

***Chimpanzee Religious Behaviors: An Answer to Jane Goodall***

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**Supplementary File 3. Chimpanzee Religion Literature Review Database – Full References**

Anderson JR, Gillies A, Lock LC. 2010. *Pan* thanatology. *Current Biology* 20,8: R349-R351.

Arnold, Kate, and Klaus Zuberbühler. 2006. “Semantic combinations in primate calls: Putty-nosed monkeys rely on two basic calling sounds to construct a message of utmost urgency.” *Nature* 441: 303.

Arnold, Kate, and Klaus Zuberbühler. 2008. “Meaningful call combinations in a non-human primate.” *Current Biology* 18,5: R202-R203.

Associated Press. 1998. “Study: Africa apes use symbols to mark jungle trails.” 14 February. <http://www.cnn.com/EARTH/9802/14/apes.ap> (accessed May 10, 2007).

Aufreiter S, Mahaney WC, Milner MW, Huffman MA, Hancock RG, Wink M, Reich M. (2001). Mineralogical and chemical interactions of soils eaten by chimpanzees of the Mahale Mountains and Gombe Stream National Parks, Tanzania. *Journal of Chemical Ecology* 27,2:285-311.

Bekoff M. 2007. *The emotional lives of animals: A leading scientist explores animal joy, sorrow, and empathy - and why they matter*. New York: New World Library. (Excerpts, Gorilla wakes and baboon friendships. *PETA's Animal Times* 22,4:19.)

Biro D, Humle T, Koops K, Sousa C, Hayashi M, Matsuzawa T. 2010. Chimpanzee mothers at Boussou, Guinea carry the mummified remains of their dead infants. *Current Biology* 20,8: R351-352.

Boesch C. 1992. New elements of a theory of mind in wild chimpanzees. *Behavioral and Brain Sciences* 15:149-150

Boesch C, Boesch-Achermann H. 2000. *The Chimpanzees of the Tai Forest: Behavioural Ecology and Evolution*. New York: Oxford University Press.

Boesch C, Tomasello M. 1998. Chimpanzee and human cultures. *Current Anthropology* 39,5:591-614.

Bower B. 1992. Monkeys deal blow to silent cheaters. *Science News* 142:423.

Brink AS. 1957. Spontaneous fire-controlling reactions of two chimpanzee smoking addicts. *South African Journal of Science* 53:241-247.

Call J, Hare B, Carpenter M, Tomasello M. 2004. ‘Unwilling’ versus ‘unable’: chimpanzees’ understanding of human intentional action. *Developmental Science* 7,4: 488–498.

- Chamove, AS. 1996. Enrichment: unpredictable ropes and fire. *Shape Enrichment* 5(2):1-3.
- Clarke, Esther, Ulrich H. Reichard, and Klaus Zuberbühler. 2006. "The syntax and meaning of wild gibbon songs." *PLOS One* 1/1: e73, 1-10, <http://www.plosone.org/article/fetchArticle.action?articleURI=info:doi/10.1371/journal.pone.0000073> (accessed May 8, 2007).
- Cromie WJ. 1999. Chimpanzee behaviors surprise scientists. *Harvard University Gazette* (June 17, 1999).
- Dittus WPJ, Ratnayeke SM. 1989. Individual and social behavioral responses to injury in wild toque macaques (*Macaca sinica*). *International Journal of Primatology* 10:215-234.
- Dudley R. 2000. Evolutionary origins of human alcoholism in primate frugivory. *Quarterly Review of Biology* 75,1:3-15.
- Dudley R. 2002. Fermenting fruit and the historical ecology of ethanol ingestion: is alcoholism in modern humans an evolutionary hangover? *Addiction* 97,4:381-8.
- Engel C. 2002a. *Wild health: Lessons in natural wellness from the animal kingdom*. New York: Houghton Mifflin.
- Engel C. 2002b. Animal self-medication. *The Ecologist* 32,3: n.p.
- Fouts DH. 1983. Loulis tries his hand at surgery. *Friends of Washoe* 3:4.
- Garey JD. 1984. A possible role for secondary plant compounds in the regulation of primate breeding cycles. *American Journal of Physical Anthropology* 63(2):160 (abstract).
- Garey JD. 1997. The consumption of human medicinal plants, including abortifacients, by wild primates. *American Journal of Primatology* 42,2: 111.
- Garey J, Markiewicz L, Gurpide E. 1992. Estrogenic flowers, a stimulus for mating activity in female vervet monkeys. In XIVth Congress of the International Primatological Society Abstracts, p. 210, Strasbourg, France.
- Gibbs WW. 1996. Jungle medicine. *Scientific American* 275,6:20.
- Gilardi JD, Duffey SS, Munn CA, Tell LA. 1999. Biochemical functions of geophagy in parrots: detoxification of dietary toxins and cytoprotective effects. *Journal of Chemical Ecology* 25,4:897-919.
- Glander KE. 1994. Nonhuman primate self-medication with wild plant foods. In N. L. Etkin (ed.) *Eating on the wild side: The pharmacologic, ecologic, and social implications of using noncultigens*: 227-239. Tucson, AZ: University of Arizona Press.

- Goodall J. 1986. *The chimpanzees of Gombe: Patterns of behavior*. Cambridge, MA: Harvard University Press.
- Goodall J. 1989. Highlights and current research at Gombe. In P.G. Heltne, L.A. Marquardt (eds.) *Understanding Chimpanzees*. Cambridge, MA: Harvard University Press.
- Goodall J., with Berman P. 1999. *Reason for hope: A spiritual journey*, New York: Warner Books.
- Goodall J. 2001. Rain dance. *Science and Spirit* (May/June 2001).  
[http://www.science-spirit.org/articles/ArticleDetail.cfm?article\\_ID=229](http://www.science-spirit.org/articles/ArticleDetail.cfm?article_ID=229)
- Goodall, J. 2005. Primate spirituality. In Bron Taylor (ed.) *Encyclopedia of Religion and Nature*: 1303-1306. New York: Continuum
- Hawkes K, O'Connell JF, Blurton Jones NG. 1999. Comment on The raw and the stolen. *Current Anthropology* 40,1:581-2.
- Herrmann E, Call J, Hernández-Lloreda MV, Hare B, Tomasello M. 2007. Humans have evolved specialized skills of social cognition: The cultural intelligence hypothesis. *Science* 317:1360-1366.
- Hirata S, Yamakoshi G, Fujita S, Ohashi G, Matsuzawa T. 2001. Capturing and toying with hyraxes (*Dendrohyrax dorsalis*) by wild chimpanzees (*Pan troglodytes*) at Bossou, Guinea. *American Journal of Primatology* 53,2:93-7.
- Hohmann G, Fruth B. 2003. Culture in Bonobos? Between-species and within-species variation in behavior. *Current Anthropology* 44,4: 563-571.
- Huffman MA. 1997. Current evidence for self-medication in primates: a multidisciplinary perspective. *Yearbook of Physical Anthropology* 40:171-200.
- Huffman MA. 2001. Self-medicative behavior in the African great apes: an evolutionary perspective into the origins of human traditional medicine. *BioScience* 51:651-661.
- Huffman MA. 2003. Animal self-medication and ethno-medicine: exploration and exploitation of the medicinal properties of plants. *Proceeding of the Nutritional Society* 62,2:371-81.
- Huffman MA, Caton JM. 2001. Self-induced gut motility and the control of parasite infections in wild chimpanzees. *International Journal of Primatology* 22:329-346.
- Huffman MA, Page JE, Sukhdeo MVK, Gotoh S, Kalunde MS, Chandrasiri T, Towers GHN. 1996. Leaf-swallowing by chimpanzees, a behavioral adaptation for the control of strongyle nematode infections. *International Journal of Primatology* 17:475-503.

- Huffman MA, Seifu M. 1989. Observations on the illness and consumption of a possibly medicinal plant *Vernonia amygdalina* (Del.) by a wild chimpanzee in the Mahale Mountains National Park, Tanzania. *Primates* 30:51-63.
- Ingmanson EJ. 1989. Branch dragging by Pygmy Chimpanzees at Wamba, Zaire. *American Journal of Physical Anthropology* 78:244).
- Kano T. 1992. *The last ape*. Palo Alto, CA: Stanford University Press.
- Kano T, Mulavwa M. 1984. *Feeding ecology of the pygmy chimpanzees (Pan paniscus) of Wamba*. In R. L. Susman *The pygmy chimpanzee: Evolutionary biology and behavior*:233-74. New York: Plenum.
- Köhler W. 1925. *The mentality of apes*. London: Routledge and Kegan Paul.
- Kortlandt A. 1962. Chimpanzees in the Wild. *Scientific American* 206,5: 128-138.
- Koshimizu K, Ohigashi H, Huffman MA. 1994. Use of *Vernonia amygdalina* by wild chimpanzees: Possible roles of its bitter and related compounds. *Physiology and Behavior* 56,6:1209-16.
- Krishnamani R, Mahaney WC. 2000. Geophagy among primates: adaptive significance and ecological consequences. *Animal Behavior* 59,5:899-915.
- Kuroda S. 1984. Interaction over food among pygmy chimpanzees. In R. L. Susman (ed.) *The pygmy chimpanzee: Evolutionary biology and behavior*: 301-24. New York: Plenum.
- Mahaney WC, Hancock RGV, Aufreiter S, Huffman MA. 1996. Geochemistry and clay mineralogy of termite mound soils and the role of geophagy in chimpanzees of Mahale Mountains, Tanzania. *Primates* 37,2:121-134.
- Malan, J. 1932. The possible origin of religion as a conditioned reflex. *American Mercury* 25:314 -17.
- McGrew WC, Tutin CEG. 1973. Chimpanzee tool use in dental grooming. *Nature* 241:477-8.
- Messer EJ, Wrangham RW. 1995. In-vitro testing of the biological activity of *Rubia cordifolia* leaves on primate Strongyloide Species. *Primates* 37: 105-8.
- Miles WR. 1963. Chimpanzee behavior: removal of foreign body from companion's eye. Paper presented at the 100<sup>th</sup> annual meeting of the National Academy of Sciences, Washington, D.C.
- National Geographic. 2009. Cameroon. *National Geographic Magazine* (November 2009) 216,5.

- Newton PN, Nishida T. 1990. Possible buccal administration of herbal drugs by wild chimpanzees, *Pan troglodytes*. *Animal Behavior* 39:799-800.
- Notman, Hugh, and Drew Rendall. 2005. "Contextual variation in chimpanzee pant hoots and its implications for referential communication." *Animal Behaviour* 70: 177–190.
- Pettitt, Paul. 2002. "When burial begins." *British Archaeology* 66 (August): <http://www.britarch.ac.uk/ba/ba66/feat1.shtml> (accessed May 9, 2007).
- Pika, Simone, and John Mitani. 2006. "Referential gestural communication in wild chimpanzees (*Pan troglodytes*)." *Current Biology* 16,6: R191-R192.
- Pika S, Liebal K, Tomasello M. 2003. Gestural communication in young gorillas (*Gorilla gorilla*): Gestural repertoire, learning, and use. *American Journal of Primatology* 60:95–111.
- Povinelli DJ. 2004. Behind the ape's appearance: Escaping anthropocentrism in the study of other minds. *Daedalus* 133,1:29-41.
- Povinelli DJ, Bering JM, Gimabrone S. 2000. Toward a science of other minds: Escaping the argument by analogy. *Cognitive Science* 24,3:509-541.
- Povinelli DJ, Bering JM. 2002. The mentality of apes revisited. *Current Directions in Psychological Science* 11,4:115-119.
- Pruetz JD and LaDuke TC. 2010. Brief Communication: Reaction to Fire by Savanna Chimpanzees (*Pan troglodytes verus*) at Fongoli, Senegal: Conceptualization of "Fire Behavior" and Case for a Chimpanzee Model. *American Journal of Physical Anthropology* (online early view Jan 2010: 1-5).
- Rilling JK, Barks SK, Parr LA, Preuss TM, Faber TL, Pagnoni G, Bremner JD, Votaw JR. 2007. A comparison of resting-state brain activity in humans and chimpanzees. *Proceedings of the National Academy of Sciences USA* 104,43:17146-17151.
- Ritchie BG, Frigaszy M. 1988. Capuchin monkey (*Cebus apella*) grooms her infant's wound with tools. *American Journal of Primatology* 16:345-8.
- Rodriguez E, Aregullin M, Nishida T, Uehara S, Wrangham RW, Abramowski Z, Finalyson A, Towers GHN. 1985. Thiarubrine A, a bioactive constituent of *Aspilia* (Asteraceae) consumed by wild chimpanzees. *Experientia* 41:419-20.
- Rodriguez E, Cavin JC, West JE. 1982. The possible role of Amazonian psychoactive plants in the chemotherapy of parasitic worms—a hypothesis. *Journal of Ethnopharmacology* 6,3:303-9.
- Rodriguez E, Wrangham RW. 1993. Zoopharmacognosy: The use of medicinal plants by animals. In K. R. Downum et al (eds.) *Phytochemical potential of tropical plants*. NY: Plenum Press.

- Russon A, Galdikas B. 1993. Imitation in free-ranging rehabilitation orangutans. *Journal of Comparative Psychology* 44:248-280.
- Sanday PR. 1986. *Divine hunger: Cannibalism as a cultural system*. New York: Cambridge University Press.
- Savage-Rumbaugh S. 1998. Language and culture: A trans-generational interweaving. Paper presented to the Language Origins Society Annual Meeting, June 25-28, Tallahassee, FL: Florida State University.
- Savage-Rumbaugh S, Fields WM, Segerdahl P, Rumbaugh D. 2005. Culture prefigures cognition in Pan/Homo bonobos. Des Moines, Iowa: Great Ape Trust of Iowa.
- Savage-Rumbaugh S, Lewin R. 1994. *Kanzi: The ape at the brink of the human mind*. New York: John Wiley & Sons.
- Savage-Rumbaugh S, Shanker SG, Taylor TJ. 1998. *Apes, language and the human mind*. New York: Oxford University Press.
- Slocombe, Katie E, and Klaus Zuberbühler. 2005. "Functionally referential communication in a Chimpanzee." *Current Biology* 15: 1779–1784.
- Slocombe, Katie E, and Klaus Zuberbühler. 2006. "Functionally referential calls in chimpanzees. Abstract #103. XXI Congress of the International Primatological Society. <http://www.asp.org/ips/IPS2006/abstractDisplay.cfm?abstractID=1476&confEventID=1308> (accessed May 8, 2007).
- Smuts, Barbara. 2001. Encounters with Animal Minds. *Journal of Consciousness Studies* 8(5-7): 293-309.
- Stanford C. 2002. Got culture? *Newsroom*, 05/01/02 (online). USC Public Relations, University of Southern California.
- Taglialatela, JP., Russell JL, Schaeffer JA, Hopkins WD. 2008. Communicative signaling activates 'Broca's' homolog in Chimpanzees. *Current Biology* 18, 5: 343-348.
- Teleki G. 1973. Group response to the accidental death of a chimpanzee in Gombe National Park, Tanzania. *Folia Primatologica* 20:81-94.
- Temerlin MK. 1975. *Lucy: Growing up human*. Palo Alto, CA: Science and Behavior Books.
- Tomasello M, Zuberbühler K. 2002. Primate Vocal and Gestural Communication. In (eds.) Marc Bekoff, Colin Allen and Gordon M. Burghardt, *The Cognitive Animal: Empirical and Theoretical Perspectives on Animal Cognition*:293-300. Cambridge: MIT Press.

- Tutin, CEG. 1979. Mating patterns and reproductive strategies in a community of wild chimpanzees (*Pan troglodytes schweinfurthii*). *Behavior Ecology Sociobiology* 6:39-48.
- Vonk, J. & Povinelli, D.J. 2006. Similarity and difference in the conceptual systems of primates: The Unobservability hypothesis. In E. Wasserman and T. Zentall (eds.) *Comparative Cognition: Experimental Explorations of Animal Intelligence*:363-387. New York: Oxford University Press.
- de Waal F. 1982. *Chimpanzee politics: Power and sex among apes*. New York: Harper & Row.
- de Waal F. 1989. *Peacemaking among primates*. Cambridge, MA: Harvard University Press.
- de Waal F. 1996. *Good natured: The origins of right and wrong in humans and other animals*. Cambridge, MA: Harvard University Press.
- de Waal F. 1999. Cultural primatology comes of age. *Nature* 399: 635-36.
- de Waal F. 2001. Apes from Venus: Bonobos and human social evolution. In F. de Waal, *Tree of origin: What primate behavior can tell us about human social evolution*:39-68. Cambridge, MA: Harvard University Press.
- de Waal F, Lanting F. 1997. *Bonobo: The forgotten ape*. Berkeley: University of California Press.
- Wallauer W. 2002. Do Chimpanzees Feel Reverence for Nature?  
[http://www.janegoodall.org/chimp\\_central/chimpanzees/behavior/rain\\_dance.asp](http://www.janegoodall.org/chimp_central/chimpanzees/behavior/rain_dance.asp)
- Westergaard G, Fragaszy D. 1987. Self-treatment of wounds by a capuchin monkey (*Cebus apella*). *Human Evolution* 1,6: 557-62.
- Whiten, A., J. Goodall, W. C. McGrew, T. Nishida, V. Reynolds, Y. Sugiyama, C. E. G. Tutin, R. W. Wrangham, and C. Boesch. 1999. "Cultures in chimpanzees." *Nature* 399: 682-5.
- Wrangham RW. 1995. Leaf swallowing by chimpanzees and its relation to a tapeworm infection. *American Journal of Primatology* 37:297-303.
- Wrangham RW, Goodall J. 1989. Chimpanzee use of medicinal leaves. In P. G. Heltne and L. A. Marquardt (eds.) *Understanding chimpanzees*. Cambridge, MA: Harvard University Press.
- Wrangham RW, Jones JH, Laden G, Pilbeam D, Conklin-Brittain, N. 1999. The raw and the stolen: Cooking and the ecology of human origins. *Current Anthropology* 40,1:567-94.
- Yerkes RM. 1943. *Chimpanzees: A laboratory colony*. New Haven: Yale University Press.
- Zuberbühler, Klaus. 2002. "A syntactic rule in forest monkey communication." *Animal Behaviour* 63: 293-299.

Zuberbühler, Klaus. 2004. "Syntactically organized vocal behaviour in a non-human primate." Abstract. [www.ling.ed.ac.uk/evolang/2004/ABSTRACTS/TALKS/zuberbuhler.doc](http://www.ling.ed.ac.uk/evolang/2004/ABSTRACTS/TALKS/zuberbuhler.doc) (accessed May 8, 2007).

Zuberbühler, Klaus, Dorothy L. Cheney, and Robert M. Seyfarth. 1999. "Conceptual semantics in a nonhuman primate." *Journal of Comparative Psychology* 113/1: 33-42.