. *Neuroscience, Psychology, and Religion: Illusions, Delusions, and Realities about Human Nature*. First Edition. West Conshohocken, Pa: Templeton Press, 2009.

Mele, Alfred R. *Free: Why Science Hasn't Disproved Free Will*. First Edition. New York: Oxford University Press, 2014.

Murphy, Nancey. *Bodies and Souls, or Spirited Bodies?* Cambridge, UK ; New York: Cambridge University Press, 2006.

Murphy, Nancey, and Warren S. Brown. *Did My Neurons Make Me Do It?: Philosophical and Neurobiological Perspectives on Moral Responsibility and Free Will*. First Edition. Oxford ; New York: Oxford University Press, 2009.

Russell, Robert J., Nancey Murphy, Theo C. Meyering, and Michael A. Arbib. *Neuroscience and the Person: Scientific Perspectives on Divine Action*. First Edition. Città del Vaticano : Berkeley (USA): University of Notre Dame Press, 2000.

Searle, John. *Minds, Brains and Science*. First Edition. Cambridge, Mass: Harvard University Press, 1984.

Searle, John. “Collective Intentions and Actions.” In *Intentions in Communication*, edited by Philip R. Cohen Jerry Morgan and Martha Pollack, 401–415. MIT Press, 1990.

Searle, John. *Freedom and Neurobiology: Reflections on Free Will, Language, and Political Power*. Third edition. New York: Columbia University Press, 2008.

Tomasello, Michael, and Hannes Rakoczy. “What Makes Human Cognition Unique? From Individual to Shared to Collective Intentionality.” *Mind and Language* 18, no. 2 (April 2003): 121–147.

Welker, Michael, ed. *The Depth of the Human Person: A Multidisciplinary Approach*. Grand Rapids. Michigan: William B. Eerdmans Publishing Company, 2014.

## SCHEDULE OF CLASSES

Date	TOPICS	READINGS
Week 1 09/05	Introduction to the Person	
Week 2 09/12	Philosophical Assumptions in Neuroscience	<ul style="list-style-type: none"> <li>• Bennet and Hacker, 2003, chapter 1, 2, 3.</li> <li>• Bennet and Hacker, 2012, chapter 7.</li> <li>• Murphy, 2006, chapter 2.</li> </ul>
Week 3 09/19	How reliably can we have objective knowledge of reality in light of neuroscientific experiments?	<ul style="list-style-type: none"> <li>• Bennet and Hacker, 2012, Chapter 1 and 2.</li> </ul>
Week 4 09/26	The human brain among other animal brains	<ul style="list-style-type: none"> <li>• Tomasello, 2003</li> <li>• Jeeves and Warren Brown, 2009, chapter 6</li> <li>• Warren S. Brown “The emergence of human distinctiveness” in Welker 2014</li> <li>• Jeffrey P. Schloss “Hierarchical selection and the evolutionary emergence of "spirit"” in Welker, 2014</li> </ul>
Week 5 10/03	The Symbolic Species  Speaker: Terrence Deacon	<ul style="list-style-type: none"> <li>• Bennet and Hacker, 2012, 6</li> <li>• Hagoort “The Uniquely Human Capacity for Language Communication”, in Russell et al. eds, 2000</li> <li>• Deacon, “Universal Grammar and Semiotic Constraints” 2003</li> </ul>
Week 6 10/10	Is Our Brain a Solitary Brain? Speaker: TBD	<ul style="list-style-type: none"> <li>• Brothers, “A Neuroscientific Perspective on Human Sociality” in Russell et al eds. 2000.</li> <li>• Dunbar, “The Social Brain”, 2003</li> <li>• Myers, “The Social Animal” in Jeeves 2011</li> <li>• Searle “Collective Intentions and Actions”, 1990</li> </ul>
Week 7 10/17	Is the Emotional Brain in Control of Behavior?	<ul style="list-style-type: none"> <li>• Bennet and Hacker, 2003, chapter 7: Emotion</li> <li>• Bennet and Hacker, 2012 Chapter 5 and 6.</li> <li>• LeDoux, Emotions: A View through the Brain, in Russell and al. 2000.</li> </ul>

		<ul style="list-style-type: none"> <li>• Blakemore, 2008</li> <li>• The affects of the soul and the effects of grace : of Melanchthon's understanding of faith and Christian emotions in Welke, 2014</li> </ul>
Week 8 10/24 Reading Week		
Week 9 10/31	Gender and Brain Differences	
Week 10 11/7	Is our sense of selfhood shattered by neuroscientific evidence? Speaker: TBD	<ul style="list-style-type: none"> <li>• Bennet and Hacker, 2003, chapter 12</li> <li>• Bennet and Hacker, 2012 chapter 4 (on Memory)</li> <li>• Daprati, 1997</li> <li>• Murphy, 2006, chapter 1, and chapter 4. Challenges to Physicalism</li> <li>• Sanguinetti, Can the self be considered a cause? In Auletta et al., 2013</li> </ul>
Week 11 11/14	Consciousness, Brains and Machines Speaker: TBD	<ul style="list-style-type: none"> <li>• Searle, 1984</li> </ul>
Week 13 11/28	Does Our Brain Decide for Us? Speaker: Fr. Anselm Ramelow	<ul style="list-style-type: none"> <li>• Jeannerod, "The Functional Role of Conscious Will in Voluntary Action" in Auletta et al., 2013</li> <li>• Mele, 2014</li> <li>• Murphy, 2006, chapter 3, and 2009</li> <li>• Searle, 2008.</li> </ul>
Week 14 12/05	Is Religious Experience all in our heads?  Speaker: Olga Louchakova-Schwartz	<ul style="list-style-type: none"> <li>• Jeeves and Warren Brown, 2012, chapter 7</li> <li>• Parks, "The Vulnerability of Persons: Religion and Neurology" in Jeeves 2004.</li> <li>• Brown, "Neurobiological Embodiment of Spirituality and Soul" in Jeeves 2004.</li> <li>• Weaver, "Spiritual Suffering in persons with Alzheimer" in Jeeves 2004.</li> <li>• Davies "Spirituality and Illness" in Jeeves 2004.</li> <li>• Wiebe, "Understanding Christic Visions" in Jeeves 2004.</li> </ul>