

# PSY632, SEMINAR IN LEARNING

## TOPICS and POTENTIAL READING LIST

### **(#1) Language Learning in Apes and Dolphins**

Herman, L.M. and Morrel-Samuels, P. (1999). Knowledge acquisition and asymmetry between language comprehension and production: Dolphins and apes as general models for animals. In M. Bekoff and D. Jamieson (Eds.) Readings in animal cognition (pp 289-306). Cambridge:MIT Press.

Herman, L.M., Kuczaj, S.A. II & Holder, M.D. (1993). Responses to anomalous gestural sequences by a language-trained dolphin: Evidence for processing of semantic relations and syntactic information. Journal of Experimental Psychology: General, 122, 184-194.

### **(#2) But Can They do Math? Higher Cognitive Functioning in Non-Human Animals**

Boysen, S.T., Hallberg, K.I. (2000). Primate numerical competence: Contributions toward understanding nonhuman cognition. Cognitive Science, 24(3), 423-443.

### **(#3) Spatial Learning in Nature: Food Storing in Wild Animals**

Balda, R.P. & Kamil, A.C. (1998). The ecology and evolution of spatial memory in corvids of the southwestern USA: The perplexing pinyon jay. In R.P. Balda, I.M. Pepperberg, & A.C. Kamil (Eds.), Animal cognition in nature (pp 29-64). New York:Academic Press

McLean, A.N. (2001). Cognitive abilities – the result of selective pressures on food acquisition? Applied Animal Behaviour Science, 71, 241-258.

Macphail, E.M. & Bolhuis, J.J. (2001). The evolution of intelligence: adaptive specializations *versus* general process. Biological Review, 76, 341-364.

### **(#4) Cognitive(?) Abilities of Spiders: Portia!**

Wilcox, R.S. & Jackson, R.R. (1998). Cognitive abilities of araneophagic jumping spiders. In R.P. Balda, I.M. Pepperberg, & A.C. Kamil (Eds.), Animal cognition in nature (pp 411-434). NY:Academic Press.

### **(#5) Sex/Gender Differences in Learning**

Astur, R.S., Tropp, J., and Sava, S. (2004). Sex differences and correlations in a virtual Morris water task, a virtual radial arm maze, and mental rotation. Behavioural Brain Research, 151(1-2), 103-115.

Postma, A., Jager, G., and Kessels, R.P.C. (2004). Sex differences for selective forms of spatial memory. Brain & Cognition, 54(1), 24-34.

Lebowitz, B.K. & Brown, M.F. (1999). Sex differences in spatial search and pattern learning in the rat. Psychobiology, 27(3), 364-371.

Jonasson, Z. (2005). Meta-analysis of sex differences in rodent models of learning and memory: A review of behavioral and biological data. Neuroscience and Biobehavioral Reviews, 28, 811–825.

### **(#6) Testing Spatial Learning Ability in the Laboratory**

Sutherland, R.J. & Hamilton, D.A. (2004). Rodent spatial navigation: at the crossroads of cognition and movement. Neuroscience and Biobehavioral Reviews, 28, 687–697.

Tolman, E.C. (1948). Cognitive maps in rats and men. The Psychological Review, 55(4), 189-208.

### **(#7) Cognitive(?) Abilities in Alex the Amazing Parrot**

Pepperberg, I.M. (1998). The African Grey Parrot: How cognitive processing might affect allospecific vocal learning. In R.P. Balda, I.M. Pepperberg, & A.C. Kamil (Eds.), Animal cognition in nature (pp 381-409). New York:Academic Press.

Pepperberg, I.M. (1985). Social modeling theory: A possible framework for understanding avian vocal learning. Auk, 102, 854-864.

Pepperberg, I.M. & Wilkes, S.R. (2004). Lack of referential vocal learning from LCD video by grey parrots (*Psittacus erithacus*). Interaction Studies, 5(1), 75-97.

### **(#8) Tool Use**

Lefebvre, L., Nicolakakis, N., Boire, D. (2002). Tools and brains in birds. Behaviour, 139, 939-973.

Lefebvre, L., Reader, S.M., Sol, D. (2004). Tools and brains in birds. Behaviour, 139, 939-973.

van Schaik, C.P., Deaner, R.O., and Merrill, M.Y. (1999). The conditions for tool use in primates: Implications for the evolution of material culture. Journal of Human Evolution, 36, 719–741.

- Hart, B.L., Hart, L.A., McCoy, M. (2001). Cognitive behaviour in Asian elephants: Use and modification of branches for fly switching. *Animal Behaviour*, 62(5), 839-847.
- Alcock, J. (1972). The evolution of the use of tools by feeding animals. *Evolution*, 26(3), 464-473.
- Klein, E.D. & Zentall, T.R. (2003). Imitation and affordance learning by pigeons (*Columba livia*). *Journal of Comparative Psychology*, 117(4), 414-419.

**(#9) Social Learning: Learning Through Modeling and/or Imitation**

- Zentall, Thomas R. (2004). Action imitation in birds. *Learning & Behavior*, 32(1), 15-23.
- Zentall, T. R. (2003). Imitation by animals: How do they do it? *Current Directions in Psychological Science*, 12, 91-95.

**(#10) Environmental Enrichment**

- [no copy yet] Kuczaj, S.A. II, Lacinak, C.T., Fad, O., Trone, M. Solangi, M. & Ramos, R. (in press). Keeping environmental enrichment enriching. *International Journal of Comparative Psychology*.
- Celli, M.L., Tomonaga, M., Udono, T., Teramoto, M., and Nagano, K. (2003). Tool use task as environmental enrichment for captive chimpanzees. *Applied Behaviour Science*, 81, 171-182.

**(#11) Behavior Systems**

- Domjan, M. (1997). Behavior systems and the demise of equipotentiality: Historical antecedents and evidence from sexual conditioning. In M.E. Bouton, M.S. Fanselow, (Eds.), *Learning, motivation, and cognition: The functional behaviorism of Robert C. Bolles* (pp 31-51). Washington, DC: American Psychological Association.

**(#12) Rescorla-Wagner Model of Learning**

- Miller, R.R., Barnet, R.C., & Grahame, N.J. (1995). Assessment of the Rescorla-Wagner model. *Psychological Bulletin*, 117(3), 363-386.

**(#13) Learning and Memory in Amnesiacs.**

- Tulving, E. (2002). Episodic Memory: From Mind to Brain. *Annual Review of Psychology*, 53, 1-25.
- Squire LR, & Zola S. (1998). Episodic memory, semantic memory, and amnesia. *Hippocampus*, 8, 205-11.

**(#14) Episodic Memory in Human and Non-Human Animals**

- (see #13) Tulving, E. (2002). Episodic Memory: From Mind to Brain. *Annual Review of Psychology*, 53, 1-25.
- Griffiths, D.P., Dickinson, A., and Clayton, N.S. (1999). Declarative and episodic memory: what can animals remember about their past?. *Trends Cognitive Science*, 3(2), 74-80.
- Schwartz, B.L., Colon, M.R., Sanchez, I.C., Rodriguez, I.A., Evans, S. (2000). Single-trial learning of "what" and "who" information in a gorilla (*Gorilla gorilla gorilla*): Implications for episodic memory. *Animal Cognition*, 5, 85-90.
- Zentall, T. R., Clement, T. S., Bhatt, R. S., & Allen, J. (2001). Episodic-like memory in pigeons. *Psychonomic Bulletin & Review*, 8, 685-690.

**(#15) Learning Theory & Panic Disorder**

- Bouton, M.E., Mineka, S., & Barlow, D.H. (2001). A modern learning theory perspective on the etiology of panic disorder. *Psychological Review*, 108(1), 4-32.

**(#16) Feedback Intervention**

- Kluger, A.N. & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254-284.

**(#17) Classical Conditioning & Imagery**

- Dadds, M.R., Bovbjerg, D.H., Redd, W.H., & Cutmore, T.R.H. (1997). Imagery in human classical conditioning. *Psychological Bulletin*, 122(1), 89-103.
- Büchel, C. & Dolan, R.J. (2000). Classical fear conditioning in functional neuroimaging. *Current Opinion in Neurobiology*, 10(2), 219-223.

### **(#18) Behavior Intervention Strategies: Autism**

Matson, J.L., Benavidez, D.A., Compton, L.S., Paclawskyj, T., & Baglio, C. (1996). Behavioral treatment of autistic persons: A review of the literature from 1980 to the present. Research in Developmental Disabilities, *17*(6), 433-465.

Lovaas Interview, 1996

### **(#19) Dolphin Cognition & Planning Behavior**

(see #1) Herman, L.M., Kuczaj, S.A. II & Holder, M.D. (1993). Responses to anomalous gestural sequences by a language-trained dolphin: Evidence for processing of semantic relations and syntactic information. Journal of Experimental Psychology: General, *122*, 184-194.

### **(#20) Addiction & Learning**

Siegel, S. (2001). Pavlovian Conditioning and Drug Overdose: When Tolerance Fails. Addiction Research & Theory, *9*(5), 503-513.

Robinson, T.E. & Berridge, K.C. (2000). The psychology and neurobiology of addiction: An incentive-sensitization view. Addiction, *95*, S91-S117.

### **(#21) False Memory**

Okado, Y. & Stark, C.E.L. (2005). Neural activity during encoding predicts false memories created by misinformation. Learning & Memory, *12*, 3-11.

Loftus, E.F. (2005a) Planting misinformation in the human mind: a 30-year investigation of the malleability of memory. Learning & Memory, *12*(4), 361-366.

Loftus, E.F. (2005b). Searching for the neurobiology of the misinformation effect. Learning & Memory, *12*, 1-2.

### **(#22) Learned Helplessness & Depression**

Overmier, J.B. (2002). On Learned Helplessness. Integrative Physiological & Behavioral Science, *37*, 4-9.

### **(#23) Deception in Animals**

Guzeldere, G., Nahmias, E., Deaner, R.O. (2002). Darwin's continuum and the building blocks of deception. In M. Bekoff and C. Allen (Eds.). Cognitive animal: Empirical and theoretical perspectives on animal cognition (pp 353-362). Cambridge, MA, US: MIT Press.

Gouzoules, H. & Gouzoules, S. (2002). Primate Communication: By Nature Honest, or By Experience Wise? International Journal of Primatology, *23*(4), 821-848.

### **(#24) Spatial Learning in Nature: Homing in Birds**

Wiltschko, W. & Wiltschko, R. (1998). The navigation system of birds and its development. In R.P. Balda, I.M. Pepperberg, & A.C. Kamil (Eds.), Animal cognition in nature (pp 155-199). New York:Academic Press.

### **(#25) Learning Theory & Phobias**

Merckelbach, H., de Jong, P.J., and van den Hout, M.A. (1996). The etiology of specific phobias: A review. Clinical Psychology Review, *16*(4), 337-361.

### **(#26) Cognitive Behavior in Elephants (includes tool use)**

Hart, B.L., Hart, L.A., and McCoy, M. (2001). Cognitive behaviour in Asian elephants: Use and modification of branches for fly switching. Animal Behaviour, *62*(5), 839-847.

### **(#27) Taste Aversion Learning & Eating Disorders**

Bernstein, I.L. & Borson, S. (1986). Learned Food Aversion: A Component of Anorexia Syndromes. Psychological Review, *93*(4), 462-472.

Bernstein, I.L. (1999). Taste Aversion Learning: A Contemporary Perspective. Nutrition, *15*(3), 229 –234.

### **OTHER POSSIBLE TOPICS**

Behavior Economics & Optimal Foraging Strategies

Behavior Intervention Strategies: Down's Syndrome

Birdsong and/or Imprinting

Classical Conditioning in Honeybees

Classical Conditioning: Learning Without Awareness

Learning in Guide Dogs

Play Behavior