

WILLIAM DONALD HOPKINS

ADDRESS: Neuroscience Institute **TELEPHONE:** (404) 413-5812
Georgia State University **FAX #:** (404) 413-5585
P.O. Box 5030
Atlanta, Georgia 30302-5030
Birthdate: September 5, 1959

EDUCATION:

1990 GEORGIA STATE UNIVERSITY, Atlanta, Georgia, Ph.D., 1990, Major: Psychology

1986 GEORGIA STATE UNIVERSITY, Atlanta, Georgia, M.A., 1986, Major: Psychology

1983 UNIVERSITY OF WISCONSIN, Madison, Wisconsin, B.S., 1983, Major: Psychology

PRESENT POSITION(S):

2012 – present, **Professor of Neuroscience**, Georgia State University, Atlanta, Georgia

2013-present, **President and Scientific Director**, Ape Cognition and Conservation Initiative

1989- present, **Associate Research Scientist**, Division of Developmental and Cognitive Neuroscience, Yerkes National Primate Research Center, Emory University, Atlanta, Georgia

2011 – present, **Adjunct Professor**, Department of Veterinary Sciences, University of Texas MD Anderson Cancer Center, Bastrop, Texas

1990- present, **Research Scientist**, Language Research Center, Georgia State University, Atlanta, Georgia

PROFESSIONAL EXPERIENCE:

2006- 2012, **Professor of Psychology**, Agnes Scott College, Decatur, Georgia

1994-2005, **Associate Professor of Psychology**, Berry College, Mount Berry, GA

1994-2002, **Adjunct Assistant Professor of Psychology**, Emory University, Atlanta, Georgia

1993-1994, **Part-Time Instructor**, Psychology Department, Kennesaw State College, Kennesaw, Georgia

1992-1993, **Guest Scientist**, Laboratory of Comparative Ethology, National Institutes of Child Health and Human Development, Bethesda, Maryland

1991-1992, **Associate Research Scientist**, Centre Nationale de la Recherche Scientifique, Laboratoire de Neurosciences Fontionnelle, Unite de Neurosciences Cognitives, Marseille, France

1989-1991, **Research Associate and Part-Time Instructor**, Department of Psychology, Language Research Center, Georgia State University, Atlanta, Georgia

1986-1989, **Associate Project Coordinator**, Language Research Center, Georgia State University, Atlanta, Georgia

1983-1985, **Graduate Research Assistant**, Language Research Center, Georgia State University, Atlanta, Georgia

1980-1982, **Undergraduate Research Assistant**, University of Wisconsin Primate Laboratory, University of Wisconsin, Madison, Wisconsin

RELATED PROFESSIONAL EXPERIENCE

Editorships/Column Contributorships:

Associate Editor:

American Journal of Primatology

Editorial Board Membership:

Laterality

Primates

International Journal of Primatology

Reviewer:

American Psychologist, Behavioral Neuroscience, Journal of Comparative Psychology, Psychological Bulletin, Developmental Psychobiology, Psychobiology, Ethology, International Journal of Primatology, American Journal of Primatology, The Psychological Record, Human Evolution, Primates, American Journal of Human Biology, National Institutes of Health, The Leakey Foundation, Physiology and Behavior, Animal Learning and Behavior, Behaviour, Developmental Psychology, Developmental

Neuropsychology, Laterality, Perceptual and Motor Skills, Psychological Science, Behavioral and Brain Sciences, European Journal of Neuroscience, American Journal of Physical Anthropology, Neuropsychologia, Cerebral Cortex, Journal of Cognitive Neuroscience, Science, Nature

FUNDED GRANTS:

Co-Principal Investigator, National Institutes of Neurological Disorder and Strokes grant entitled “A National Chimpanzee Brain Resource”: Total Costs = \$1,243,000 for 4 years, 2015 to 2019.

Co-Principal Investigator, National Science Foundation grant entitled “INSPIRE: Neural and Genetic Factors Underlying Individual and Phylogenetic Variation in Communication ”: Total Costs = \$1,000,000 for 4 years, 2016 to 2020.

Co-Principal Investigator, Human Frontiers Scientific Program grant entitled “Frontal neuronal language networks through primate evolution”: Total Costs = \$1,000,000 for 3 years, 2014 to 2018.

Principal Investigator, National Institutes of Neurological Disorder and Strokes grant entitled “Heritability of Brain Asymmetries in Primates”: Total Costs = \$1,336,000 for 4 years, 2011 to 2016.

Principal Investigator, National Institutes of Child Health and Human Development grant entitled “Neural Correlates of Cognitive Control”: Direct Costs = \$550,000 for 5 years, 2010 to 2015.

Principal Investigator, National Institutes of Neurological Disorder and Strokes grant entitled “Hemispheric Specialization and Communication in Primates”: Direct Costs = \$1,325,000 for 5 years, 2011 to 2016.

Principal Investigator, National Institutes of Mental Health entitled “Vasopressin Receptor Polymorphism and Social Cognition in Primates”: Direct Costs = \$1,125,000 for 3 years, 2011 to 2014.

Co-Investigator (PI: Dr. Allyson Bennett), National Institutes of Mental Health grant entitled “Long Term Cognitive and Neural Consequences of Adverse Early Rearing”: Direct Costs = \$1,400,000 for 5 years, 2010 to 2015.

Principal Investigator, National Institutes of Child Health and Human Development grant entitled “Neural Correlates of Language and Communication in Apes”: Direct Costs = \$700,000 for 5 years, 2007 to 2012.

Co-Investigator (PI: Dr. Jared Taglialatela), National Institutes of Deafness and Communicative Disorders grant entitled “Neural Correlates of Oro-Facial

Communication in Apes”: Direct Costs = \$375,000 for 3 years, 2010 to 2013.

Co-Investigator (PI: Dr. Kim Phillips) , National Institutes of Neurological Disorder and Strokes grant entitled “Macrostructural and Microstructural Analysis of Corpus Callosum Morphology in Primates”: Direct Costs = \$375,000 for 3 years, 2010 to 2013.

Co-Investigator (PI: Dr. Kyle Frantz), National Institutes of General Medicine and Science grant entitled “BP-Endure Atlanta: Undergraduate Training in Underrepresented Groups”: Direct Costs = \$1, 275,000 for 5 years, 2010 to 2015.

Principal Investigator, National Institutes of Neurological Disorder and Strokes grant entitled “Neurobiology of Hemispheric Specialization in Primates”: Direct Costs = \$1,000,000 for 4 years, 2004 to 2008.

Principal Investigator, National Institutes of Child Health and Human Development grant entitled, “Neurofunctional and Neuroanatomical Correlates of Cognitive Competence”: Direct Costs = \$242,000 for 5 years, 1999 – 2004.

Principal Investigator, National Institutes of Neurological Disorder and Strokes grant entitled “Neurobiology of Hemispheric Specialization in Primates”: Direct Costs = \$287,156 for 4 years, 1999 to 2003.

Principal Investigator, Emory University Research Committee Grant entitled “Behavioral-Genetic Analysis of Individual Differences in Behavior of Chimpanzees”: Direct Costs = \$13,500 for 1 year.

Principal Investigator, National Institutes of Neurological Disorder and Strokes grant entitled “Handedness and reduced fitness: A comparative analysis”: Direct Costs = \$222,162 for 3 years, 1997 to 2000.

Co-Investigator, National Institutes of Mental Health grant entitled “Oxytocin and social cognition”: Direct Costs = \$478, 234 for 5 years, 1999-2004

Principal Investigator, National Institutes of Neurological Disorders and Stroke “FIRST” award entitled “Laterality and Cognition in Primates” : Direct Costs = \$378,000 for 5 years, 1992 to 1997.

Principal Investigator, National Institutes of Health, “Shannon” award entitled “Laterality and Cognition in Nonhuman Primates”: Direct Costs = \$40,000 for 1 year, 1991 to 1992.

Co-Investigator, Centre Nationale de la Recherche Scientifique grant “Perception visuelle de Objets Multidimensionnels: Approches comparative, developpementale et neuropsychologique” (translation: Visual Perception of Multidimensional Objects: Comparative, developmental and neuropsychological approaches: Directs costs =

\$80,000 for 1 year, 1998 to 1999.

Co-Principal Investigator, NATO Collaborative Research Grant: Direct Costs = \$15,000 for two years, 1992-1994

National Science Foundation Travel Grant, Amount = \$1400.00, 1990.

PUBLICATIONS

Books and Films:

Hopkins, W. D. (Ed). (2007). Evolution of hemispheric specialization in primates. London: Academic Press.

Fagot, J., Rogers, L., Ward, J. P., Bulman-Fleming, B., & Hopkins, W. D. (1997). Hemispheric specialisation in animals and humans: A special issue of Laterality. East Sussex, UK: Psychology Press.

Ward, J. P., & Hopkins, W. D. (1993). Primate laterality: Current behavioral evidence of primate asymmetries. New York: Springer-Verlag.

Rumbaugh, D. M., Hopkins, W. D., Washburn, D. A., Savage-Rumbaugh, E. S., & Runfeldt, S. A. (1989). Lana learns to count by "Numath": A video-taped experimental report. Psychological Cinema Register.

Peer-Reviewed Journal Articles and Book Chapters:

Hopkins, W. D., Coulon, O., Megurditchian, A., Autrey, M., Davidek, K., Mahovetz, L. M., Pope, S., Mareno, M. C., & Schapiro, S. J. (in press). Genetic factors and oro-facial motor learning selectively influence variability in central sulcus morphology in chimpanzees (*Pan troglodytes*). Journal of Neuroscience.

Marie, D., Roth, M., Lacoste, R., Nazarian, B., Bertello, A., Anton, J.L., Hopkins, W.D., Margiotoudi, K., Love, S. A., & Meguerditchian, A. (in press). Left brain asymmetry of the planum temporale in a non-hominid primate: Redefining the origin of brain specialization for language. Cerebral Cortex.

Loh, K.K., Petrides, M., Hopkins, W.D., Procyk, E., & Amiez, C. (2016). Cognitive control of vocalizations in the primate ventrolateral-dorsomedial (VLF-DMF) brain network. Neuroscience and Biobehavioral Reviews, 16, 30366-30369.

Gomez-Robles, A., Hopkins, W.D., Schapiro, S.J., & Hopkins, & Sherwood, C.C. (in press). The heritability of chimpanzee and human brain asymmetry. Proceedings of the Royal Society: of London: Biological Sciences B

Morino, L., Uchikoshi, M., Bercovitch, F., Hopkins, W.D., & Matsuzawa, T. (in press). Are gibbons left-handed? Primates.

Hecht, E.E., Mahovetz, L. M., Preuss, T. M., & Hopkins, W. D. (in press). A neuroanatomical predictor of mirror self-recognition in chimpanzees. Social, Cognitive and Affective Neuroscience.

Latzman, R. D., & Hopkins, W. D. (in press). Etiology of triarchic psychopathy dimensions in chimpanzees (*Pan troglodytes*). Clinical Psychological Science.

Hopkins, W.D., Meguerditchian, A, Coulon, O., Misiura, M., Pope. S., Mareno, M.C., & Schapiro, S. J. (in press). Motor skill for tool-use is associated with asymmetries in Broca's area and the motor hand area of the precentral gyrus in chimpanzees (*Pan troglodytes*). Behavioural Brain Research.

Bianchi, S., Reyes, L. D., Hopkins, W.D., Taglialatela, J.P., & Sherwood, C.C. (in press). Neocortical grey matter distribution underlying voluntary, flexible vocalizations in chimpanzees. Science Reports.

Hopkins, W. D., & Phillips, K. A. (in press). The use of non-invasive technologies in the measurement of cortical asymmetries in nonhuman primates. In L. Rogers & G. Vallortigara (Eds)., Lateralized Brain Function. New York: Springer.

Hopkins, W. D., Stimpson, C. D., & Sherwood, C. C. (in press). Social cognition and brain organization in chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*). In B. Hare & S. Yamamoto (Eds), Bonobos: Unique in Mind, Brain and Behavior. Oxford: Oxford University Press.

Sanz, C. M., Morgan, D. B., & Hopkins, W. D. (in press). Lateralization and performance asymmetries in termite fishing of wild chimpanzees in the Goulougo Triangle, Republic of Congo. American Journal of Primatology.

Stephenson, A., Edler, M., Erwin, J., Jacobs, R., Hopkins, W.D., Hof, P., Sherwood C., & Raghanti, M. A. (in press). Cholinergic innervation of the basal ganglia in humans and other anthropoid primates. Journal of Comparative Neurology.

Hopkins, W. D., Hopkins, A. M., Misiura, M., Latash, E.M., Mareno, M.C., Schapiro, S.J., & Phillips, K. A. (in press). Sex differences in the relationship between planum temporale asymmetry and corpus callosum morphology in chimpanzees (*Pan troglodytes*): A combined MRI and DTI analysis. Neuropsychologia.

Hopkins, W. D., Li, X., Crow, T.J., & Roberts, N. (in press). Vertex- and atlas-based comparisons in measures of cortical thickness, gyrification and white matter volume between humans and chimpanzees. Brain Structure and Function.

Latzman, R. D. & Hopkins, W. D. (2016). Letter to the Editor: Avoiding a lost opportunity for psychological medicine: importance of chimpanzee research to the National Institutes of Health portfolio. Psychological Medicine, 46(11), 2445-2447.

Regaiolli, B., Rizzo, M., & Hopkins, W.D. (2016). Hand preference on unimanual and bimanual tasks in strepsirrhines: The case of the ring-tailed lemur. American Journal of Primatology, 78(8), 851-860.

Regaiolli, B., Spiezo, C., & Hopkins, W.D. (2016). Three actions, two groups: Looking for the origin of primate manual lateralization. Journal of Comparative Psychology, 130(3), 259-268.

Mahovetz, L., Young, L., & Hopkins, W. D. (2016). The influence of AVPR1A genotype on individual differences in behaviors during a mirror self-recognition task in chimpanzees. Genes, Brain and Behavior, 15(5), 445-452.

Krachun, C., Lurz, R., Russell, J.L., & Hopkins, W. D. (2016). Smoke and mirrors: Testing the scope of chimpanzees' appearance-reality understanding. Cognition, 150, 53-67.

Raghanti, M A., Edler, M., Stephenson, A., Wilson, L., Hopkins, W.D., Ely, J., Erwin, J., Jacobs, B., Hof, P., & Sherwood, C. (2016). Human-specific increase of dopaminergic innervation in a striatal region associated with speech and language: a comparative analysis of the primate basal ganglia. Journal of Comparative Neurology, 524(10), 2117-2129.

Stimpson, C. D., Hopkins, W.D., Taglialatela, J.P., Barger, N., Hof, P. R., & Sherwood, C. C. (2016). Differential serotonergic innervation of the amygdala in bonobos and chimpanzees. Social Cognitive and Affective Neuroscience, 11(3), 413-422.

Latzman, R. D., Sauvigne, K., & Hopkins, W. D. (2016). Translating chimpanzee personality to humans: Investigating the transportability of chimpanzee-derived personality scales to humans. American Journal of Primatology, 78(6), 601-609.

Latzman, R. D., Drislane, L., Hecht, L. K., Brislin, S., Patrick, C. J., Lilienfeld, S. O., Freeman, H. J., Schapiro, S. J., & Hopkins, W. D. (2016). A chimpanzee (*Pan troglodytes*) model of triarchic psychopathy constructs: Development and initial validation. Clinical Psychological Science, 4(1), 50-66.

Latzman, R. D., Young, L. J., & Hopkins, W. D. (2016). Displacement behaviors in chimpanzees (*Pan troglodytes*): A neurogenomics investigation of the RDoC negative valence systems domain. Psychophysiology, 53(3), 355-363.

Meguerditchian, A., Phillips, K.A., Chapelain, A., Mahovetz, L., Milne, S., Stoinski, T., Bania, A., Lonsdorf, E. Schaeffer, J., Russell, J., L. Hopkins, W.D. (2015).

Hand preference for unimanual grasping in 562 great apes: Evidence of right-handedness for fine precision grip. Frontiers in Cognition, 6, 1794.

Hopkins, W. D., Misiura, M., Pope, S., & Latash, E. (2015). Behavioral and brain asymmetries in primates: A preliminary evaluation of two evolutionary hypotheses. Yearbook in Cognitive Neuroscience, 1359, 65-83.

Gomez-Robles, A., Hopkins, W.D., Schapiro, S.J., & Hopkins, & Sherwood, C.C. (2015). Relaxed genetic control of cortical organization in human brains compared with chimpanzees. Proceedings of the National Academy of Sciences, 112(48), 14799-14804.

Latzman, R. D., Freeman, H. D., Schapiro, S. J., & Hopkins, W. D. (2015). The contribution of genetics and early rearing experiences to hierarchical personality dimensions in chimpanzees (*Pan troglodytes*). Journal of Personality and Social Psychology: Personality Processes and Individual Differences, 109(5), 889-900.

Pope, S., Meguerditchian, A., Hopkins, W.D., & Fagot, J. (2015). Baboons (*Papio papio*) but not humans break cognitive set in a visuomotor task. Animal Cognition, 18(6), 1339-1346.

Taglialatela, J.P., Russell, J. L., Pope, S. M., Morton, T., Bogart, S. Reamer, L. A., Schapiro, S. J., & Hopkins, W. D. (2015). Multimodal communication in chimpanzees. American Journal of Primatology, 11, 1143-1148.

Pope, S.M., Russell, J. R., & Hopkins, W.D. (2015). The association between imitation recognition and socio-communicative competencies in chimpanzees (*Pan troglodytes*). Frontiers in Comparative Cognition, 6, 188.

Latzman, R. D., Taglialatela, J. P., & Hopkins, W.D. (2015). Delay of gratification is associated with white matter connectivity in the dorsal prefrontal cortex: A diffusion tensor imaging (DTI) study in chimpanzees (*Pan troglodytes*). Proceedings of the Royal Society: of London: Biological Sciences B, 22(282), 1809.

Latzman, R. D., Hecht, L.K., Freeman, H. D., Schapiro, S. J., & Hopkins, W. D. (2015). Investigating the neuroanatomical correlates of personality in chimpanzees (*Pan troglodytes*): Associations between personality and frontal cortex. NeuroImage, 123, 63-71.

Woodley, M., Fernandes, H. B. F., & Hopkins, W. D. (2015). The more g-loaded, the more heritable: Homology with humans in chimpanzee cognition abilities. Intelligence, 50, 159-163.

Leavens, D. A., Reamer, L. A., Marengo, M. C., Russell, J. L., Wilson, D., Schapiro, S. J., & Hopkins, W. D. (2015). Distal communication by chimpanzees (*Pan*

troglydytes): Evidence for common ground? Child Development, 86(5), 1623-1638.

Verendeev, A., Thomas, C., McFarlin, S. C., Hopkins, W. D., Phillips, K. A., & Sherwood, C. C. (2015). Comparative analysis of meissner corpuscles in the fingertips of primates. Journal of Anatomy, 227(1), 72-80.

Verendeev, A., Sherwood, C. C., & Hopkins, W. D. (2015). Organization and evolution of neural control of the hand in primates: Motor systems, sensory feedback and laterality. In T. Kivell (Ed), Primate Hand: New York: Springer.

Hopkins, W.D., Reamer, L., Mareno, M. C., & Schapiro, S. J. (2015). Genetic basis for motor skill and hand preference for tool use in chimpanzees (*Pan troglodytes*). Proceedings of the Royal Society of London: Biological Sciences B, 782(1800), 20141223.

Leroy, F., Cai, Q., Bogart, S., Dubois, J., Coulon, O., Monzalvo, K., Fischer, C., Glasel, H., Van der Haegen, L., Benazit, A., Lin, C.P., Kennedy, D., Ihara, A. S., Hertz-Panner, L., Moutard, M.L., Poupon, C., Brysbaert, M., Roberts, N., Hopkins, W.D., Mangin, J.F., & Dehaene-Lambertz, G. (2015). A new human-specific brain landmark: The depth asymmetry of superior temporal sulcus. Proceedings of the National Academy of Sciences, 112(4), 1208-1213.

Boeving, E.R., Lacreuse, A., Hopkins, W.D., Phillips, K.A., Novak, M.A., & Nelson, E.L. (2015). Handedness influences intermanual transfer in chimpanzees (*Pan troglodytes*) but not rhesus monkeys (*Macaca mulatta*). Experimental Brain Research, 233(3), 829-837.

Barks, S.K., Calhoun, M.E., Hopkins, W.D., Cranfield, M.R., Mudakikwa, A., Stoinski, T.S., Patterson, F.G., Erwin, J.M., Hecht, E.E, Hof, P.R., & Sherwood, C. C. (2015). Brain organization of gorillas reflects species differences in ecological specialization. American Journal of Physical Anthropology, 156(2), 252-262.

Keeney, J. F., Davis, J.M., Siegenthaler, J., Post, M., Nielsen, B.S., Hopkins, W. D., & Sikela, J. M. (2015). DUF1220 domains are associated with increased cortical volume in anthropoid primates and drive proliferation in human neural progenitor cells. Brain Structure and Function, 220(5), 3053-3060.

Mutane, G., Horvath, J.E., Hof, P., Ely, J. Hopkins, W. D., Raghanti, M. A., Lewandowski, A. H., Wray, G. A., & Sherwood, C. S. (2015). Analysis of synaptic gene expression in the neocortex of primates reveals evolutionary changes in glutamatergic neurotransmission. Cerebral Cortex, 25(6), 1596-1607.

Hopkins, W. D., Schaeffer, J., Russell, J. L., Bogart, S. L., Meguerditchian, A., & Coulon, O. (2014). A comparative assessment of handedness and its potential neuroanatomical correlates in chimpanzees (*Pan troglodytes*) and bonobos (*Pan*

paniscus). Behaviour, 152, 461-492.

Hopkins, W. D., Russell, J. L., & Schaeffer, J. S. (2014). Chimpanzee intelligence is heritable. Current Biology, 24(14), 1640-1652.

Gomez-Robles, A., Hopkins, W. D., & Sherwood, C. S. (2014). Modular structure facilitates mosaic evolution of the brain in chimpanzees and humans. Nature Communications, 22(5), 4469.

Autrey, M. M., Reamer, L., Mareno, M. C., Sherwood, C.S., Herndon, J.G., Preuss, T., Schapiro, S.J., & Hopkins, W. D. (2014). Age-related effects in the neocortex of chimpanzees: Gray and white matter volume, cortical thickness and gyrification. NeuroImage, 101, 59-67.

Leavens, D. A., Tagliabue, J. P., & Hopkins, W. D. (2014). From grasping to grooming to gossip: Innovative use of chimpanzee signals in novel environments supports both vocal and gestural origins theories of language origins. In M. Pina & N. Gontier (Eds), The evolution of social communication in primates. Switzerland: Springer International Publishing.

Conner-Stroud, F., Hopkins, W. D., Preuss, T. M., Johnson, Z., Breeding, E., Zhang, Z., & Sharma, P. (2014). Extensive vascular mineralization in the brain of a chimpanzee (*Pan troglodytes*). Journal of Comparative Medicine, 64(3), 224-229.

Davila-Ross, M. Hutchinson, J., Russell, J. L., Schaeffer, J., Billard, A., Hopkins, W. D., & Bard, K. A. (2014). Triggering social interactions: Chimpanzees respond to imitation by a humanoid robot and request responses from it. Animal Cognition, 17, 589-595.

Hopkins, W. D., Meguerditchian, A., Coulon, A., Bogart, S., Mangin, J.F., Sherwood, C.S., Grabowski, M.W., Bennett, A. J., Pierre, P.J., Fears, S., Woods, R., Hof, P. R., & Vauchair, J. (2014). Evolution of central sulcus morphology in primates. Brain, Behavior and Evolution, 84, 19-30.

Jacobs, B., Johnson, N.L., Wahl, D., Schall, M., Maseko, B.C., Lewandowski, A., Raghanti, M. A., Wicinski, B., Butti, C., Hopkins, W. D., Bertelsen, M. F., Walsh, T., Roberts, J.R., Reep, R. L., Hof, P.R., Sherwood, C. C., & Manger, P. R. (2014). Comparative neuronal morphology of the cerebellar cortex in afrotherians, carnivores, cetartiodactyls, and primates. Frontiers in Neuroanatomy, 8(24), 1-27.

Latzman, R. D., Hopkins, W. D., Keebaugh, A. C., & Young, L. J. (2014). Personality in chimpanzees (*Pan troglodytes*): Exploring the hierarchical structure and associations with the vasopressin V1A receptor gene. PLoS ONE, 9(4), e95741.

Hopkins, W. D., Keebaugh, A. C., Reamer, L. A., Schaeffer, J., Schapiro, S. J., &

Young, L. J. (2014). Genetic influences on receptive joint attention in chimpanzees (*Pan troglodytes*). Scientific Reports, 4, 3774.

Hopkins, W. D., Misiura, M., Reamer, L.A., Schaeffer, J. A., Mareno, M. C., Schapiro, S. J. (2014). Poor receptive joint attention skills are associated with atypical grey matter asymmetry in the posterior superior temporal gyrus of chimpanzees (*Pan troglodytes*). Frontiers in Cognition, 5 (7), 1-8.

Barks, S. K., Bauernfield, A. L., Bonar, C. J., Cranfield, M. R., de Sousa, A. A., Erwin, J. M., Hopkins, W. D., Lewandowski, A. H., Mudakikwa, A., Phillips, K. A., Raghanti, M. A., Stimpson, C. D., Hof, P. R., Zilles, K., & Sherwood, C. C. (2014). Variable temporo-insular cortex in primates suggests a bottleneck effect in eastern gorillas. Journal of Comparative Neurology, 522(4), 844-860.

Bogart, S. L., Bennett, A. J., Schapiro, S. J., Reamer, L. A., & Hopkins, W. D. (2014). Different rearing experiences have long-term effects on cortical organization in captive chimpanzees (*Pan troglodytes*). Developmental Science, 17(2), 161-174.

Beran, M. J., Evans, T. A., Paglieri, F., McIntyre, J. M., Addessi, E., & Hopkins, W. D. (2014). Chimpanzees (*Pan troglodytes*) can wait, when they choose to: A study with a hybrid delay task. Animal Cognition, 17, 197-205.

La Cour, L. T., Stone, B. W., Hopkins, W. D., Menzel C. R., & Fragaszy, D. (2014). What limits tool use in nonhuman primates? Insights from tufted capuchin monkeys and chimpanzees aligning three-dimensional objects to a surface. Animal Cognition, 17(1), 113-125.

Lyn, H., Russell, J. L., Leavens, D. A., Bard, K. A., Boysen, S. T., Schaeffer, J. A., & Hopkins, W. D. (2014). Apes communicate about absent and displaced objects: Methodology matters. Animal Cognition, 17(1), 85-94.

LaCreuse, A., Russell, J. L., Hopkins, W. D., & Herndon, J. G. (2014). Cognitive and motor aging in female chimpanzees (*Pan troglodytes*). Neurobiology of Aging, 35(3), 623-632.

Hopkins, W.D., Russell, J. L., McIntyre, J., & Leavens, D. L. (2013). Are chimpanzees really so poor at understanding imperative pointing? Some new data and an alternative view of canine and ape social cognition. PLoS One, 8(11), 379338.

Teffer, K., Buxhoeveden, D. P., Stimpson, C. D., Fobbs, A. J., Schapirio, S. J., Baze, W.B., McArthur, M. J., Hopkins, W. D., Hof P. R., Sherwood, C. C., & Semendeferi, K. (2013). Developmental changes in spatial organization of neurons in the neocortex of humans and common chimpanzees. The Journal of Comparative Neurology, 521, 4249-4259.

Phillips, K.A., Schaeffer, J. A., & Hopkins, W. D. (2013). Corpus callosal microstructure influences intermanual transfer in chimpanzees. Frontiers in Neuroscience, 7, 125.

Russell, J. L., McIntyre, J., Hopkins, W. D., & Taglialatela, J. P. (2013). Vocal learning of a communicative signal in captive chimpanzees (*Pan troglodytes*). Brain and Language, 127(3), 520-526.

Hopkins, W. D. (2013). Comparing human and nonhuman primate handedness: Challenges and a modest proposal for consensus. Developmental Psychobiology, 55(6), 621-636.

Bianchi, S., Stimpson, C. D., Duka, T., Larsen, M., Janssen, W. G. M., Collins, Z., Bauernfield, A. L., Schapiro, S. J., Baze, W. B., McArthur, M. J., Hopkins, W. D., Wildman, D., Lipovich, L., Kuzawa, C. W., Jacobs, B., Hof, P. R. & Sherwood, C. C. (2013). Synaptogenesis and development of pyramidal neuron dendritic morphology in the chimpanzee neocortex resembles human. Proceedings of the National Academy of Sciences, 110, Suppl 2, 10395-10401.

Meguerditchian, A., Vauclair, J., & Hopkins, W. D. (2013). On the origins of human handedness and language: A comparative review of hand preferences for bimanual coordinated actions and gestural communication in nonhuman primates. Developmental Psychobiology, 55(6), 637-650.

Gomez-Robles, A., Hopkins, W. D., & Sherwood, C. C. (2013). Increased asymmetry, evolvability and plasticity in human brain evolution. Proceedings of the Royal Society B: Biological Sciences, 280(1761), 20130575.

Hopkins, W. D., Gardner, M., Mingle, M., Reamer, L., Schapiro, S. J. (2013). Within- and between-task consistency in hand use as a means of characterizing hand preferences in captive chimpanzees (*Pan troglodytes*). Journal of Comparative Psychology, 127(4), 380-391.

Bianchi, S., Stimpson, C. D., Bauernfeind, A. L., Hopkins, W. D., Semendeferi, K., Jacobs, B., Hof, P. R., & Sherwood, C. C. (2013). Dendritic morphology of pyramidal neurons in chimpanzee cortex: regional specializations and comparisons to humans. Cerebral Cortex, 23(10), 2429-2436.

Gilissen, E. & Hopkins, W. D. (2013). Asymmetries of the parietal operculum in chimpanzees (*Pan troglodytes*) in relation to handedness for tool-use. Cerebral Cortex, 23(2), 411-422.

Fagot, J., Bonte, E., Coindre, C. & Hopkins, W. D. (2013). Age-dependent behavioral strategies in a visual search task in baboons (*Papio papio*) and their relation to inhibitory control. Journal of Comparative Psychology, 127(2), 194-01.

Hopkins, W. D. Adams, M. & Weiss, A. (2013). Genetic and environmental contributions to the expression of handedness in chimpanzees (*Pan troglodytes*). Genes, Brain and Behavior, 12, 446-452.

Hopkins, W. D. (2013). Behavioral and brain asymmetries in chimpanzees (*Pan troglodytes*): A case for continuity. Annals of the New York Academy of Sciences, 1288, 27-35.

Hopkins, W. D., & Avants, B. B. (2013). Regional and hemispheric variation in cortical thickness in chimpanzees (*Pan troglodytes*). Journal of Neuroscience, 33, 5241-5248.

Hopkins, W. D. (2013). Independence of data points in the measurement of hand preferences in primates: Statistical problem or urban myth? American Journal of Physical Anthropology, 151, 151-157.

Phillips, K. A., Schaeffer, J. Barrett, E., & Hopkins, W. D. (2013). Performance asymmetries in tool use are associated with corpus callosum integrity in chimpanzees (*Pan troglodytes*): A diffusion tensor imaging study. Behavioral Neuroscience, 127, 106-113.

Hopkins, W. D., & Taglialatela, J. P (2013). Initiating joint attention is associated with morphometric variation in the anterior cingulate cortex of chimpanzees (*Pan troglodytes*). American Journal of Primatology, 75, 441-449.

Wallez, C. Schaeffer, J. Meguerditchian, A., Vauclair, J., Schapiro, S. J., & Hopkins, W. D. (2012). Contrast of hemispheric lateralization for oro-facial movements between learned attention-getting sounds and species-typical vocalizations in chimpanzees: Extension in a second colony. Brain & Language, 123 (101), 75-79.

Bogart, S. L., Pruetz, J. D., Ormiston, L. K., Russell, J. L., Meguerditchian, A., & Hopkins, W. D. (2012). Termite fishing laterality in the Fongoli savanna chimpanzees (*Pan troglodytes verus*): Further evidence of a left hand preference. American Journal of Physical Anthropology, 149, 591-598.

Bogart, S. L., Mangin, J. F., Schapiro, S. J., Reamer, L. Bennett, A. J., Pierre, P. J., & Hopkins, W. D. (2012). Sulci asymmetries in chimpanzees and macaques: A new look at an old idea. NeuroImage, 61, 533-541.

Hopkins, W. D., Pilger, J. F., Storz, R., Ambrose, A., Hof, P. R., & Sherwood, C. C. (2012). Planum temporale asymmetries correlate with corpus callosum axon fiber density in chimpanzees (*Pan troglodytes*). Behavioural Brain Research, 234, 248-254.

Hopkins, W. D., Donaldson, Z., Young, L. (2012). A polymorphic indel containing

the RS3 microsatellite in the 5' flanking region of the vasopressin V1a receptor is associated with chimpanzee (*Pan troglodytes*) personality. Genes, Brain and Behavior, 11, 552-558.

Taglialatela, J.P., Reamer, L., Schapiro, S.J., & Hopkins, W. D. (2012). Social learning of a communicative signal in captive chimpanzees (*Pan troglodytes*). Biology Letters, 8(4), 498-501.

Spocter, M., Hopkins, W. D., Barks, S., Bianchi, S., Hehmeyer, A., Anderson, S., Stimpson, C., Fobbs, A., Hof, P., & Sherwood, C. S. (2012). Neuropil distribution in the cerebral cortex differs between humans and chimpanzees. Journal of Comparative Neurology, 520(13), 2917-292.

Zhao, D., Fu, W., Hopkins, W. D., & Li, B. (2012). Handedness in nature: First evidence of manual laterality on bimanual coordinated tube task in wild primates. American Journal of Physical Anthropology, 148, 36-44.

Meguerditchian, A., Gardner, M., Schapiro, S. J., & Hopkins, W. D. (2012). The sound of one hand clapping: Handedness and perisylvian neural correlates of a communicative gesture in chimpanzees. Proceedings of the Royal Society B: Biological Sciences, 279 (1735), 1959-1966.

Leavens, D. A., Ely, J. Hopkins, W.D., & Bard, K. A. (2012). Effects of cage mesh on pointing: hand shapes in chimpanzees (*Pan troglodytes*). Animal Cognition, 15, 437-441.

Hopkins, W. D., Pika, S., Liebal, K., Bania, A., Meguerditchian, A., Gardner, M., & Schapiro, S. J. (2012). Handedness for manual gestures in great apes: A meta-analysis. In S. Pika & K. Liebel (Eds), Gestural communication humans, apes, and monkeys (pp. 93-111). Amsterdam: John Benjamins Publishing.

Phillips, K., & Hopkins, W. D. (2012). Topography of the chimpanzee corpus callosum revealed by DTI. PLoS ONE, 7(2), 331941.

Hopkins, W. D., & Taglialatela, J. P. (2012). Some preliminary observations on the neural correlates of joint attention in chimpanzees. In A. Seemann (Ed.), Joint attention: New developments in philosophy, psychology and neuroscience. Cambridge, MA: The MIT Press.

Hopkins, W. D., & Vauclair, J. (2012). Evolution of behavioral and brain asymmetries in primates with specific reference to theories on the origins of language. In M. Tallerman & K. Gibson (Ed), The Oxford Handbook of Human Evolution (pp. 184-197). Oxford: Oxford University Press.

Hopkins, W. D., Russell, J. L., & Schaeffer, J. A. (2012). The neural and

cognitive correlates of aimed throwing in chimpanzees: an MRI and behavioral study on a unique form of social tool use. Proceedings of the Royal Society B: Biological Sciences, 367, 37-47.

Russell, J. Lyn, H., Schaeffer, J. A., & Hopkins, W. D. (2011). The role of socio-communicative rearing environments on the development of social and physical cognition in apes. Developmental Science, 14(6), 1459-1470

Sherwood, C. C., Gordon, A., Allen, J., Hof, P., Phillips, K., & Hopkins, W. D. (2011). Aging of the cerebral cortex differs between humans and chimpanzees. Proceedings of the National Academy of Sciences, 108, 13029-13034.

Hopkins, W. D., & Taglialatela, J. P. (2011). The role of Broca's area in socio-communicative processes in chimpanzees. In P. Ferrari & F. de Waal (Eds), The primate mind: Built to connect with other minds. Cambridge, MA: Harvard University Press.

Lyn, H., Pierre, P., Bennett, A. J., Fears, S., Woods, R., & Hopkins, W. D. (2011). Planum temporale grey matter asymmetries in chimpanzees (*Pan troglodytes*), vervet (*Chlorocebus aethiops*), rhesus (*Macaca mulatta*) and bonnet (*Macaca radiata*) monkeys. Neuropsychologia, 49 (7), 2004-2012.

Taglialatela, J. P., Russell, J., Schaeffer, J. A., & Hopkins, W. D. (2011). Chimpanzee vocal signaling points to a multimodal origin of human language. PlosONE, 6, e18852.

Hopkins, W. D., Taglialatela, J., & Leavens, D. A. (2011). Do ape have voluntary control of their vocalizations and facial expressions? In A. Vilain, J. L. Schwartz, C. Abry & J. Vauclair (Eds), *Primate communication and human language* (pp. 206-226). Amsterdam: John Benjamins Publishing.

Lyn, H., Greenfield, P, Savage-Rumbaugh, E. S., & Hopkins, W. D. (2011). Nonhuman primates do declare! A comparison of declarative symbol and gesture use in two children, two bonobos and a chimpanzee. Language and Communication, 31, 63-74.

Hopkins, W. D., Phillips, K. A., Bania, A., Calcutt, S. E., Gardner, M., Russell, J., Schaeffer, J., Lonsdorf, E. V, Ross, S. R., & Schapiro, S. J. (2011). Hand preferences for coordinated bimanual actions in 777 great apes: Implications for the evolution of handedness in Hominins. Journal of Human Evolution, 60, 605-611.

Chapelain, A. S., Hogervorst, E., Mbonzo, P., & Hopkins, W. D. (2011). Hand preferences for bimanual coordination in bonobos (*Pan paniscus*): Replication and extension. International Journal of Primatology, 32, 491-510.

Hopkins, W. D., Coulon, O., Mangin, J. (2010). Observer-independent characterization of sulcal landmarks and depth asymmetry in the central sulcus of the chimpanzee brain. Neuroscience, 171, 544-551.

Hopkins, W. D., Taglialatela, J. P., Russell, J., Schaeffer, J. & Nir, T. (2010). Cortical representation of lateralized grasping in chimpanzees: A combined MRI and PET study. PlosOne, 5 (10), 13383.

Leavens, D. A., Bard, K. A., & Hopkins, W. D. (2010). BIZARRE chimpanzees do not represent “the chimpanzee”. Behavioral and Brain Sciences, 33, 100-101.

Hopkins, W. D., Taglialatela, J. P., Nir, T., Schenker, N., & Sherwood, C. S. (2010). Voxel-based morphometry analysis of white matter asymmetries in chimpanzees (*Pan troglodytes*). Brain, Behaviour and Evolution, 76, 93-100.

Blatchley, B., & Hopkins, W. D. (2010). Subgenual cingulate cortex and personality in chimpanzees (*Pan troglodytes*). Cognitive, Affective and Behavioral Neuroscience, 10, 414-421.

Li, L., Preuss, T. M., Rilling, J. K., Hopkins, W. D., Glasser, M. F., Kumar, B., Nana, R., Zhang, X., & Hu, X. (2010). Chimpanzee precentral corticospinal system asymmetry and its association with handedness: A diffusion magnetic resonance imaging study. PlosOne, 5, 1-13.

Hopkins, W. D., Taglialatela, J. P., Leavens, D. A., Russell, J. L., & Schapiro, S. (2010). Behavioral and brain asymmetries in chimpanzees (*Pan troglodytes*). In E. V. Lonsdorf & S. R. Ross (Eds), The Chimpanzee Mind: Ecological and Experimental Perspectives. Chicago: University of Chicago Press.

Spocter, M. A., Hopkins, W. D., Garrison, A., Baurenfiend, A. L., Stimpson, C. D., Hof, P. R., & Sherwood, C. C. (2010). Wernicke’s area homologue in chimpanzees (*Pan troglodytes*) and its relation to the appearance of modern human language Proceedings of the Royal Society B: Biological Sciences, 277, 2165-2174.

Hopkins, W. D., & Nir, T. (2010). Planum temporale surface area and grey matter asymmetries in chimpanzees (*Pan troglodytes*): The effect of handedness and comparison with findings in humans. Behavioural Brain Research, 208, 436-443.

Meguerditchian, A., Calcutt, S., Lonsdorf, E. V., Ross, S. R., & Hopkins, W. D. (2010). Captive gorillas are right-handed for bimanual feeding. American Journal of Physical Anthropology, 141, 638-643.

Hopkins, W. D., & Phillips, K. A. (2010). Cross sectional analysis of the association between age and corpus callosum size in chimpanzees (*Pan troglodytes*). Developmental Psychobiology, 52, 133-142.

Hopkins, W. D. (2010). The comparative neuropsychology of tool use in primates with specific reference to chimpanzees and capuchin monkeys. In A. Ghanzafar (Ed), Primate Neuroethology. Oxford: Oxford University Press.

Cantalupo, C., & Hopkins, W. D. (2010). The cerebellum and its contribution to complex tasks in higher primates: A comparative perspective. Cortex, 46, 821-830.

Leavens, D. A., Russell, J. L., & Hopkins, W. D. (2010). Multi-modal communication and its social contextual use in captive chimpanzees (*Pan troglodytes*). Animal Cognition, 13, 33-40.

Lyn, H., Russell, J. L., & Hopkins, W. D. (2010). The impact of environment on the comprehension of declarative communication in apes. Psychological Science, 21, 360-365,

Hopkins, W. D., & Cantalupo, C. (2010). Left-right spatial discrimination and the evolution of hemispheric specialization: Some new thoughts on some old ideas. In R. Mitchell and F. Dolins (Eds), Spatial perception, spatial cognition. Cambridge: Cambridge University Press.

Schenker, N. M., Hopkins, W. D., Spocter, M. A., Garrison, A., Stimpson, C. D., Erwin, J. M., Hof, P. R., & Sherwood, C. C. (2010). Broca area homologue in chimpanzees (*Pan troglodytes*): probabilistic mapping, asymmetry and comparison to humans. Cerebral Cortex, 20, 730-742.

Meguerditchian, A., Vauclair, J., & Hopkins, W. D. (2010). Captive chimpanzees use their right hand to communicate with each other: Implications for the origins of hemispheric specialization for language. Cortex, 10, 40-48.

Tagliabue, J. P., Russell, J., Schaeffer, J. A., & Hopkins, W. D. (2009). Visualizing auditory perception in chimpanzee using PET. Cerebral Cortex. 19, 1151-1157.

Hopkins, W. D., Russell, J. L., Schaeffer, J. A., Gardner, M., & Schapiro, S. J. (2009). Handedness for tool use in captive chimpanzees (*Pan troglodytes*): Sex differences, performance, heritability and comparison to the wild. Behaviour, 146, 1463-1483.

Hopkins, W. D., Lyn, H., & Cantalupo, C. (2009). Volumetric and lateralized differences in selected brain regions of chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*). American Journal of Primatology, 71, 998-997

Keller, S. S., Roberts, N., & Hopkins, W. D. (2009). A comparative MRI study of the anatomy, variability and asymmetry of Broca's area in the human and chimpanzee

brain. The Journal of Neuroscience, 29, 14607-14616.

Cantalupo, C. Oliver, J., Nir, T. Tagliatela, J. P., & Hopkins, W. D. (2009). The chimpanzee brain shows human-like perisylvian asymmetries in white matter. European Journal of Neuroscience, 30, 431-438.

Fragaszy, D. Kennedy, E., Murnane, A., Menzel, C., Brewer, J., Johnson-Pynn, J., & Hopkins, W. D. (2009). Navigating two-dimensional mazes: Chimpanzees (Pan troglodytes) and capuchins (Cebus apella) profit from experience differently. Animal Cognition, 12, 491-504.

Leavens, D. A., Racine, T. P., & Hopkins, W. D. (2009). The ontogeny and phylogeny of non-verbal deixis. In C. Knight & R. Botha (Eds.), The cradle of language, Volume 1: The prehistory of language. (pp-142.165). Oxford: Oxford University Press.

Phillips, K., Kapfenberger, N., & Hopkins, W. D. (2009). A comparative study of corpus callosum size and signal intensity in capuchin monkeys (Cebus apella) and chimpanzees (Pan troglodytes). Neuroscience, 159, 1119-1125.

Cantalupo, C., Freeman, H., Rodes, W. & Hopkins, W. D. (2008). Handedness for tool use correlates with cerebellar asymmetries in chimpanzees (Pan troglodytes). Behavioral Neuroscience, 122, 191-198.

Tagliatela, J. P., Russell, J., Schaeffer, J. A., & Hopkins, W. D. (2008). Communicative signal activates “Broca’s” homologue in chimpanzees. Current Biology, 18, 343-348.

Hopkins, W. D. (2008). Broca’s area: Evolution. In L. Squire (Ed.), Encyclopedia of Neuroscience. New York: Elsevier.

Hopkins, W. D., & Cantalupo, C. (2008). Theoretical speculations on the evolution of hemispheric specialization. Current Directions in Psychological Science, 17, 233-237.

Losin, E. A., Russell, J. L., Freeman, H., Meguerditchian, A., & Hopkins, W. D. (2008). Left hemisphere specialization for oro-facial movements of learned vocal signals by captive chimpanzees. PlosONE, 3 (6), 1-7.

Bennett, A. J., Suomi, S. J., & Hopkins, W. D. (2008). Differential effects of rearing on handedness in rhesus monkeys (Macaca mulatta). Laterality, 13, 282-292.

Hopkins, W. D. (2008). Locomotor limb preferences in captive chimpanzees (Pan troglodytes): Implications for morphological asymmetries in limb bones. American Journal of Physical Anthropology, 137, 113-118.

Hopkins, W. D., Tagliatela, J. P., Meguerditchian, A., Nir, T., Schenker, N. M., & Sherwood, C. C. (2008). Gray matter asymmetries in chimpanzees as revealed by voxel-based morphology. NeuroImage, 42, 491-497.

Bennett, A. J., Pierre, P. J., Hopkins, W. D., Tagliatela, J. P., Lees, C. (2008). Age-related neuroanatomical differences from the juvenile period to adulthood in mother-reared macaques (Macaca radiata). Brain Research, 1226, 56-60.

Leavens, D. A., Hopkins, W. D., & Bard, K. A. (2008). The heterochronic origins of explicit reference. In J. Zlatev, T. Racine, C. Sinha, & E. Itkonen (Eds.) The shared mind: Perspectives on intersubjectivity. (pp. 187-214). Amsterdam: John Benjamins.

Rosen, R. F., Farberg, A. S., Gearing, M., Dooyema, J., Long, P. M., Anderson, D. C., Davis-Turak, J., Coppola, G., Geschwind, D. H., Pare, J., Duong, T. Q., Hopkins, W. D., Preuss, T. M., & Walker, L. C. (2008). Tauopathy with paired helical filaments in an aged chimpanzee. The Journal of Comparative Neurology, 509, 259-270.

Sherwood, C. C. Wahl, E. Erwin, J. M., Hof, P.R. & Hopkins, W. D. (2007) Histological asymmetries of primary motor cortex predict handedness in chimpanzees (Pan troglodytes). The Journal of Comparative Neurology, 503, 525-537.

Hostetter, A. B, Russell, J. L., Freeman, H., & Hopkins, W. D. (2007). Now you see me, now you don't: Evidence that chimpanzees understand the role of eyes in attention. Animal Cognition, 10, 55-62.

Hopkins, W. D., Tagliatela, J., & Leavens, D. A. (2007). Chimpanzees differentially produce vocalizations to capture the attention of a human. Animal Behaviour, 73, 281-286.

Hopkins, W. D. (2007). Hemispheric specialization in chimpanzees: Evolution of hand and brain. In T. Shackelford, J. P. Keenan, & S.M. Platek (Eds), Evolutionary Cognitive Neuroscience. Boston: MIT Press.

Hopkins, W. D., Tagliatela, J. P., Dunham, L., & Pierre, P. (2007). Behavioral and neuroanatomical correlates of white matter asymmetries in chimpanzees (Pan troglodytes). European Journal of Neuroscience, 25, 2565-2570.

Hopkins, W. D., Cantalupo, C., & Tagliatela, J. (2007). Handedness is associated with asymmetries in gyrification of the cerebral cortex of chimpanzees. Cerebral Cortex, 17, 1750-1756.

Hopkins, W. D., Dunham, L., Cantalupo, C., & Tagliatela, J. T. (2007). The relationship between handedness, brain asymmetries and corpus callosum size in chimpanzees (Pan troglodytes). Cerebral Cortex, 17, 1757-1765.

Phillips, K. & Hopkins, W. D. (2007). Exploring the relationship between cerebellar asymmetry and handedness in chimpanzees (Pan troglodytes) and capuchins (Cebus apella). Neuropsychologia, 45, 2333-2339.

Hopkins, W. D., Russell, J., Remkus, M., Freeman, H., & Schapiro, S. J. (2007). Handedness and grooming in chimpanzees (Pan troglodytes): Comparative analysis between findings in captive and wild individuals (in press). International Journal of Primatology, 28, 1315-1326.

Hopkins, W. D., Russell, J., & Cantalupo, C. (2007). Neuroanatomical correlates of handedness for tool use in chimpanzees (Pan troglodytes): Implication for theories on the evolution of language. Psychological Science, 18, 971-977.

Tagliabattola, J. P., Dadda, M., & Hopkins, W. D. (2007). Sex differences in asymmetry of the planum parietale in chimpanzees (Pan troglodytes). Behavioural Brain Research, 184, 185-191.

Hopkins, W. D. (Ed.) (2007). Evolution of hemispheric specialization in primates. London: Academic Press.

Hopkins, W. D., Russell, J., Lambeth, S., & Schapiro, S. J. (2007). Handedness and neuroanatomical asymmetries in captive chimpanzees: A summary of 15 years of research. In W. D. Hopkins (Ed.), Evolution of hemispheric specialization in primates (pp. 143-176). London: Academic Press.

Weiss, A., King, J. E., & Hopkins, W. D. (2007). A cross-setting study of chimpanzee (Pan troglodytes) personality structure and development: Zoological parks and Yerkes National Primate Research Center. American Journal of Primatology, 69, 1-14.

Hopkins, W. D. (2006). Chimpanzee right-handedness: Internal and external validity in the assessment of hand use. Cortex, 42, 90-93.

Hopkins, W. D. (2006). A comparative and familial analysis of handedness in great apes. Psychological Bulletin, 132, 538-559.

Hopkins, W. D. (2006). Evolution of language and speech from a neuropsychological perspective: Some recent findings in great apes and their theoretical implications. In D. A. Washburn (Ed), Primate Perspectives on Behavior and Cognition. Washington, D. C.: American Psychological Association.

Hopkins, W. D., Wesley, M., Russell, J. L., & Schapiro, S. J. (2006). Parental and perinatal factors influencing handedness in captive chimpanzees. Developmental Psychobiology, 48, 428-435.

Dadda, M., Cantalupo, C., & Hopkins, W. D. (2006). Further evidence of an association between handedness and neuroanatomical asymmetries in the primary motor cortex of chimpanzees (*Pan troglodytes*). Neuropsychologia, 44, 2582-2586.

Tagliabattola, J., Cantalupo, C., & Hopkins, W. D. (2006). Gesture handedness predicts asymmetries in the chimpanzee inferior frontal gyrus. NeuroReport, 17, 923-927.

Hopkins, W. D., & De Lathouwers, M. (2006). Left nipple preferences in infant bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*). International Journal of Primatology, 27, 1653-1662.

Poss, S. R., Kuhar, C., Stoinski, T., S., & Hopkins, W. D. (2006). Differential use of attentional and visual communicative signaling by orangutans (*Pongo pygmaeus*) and gorillas (*Gorilla gorilla*) in response to the attentional status of a human. American Journal of Primatology, 68, 978-992.

Dunham, L., & Hopkins, W. D. (2006). Sex and handedness effects on corpus callosum morphology in chimpanzees (*Pan troglodytes*). Behavioral Neuroscience, 120, 1025-1032.

Hopkins, W. D., Russell, J. L., Freeman, H., Reynolds, E. A. M., Griffis, C., & Leavens, D. A. (2006). Lateralized scratching in chimpanzees (*Pan troglodytes*): Evidence of a functional asymmetry during arousal. Emotion, 6, 553-559.

Hopkins, W. D., Russell, J., Hook, M., Braccini, S., & Schapiro, S. (2005). Simple reaching is not so simple: Association between hand use and grip preferences in captive chimpanzees. International Journal of Primatology, 26, 259-277.

Hopkins, W. D., Cantalupo, C., Freeman, H., Russell, J., Kachin., M., & Nelson, E. (2005). Chimpanzees are right-handed when recording bouts of hand use. Laterality, 10, 159-169.

Fessler, D. M. T., Navarrete, C. D., Hopkins, W. D., & Izard, M. K. (2005). Examining the terminal investment hypothesis in humans and chimpanzees: Associations between maternal age, parity, and birth weight. American Journal of Physical Anthropology, 127, 95-104.

Hopkins, W. D., Russell, J., Freeman, H., Buehler, N., Reynolds, E., & Schapiro, S. J. (2005). The distribution and development of handedness for manual gestures in captive chimpanzees (*Pan troglodytes*). Psychological Science, 16, 487-493.

Leavens, D. L., Russell, J. L., & Hopkins, W. D. (2005). Intentionality as measured in the persistent and elaboration of communication by chimpanzees (*Pan troglodytes*). Child Development, 76, 291-306.

Lonsdorf, E. V., & Hopkins, W. D. (2005). Wild chimpanzees show population level handedness for tool use. Proceedings of the National Academy of Sciences, 102, 12634-12638.

Vauclair, J., Mequerditchian, A., & Hopkins, W. D. (2005). Hand preferences for unimanual and coordinated bimanual tasks in baboons (*Papio anubis*). Cognitive Brain Research, 25, 210-216.

Hopkins, W. D., Russell, J. L., Hostetter, A., Pilcher, D., & Dahl, J. F. (2005). Grip preference, dermatoglyphics, and hand use in captive chimpanzees (*Pan troglodytes*). American Journal of Physical Anthropology, 128, 57-62.

Leavens, D. L., Hopkins, W. D., & Bard, K. A. (2005). Understanding the point of chimpanzee pointing: Epigenesis and ecological validity. Current Directions in Psychological Science, 14, 185-189.

Russell, J., Braccini, S., Buehler, N., Kachin, M., Schapiro, S. J., & Hopkins, W. D. (2005). Chimpanzees (*Pan troglodytes*) intentional communication is not contingent upon food. Animal Cognition, 8, 263-272.

Roof, K. A., Hopkins, W. D., Izard, M. K., Hook, M., & Schapiro, S. J. (2005). Maternal age, parity, and reproductive outcome in captive chimpanzees (*Pan troglodytes*). American Journal of Primatology, 67, 199-208.

Hopkins, W. D., Russell, J., Freeman, H., Cantalupo, C., & Schapiro, S. (2005). Factors influencing the prevalence and handedness for throwing in captive chimpanzee. Journal of Comparative Psychology, 119, 363-370.

Leavens, D. A., & Hopkins, W. D. (2005). Multimodal concomitants of manual gesture in chimpanzees: Influence of food size and distance. Gesture, 5, 75-90.

Halpern, M. E., Gunturkun, O., Hopkins, W. D., & Rogers, L. (2005). Lateralization in the vertebrate brain: taking the side of model systems. Journal of Neuroscience, 9, 10351-10357.

Fernández-Carriba, S., Loeches, A., Morcillo, A., Washburn, D. A. & Hopkins, W.D. (2004): Human assessment of chimpanzee facial asymmetry. Laterality: Asymmetries of Body, Brain & Cognition, 9, 1-17.

Leavens, D. A., Hostetter, A. B., Wesley, M. J., & Hopkins, W. D. (2004). Tactical use of unimodal and bimodal communication by chimpanzees, *Pan troglodytes*. Animal Behaviour, 67, 467-476.

Leavens, D. A., Hopkins, W. D., & Thomas, R. (2004). Referential

communication by chimpanzees (Pan troglodytes). Journal of Comparative Psychology, 118, 48-57.

Hopkins, W. D., & Russell, J. L. (2004). Further evidence of a right hand advantage in motor skill by chimpanzees (Pan troglodytes). Neuropsychologia, 42, 990-996.

Hopkins, W. D., Wesley, M. J., Izard, M. K., Hook, M., & Schapiro, S. J. (2004). Chimpanzees are predominantly right-handed: Replication in three colonies of apes. Behavioral Neuroscience, 118, 659-663.

Hopkins, W. D., & Cantalupo, C. (2004). Individual and setting differences in the hand preferences of chimpanzees (Pan troglodytes): A critical analysis and some alternative explanations. Laterality, 10, 65-80.

Leavens, D. A., Aureli, F., & Hopkins, W. D. (2004). Behavioral evidence for the cutaneous expression of emotion in a chimpanzee (Pan troglodytes). Behavior, 141, 979-997.

Hopkins, W. D. (2004). Laterality in maternal cradling and infant positional biases: Implications for the evolution and development of hand preferences in nonhuman primates. International Journal of Primatology, 25, 1243-1265.

Freeman, H., Cantalupo, C., & Hopkins, W. D. (2004). Asymmetries in the hippocampus and amygdala of chimpanzees (Pan troglodytes). Behavioral Neuroscience, 118, 1460-1465.

Hopkins, W. D., & Cantalupo, C. (2004). Handedness in chimpanzees is associated with asymmetries in the primary motor but not with homologous language areas. Behavioral Neuroscience, 118, 1176-1183.

Hopkins, W.D. & Cantalupo, C. (2003). Broadman's area 44, gestural communication and the emergence of right handedness in chimpanzees. Behavioral and Brain Sciences, 24, 224-225.

Hopkins, W. D., & Cantero, M. (2003). The influence of vocalizations on preferential hand use in gestural communication by chimpanzees. Developmental Science, 6, 55-61.

Hopkins, W. D., Hook, M., Braccini, S., & Schapiro, S. J. (2003). Population-level right handedness for a coordinated bimanual task in chimpanzees (Pan troglodytes): Replication and extension in a second colony of apes. International Journal of Primatology, 24, 677-689.

Hopkins, W. D., & Cantalupo, C. (2003). Does variation in sample size explain

individual differences in hand preferences of chimpanzees (Pan troglodytes)? An empirical study and reply to Palmer (2002). American Journal of Physical Anthropology, 121, 878-881.

Hopkins, W. D., Stoinski, T., Lukas, K., Ross, S., & Wesley, M. J. (2003). Comparative assessment of handedness for a coordinated bimanual task in chimpanzees (Pan), gorillas (Gorilla), and orangutans (Pongo). Journal of Comparative Psychology, 117, 302-308.

Hopkins, W. D., Pilcher, D., & Cantalupo, C. (2003). Neural basis of cognition, communication and handedness in nonhuman primates. In D. Maestriperi (Ed), Primate psychology. Cambridge, MA: Harvard University Press.

Cantalupo, C., Pilcher, D., & Hopkins, W. D. (2003). Are asymmetries in sylvian fissure length associated with the planum temporale? Neuropsychologia, 41, 1975-1981.

Hopkins, W. D., & Wesley, M. J. (2002). Gestural communication in chimpanzees (Pan troglodytes): The effect of situational factors on gesture type and hand use. Laterality: Asymmetry of Body, Brain and Cognition, 7, 19-30.

Hopkins, W. D. (2002). Lateral thinking. A review of "Right hand, left hand: The origins of asymmetry in brains, bodies, atoms, and cultures" by Chris McManus. Nature, 417, 591-592.

Damerose, E. & Hopkins, W. D. (2002). A comparison of scan and focal sampling procedures in the assessment of laterality for maternal cradling and infant nipple preferences in olive baboons (Papio anubis). Animal Behaviour, 63, 511-518.

Hopkins, W. D., & Washburn, D. A. (2002). Matching visual stimuli on the basis of global and local features by chimpanzees (Pan troglodytes) and rhesus monkeys (Macaca mulatta). Animal Cognition, 5, 27-31.

Hopkins, W. D., & Carriba, S. F. (2002). Laterality in communicative behaviors in nonhuman primates: A critical analysis. In L. Rogers and R. Andrews (Eds)., Comparative vertebrate lateralization (pp.445-479). Oxford: Oxford University Press.

Fernandez-Carriba, S., Loeches, A., Morcillo, A., & Hopkins, W. D. (2002). Asymmetry of facial expression of emotions by chimpanzees. Neuropsychologia, 40, 1523-1533.

Fernandez-Carriba, S., Loeches, A., Morcillo, A. & Hopkins, W.D. (2002): Functional asymmetry of emotions in primates: New findings in chimpanzees. Brain Research Bulletin, 57, 561-564.

Hostetter, A., & Hopkins, W. D. (2002). The effect of thought structure on the production of lexical movements. Brain and Language, 82, 22-29.

Hopkins, W. D., Cantalupo, C., Wesley, M. J., Hostetter, A., & Pilcher, D. (2002). Grip morphology and hand use in chimpanzees (Pan troglodytes): Evidence of a left hemisphere specialization in motor skill. Journal of Experimental Psychology: General, 131, 412-423.

Wesley, M. J., Fernandez-Carriba, S., Hostetter, A., Pilcher, D., Poss, S., & W. D. Hopkins (2002). Factor analysis of multiple measures of hand use in captive chimpanzees (Pan troglodytes). An alternative assessment to handedness in nonhuman primates. International Journal of Primatology, 23, 1155-1168.

Parr, L. A., & Hopkins, W. D. (2001). Brain temperature asymmetries and emotional perception in chimpanzees, Pan troglodytes. Physiology and Behavior, 71, 363-371.

Pilcher, D., Hammock, L., & Hopkins, W. D. (2001). Cerebral volume asymmetries in non-human primates as revealed by magnetic resonance imaging. Laterality, 6, 165-180.

Hopkins, W. D., Dahl, J. F., & Pilcher, D. (2001). Genetic influence on the expression of hand preferences in chimpanzees (Pan troglodytes): Evidence in support of the right shift theory and developmental instability. Psychological Science, 12, 299-303.

Hopkins, W. D., & Pilcher, D. L. (2001). Neuroanatomical localization of the motor hand area using magnetic resonance imaging : The left hemisphere is larger in great apes. Behavioral Neuroscience, 115, 1159-1164.

Hopkins, W. D., Fernandez-Carriba, S., Wesley, M. J., Hostetter, A., Pilcher, D., & Poss, S. (2001). The use of bouts and frequencies in the evaluation of hand preferences for a coordinated bimanual task in chimpanzees (Pan troglodytes): An empirical study comparing two different indices of laterality. Journal of Comparative Psychology, 115, 294-299.

Cantalupo, C., & Hopkins, W. D. (2001). Asymmetric Broca's area in great apes. Nature, 414, 505.

Hostetter, A., Cantero, M., & Hopkins, W. D. (2001). Differential use of vocal and gestural communication in chimpanzees in response to the attentional status of a human audience. Journal of Comparative Psychology, 115, 337-343.

Leavens, D. A., Aureli, F., Hopkins, W. D., & Hyatt, C. H. (2001). The effects of cognitive challenge on self-directed behaviors by chimpanzees (Pan troglodytes).

American Journal of Primatology, 55, 1-14.

Hopkins, W. D., & Marino, L. M. (2000). Cerebral width asymmetries in nonhuman primates as revealed by magnetic resonance imaging (MRI). Neuropsychologia, 38, 493-499.

Hopkins, W. D., & Caribba, S. F. (2000). The effect of situational factors on hand preference in chimpanzees (Pan troglodytes). Neuropsychologia, 38, 403-409.

Hopkins, W. D., & Bard, K. A. (2000). A longitudinal study of laterality in chimpanzees (Pan troglodytes). Developmental Psychobiology, 36, 292-300

Hopkins, W. D., & Pearson, K. (2000). Chimpanzee (Pan troglodytes) handedness: Variability across multiple measures of hand use. Journal of Comparative Psychology, 114, 126-135.

Parr, L. A., Winslow, J. T., Hopkins, W. D., & de Waal, F. B. M. (2000). Recognizing facial cues: Individual discrimination by chimpanzees (Pan troglodytes) and rhesus monkeys (Macaca mulatta). Journal of Comparative Psychology, 114, 47-60.

Hopkins, W. D., & Dahl, J. F. (2000). Birth order and hand preference in chimpanzees (Pan troglodytes): Implications for pathological models of human handedness. Journal of Comparative Psychology, 114, 302-306.

Hopkins, W. D., & Rilling, J. K. (2000). A comparative MRI study of the relationship between neuroanatomical asymmetry and interhemispheric connectivity in primates: Implication for the evolution of functional asymmetries. Behavioral Neuroscience, 114, 739-748.

Hopkins, W. D., Dahl, J. F., & Pilcher, D. (2000). Birth order and left-handedness revisited: Some recent findings in chimpanzees (Pan troglodytes) and their implications for developmental and evolutionary models of human handedness. Neuropsychologia, 38, 1626-1633.

Hopkins, W. D., Pilcher, D. L., & MacGregor, L. (2000). Sylvian fissure length asymmetries in primates revisited: A comparative MRI study. Brain, Behavior and Evolution, 56, 293-299.

Hopkins, W. D. (1999). Heritability of hand preference in chimpanzees: Evidence from a partial interspecies cross-fostering study. Journal of Comparative Psychology, 113, 1-7.

Hopkins, W. D. (1999). On the other hand: Statistical issues in the assessment and interpretation of hand preference data in nonhuman primates. International Journal of Primatology, 20, 851-866.

Leavens, D. A., & Hopkins, W. D. (1999). The whole-hand point: The structure and function of pointing from a comparative perspective. Journal of Comparative Psychology, 113, 417-425.

Fowler, L. A., Hopkins, W. D., Albers, H. E., Morris, R. D., & Hyatt, C. W. (1999). Using tympanic membrane temperatures to establish the presence of a body temperature rhythm in chimpanzees (Pan troglodytes). Primates, 23, 45-57.

Lacreuse, A., Parr, L. A., Smith, H. & Hopkins, W. D. (1999). Hand preference for a haptic task in chimpanzees (Pan troglodytes). International Journal of Primatology, 20, 867-881.

Parr, L. A., Winslow, J. T. & Hopkins, W. D. (1999). Is the inversion effect in rhesus monkeys face specific? Animal Cognition, 2, 123-129.

Tomaszycki, M., Cline, C., Griffin, B., Maestriperi, D., & Hopkins, W. D. (1998). Maternal cradling and infant nipple preferences in rhesus monkeys (Macaca mulatta). Developmental Psychobiology, 32, 305-312.

Hopkins, W. D., & Fowler, L. A. (1998). Lateralized changes in tympanic membrane temperature in relation to different cognitive tasks in chimpanzees (Pan troglodytes). Behavioral Neuroscience, 112, 345-266.

Hopkins, W. D., & Leavens, D. A. (1998). Hand use and gestural communication in chimpanzees (Pan troglodytes). Journal of Comparative Psychology, 112, 95-99.

Leavens, D. A., & Hopkins, W. D. (1998). Intentional communication by chimpanzees (Pan troglodytes): A cross-sectional study of the use of referential gestures. Developmental Psychology, 34, 813-822.

Hopkins, W. D., Marino, L., Rilling, J., & MacGregor, L. (1998). Planum temporale asymmetries in great apes as revealed by magnetic resonance imaging (MRI). NeuroReport, 9, 2913-2918.

Parr, L. A., Hopkins, W. D., & de Waal, F. B. M. (1998). The perception of facial expressions by chimpanzees (Pan troglodytes). Evolution of Communication, 2, 1-23.

Hopkins, W. D. (1997). Hemispheric specialization for local and global processing of hierarchical visual stimuli in chimpanzees (Pan troglodytes). Neuropsychologia, 35, 343-348.

Hopkins, W. D., Bard, K. A., & Griner, K. M. (1997). Locomotor adaptation and leading limb asymmetries in neonatal chimpanzees (Pan troglodytes). International Journal of Primatology, 18, 104-114.

Hopkins, W. D., & Rabinowitz, D. M. (1997). Manual specialization and tool-use in captive chimpanzees (Pan troglodytes): The effect of unimanual and bimanual strategies on hand preference. Laterality, 2, 267-277.

Hopkins, W. D., Washburn, D. A., & Hyatt, C. (1996). Video-task acquisition in rhesus monkeys (Macaca mulatta) and chimpanzees (Pan troglodytes) : A comparative analysis. Primates, 37, 197-206.

Hopkins, W. D. (1996). Chimpanzee handedness revisited : 54 years since Finch (1941). Psychonomic Bulletin and Review, 3, 449-457.

Parr, L. A., Hopkins, W. D., & de Waal, F. B. M. (1996). Haptic discrimination in capuchin monkeys (Cebus apella): Evidence of manual specialization. Neuropsychologia, 35, 143-152.

Leavens, D. A., Hopkins, W. D., & Bard, K. A. (1996). Indexical and referential pointing in chimpanzees (Pan troglodytes). Journal of Comparative Psychology, 110, 346-353.

Hopkins, W. D. (1995). Hand preferences in juvenile chimpanzees: Continuity in development. Developmental Psychology, 31, 619-625.

Hopkins, W. D. (1995). Hand preferences for a coordinated bimanual task in 110 chimpanzees: Cross-sectional analysis. Journal of Comparative Psychology, 109, 291-297.

Hopkins, W. D., & Bard, K. A. (1995). Evidence of asymmetries in spontaneous head turning in infant chimpanzees (Pan troglodytes). Behavioral Neuroscience, 109, 808-812.

Hopkins, W. D., & de Waal, F. D. (1995). Behavioral laterality in captive bonobos (Pan paniscus): Replication and extension. International Journal of Primatology, 16, 261-276.

Jorgensen, M. J., Suomi, S. J., & Hopkins, W. D. (1995). Using a computerized test system to investigate the preconceptual self in nonhuman and human primates. In P. Rochat (Ed.), The self in early infancy: Theory and research. Amsterdam: North-Holland-Elsevier Science Publishers.

Hopkins, W. D., Bales, S., & Bennett, A. J. (1994). Heritability in direction of hand preference in chimpanzees (Pan troglodytes). International Journal of Neuroscience, 74, 17-26.

Hyatt, C. W., & Hopkins, W. D. (1994). Self-awareness in bonobos and

chimpanzees: A comparative perspective. In S. T. Parker, R. W. Mitchell & M. Boccia (Eds.), Self-awareness: Phylogenetic and developmental perspectives (pp. 248-253). Oxford: Oxford University Press.

Hopkins, W. D. (1994). Generating an evolutionary theory of mind: A review of "The Lopsided Ape: Evolution of the Generative Mind" by M. C. Corballis. American Journal of Human Biology, 94, 410-411.

Washburn, D. A., & Hopkins, W. D. (1994). Videotape versus pellet-reward preferences in joystick tasks by macaques. Perceptual and Motor Skills, 78, 48-50.

Westergaard, G. C., & Hopkins, W. D. (1994). Theories of mind and self-recognition. A review of assumptions underlying a proposed research agenda. American Psychologist, 49, 761.

Hopkins, W. D. (1994). Hand preferences for bimanual feeding in 140 captive chimpanzees (Pan troglodytes): Rearing and ontogenetic factors. Developmental Psychobiology, 27, 395-407.

Hopkins, W. D., & Bennett, A. J. (1994). Handedness and approach/avoidance behavior in chimpanzees (Pan). Journal of Experimental Psychology: Animal Behavior Processes, 20, 413-418.

Hopkins, W. D., & Washburn, D. A. (1994). Do right- and left-handed rhesus monkeys differ on cognitive task? Behavioral Neuroscience, 108, 1207-1212.

Hopkins, W. D. (1993). Posture and reaching in chimpanzees (Pan) and orangutans (Pongo). Journal of Comparative Psychology, 17, 162-168.

Hopkins, W. D., & Morris, R. D. (1993). Handedness in great apes. A review of findings. International Journal of Primatology, 14, 1-25.

Morris, R. D., & Hopkins, W. D. (1993). Perception of human chimeric faces by chimpanzees (Pan troglodytes): Evidence for a right hemisphere asymmetry. Brain and Cognition, 21, 111-122.

Morris, R. D., Hopkins, W. D., Bolser, L., & Washburn, D. A. (1993). Behavioral lateralization in language-trained chimpanzees. In J. P. Ward & W. D. Hopkins (Eds.), Primate laterality: Current behavioral evidence of primate asymmetries (pp. 215-227). New York: Springer-Verlag.

Morris, R. D., Hopkins, W. D., Bolser-Gilmore, L. (1993). Assessment of hand preference in two language-trained chimpanzees (Pan troglodytes): A multimethod analysis. Journal of Clinical and Experimental Neuropsychology, 15, 487-502.

Hopkins, W. D., & Bard, K. A. (1993). The ontogeny of hemispheric

specialization in nonhuman primates with special reference to chimpanzees (Pan troglodytes). In J. P. Ward & W. D. Hopkins (Eds.), Primate laterality: Current behavioral evidence of primate asymmetries (pp. 251-266). New York: Springer-Verlag.

Hopkins, W. D., & Bard, K. A. (1993). Hemispheric specialization in infant chimpanzees (Pan troglodytes): Evidence for a relation with gender and arousal. Developmental Psychobiology, 26, 219-235.

Hopkins, W. D., Fagot, J., & Vauclair, J. (1993). Solution of mirror-image matching and mental rotation problems by baboons (Papio papio) : Unilateral input enhances performance. Journal of Experimental Psychology: General, 122, 61-72.

Vauclair, J., Fagot, J., & Hopkins, W. D. (1993). Rotation of mental images in baboons when visual input is directed to the left cerebral hemisphere. Psychological Science, 4, 99-103.

Hopkins, W. D., & Morris, R. D. (1993). Priming as a technique in the study of lateralized cognitive processes in language-trained chimpanzees: Some recent findings. In H. Roitblat, L. Herman & P. Natigall (Eds.) Language and communication: Comparative perspectives (pp.401-413). New York: Lawrence Erlbaum and Associates.

Rumbaugh, D. M., Hopkins, W. D., Washburn, D. A., & Savage-Rumbaugh, E. S. (1993). Numerical competencies in chimpanzees. In H. Roitblat, L. Herman & P. Natigall (Eds.), Language and communication: Comparative perspectives (pp. 333-350). New York : Lawrence Erlbaum and Associates.

Hopkins, W. D., Bard, K. A., Jones, A., & Bales, S. (1993). Chimpanzee hand preference for throwing and infant cradling: Implications for the origin of human handedness. Current Anthropology, 34, 786-790.

Hopkins, W. D., Bennett, A., Bales, S., Lee, J., & Ward, J. P. (1993). Behavioral laterality in captive bonobos (Pan paniscus). Journal of Comparative Psychology, 107, 403-410.

Fagot, J., Hopkins, W. D., & Vauclair, J. (1993). Hand movements and hemispheric specialization in dichhaptic explorations. Perception, 22, 847-853.

Hopkins, W. D., Morris, R. D., Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1992). Hemispheric priming by meaningful and nonmeaningful symbols in language-trained chimpanzees: Further evidence of a left hemisphere advantage. Behavioral Neuroscience, 106, 575-582.

Higley, J. D., Hopkins, W. D., Thompson, W. W., Byrne, E. A., Hirsch, R. M., & Suomi, S. J. (1992). Peers as primary attachment sources in yearling rhesus monkeys (Macaca mulatta). Developmental Psychology, 28, 1163-1171.

Hopkins, W. D., Washburn, D. A., Berke, L., & Williams, M. (1992). Behavioral asymmetries of psychomotor performance in rhesus monkeys (*Macaca mulatta*): A dissociation between hand preference and performance. Journal of Comparative Psychology, 106, 392-397.

Hopkins, W. D., Morris, R. D., & Savage-Rumbaugh, E. S. (1991). Evidence for asymmetrical hemispheric priming using known and unknown warning stimuli in two language-trained chimpanzees. Journal of Experimental Psychology: General, 120, 46-56.

Hopkins, W. D. (1991). Laterality in monkeys and apes. In A. Ehara, T. Kimura, O. Takenaka, & M. Iwamoto (Eds.), Primate today (pp. 271-274). Amsterdam. Elsevier.

Morris, R. D., Hopkins, W. D., & Rumbaugh, D. M. (1991). Cerebral dominance in man and animals. In M. Yelles (Ed.), Encyclopedia of human biology. San Diego, CA: Academic Press.

Washburn, D. A., Hopkins, W. D., & Rumbaugh, D. M. (1991). Perceived control in monkeys (*Macaca mulatta*): Enhanced video-task performance. Journal of Experimental Psychology: Animal Behavior Processes, 17, 126-137.

Rumbaugh, D. M., Washburn, D. A., Savage-Rumbaugh, E. S., Hopkins, W. D., & Richardson, W. K. (1991). The Language Research Center's computerized test system (LRC-CTS): Video-formatted tasks for comparative primate research. In A. Ehara, T. Kimura, O. Takenaka, & M. Iwamoto (Eds.), Primate today (pp. 325-328). Amsterdam. Elsevier.

Rumbaugh, D. M., Washburn, D. A., Hopkins, W. D., & Savage-Rumbaugh, E. S. (1991). Chimpanzee counting and rhesus monkey ordinality judgements. In A. Ehara, T. Kimura, O. Takenaka, & M. Iwamoto (Eds.), Primate today (pp. 325-328). Amsterdam. Elsevier.

Hopkins, W. D., & Savage-Rumbaugh, E. S. (1991). Vocal communication as a function of differential rearing in *Pan paniscus*. Some preliminary findings. International Journal of Primatology, 12, 559-583.

Rumbaugh, D. M., Hopkins, W. D., & Washburn, D. A. (1991). Comparative perspectives of brain, cognition and language. In N. Krasnegor, D. M. Rumbaugh, R. L. Schiefelbusch & M. Studdert-Kennedy (Eds.), Biological and behavioral determinants of language development (pp. 145-164). Hillsdale, NJ: Lawrence Erlbaum Associates.

Hopkins, W. D. (1990). Hemispheric activation in language-trained chimpanzees (*Pan troglodytes*). Dissertation Abstracts International, B50 (11), 5354.

Hopkins, W. D., Washburn, D. A., & Rumbaugh, D. M. (1990). Processing of form stimuli presented unilaterally in humans, chimpanzees (Pan troglodytes) and monkeys (Macaca mulatta). Behavioral Neuroscience, 104, 577-582.

Richardson, W. K., Washburn, D. A., Hopkins, W. D., Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1990). The NASA/LRC computerized test apparatus and package. Behavior Research Methods, Instrumentation, & Computers, 13, 202-212.

Rumbaugh, D. M., Hopkins, W. D., Washburn, D. A., & Savage-Rumbaugh, E. S. (1990). Lana chimpanzee learns to count by "NUMATH". A summary of a video-taped experimental report. The Psychological Record, 39, 459-470.

Savage-Rumbaugh, E. S., Ronski, M. A., Hopkins, W. D. & Sevcik, R. A. (1990). Species differences in language acquisition and use. In P. Heltne & L. A. Marquardt (Eds.), Understanding chimpanzees: Cambridge, MA: Harvard University Press.

Washburn, D. A., Hopkins, W. D., & Rumbaugh, D. M. (1990). The effects of competition on video-task performance in rhesus monkeys (Macaca mulatta). Journal of Comparative Psychology, 104, 312-320.

Bard, K. A., Hopkins, W. D., & Fort, C. (1990). Lateral bias in infant chimpanzees (Pan troglodytes). Journal of Comparative Psychology, 104, 322-330.

Hopkins, W. D., & Morris, R. D. (1989). Laterality for visual-spatial processing in two language-trained chimpanzees (Pan troglodytes). Behavioral Neuroscience, 103, 227-234.

Hopkins, W. D., Washburn, D. A., & Rumbaugh, D. M. (1989). Note on hand use in the manipulation of joysticks by two rhesus monkeys (Macaca mulatta) and three chimpanzees (Pan troglodytes). Journal of Comparative Psychology, 103, 91-94.

Rumbaugh, D. M., Richardson, W. K., Washburn, D. A., Savage-Rumbaugh, E. S., & Hopkins, W. D. (1989). Rhesus monkeys learn complex video tasks: Stimulus-response discontinuity revisited. Journal of Comparative Psychology, 103, 67-75.

Washburn, D. A., Hopkins, W. D., Rumbaugh, D. M. (1989). Automation of learning set testing: The video-task paradigm. Behavioral Research Methods, Instrumentation, and Computers, 12, 38-45.

Washburn, D. A., Hopkins, W. D., & Rumbaugh, D. M. (1989). Video-task assessment of learning: The effects of stimulus movement. Journal of Experimental Psychology: Animal Behavior Processes, 15, 393-400.

Savage-Rumbaugh, E. S., Sevcik, R. A. & Hopkins, W. D. (1988). Symbolic

cross-modal transfer in relation to language in Pan paniscus and Pan troglodytes. Child Development, 57, 118-125.

Higley, J. D., Hopkins, W. D. & Suomi, S. J. (1987). Infantile coloration as a releasing mechanism of maternal preference in rhesus monkeys (Macaca mulatta). Developmental Psychobiology, 99, 7-13.

Hopkins, W. D., Washburn, D. A., Runfeldt, S., Savage-Rumbaugh, E. S., Rumbaugh, D. M. (1987). Joystick using apes and monkeys. Comparative Psychology Newsletter, 55, 14-18.

Savage-Rumbaugh, E. S. & Hopkins, W. D. (1986). Awareness, intentionality and acquired communicative behaviors: Dimensions of intelligence. In R. J. Schusterman, J.A. Thomas, & F. G. Wood (Eds.), Dolphin cognition and behavior: A comparative approach. (pp.303-313). Hillsdale, N.J.: Lawrence Erlbaum and Associates.

Savage-Rumbaugh, E. S. & Hopkins, W. D. (1986). The evolution of communication capacities. In W. Bechtel (Ed.), Science and philosophy: Integrating scientific disciplines. (pp.243-262). The Netherlands: Martinus Nijhoff Publishers.

Savage-Rumbaugh, E.S., McDonald, K., Sevcik, R. A., Hopkins, W.D. & Rubert, E. (1986). Spontaneous symbol acquisition and communicative use by pygmy chimpanzees (Pan paniscus). Journal of Experimental Psychology: General, 3, 211-235.

Savage-Rumbaugh, E. S., Rumbaugh, D. M., Hopkins, W. D., Shaw, P & Murphy, J. (1986). Ape language beyond Nim. In E. Sue Savage-Rumbaugh, Ape language: From conditioned response to symbol (pp.313-340). New York: Columbia University Press.

Published Abstracts:

M.A. Spocter, W.D. Hopkins, A.R. Garrison, C.D. Stimpson, J.M. Erwin, P.R. Hof, and C.C. Sherwood (2009). Wernicke's area homolog in chimpanzees (Pan troglodytes): Probabilistic mapping, asymmetry and comparison with humans. *2009 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience, Online.

N.M. Schenker, W.D. Hopkins, J.M. Erwin, P.R. Hof, and C.C. Sherwood (2008) A stereological analysis of Broca's area homologue in chimpanzees. *2008 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience, Online.

Leavens, D. A., Hopkins, W. D., Tagliabata, J. P., & Russell, J. L. (2008). Deixis and declarative communication among apes. *Primate Eye*, no. 96(Special Issue), 108.

C.C. Sherwood, E. Wahl, J.M. Erwin, P.R. Hof, and W.D. Hopkins (2007) Histological asymmetries of primary motor cortex predict handedness in chimpanzees (*Pan troglodytes*). American Journal of Physical Anthropology, Suppl. 44: 217.

Taglialatela, J. P. & W. D. Hopkins (2006). Gesture handedness predicts asymmetry in the chimpanzee inferior frontal gyrus. American Journal of Primatology. 68(S1): 74.

Hopkins, W. D., J. P. Taglialatela, & J. L. Russell (2006). Localizing handedness in the chimpanzee brain: A combined MRI and PET study. American Journal of Primatology. 68(S1): 120.

Russell, J. L., J. P. Taglialatela, & W. D. Hopkins (2006). The use of positive reinforcement training in chimpanzees (*Pan troglodytes*) for voluntary presentation for IM injections. American Journal of Primatology. 68(S1): 122.

Taglialatela, J. P. C. Cantalupo, & W. D. Hopkins (2005). Gesture-vocal synchrony in captive chimpanzees, *Pan troglodytes*. American Journal of Primatology. 66(S1): 70.

Hopkins, W. D. Sherwood, C. C. Erwin, J. M., Perl, D. & Hof, P (2005) Integrating non-invasive behavioral monitoring with *in vivo* structural imaging and post-mortem stereological studies of great ape neurobiology. American Journal of Primatology, 66 (Suppl. 1): 62.

Leavens, D. A. & Hopkins, W. D. (2004). What is intentional communication and how do you measure it? Folia Primatologica, 75(Suppl. 1), 389-390.

Leavens, D. A., & Hopkins, W. D. (2003). The influence of food size and distance on communication by chimpanzees (*Pan troglodytes*). American Journal of Primatology.

Leavens, D. A., & Hopkins, W. D. (2003). The influence of food size and distance on communication by chimpanzees (*Pan troglodytes*). American Journal of Primatology, 60 (Suppl. 1), 69.

Cantalupo, C., Pilcher, D., & Hopkins, W.D. (2001). Are planum temporale and Sylvian fissure asymmetries directly related? A MRI study in great apes. American Journal of Primatology, 54, 106.

Leavens, D. A., & Hopkins, W. D. (2000). What does a food beg mean? American Journal of Primatology, 51 (Suppl.1), 30.

Leavens, D. A., Thomas, R. K., & Hopkins, W. D. (2001). The influence of observer presence on gestural behaviors by chimpanzees (*Pan troglodytes*). American

Journal of Primatology, 54 (Suppl. 1), 55.

Leavens, D. A., Hopkins, W. D., Bell, J., Cook, C., & Fox, M. (2001). Visual communication by chimpanzees (*Pan troglodytes*): Effects of rearing history on gestures and visual orienting behaviors. American Journal of Primatology, 54 Suppl.1), 82.

Stavitsky, R. C., Ayers, M. R., Anthony, M. S., Hopkins, W. D., Andrews, M., & Kaplan, J. R. (1999). Assessment of cognitive performance in reproductively intact and ovariectomized monkeys. American Journal of Primatology, 49, 103.

Dahl, J. F., & Hopkins, W. D. (1999). Perineal swelling during pregnancy in chimpanzees (*Pan troglodytes*) is an external marker of steroid hormones. American Journal of Primatology, 49, 47.

Bennett, A. J., Tsai, T., Hopkins, W. D., Lindell, S. G., Pierre, P.J., Champoux, M., & Shoaf, S. E. (1999). Early social rearing environment influences acquisition of a computerized joystick task in rhesus monkeys (*Macaca mulatta*). American Journal of Primatology, 49, 33.

Hopkins, W. D., & Leavens, D. A. (1998). Learning and cognition in aged chimpanzees: A preliminary report. In V. Landau (Ed.), Chimpanzoo: 1997 conference proceedings (p. 74). Tucson, AZ: The Jane Goodall Institute.

Hopkins, W. D. (1998). Maternal influences on the development of hand preference in infant chimpanzees. Infant Behavior and Development, 21, 111.

Leavens, D. A., & Hopkins, W. D. (1998). Integration of gesture and gaze orienting behavior throughout the lifespan of laboratory chimpanzees. Infant Behavior and Development, 21, 193.

Parr, L., Hopkins, W. D., & de Waal, F. M. (1997). The perception of facial expressions in chimpanzees (*Pan troglodytes*). American Journal of Primatology, 42, 139.

Leavens, D. A., Aureli, F., & Hopkins, W. D. (1997). Scratching and cognitive stress: Performance and reinforcement effects on hand use, scratch type, and afferent cutaneous pathways during computer cognitive testing by a chimpanzee (*Pan troglodytes*). American Journal of Primatology, 42, 126-127.

Leavens, D. A., & Hopkins, W. D. (1997). Joint attention in 115 laboratory chimpanzees (*Pan troglodytes*): The use of referential gestures. American Journal of Primatology, 42, 127.

Hopkins, W. D. (1996). Chimpanzee handedness: Causes and consequences.

International Journal of Psychology, 31, 365.

Leavens, D. A., Hopkins, W. D., & Bard, K. A. (1995). Indexical and referential pointing: Intentional communication in non-language-trained laboratory chimpanzees (Pan troglodytes). American Journal of Primatology, 36, 136-137.

Hopkins, W. D. (1994). Multiple measures of handedness in chimpanzees (Pan): Between- and within-subject variability. American Journal of Primatology, 33, 215.

Hopkins, W. D., & Parr, L. A. (1994). Asymmetries in the production of facial expressions by chimpanzees. Infant Behavior and Development, 24, 68.

Jorgensen, M. J., Hopkins, W. D., & Suomi, S. J. (1994). Investigating the antecedents of self-recognition using a video-task paradigm. American Journal of Primatology, 33, 218.

Parr, L. A., Hopkins, W. D., & de Waal, F. D. (1994). The effects of haptic discrimination of handedness in captive capuchin monkeys. American Journal of Primatology, 33, 232.

Hopkins, W. D. (1993). Explaining variability in chimpanzee (Pan troglodytes) hand preference: Task, posture, genetic and ontogenetic factors. American Journal of Primatology, 30, 317.

Hopkins, W. D., Bennett, A., Bales, S., Lee, J., & Ward, J. P. (1993). Behavioral lateralization in captive bonobos (Pan paniscus). American Journal of Primatology, 30, 318.

Jorgensen, M. J., Hopkins, W. D., Washburn D. A., & Suomi, S. J. (1993). Initial performance of Cebus apella on two video tasks: A comparison with Macaca mulatta and Pan troglodytes. American Journal of Primatology, 30, 321.

Bennett, A. J., Hopkins, W. D., & Ward, J. P. (1993). Object manipulation in bonobos (Pan paniscus) and chimpanzees (Pan troglodytes) : A comparative study. American Journal of Primatology, 30, 297.

Vauclair, J., Hopkins, W. D., & Fagot, J. (1992). Mental rotation in baboons. International Journal of Psychology, 27, 424.

Bard, K. A., Hopkins, W. D., & Fort, C. L. (1990). Lateralized behaviors in infant chimpanzees. American Journal of Primatology, 20, 171.

Bard, K. A., Hopkins, W. D., & Fort, C. L. (1990). Lateralized self-calming behaviors in infant chimpanzees. Infant Behavior and Development, 13, 255.

Hopkins, W. D., Morris, R. D., & Washburn, D. A. (1988). Lateralized function for visual-spatial processing using a visual half-field paradigm in the chimpanzee (Pan). Journal of Clinical and Experimental Neuropsychology, 10, 69.

Rumbaugh, D. M., Hopkins, W. D., & Washburn, D. A. (1989). Rhesus monkeys learn relative values of numerals (0-9) and exhibit transitivity. Bulletin of the Psychonomic Society, 27, 489.

Hopkins, W. D., & Morris, R. D. (1987). Laterality for visual-spatial processes in language-trained chimpanzees: The effects of hand use and stimulus presentation duration. American Journal of Primatology, 101, 35.

Hopkins, W. D., & Rumbaugh, D. M. (1987). Learning strategies in the acquisition of counting behavior by a chimpanzee. American Journal of Primatology, 101, 35-36.

Higley, J. D., Suomi, S. J., Hopkins, W. D., & Bush, D. S. (1986). Early peer-only rearing produces deficits in rhesus monkeys that lasts late into childhood. American Journal of Primatology, 9, 407.

Hopkins, W. D. & Savage-Rumbaugh, E. S. (1986). Vocal communication in the pygmy chimpanzee (Pan paniscus) as a function of differential rearing experiences. American Journal of Primatology, 9, 408.

Brakke, K., Savage-Rumbaugh, E. S., McDonald, K., & Hopkins, W. D. (1985). A comparative analysis of symbol acquisition in two pygmy chimpanzees (Pan paniscus). American Journal of Primatology, 8, 327.

Higley, J. D., Hopkins, W. D., Suomi, S. J., Hirsch, R., & Orman, S. (1985). Peers as attachment sources to reduce separation stress. American Journal of Primatology, 8, 343.

Hopkins, W. D., & Savage-Rumbaugh, E. S. (1985). Symbolic cross-modal transfer in language-trained chimpanzees (Pan troglodytes). American Journal of Primatology, 8, 343.

Higley, J. D., Suomi, S. J., Hopkins, W. D., Marra, L., & Hirsch, R. (1983). Neonatal coloration as a releasing mechanism of maternal behavior in rhesus monkeys (Macaca mulatta). American Journal of Primatology, 4, 345.

PROFESSIONAL PRESENTATIONS

Invited Addresses:

Hopkins, W. D. (October, 2009). Neural correlates of joint attention and social cognitive processes in chimpanzees. Keynote speaker at "Joint Attention:

Developments in Philosophy of Mind, Developmental and Comparative Psychology, and Cognitive Science”, Bentley University, Boston, Massachusetts

Hopkins, W. D. (July, 2009). Neurological foundation of socio-communicative cognition in chimpanzees. Keynote speaker to “The Primate Mind: Built to Connect with Other Minds”. Erice, Italy.

Leavens, D. A., Hopkins, W. D., Taglialatela, J. P., & Russell, J. L. (August, 2008). Deixis and declarative communication among apes. Invited paper at the 22nd Congress of the International Society of Primatologists, Edinburgh, Scotland

Hopkins, W. D., & Taglialatela, J. P. (August, 2008). Neural correlates of gesture-vocal communication in chimpanzees: A combined PET-MRI study. Invited presentation at the 22nd Congress of the International Society of Primatologists, Edinburgh, Scotland.

Hopkins, W. D. (2007). Advanced imaging techniques and the study of gestures and tool-use in chimpanzees. Keynote speaker “The Mind of the Chimpanzee”, Lincoln Park Zoo, Chicago, Illinois.

Hopkins, W. D. (May, 2006). Behavioral lateralization in human and nonhuman primates. Invited presentation, Department of Biology and Ethology, Universite de Rennes, Rennes, France.

Hopkins, W. D. (October, 2006). Evolution of hemispheric specialization and language: Recent findings from chimpanzees. Invited address, Alabama Lectures on Life’s Evolution, University of Alabama, Tuscaloosa, Alabama.

Hopkins, W. D. (June, 2006). Differential communication in response to the attentional states of humans by chimpanzees: Implications for “theory to mind” in primates. Invited presentation at the 21st Congress of the International Society of Primatologists, Entebbe, Uganda.

Hopkins, W. D. (August, 2005). Left, right, hand and brain. Cerebral dominance in chimpanzees. Keynote address presented at the American Society of Primatology, Portland, Oregon.

Hopkins, W. D. (June, 2005). Laterality and communication in chimpanzees. Invited address, Seminar on the Brain, University of Hanover, Hanover, Germany.

Hopkins, W. D. (June, 2005). Factors influencing the development of handedness in chimpanzees. Paper presented at a symposium entitled “Handedness in infants and primates” at Centre National de al Recherche Scientifique, Paris France.

Hopkins, W. D. (November, 2005). Handedness and cerebral dominance in nonhuman primates. Paper presented at an invited symposium, Society of

Neuroscience, Washington, D. C.

Hopkins, W. D. (June, 2004). Grip preference, dermatoglyphics and hand preference in captive chimpanzees (*Pan troglodytes*). Invited presentation at the 20th Congress of the International Society of Primatologists, Turin, Italy.

Hopkins, W. D. (June, 2004). The role of mother-infant behaviour in the development of handedness in nonhuman primates. Invited presentation at the 20th Congress of the International Society of Primatologists, Turin, Italy.

Hopkins, W. D. (March, 2004). Neurobiological correlates of hand use for gesture in chimpanzees: Some preliminary observations. Keynote speaker presented at the Gestural Origins of Language workshop, Max-Planck Institute for Evolutionary Anthropology, Leipzig, Germany.

Hopkins, W. D. (February, 2003). Speech and language evolution: From hand to mouth. Keynote speaker at the Evolution of Communication and Cognition conference, Universite de Grenoble, Grenoble, France.

Hopkins, W. D. (June, 2002). Language origins: Developmental and comparative Perspectives. Invited Presentation, Department of Human Development, University of Chicago.

Hopkins, W. D. (August, 2000). Evolution of brain and behavioral asymmetries in primates: Some recent findings using magnetic resonance imaging. Paper presented to the Scottish Primate Society, University of Stirling.

Hopkins, W. D. (March, 2000). Genetic and non-genetic influences on the development of laterality. Invited presentation at the Southwestern Psychological Association annual meeting, Dallas, Texas.

Hopkins, W. D., & Dahl, J. F. (April, 2000). Chimpanzee handedness revisited: Developmental mechanisms and phylogenetic considerations. Invited speaker at the annual meeting of the International Neuropsychological Society, Denver, Colorado.

Hopkins, W. D. (May, 1999). Evolution of functional and structural asymmetries in primates. Paper presented as the Convocation speaker, Centre College, Centre Kentucky.

Hopkins, W. D. (May, 1999). Explaining species in individual differences in hemispheric specialization in primates. Paper presented at the Psychology and Biology Lectures Series, Morehouse University, Atlanta, Georgia

Hopkins, W. D. (July, 1999). Behavioral-Genetic Analyses of Hand Preference in Chimpanzees. Paper presented at the annual meeting of the Behavioral Genetics

Association, Vanouwer, Canada.

Hopkins, W. D. (July, 1999). Potential Research Opportunities in Chimpanzee Sanctuaries. Paper presented at the annual meeting of the American Society of Primatology, New Orleans, Louisiana.

Hopkins, W. D. (April, 1998). Maternal influences on the development of hand preference in infant chimpanzees. Paper presented at the biennial meeting of the International Conference on Infancy Studies, Atlanta, Georgia.

Hopkins, W. D. (May, 1998). Evolution of functional and neuroanatomical asymmetries in primates. Paper presented at the Behavioral Neuroscience program, Georgia State University, Atlanta, Georgia.

Hopkins, W. D. (May, 1997). Neuroanatomical asymmetries as revealed by magnetic resonance imaging (MRI) in nonhuman primates: Possible functional correlates. Paper presented at the Homage de Jean Requin conference, Centre Nationale de la Recherche Scientifique, Marseille, France.

Hopkins, W. D. (May, 1997). Functional and neuroanatomical asymmetries in nonhuman primates. Paper presented to the Department de Psychologie et Laboratoire de Neurobiologie, Universite Louis Pasteur, Strasbourg, France.

Hopkins, W. D. (June, 1997). Neurobiology of hemispheric specialization in primates. Paper presented to the Department of Human Biology and Anthropology, Frieze University, Berlin, Germany.

Hopkins, W. D. (August, 1996). Human and chimpanzee handedness: Analogous or homologous processes? Paper presented at the biennial meeting of the International Society of Primatology, Madison, Wisconsin

Hopkins, W. D. (August, 1996). Chimpanzee handedness: Causes and consequences. Paper presented at the biennial meeting of the International Congress of Psychology, Montreal, Canada.

Hopkins, W. D. (November, 1996). Language and the left hemisphere: Evidence from chimpanzees. Paper presented to the Biopsychology Research Seminar, Emory University.

Hopkins, W. D. (September, 1994). The neuropsychology of language and cognition in chimpanzees. Paper presented in the Psychology Colloquium Series, Augusta College, Augusta, Georgia.

Hopkins, W. D. (February, 1993). Mental rotation in monkeys. Paper presented to the Psychobiology Seminar, Emory University, Atlanta, GA.

Hopkins, W. D. (January, 1992). Cognition and hemispheric specialization in language-trained chimpanzees and other nonhuman primates. Paper presented to the Department of Psychophysiology, Louis Pasteur University, Strasbourg, France.

Hopkins, W. D. (February, 1992). Solution of mental rotation problems by baboons: Does one hemisphere work better than two ? Paper presented to the Psychobiology Research Group, Memphis State University, Memphis, Tennessee

Hopkins, W. D. (April, 1992). Chronometric studies of cognition in monkeys and apes. Paper presented to the Department of Psychology, University of Georgia, Athens, Georgia.

Hopkins, W. D. (August, 1992). Laterality in chimpanzees : Fifty-one years since Finch (1941). Paper presented at the 12th annual meeting of the International Primatological Society, Strasbourg, France.

Hopkins, W. D. (July, 1990). Laterality in chimpanzees. Paper presented at the satellite conference Recent Technological Advances in the Study of Language, Kyoto University, Kyoto, Japan.

Hopkins, W. D. (July, 1990). Laterality in language and nonlanguage-trained chimpanzees. Paper presented at the International Primatological Society Symposium entitled "Handedness in Nonhuman Primates", Kyoto University, Kyoto, Japan.

Hopkins, W. D. (October, 1990). The neuropsychology of language-trained chimpanzees. Paper presented at the Laterality: Evolution and Mechanism conference, Memphis State University, Memphis, Tennessee.

Hopkins, W. D. (April, 1989). Hemispheric activation in language trained chimpanzees: Generalized and lateralized effects of meaningful and nonmeaningful symbols. Invited address at the Animal Language Conference sponsored by the University of Hawaii, Honolulu, Hawaii.

Hopkins, W. D. & Morris, R. D. (March, 1988). Laterality studies at the Language Research Center. Paper presented at a symposium on Recent Advances in Animal Laterality Studies at the annual meeting of the Southeastern American Psychological Association, New Orleans, LA.

Noninvited Addresses:

Hopkins, W. D., Taglialatela, J. P., & Megeurditchian, A. (July, 2008). The use of voxel-based morphology to assess asymmetries in the chimpanzee brain: A novel approach to comparative studies of cerebral organization. Paper presented at the 31st Annual Conference of the American Society of Primatologists, West Palm Beach,

Florida.

Russell, J. & Hopkins, W. D. (June, 2008). Manual motor skill is associated with oro-facial control of vocal signals in chimpanzees (*Pan troglodytes*): Implications for theories on the origins of speech. Poster presented at the 31st Annual Conference of the American Society of Primatologists, West Palm Beach, Florida.

Meguerditchian, A., Gardner, M., Schapiro, S. J., & Hopkins, W. D. (June, 2008). The sound of one hand clapping: further evidence of right-handedness for communicative signaling in captive chimpanzees. Poster presented at the 31st Annual Conference of the American Society of Primatologists, West Palm Beach, Florida.

Schaeffer, J., Russell, J., & Hopkins, W. D. (June, 2008). Early life stress and temperament provide indicators of novelty seeking behavior in chimpanzees (*Pan troglodytes*). Poster presented at the 31st Annual Conference of the American Society of Primatologists, West Palm Beach, Florida.

Cantalupo C., Oliver, J., Smith, J., Nir, T., Tagliatela, J., and Hopkins, W.D. (November, 2008). Perisylvian asymmetries of the chimpanzee brain: Behavioral and neuroanatomical correlates. Poster presented at the 38th Meeting of the Society for Neuroscience in Washington, DC.

Cantalupo C. & Hopkins, W.D. (July, 2008). Brain asymmetry in chimpanzees (*Pan troglodytes*): an overview of MRI and behavioral evidence. Invited Plenary Session Talk Presented at the 19th Meeting of the International Society for Human Ethology in Bologna, Italy.

Hopkins, W. D. (June, 2008). Sex differences in mirror self-recognition in chimpanzees (*Pan troglodytes*). Paper presented at the 31st Annual Conference of the American Society of Primatologists, West Palm Beach, Florida.

Cantalupo C., Rodes, W., and Hopkins, W.D. (November, 2007). Handedness for tool use correlates with cerebellar asymmetries in chimpanzees (*Pan troglodytes*). Poster presented at the 37th Meeting of the Society for Neuroscience in San Diego, CA.

Hopkins, W. D. (June, 2007). Throwing in chimpanzees (*Pan troglodytes*): a behavioral marker of nonhuman primate differences in social cognition? Paper presented at the 30th Annual Conference of the American Society of Primatologists, Winston-Salem, North Carolina.

Hopkins, W. D., Tagliatela, J. P., & Cantalupo, C. (June, 2007). Normative data of the chimpanzee brain as revealed by magnetic resonance imaging: age and sex effects. Paper presented at the 30th Annual Conference of the American Society of Primatologists, Winston-Salem, North Carolina.

Taglialatela, J. P., Russell, J., Schaeffer, J., Leavens, D., & Hopkins, W. D. (June, 2007). Chimpanzee vocal control: don't get so emotional. Paper presented at the 30th Annual Conference of the American Society of Primatologists, Winston-Salem, North Carolina.

Russell, J., Schaeffer, J., & Hopkins, W. D. (June, 2007). Hand use for simulated "termite fishing" in captive chimpanzees (*Pan troglodytes*) replicates results from the wild. Poster presented at the 30th Annual Conference of the American Society of Primatologists, Winston-Salem, North Carolina.

Schaeffer, J., Russell, J., Taglialatela, J. P. & Hopkins, W. D. (June, 2007). Object cues improve performance for spatial memory tasks in captive chimpanzees (*Pan troglodytes*). Poster presented at the 30th Annual Conference of the American Society of Primatologists, Winston-Salem, North Carolina.

Cantalupo C., Swavely, N.S., Hegarty, J., and Hopkins, W.D. (October, 2006). Asymmetry of the insular cortex in the chimpanzee: a volumetric study. Poster presented at the 36th Meeting of the Society for Neuroscience in Atlanta, GA.

Russell, J. L., Remkus, S., Schapiro, S. J., & Hopkins, W. D. (June, 2006). Handedness and grooming in chimpanzees. Paper presented at the 21st Congress of the International Society of Primatologists, Entebbe, Uganda.

Toback, E., & Hopkins, W. D. (June, 2006). Comparison of handedness for structured task compared to spontaneous behaviors in captive chimpanzees. Paper presented at the 21st Congress of the International Society of Primatologists, Entebbe, Uganda.

Hopkins, W. D., & Lonsdorf, E. V. (June, 2006). Handedness in chimpanzees: Comparison in methods and findings between captive and wild settings. Poster presented at the 21st Congress of the International Society of Primatologists, Entebbe, Uganda.

Hyatt, C., & Hopkins, W. D. (June, 2006). The use of a video camera and playback monitor to assess self-recognition in a sample of captive chimpanzees (*Pan troglodytes*). Paper presented at the 21st Congress of the International Society of Primatologists, Entebbe, Uganda.

Cantalupo, C., Rodes, W., Hegarty, J., Freeman, H., & Hopkins, W.D. (November, 2005). Morphological variability of the frontal operculum in the great ape brain: a source of information for the study of the asymmetry of language areas. Poster presented at the 35th Meeting of the Society for Neuroscience, Washington, DC.

Poss, S., Kuhar, C., Stoinski, T., & Hopkins, W. D. (August, 2005). Differential use of attentional and visual communicative signaling by orangutans (*Pongo pygmaeus*)

and gorillas (*Gorilla gorilla*) in response to the attentional status of a human. Paper presented at the 28th Annual Conference of the American Society of Primatologists, Portland, Oregon.

Taglialatela, J. P., & Hopkins, W. D. (August, 2005). Gesture-vocal synchrony in captive chimpanzees, *Pan troglodytes*. Paper presented at the 28th Annual Conference of the American Society of Primatologists, Portland, Oregon.

Reynolds, E., Freeman, H., Russell, J., & Hopkins, W. D. (August, 2005). Oro-facial asymmetry of voluntary and involuntary vocal signals in chimpanzees (*Pan troglodytes*). Poster presented at the 28th Annual Conference of the American Society of Primatologists, Portland, Oregon.

Weiss, A., King, J., & Hopkins, W. D. (August, 2005). The generalizability of chimpanzee (*Pan troglodytes*) personality across two habitats: zoological parks and Yerkes national primate research center. Poster presented at the 28th Annual Conference of the American Society of Primatologists, Portland, Oregon.

Russell, J., Freeman, H., Reynolds, E., & Hopkins, W. D. (August, 2005) Lateralized scratching in chimpanzees (*Pan troglodytes*). Poster presented at the 28th Annual Conference of the American Society of Primatologists, Portland, Oregon.

Hopkins, W. D. & Cantalupo, C. (June, 2004). Imaging and assessing asymmetries in the "language" areas of the great ape brain using magnetic resonance imaging. Paper presented at the 20st Congress of the International Society of Primatologists, Turin, Italy.

Cantalupo, C., & Hopkins, W.D. (April, 2004). Behavioral correlates of cerebral asymmetries in great apes. Talk given at the 96th meeting of the Southern Society for Philosophy and Psychology, New Orleans, Louisiana.

Leavens, D. A., & Hopkins, W. D. (July, 2003). Influence of food size and distance on communication by chimpanzees (*Pan troglodytes*). Poster presented at the Twenty-sixth Annual Conference of the American Society of Primatologists, Calgary, Alberta, Canada.

Cantalupo, C., Gullledge, J.P., Washburn D.A., & Hopkins, W.D. (November, 2002). Implementation of transcranial magnetic stimulation in motor and cognitive tasks with a non-human primate (*Macaca mulatta*): Preliminary Evidence. Poster presented at the 43rd meeting of the Psychonomic Society, Kansas City, Missouri.

Cantalupo, C., Gullledge, J.P., Washburn D.A., & Hopkins, W.D. (November, 2002). Computer-driven transcranial magnetic stimulation in a non-human primate (*Macaca mulatta*). Poster presented at the 32nd meeting of the Society for Computers in Psychology, Kansas City, Missouri.

Leavens, D. A., & Hopkins, W. D. (June, 2002). Social awareness and the tactical deployment of communicative behavior by captive chimpanzees. Poster presented at the EURESO conference on Brain Development and Cognition in Human Infants, Naples, Italy.

Leavens, D. A., Hopkins, W. D., & Hostetter, A. B. (April, 2002). Audience effects on gestural communication by chimpanzees. Poster presented at the Thirteenth Biennial Conference on Infant Studies, Toronto, Canada.

Leavens, D. A., Hopkins, W. D., Bell, J., Cook, C., & Fox, M. (August, 2001). Visual communication by chimpanzees (Pan troglodytes): Effects of rearing history on gestures and visual orienting behaviors. Poster presented at the Twenty-fourth Annual Meeting of the American Society of Primatologists, Savannah, Georgia.

Leavens, D. A., Thomas, R. K., & Hopkins, W. D. (August, 2001). The influence of observer presence on gestural behaviors by chimpanzees (Pan troglodytes). Poster presented at the Twenty-fourth Annual Meeting of the American Society of Primatologists, Savannah, Georgia.

Leavens, D. A., & Hopkins, W. D. (July, 2000). Gestural communication by human and nonhuman primates: When is a "reach" a "point?" Poster presented at the Twelfth Biennial International Conference on Infant Studies, Brighton, U.K.

Leavens, D. A., & Hopkins, W. D. (June, 2000). What does a food beg mean? Paper presented at the Twenty-third Annual Conference of the American Society of Primatologists, Boulder, CO.

Stavitsky, R. C., Ayers, M. R., Anthony, M. S., Hopkins, W. D., Andrews, M., & Kaplan, J. R. (July, 1999). Assessment of cognitive performance in reproductively intact and ovariectomized monkeys. Paper presented at the 22nd Annual Meeting of the American Society of Primatology, New Orleans, LA

Dahl, J. F., & Hopkins, W. D. (July, 1999). Perineal swelling during pregnancy in chimpanzees (Pan troglodytes) is an external marker of steroid hormones. Paper presented at the 22nd Annual Meeting of the American Society of Primatology, New Orleans, LA

Bennett, A. J., Tsai, T., Hopkins, W. D., Lindell, S. G., Pierre, P.J., Champoux, M., & Shoaf, S. E. (July, 1999). Early social rearing environment influences acquisition of a computerized joystick task in rhesus monkeys (Macaca mulatta). Paper presented at the 22nd Annual Meeting of the American Society of Primatology, New Orleans, LA.

Hopkins, W. D., & Leavens, D. A. (April, 1998). Nonverbal communication by chimpanzees: Contrasts between field and laboratory studies. Paper presented at the

Ninetieth Annual Meeting of the Southern Society for Philosophy and Psychology, New Orleans, LA.

Leavens, D. A., & Hopkins, W. D. (April, 1998). Integration of gesture and gaze orienting behavior throughout the lifespan of laboratory chimpanzees. Paper presented at the Eleventh Biennial International Conference on Infant Studies, Atlanta, GA.

Hopkins, W. D., & Leavens, D. A. (November, 1997). Learning and cognition in aged chimpanzees: A preliminary report. Paper presented at the Annual Meeting of ChimpanZoo, Little Rock, Arkansas.

Fowler, L. A., Hopkins, W. D., & Morris, R. D. (May, 1997). Time of day effects on cognitive processing in chimpanzees (Pan troglodytes). Poster presented at the annual meeting of the American Psychological Society, Washington, D. C.

Leavens, D. A., & Hopkins, W. D. (June, 1997). Joint attention in 115 chimpanzees (Pan troglodytes): Developmental and social factors in the use of referential gestures. Paper presented at the Annual Conference of the American Society of Primatologists, San Diego, California.

Leavens, D. A., Aureli, F., & Hopkins, W. D. (June, 1997). Scratching and cognitive stress: Performance and reinforcement effects on hand use, scratch type, and afferent cutaneous pathways during computer cognitive testing by a chimpanzee (Pan troglodytes). Paper presented at the annual meeting of the American Society of Primatologists, San Diego, California.

Parr, L. A., Hopkins, W. D., & de Waal, F. M. (June, 1997). The perception of facial expressions in chimpanzees (Pan troglodytes). Paper presented at the annual meeting of the American Society of Primatology, San Diego, California.

Fowler, L., Hyatt, C., & Hopkins, W. D. (August, 1996). Circadian variation in body temperature in chimpanzees (Pan troglodytes). Paper presented at the biennial meeting of the International Primatological Society, Madison, Wisconsin.

Leavens, D. A., Aureli, F., Hopkins, W., & Hyatt, C. H. (August, 1996). Lateralized scratching in response to task difficulty in chimpanzees (Pan troglodytes). Paper presented at the biennial meeting of the International Primatological Society, Madison, Wisconsin.

Parr, L., Hopkins, W. D., & de Waal, F. D. (August, 1996). Preliminary results of a face recognition task in chimpanzees. Paper presented at the biennial meeting of the International Congress of Psychology, Madison, Wisconsin.

Parr, L., Hopkins, W. D., & de Waal, F. M. (July, 1994). The effects of haptic discrimination on handedness in captive capuchin monkeys (Cebus apella). Paper

presented at the annual meeting of the American Society of Primatology, Seattle, Washington.

Hopkins, W. D. (August, 1993). Explaining variability in chimpanzee (Pan troglodytes) hand preference: Task, posture, genetic and ontogenetic factors. Paper presented at the 16th annual meeting of the American Society of Primatology, Sturbridge, Massachusetts.

Hopkins, W. D., Bennett, A., Bales, S., Lee, J., & Ward, J. P. (August, 1993). Behavioral lateralization in captive bonobos (Pan paniscus). Paper presented at the 16th annual meeting of the American Society of Primatology, Sturbridge, Massachusetts.

Jorgensen, M. J., Hopkins, W. D., Washburn D. A., & Suomi, S. J. (August, 1993). Initial performance of Cebus apella on two video tasks: A comparison with Macaca mulatta and Pan troglodytes. Paper presented at the 16th annual meeting of the American Society of Primatology, Sturbridge, Massachusetts.

Bennett, A. J., Hopkins, W. D., & Ward, J. P. (August, 1993). Object manipulation in bonobos (Pan paniscus) and chimpanzees (Pan troglodytes) : A comparative study. Paper presented at the 16th annual meeting of the American Society of Primatology, Sturbridge, Massachusetts.

Hopkins, W. D., Washburn, D. A., Berke, L., & Williams, M. (August, 1992). Behavioral asymmetries of psychomotor performance in rhesus monkeys (Macaca mulatta): Evidence for a dissociation between hand preference and performance. Paper presented at the 12th annual meeting of the International Primatological Society, Strasbourg, France.

Washburn, D. A., Hopkins, W. D., Rumbaugh, D. M., & Putney, R. T. (August, 1990). Apparati as milestones in comparative psychology. Paper presented at the American Psychological Associations annual meeting, Boston, MA.

Rumbaugh, D. M., Washburn, D. A., Savage-Rumbaugh, E. S., & Hopkins, W. D. (July, 1990). The Language Research Center's computerized test system (LRC-CTS): Video-formatted tasks for comparative research. Paper presented at the XIIth meeting of the International Primatological Society, Nagoya and Kyoto, Japan.

Astur, R. S., Hopkins, W. D., Morris, R. D. (June, 1990). Sources of interference and encoding in short-term memory for meaningful and nonmeaningful symbols in language-trained chimpanzees (Pan troglodytes). Paper presented at the 2nd annual meeting of the American Psychological Society, Dallas, Texas.

Bard, K. A., Hopkins, W. D., & Fort, C. (April, 1990). Lateral bias in infant chimpanzees. Paper presented at the International Infancy Conference, Toronto,

Canada.

Hopkins, W. D., & Morris, R. D. (August, 1989). Left hemisphere advantages in the processing of meaningful and nonmeaningful symbols by language-trained chimpanzees. Paper presented at the annual meeting of the Southeastern American Psychological Association, New Orleans, LA.

Hopkins, W. D., Washburn, D. A. & Rumbaugh, D. M. (March, 1989). The effects of stimulus movement on learning in macaques. Paper presented at the annual meeting of the Southeastern Psychological Association, Washington D. C.

Rumbaugh, D. M., Hopkins, W. D., & Washburn, D. A. (November, 1989). Judgements of relative numerosity by macaques. Paper presented at the meeting of the Psychonomic Society, Atlanta, Georgia.

Hopkins, W. D., Morris, R. D., Washburn, D. A., & Bolser, L. (August, 1988). Hemispheric activation in the chimpanzee. Paper presented at the annual meeting of the Southeastern American Psychological Society, Atlanta, GA.

Hopkins, W. D. & Morris, R. D. (January, 1988). Laterality for visual-spatial processing in two language trained chimpanzees (Pan troglodytes). Presented at the International Neuropsychological Societies annual meeting, New Orleans, LA.

Washburn, D. A., & Hopkins, W. D. (August, 1988). Video assessment of learning skills in rhesus monkeys. Paper presented at the 98th annual meeting of the American Psychological Society, Atlanta, GA.

Hopkins, W. D., & Morris, R. D. (August, 1987). Preliminary results of a test for laterality in two chimpanzees (Pan troglodytes). Presented at the Southeastern Psychological Associations annual meeting, Atlanta, Georgia.

Hopkins, W. D., & Morris, R. D. (July, 1987). Laterality for visual-spatial processing in two chimpanzees (Pan troglodytes): The effects of hand use and stimulus presentation rate. Paper presented at the American Society of Primatology annual meeting, Madison, Wisconsin.

Brakke, K., Savage-Rumbaugh, E. S., McDonald, K., & Hopkins, W. D. (June, 1986). A comparative analysis of symbol acquisition in two pygmy chimpanzees (Pan paniscus). Presented at the Annual Meeting of the American Society of Primatology, Austin, Texas.

Savage-Rumbaugh, E. S., Ronski, M. A., Hopkins, W. D. & Sevcik, R. A. (October, 1986). Species differences in language acquisition and use. Paper presented at Chicago Academy of Sciences Symposium entitled "Understanding Chimpanzees", Chicago, Illinois.

Hopkins, W. D. & Savage-Rumbaugh, E. S. (July, 1985). Symbolic cross-modal transfer in relation to language in Pan paniscus and Pan troglodytes. Presented at the American Society of Primatology annual meeting, Buffalo, New York.

Hopkins, W. D., Higley, J. D. & Suomi, S. J. (April, 1983). Infantile coloration as a releasing mechanism for maternal behavior in rhesus monkeys (Macaca mulatta). Presented at the Midwest Regional Animal Behavior Society Meeting, St. Louis, Missouri.

Hopkins, W. D., Higley, J. D. & Suomi, S. J. (April, 1982). Specific peer attachments in peer-only reared groups of rhesus monkeys (Macaca mulatta). Presented at the National Animal Behavior Society Meeting, Duluth, Minnesota.

RECOGNITIONS:

Academic/Athletic Scholarship, University of Wisconsin-Superior, 1978-1980
 Merit Scholarship, Georgia State University, 1987
 Samuel and Poe Carden Award Recipient for Outstanding Scholarship, Teaching and Service, Berry College, 2002

SERVICE:

Institutional

Classes taught:

Cognitive Neuroscience
 Research Methods and Experimental Psychology
 Statistics
 Research in Cognitive Neuroscience

Committee Membership:

Faculty Executive Committee
 Honorary Degree Committee
 Summer Budget Work group

Professional

1984-Present	American Society of Primatology
1984-Present	International Society of Primatology
1993-Present	American Psychological Association
1993-Present	American Association for the Advancement of Science

