

M. Emrah Aktunc

Curriculum Vitae

Education:

Ph.D. Virginia Tech, 2011. Science and Technology Studies/*Track: Philosophy of Science and Technology*
Dissertation: *Experimental Knowledge in Cognitive Neuroscience: Evidence, Errors, and Inference*
Committee: Deborah Mayo (Chair), Richard Burian, Lydia Patton, Aris Spanos

M.A. University of Iowa, 2003. Psychology.

B.A. Koç University, 1999. Psychology.

Research Interests:

Evidence and Inference in Neuroimaging, Memory and Reasoning, Philosophy of Cognitive Science, History and Philosophy of Psychology, Experimentation and Statistics

Employment:

2014 – pres.: Assistant Professor – Dept. of Psychology, Ozyegin University

2012 – 2013: Adjunct Instructor – Ozyegin University, Koc University, Isik University

2009 – 2011: Instructor - Dept. of Philosophy, Virginia Polytechnic Institute and State University

Publications:

- **Aktunc**, M.E., Hazar, C., Baytimur, E. (2020) "Error Rates and Uncertainty Reduction in Rule Discovery." *Review of Philosophy and Psychology*. doi: 10.1007/s13164-020-00494-6
- **Aktunc**, M.E. (2019). "Productive Theory-Ladenness in fMRI" *Synthese: Special Issue on Neuroscience and Its Philosophy*. doi: 10.1007/s11229-019-02125-9
- **Aktunc**, M.E. (2014). "Severe tests in neuroimaging: What we can learn and how we can learn it." *Philosophy of Science*, 81, (5), 961-973. doi: 10.1086/677691
- **Aktunc**, M.E. (2014). "Tackling Duhemian Problems: An Alternative to Skepticism of Neuroimaging in Philosophy of Cognitive Science." *Review of Philosophy and Psychology*, 5, 449-464. doi: 10.1007/s13164-014-0186-3
- Gupta, P. Lipinski, J., **Aktunc**, E. (2005). "Reexamining the phonological similarity effect in immediate serial recall: The roles of type of similarity, category cuing, and item recall." *Memory & Cognition*, 33, (6), 1001-1016. doi: 10.3758/BF03193208
- Gupta, P. Lipinski, J., Abbs, B. Lin, P., **Aktunc**, E., Ludden, D., Martin, N., Newman, R. (2004). "Space aliens and nonwords: Stimuli for investigating the learning of novel wordmeaning pairs." *Behavior Research Methods, Instruments, & Computers*, 36, (4), 599-603. doi: 10.3758/BF03206540
- Gulgoz, S., Kumkale, G.T., **Aktunc**, M.E., & Eskenazi, T.T. (1999). "Designing Learnable Texts: The Effectiveness of Revisions Based on a Text Processing Model." *Document Design: Journal of Research and Problem Solving in Organizational Communication*, 1, 103-114. doi: 10.1075/dd.1.2.04gu

Conference Posters and Talks:

- **Aktunc**, M. E. (2019). "Productive Theory-Ladenness and Experimental Knowledge in Cognitive Neuroscience." IV. *POND Meeting: Science and Objectivity, September 26-27, Barcelona, Spain*.
- **Aktunc**, M. E., Baytimur, E., Uysal, B., Hazar, C., Erengin, T. (2018). "Choice Blindness in Different Experimental Settings." *Psychonomic Society 59th Annual Meeting, New Orleans, LA*.
- **Aktunc**, M. E. (2017). "Error Probabilities and Uncertainty in Inductive Reasoning" IV. *Symposium on Experimental-Cognitive Psychology, September, 14-15, Ege University, Izmir, Turkey*.

- **Aktunc**, M. E. (2017). "An Error-Statistical Approach to Neuroimaging Experiments and Its Theoretical Results: Neurons, Glia, and Cognition." *Düşünbil Academy, IV. Symposium on Mind: Neuroscience and Philosophy*. March, 25-26, Ankara, Turkey.
- **Aktunc**, M.E., Hazar, C., Baytimur, E. (2016). "Error Rates vs. Uncertainty Reduction: What Works Better in a Rule Discovery Task?" *Society for Judgment and Decision Making, The 37th Annual Conference*. Boston, MA.
- **Aktunc**, M.E. (2016). "Productive Theory-Ladenness in fMRI." *The 3rd International Symposium on Brain and Cognitive Science*. Yeditepe University, Istanbul, Turkey.
- **Aktunc**, M.E. (2014). "Determining What is Being Measured/Learned: Evidence and Inference in Cognitive Neuroscience." *Turkish Neuropsychiatry Association, 7th Neuropsychiatry Days & Centennial Symposium*. Istanbul, Turkey.
- **Aktunc**, M.E. (2012). "Severe Tests in Neuroimaging: What We Can Learn and How We Can Learn It." ~ In Symposium: *Philosophy of Cognitive Neuroscience: Evidence and Inference in Neuroimaging* at the 2012 Meeting of *Philosophy of Science Association*, San Diego, CA ~ also symposium organizer.
- **Aktunc**, M.E. (2011). "Resolving Duhemian Problems in fMRI Experiments." 2011 Meeting of the *Southern Society for Philosophy and Psychology*. New Orleans, LA.
- **Aktunc**, M.E. (2010). "'Voodoo Correlations', Salmon Thoughts, and the Promised Science of fMRI." Dissertation Seminar. *Dept. of Science and Technology in Society, Virginia Tech*. Blacksburg, VA.
- **Aktunc**, M.E. (2008). "Ruthless Reductionism: What Are They Reducing?" *The University of Iowa Graduate Philosophical Society, Fourth Annual Conference*. University of Iowa, Iowa City, IA.
- **Aktunc**, M.E. (2007). "Levels of Hypotheses in Functional Neuroimaging." *Beyond the Borders, Among the Sciences: The Exeter Methodology Workshop in the Sociology and Philosophy of Science*, University of Exeter, Exeter, UK.
- **Aktunc**, M.E. (2007). Commentary on Brian J. Fiala, "Materialism and the Psychology of Explanation" *Virginia Tech Graduate Philosophy Conference, Virginia Tech*, Blacksburg, VA.
- **Aktunc**, M.E. (2006). "The Tacking Paradox: A Critique of Bayesian Treatments and an ErrorStatistical Proposal for Its Solution." *The First Symposium on Philosophy, History, and Methodology of E.R.R.O.R** (Experimental Reasoning, Reliability, Objectivity & Rationality: Induction, Statistics, Modeling) *Virginia Tech*, Blacksburg, VA.
- **Aktunc**, M.E. & Poremba, A. (2002). "Effects of amygdala lesions on spatial reference memory using an eight-arm radial maze with differential rewards." *Society for Neuroscience Annual Conference*, Orlando, FL.
- Gülgöz, S. , **Aktunc**, M. E., Şenol, D., & Van, H. A. (2000). "The effects of testing and delay on recall and learning of information from texts." *The Tenth Annual Meeting of the Society for Text and Discourse, Universite Lumiere Lyon 2, France*.
- Gülgöz, S., **Aktunc**, M. E., & Eskenazi, T. (1999). "Recall of text information in two languages by bilinguals." *The Eleventh Conference of the European Society for Cognitive Psychology*, Gent, Belgium.

- Gülgöz, S., Kumkale, T., **Aktunc**, M. E., & Eskenazi, T. (1998). "Text processing models and research as tools for designing learnable texts." *International Conference on Document Design*, Tilburg, The Netherlands.
- Gülgöz, S., Kumkale, G. T., & **Aktunc**, M. E. (1998). "The effects of text coherence, need for cognition, and prior knowledge on situation models." Eighth Annual Meeting of the *Society for Text and Discourse*, Madison, WI.
- Gülgöz, S., **Aktunc**, M. E., & Kumkale, T. (1998). "Effects of need for cognition, text coherence, and prior knowledge on learning from text." Tenth Congress of the *European Society for Cognitive Psychology*, Jerusalem, Israel.

Conference Proceedings:

- **Aktunc**, M. E., Baytimur, E., Uysal, B., Hazar, C., Erengin, T. (2018). "Choice Blindness in Different Experimental Settings." Abstracts of the Psychonomic Society, Vol. 23, November 2018.
- **Aktunc**, M. E. (2017). "Error Probabilities and Uncertainty in Inductive Reasoning" IV. *Symposium on Experimental-Cognitive Psychology*, September, 14-15, Ege University, Izmir, Turkey.
- **Aktunc**, M.E., Hazar, C., Baytimur, E. (2016). "Error Rates vs. Uncertainty Reduction: What Works Better in a Rule Discovery Task?" *Society for Judgment and Decision Making, The 37th Annual Conference, Program and Abstracts*. Boston, MA.
- **Aktunc**, M.E. (2014). "Öğrenileni/Ölçüleni Belirlemek: Bilişsel Nörobilim'de Kanıt ve Çıkarım." [Determining What is Being Measured/Learned: Evidence and Inference in Cognitive Neuroscience.] *Nöropsikiyatri Arşivi: Yüzüncü Yıl Özel Sayısı*, 51, 1, S35-S36.
- **Aktunc**, M.E., & Poremba, A. (2002). "Effects of amygdala lesions on spatial reference memory using an eight-arm radial maze with differential rewards." *Soc. Neurosci. Abstr.*, 84.8.
- Gülgöz, S., **Aktunc**, M. E., Şenol, D., & Van, H. A. (2000). "The effects of testing and delay on recall and learning of information from texts." *Proceedings of the Tenth Annual Meeting of the Society for Text and Discourse*, 140-141, Universite Lumiere Lyon 2.
- Gülgöz, S., **Aktunc**, M. E., & Eskenazi, T. T. (1999). "Recall of text information in two languages by bilinguals." In A. Vandierendonck, M. Brysbaert, & K. Van Der Goten (Eds.), *Eleventh Conference of the European Society for Cognitive Psychology Proceedings*. Gent: ESCOP/Academia Press.

Working Papers:

- "Uncertainty Reduction as a Guiding Concept in the Cognitive Science of Inductive Reasoning"
- "On The Possibility of Glial Cognition: What Would Have To Change?"

Invited Talks:

- **Aktunc**, M.E. (2019). "Productive theory-ladenness in functional neuroimaging." *Cognitive Science Talks at Bogazici University*, Istanbul.
- **Aktunc**, M.E. (2017). "Tümevarımsal Akıl Yürütmede Hata Olasılığı ve Belirsizlik." [Error Probabilities and Uncertainty in Inductive Reasoning] *Psychology Seminar Series at Bahcesehir University*, Istanbul.
- **Aktunc**, M.E. (2015). "Determining the Underdetermined: Evidence and Inference in Functional Neuroimaging." *Monday Seminars, Dept. of Philosophy, Middle East Technical University*, Ankara.
- **Aktunc**, M.E. (2014). "Bilişsel Nörobilim'de Kanıt ve Çıkarım." [Evidence and Inference in Cognitive Neuroscience.] *Neurology Seminars, Istanbul Medipol University*, Istanbul.

- **Aktunc**, M.E. (2014). "Useful Theory-Ladenness in fMRI: Errors, Inference, and Knowledge in Cognitive Neuroscience." *Faculty of Engineering Seminars, Istanbul Bilgi University*.
- **Aktunc**, M.E. (2013). "On Bickle's 'Ruthless Reductionism' in Cellular/Molecular Neuroscience: What Are They Reducing?" *Conference on Neurology, Philosophy of Biology, and Artificial Intelligence, Koç University Philosophy Department, Istanbul, Turkey*.
- **Aktunc**, M.E. (2012). "Bilişsel Nörobilim'de Kanıt ve Çıkarım." [Evidence and Inference in Cognitive Neuroscience.] *Neurology Seminars, Istanbul College of Medicine, Istanbul*.
- **Aktunc**, M.E. (2012). "Resolving Duhemian Problems in Cognitive Neuroscience." *Brains, Mind and Language #2: A Philosophy/Cognitive Science Workshop Boğaziçi University, Istanbul*.
- **Aktunc**, M.E. (2012). "Determining the Underdetermined: Evidence, Inference, and Knowledge in Cognitive Neuroscience." *Philosophy Department Seminars, Boğaziçi University, Istanbul*.
- **Aktunc**, M.E. (2011). "Assisting Cognitive Neuroscience with the Error-Statistical Philosophy." *Social Science Seminar Series, Koç University, Istanbul*.
- **Aktunc**, M.E. (2011). "Salmon Thoughts, 'Voodoo Correlations', and Severe Tests: How the Error-Statistical Philosophy Can Help the Science of fMRI." *Human Neuroimaging Lab, Virginia Tech Carillion Research Inst., Roanoke, VA*.

Book Review:

- **Aktunc**, M.E. (2009). "Scientific Pluralism. Minnesota Studies in the Philosophy of Science. Vol. XIX." *Annals of Science*, 66:2, 299-302.

Popular Press:

- **Aktunc**, M.E. (2013). "Acımasız İndirgemecilik": İndirgenen Nedir?" [Ruthless Reductionism: What is being reduced?] *Cogito*, 75, 203-217.

Certificates and Awards:

Online Instructor Certificate: 2009, Inst. for Distance and Distr. Learning, Virginia Tech.

Financial Aid: Fall 2004 - Spring 2009, Fall 2010 - Spring 2011, *Virginia Polytechnic Institute and State University*

Financial Aid: Fall 2000 - Spring 2003, *University of Iowa Vehbi*

Koç Scholar: Spring 1996 - Spring 1999, *Koç University*.

Financial Assistance Scholarship: 1998-1999, *Koç University. Dean's*

Honor Roll: Fall 1995, *Koç University*.

Languages:

Turkish (native speaker)

English (native speaker fluency)

German (intermediate)

Latin (elementary)