

## NON-HUMAN PRIMATES

- Adam, G. (1993). Communication in animals. In *Acta Neurochirurgica Supplementum, Vol. 56. Language and Speech* (E. Pasztor, J. Vajda & F. Loew, eds). Springer-Verlag; Vienna, pp. 9-13.
- Addington, R. L. (1992). *Food calls and group foraging in red-bellied tamarins*. M.S. thesis, Bucknell University.
- Ahissar, E., Abeles, M., Ahissar, M., Haidarliu, S. & Vaadia, E. (1998). Hebbian-like functional plasticity in the auditory cortex of the behaving monkey. *Neuropharmacology*, **37**, 633-655.
- Aichi, H., Moos-Heilen, R. & Zimmerman, E. (1990). Vocalizations of adult gelada baboons (*Theropithecus gelada*): acoustic structure and behavioural context. *Folia Primatol.*, **55**, 109-132.
- Anderson, M. J., Ambrose, L., Bearder, S. K., Dixon, A. F. & Pullen, S. (2000). Intraspecific variation in the vocalizations and hand pad morphology of southern lesser bush babies (*Galago moholi*): A comparison with *G. senegalensis*. *Int. J. Primatol.*, **21**, 537-555.
- Arcadi, A. C., Daniel, R. & Boesch, C. (1998). Buttress drumming by wild chimpanzees: Temporal patterning, phrase integration into loud calls, and preliminary evidence for individual distinctiveness. *Primates*, **39**, 505-518.
- Arcadi, A. C. (2000). Vocal responsiveness in male wild chimpanzees: implications for the evolution of language. *J. Human Evol.*, **39**, 205-223.
- Arcadi, A. C. (1996). Phrase structure of wild chimpanzee pant hoots: Patterns of production and interpopulation variability. *Am. J. Primatol.*, **39**, 159-178.
- Bauers, K. A. (1993). A functional analysis of staccato grunt vocalizations in the stumptailed macaque *Macaca arctoides*. *Ethology*, **94**, 147-161.
- Bauers, K. A. & de Waal, F. B. M. (1991). "Coo" vocalizations in stumptailed macaques: a controlled functional analysis. *Behaviour*, **118**, 143-160.
- Becker, M., Wheatley, K., Buder, E., Price, M. & Ward, J. (2001). Spectrographic evidence of bushbaby pillow talk. *Am. J. Primatol.*, **54**, Suppl. 1, 42.
- Benz, J. J. (1993). Food-elicited vocalization in golden lion tamarins: design features for representational communication. *Anim. Behav.*, **45**, 443-455.
- Bercovitch, F. B., Hauser, M. D. & Jones, J. H. (1995). The endocrine stress response and alarm vocalization in rhesus macaques. *Anim. Behav.*, **49**, 1703-1706.
- Bermejo, M. & Omedes, A. (1999). Preliminary vocal repertoire and vocal communication of wild bonobos (*Pan paniscus*) at Lilungu (Democratic Republic of Congo). *Folia Primatol.*, **70**, 328-357.
- Berntson, G. G., Boysen, S. T. & Torello, M. W. (1993). Vocal perception, brain event related potentials in a chimpanzee. *Dev. Psychobiol.*, **26**, 305-319.
- Biben, M. & Bernhard, D. (1995). Vocal ontogeny of the squirrel monkey, *Saimiri boliviensis peruviansis*. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman and U. Juergens, eds.). Plenum Press; New York, pp. 99-120.
- Biben, M. (1993). Recognition of order effects in squirrel monkey antiphonal call sequences. *Am. J. Primatol.*, **29**, 109-124.
- Bieser, A. & Mueller-Preuss, P. (1989). Temporal processing through auditory neurons: periodicity decoding and spike rate. *Eur. J. Neurosci.*, **Suppl. 2**, 260.
- Bieser, A. & Mueller-Preuss, P. (1992). Organization of the auditory cortex in the squirrel monkey. In *Rhythmogenesis in Neurons and Networks* (N. Elsner & D. W. Richter, eds.). Thieme; Stuttgart.
- Bieser, A. & Mueller-Preuss, P. (1996). Auditory responsive cortex in the squirrel monkey: neural responses to amplitude-modulated sounds. *Exp. Brain Res.*, **108**, 273-284.
- Bieser, A. & Mueller-Preuss, P. (1991). Physiological and cytoarchitectonic characterization of auditory responsive cortical areas in the awake squirrel monkey. *Eur. J. Neurosci.*, **Suppl. 4**, 42.
- Bieser, A. (1998). Processing of twitter-call fundamental frequencies in insula and auditory cortex of squirrel monkeys. *Exp. Brain Res.*, **122**, 139-148.
- Blumstein, D. T. (1995). Golden-marmot alarm calls. II. Asymmetrical production and perception of situationally specific vocalizations? *Ethology*, **101**, 25-32.
- Boinski, S. & Campbell, A. F. (1996). The huh vocalization of white-faced capuchins: a spacing call disguised as a food call? *Ethology*, **102**, 826-840.
- Boinski, S., Gross, T. S. & Davis, J. K. (1999). Terrestrial predator alarm vocalizations are a valid monitor of stress in captive brown capuchins (*Cebus apella*). *Zoo Biology*, **18**, 295-312.
- Boinski, S. (1993). Vocal coordination of troop movement among white-faced capuchin monkeys *Cebus capucinus*. *Am. J. Primatol.*, **30**, 85-100.
- Boinski, S. & Mitchell, C. L. (1995). Wild squirrel monkey (*Saimiri sciureus*) 'caregiver' calls: contexts and acoustic structure. *Am. J. Primatol.*, **35**, 129-137.
- Boinski, S. & Campbell, A. F. (1995). Use of trill vocalizations to coordinate troop movement among white-

- faced capuchins: a second field test. *Behaviour*, **132**, 875-901.
- Boinski, S. & Mitchell, C. L. (1997). Chuck vocalizations of wild female squirrel monkeys (*Saimiri sciureus*) contain information on caller identity and foraging activity. *Int. J. Primatol.*, **18**, 975-994.
- Boinski, S., Moraes, E., Kleiman, D. G., Dietz, J. M. & Baker, A. J. (1994). Intra-group vocal behaviour in wild golden lion tamarins, *Leontopithecus rosalia*: Honest communication of individual activity. *Behaviour*, **130**, 53-75.
- Brockelman, W. Y. & Srikosamatara, S. (1993). Estimation of density of gibbon groups by use of loud songs. *Am. J. Primatol.*, **29**, 93-108.
- Brosch, M., Schulz, A. & Scheich, H. (1999). Processing of sound sequences in macaque auditory cortex: response enhancement. *J. Neurophysiol.*, **82**, 1542-1559.
- Brown, C. H. & Cannito, M. P. (1995). Modes of vocal variation in Syke's monkey (*Cercopithecus albogularis*) squeals. *J. Comp. Psychol.*, **109**, 398-415.
- Brown, M. M., Kreiter, N. A., Maple, J. T. & Sinnott, J. M. (1992). Silhouettes elicit alarm calls from captive vervet monkeys *Cercopithecus aethiops*. *J. Comp. Psychol.*, **106**, 350-359.
- Brown, C. H., Sinnott, J. M. & Kressley, R. A. (1994). Perception of chirps by Syke's monkeys (*Cercopithecus albogularis*) and humans (*Homo sapiens*). *J. Comp. Psychol.*, **108**, 243-251.
- Brown, C. H. & Gomez, R. (1992). Functional design features in primate vocal signals: the acoustic habitat and sound distortion. In *Topics in Primatology. Vol. 1: Human origins* (T. Nishida, W. C. McGrew, P. Marler, M. Pickford & F. M. B. de Waal, eds.). University of Tokyo Press; Tokyo, pp. 177-198.
- Brown, C. H., Gomez, R. & Waser, P. M. (1995). Old World monkey vocalizations: adaptations to the local habitat? *Anim. Behav.*, **50**, 945-961.
- Burling, R. (1993). Primate calls, human language, and nonverbal communication. *Curr. Anthropol.*, **34**, 25-53.
- Caine, N. C., Addinton, R. L. & Windfelder, T. L. (1995). Factors affecting the rates of food calls given by red-bellied tamarins. *Anim. Behav.*, **50**, 53-60.
- Cantalupo, C. & Hopkins, W. D. (2001). Asymmetric Broca's area in great apes: A region of the ape brain is uncannily similar to one linked with speech in humans. *Nature*, **414**, 505.
- Castro, N. A. & Snowdon, C. T. (2000). Development of vocal responses in infant cotton-top tamarins. *Behaviour*, **137**, 629-646.
- Caywood, M. S., Blake, D. T., Houde, J. & Merzenich, M. M. (2001). Vocalization suppresses neurons in primary auditory cortex of monkey. *Soc. Neurosci. Abstr.*, **27**, 1345.
- Cheney, D. L., Seyfarth, R. M. & Silk, J. B. (1995). The role of grunts in reconciling opponents and facilitating interactions among adult female baboons. *Anim. Behav.*, **50**, 249-257.
- Cheney, D. L., Seyfarth, R. M. & Palombit, R. (1996). The function and mechanisms underlying baboon "contact" barks. *Anim. Behav.*, **52**, 507-518.
- Cheney, D. L. & Seyfarth, R. M. (1997). Reconciliatory grunts by dominant female baboons influence victims' behaviour. *Anim. Behav.*, **54**, 409-418.
- Cheney, D. L. & Seyfarth, R. M. (1996). Function and intention in the calls of nonhuman primates. *Proc. Br. Acad.*, **88**, 59-76.
- Cheney, D. L. & Seyfarth, R. M. (1999). Mechanisms underlying the vocalizations of nonhuman primates. In *The Design of Animal Communication* (M. D. Hauser and M. Konishi, eds.). MIT Press; Cambridge, Massachusetts, pp. 629-644.
- Cheung, S. W., Wong, A. & Blake, D. T. (2002). Spectral and temporal learning properties and their functional modality in marmoset vocal plasticity. *J. Invest. Med.*, **50**, 84A.
- Cheung, S. W., Bedenbaugh, P. H., Nagarajan, S. S. & Schreiner, C. E. (2001). Functional organization of squirrel monkey primary auditory cortex: Responses to pure tones. *J. Neurophysiol.*, **85**, 1732-1749.
- Clark, A. P. & Wrangham, R. W. (1994). Chimpanzee arrival pant hoots: Do they signify food or status? *Int. J. Primatol.*, **15**, 185-205.
- Clark, A. P. & Wrangham, R. W. (1993). Acoustic analysis of wild chimpanzee pant hoots: do Kibale Forest chimpanzees have an acoustically distinct food arrival pant hoot. *Am. J. Primatol.*, **31**, 99-109.
- Clark, A. P. (1993). Rank differences in the production of vocalizations by wild chimpanzees as a function of social context. *Am. J. Primatol.*, **31**, 159-179.
- Comuzzie, D. K. C. (1993). Baboon vocalizations as measures of psychological well-being. *Lab. Prim. Newslett.*, **32**, 5-6.
- Connor, K. N. O., Barruel, P., Hajalilou, R. & Sutter, M. (1999). Auditory temporal integration in the rhesus macaque (*Macaca mulatta*). *J. Acoust. Soc. Am.*, **106**, 954-965.
- Cornick, L. A. & Markowitz, H. (2002). Diurnal vocal patterns of the black howler monkey (*Alouatta pigra*) at Lamanai, Belize. *J. Mamm.*, **83**, 159-166.
- Cowlshaw, G. (1997). Alarm calling and implications for risk perception in a desert baboon population. *Ethology*, **103**, 384-394.
- Cowlshaw, G. & O'Connell, S. M. (1996). Male-male competition, paternity certainty and copulation calls in

- female baboons. *Anim. Behav.*, **51**, 235-238.
- Cowlshaw, G. (1996). Sexual selection and information content in gibbon song bouts. *Ethology*, **102**, 272-284.
- Dallmann, R. & Geissmann, T. (2000). Individuality in the female songs of wild silvery gibbons (*Hylobates moloch*) of Java, Indonesia. *Folia Primatol.*, **71**, 220.
- Dallmann, R. & Geissmann, T. (2001). Different levels of variability in the female song of wild silvery gibbons (*Hylobates moloch*). *Behaviour*, **138**, 629-648.
- Dallmann, R. & Geissmann, T. (2001). Individuality in the female songs of wild silvery gibbons (*Hylobates moloch*) on Java, Indonesia. *Contrib. Zool.*, **70**, 41-50.
- Deacon, T. W. (1992). The neural circuitry underlying primate calls and human language. In *Language Origin: A Multidisciplinary Approach* (J. Wind, B. Chiarelli, B. Bichakjian, A. Nocentini & A. Jonker, eds.). Kluwer; Dordrecht, pp. 121-162.
- deCharms, R. C., Blake, D. T. & Merzenich, M. M. (1998). Optimizing sound features for cortical neurons. *Science*, **280**, 1439-1443.
- Drubbel, R. V. & Gautier, J. P. (1993). On the occurrence of nocturnal and diurnal loud calls, differing in structure and duration, in red howlers (*Alouatta seniculus*) of French Guyana. *Folia Primatol.*, **60**, 195-209.
- Duesterhoeft, F., Haeusler, U. & Juergens, U. (2000). On the search for the vocal pattern generator. A single-unit recording study. *NeuroReport*, **11**, 2031-2034.
- Eliades, S. J. & Wang, X. (2000). Suppression of neural activities prior to and during vocalization suggests sensory-motor interactions in the primate auditory cortex. *Soc. Neurosci. Abstr.*, **26**.
- Elowson, A. M., Snowdon, C. T. & Lazaro-Perea, C. (1998). Infant "babbling" in a nonhuman primate: Complex vocal sequences with repeated call types. *Behaviour*, **135**, 643-664.
- Elowson, A. M. & Snowdon, C. T. (1994). Pygmy marmosets, *Cebuella pygmaea*, modify vocal structure in response to changed social environment. *Anim. Behav.*, **47**, 1267-1277.
- Elowson, A. M., Snowdon, C. T. & Lazaro-Perea, C. (1998). "Babbling" and social context in infant monkeys: Parallels to human infants. *Trends Cogn. Sci.*, **2**, 31-37.
- Erickson, C. J., Nowicki, S., Dollar, L. & Goehring, N. (1998). Percussive foraging: Stimuli for prey location aye-ayes (*Daubentonia madagascariensis*). *Int. J. Primatol.*, **19**, 111-122.
- Erickson, C. A., Chawla, M. K., Poremba, A., Worley, P. F., Guzowski, J. F. & Barnes, C. A. (2001). The effects of auditory experience on neural activity revealed by expression of the immediate-early gene Arc. *Soc. Neurosci. Abstr.*, **27**, 834.
- Fastl, H., Widmann, U. & Mueller-Preuss, P. (1991). Correlations between hearing and vocal activity in man and the squirrel monkey. *Acustica*, **73**, 35-36.
- Fastl, H., Hesse, A., Schorer, E., Urbas, J. & Mueller-Preuss, P. (1986). Searching for neural correlates of the hearing sensation fluctuation strength in the auditory cortex of squirrel monkeys. *Hear. Res.*, **23**, 199-203.
- Fernandez, C., Lysakowsky, A. & Goldberg, J. M. (1995). Hair-cell counts and afferent innervation patterns in the cristae ampullares of the squirrel monkey with a comparison to the chinchilla. *J. Neurophysiol.*, **73**, 1253-1269.
- Fichtel, C. & Kappeler, P. M. (2002). Anti-predator behavior of group-living Malagasy primates: Mixed evidence for a referential alarm call system. *Behav. Ecol. Sociobiol.*, **51**, 262-275.
- Fichtel, C. & Hammerschmidt, K. (2001). Information content of redfronted lemur (*Eulemur fulvus*) alarm calls. *Adv. Ethol.*, **36**, 16-17.
- Fichtel, C., Hammerschmidt, K. & Juergens, U. (2000). Aversion correlated changes in the vocalisation of squirrel monkeys (*Saimiri sciureus*). *Folia Primatol.*, **71**, 192.
- Fichtel, C., Hammerschmidt, K. & Juergens, U. (2001). On the vocal expression of emotion. A multi-parametric analysis of different states of aversion in the squirrel monkey. *Behaviour*, **138**, 97-116.
- Fischer, J., Hammerschmidt, K., Cheney, D. L. & Seyfarth, R. M. (2002). Acoustic features of male baboon loud calls: influences of context, age, and individuality. *J. Acoust. Soc. Am.*, **111**, 1465-1474.
- Fischer, J., Hammerschmidt, K., Cheney, D. L. & Seyfarth, R. M. (2001). Acoustic features of female chacma baboon barks. *Ethology*, **107**, 33-54.
- Fischer, J., Cheney, D. L. & Seyfarth, R. M. (2000). Development of infant baboons' responses to graded bark variants. *Proc. Roy. Soc. Lond. B.*, **267**, 2317-2321.
- Fischer, J. & Hammerschmidt, K. (2002). An overview of the barbary macaque, *Macaca sylvanus*, vocal repertoire. *Folia Primatol.*, **73**, 32-45.
- Fischer, J. & Hammerschmidt, K. (2001). Functional referents and acoustic similarity revisited: the case of barbary macaque alarm calls. *Anim. Cogn.*, **4**, 29-35.
- Fischer, J. (1996). Perception of sound categories bei barbary macaques (*Macaca sylvanus*). Ph.D. thesis. Freie Universität Berlin.
- Fischer, J. (1997). Geographic variation in alarm calls of barbary macaques. *Adv. Ethol.*, **32**, 115.

- Fischer, J., Metz, M., Cheney, D. L. & Seyfarth, R. M. (2001). Baboon responses to graded bark variants. *Anim. Behav.*, **61**, 925-931.
- Fischer, J. (1998). Barbary macaques categorize shrill barks into two call types. *Anim. Behav.*, **55**, 799-807.
- Fischer, J., Hammerschmidt, K. & Todt, D. (1995). Factors affecting acoustic variation in barbary-macaque (*Macaca sylvanus*) disturbance calls. *Ethology*, **101**, 51-66.
- Fischer, J., Hammerschmidt, K. & Todt, D. (1998). Local variation in Barbary macaque shrill barks. *Anim. Behav.*, **56**, 623-629.
- Fishman, Y. I., Reser, D. H., Arezzo, J. C. & Steinschneider, M. (2000). Complex tone processing in primary auditory cortex of the awake monkey. II. Pitch versus critical band representation. *J. Acoust. Soc. Am.*, **108**, 247-262.
- Fishman, Y. I., Reser, D. H., Arezzo, J. C. & Steinschneider, M. (2000). Complex tone processing in primary auditory cortex of the awake monkey. I. Neural ensemble correlates of roughness. *J. Acoust. Soc. Am.*, **108**, 235-246.
- Fitch, W. T. (2000). The phonetic potential of nonhuman vocal tracts: comparative cineradiographic observations of vocalizing animals. *Phonetica*, **57**, 205-218.
- Fitch, W. T. (1997). Vocal tract length and formant frequency dispersion correlate with body size in rhesus macaques. *J. Acoust. Soc. Am.*, **101**, 3136.
- Fitch, W. T. & Hauser, M. D. (1995). Vocal production in nonhuman primates: Acoustic, physiology, and functional constraints on honest advertisement. *Am. J. Primatol.*, **37**, 191-219.
- Fitch, W. T. (1997). Vocal tract length and formant frequency dispersion correlate with body size in rhesus macaques. *J. Acoust. Soc. Am.*, **102**, 1213-1222.
- Freudenstein, T., Hammerschmidt, K. & Juergens, U. (2000). Developmental changes in squirrel monkey vocalisations (*Saimiri sciureus*). *Folia Primatol.*, **71**, 224.
- Friedman, E. M., Boinski, S. & Coe, C. L. (1995). Interleukin-1 induces sleep-like behavior and alters call structure in juvenile rhesus monkeys. *Am. J. Primatol.*, **35**, 143-153.
- Gamba, M. & Giacoma, C. (2001). Evidence of relatedness among *Eulemur* species from acoustic comparisons. *Folia Primatol.*, **72**, 150-151.
- Gamba, M. & Giacoma, C. (2001). A methodological approach to the classification of vocalisations in red-bellied lemurs (*Eulemur rubriventer*). *Folia Primatol.*, **72**, 136.
- Gamba, M. & Giacoma, C. (2001). Comparison of the vocal repertoire of *Eulemur macaco* subspecies. *Folia Primatol.*, **72**, 135.
- Gamba, M. & Giacoma, C. (2001). Vocal communication in Lemuridae: New evidence in *Eulemur* and *Varecia*. *Adv. Ethol.*, **36**, 160.
- Gamba, M., Trincherro, C. & Giacoma, C. (2000). Development of vocalisations in *Varecia variegata variegata*. *Folia Primatol.*, **71**, 297.
- Gautier, J.-P. (1998). Acoustic communication in primates. *Bull. Soc. Zool. France*, **123**, 239-254 (French).
- Geiss, S. & Schrader, L. (1996). Temporal and structural features in infant calls in relation to caregiving behaviour in common marmosets, *Callithrix j. jacchus*. *Behav. Processes*, **38**, 183-191.
- Geissmann, T. & Orgeldinger, M. (1997). Pair bond and duet songs in siamangs (*Hylobates syndactylus*). *Adv. Ethol.*, **32**, 123.
- Geissmann, T. (2000). Gibbon songs and human music in an evolutionary perspective. In *The Origins of Music* (N. L. Wallin, B. Merker and S. Brown, eds.). MIT Press; Cambridge, Massachusetts.
- Geissmann, T. (1986). Mate change enhances duetting activity in the siamang gibbon (*Hylobates syndactylus*). *Behaviour*, **96**, 17-27.
- Geissmann, T. (2002). Duet-splitting and the evolution of gibbon songs. *Biol. Rev. Cambr. Philos. Soc.*, **77**, 57-76.
- Geissmann, T. & Nijman, V. (2000). Do male silvery gibbons have anything to say? *Folia Primatol.*, **71**, 225.
- Geissmann, T. (2000). Duet songs of the siamang, *Hylobates syndactylus*: I. Structure and organisation. *Primate Report*, **56**, 33-60.
- Geissmann, T. (1987). Songs of hybrid gibbons (*Hylobates pileatus x H. lar*). *Int. J. Primatol.*, **8**, 540.
- Geissmann, T. (1995). The yellow-cheeked gibbon (*Hylobates gabriellae*) in Nam Bai Cat Tien (Southern Vietnam) revisited. *Primates*, **36**, 447-455.
- Geissmann, T. (1999). Duet songs of the siamang, *Hylobates syndactylus*: II. Testing the pair-bonding hypothesis during a partner exchange. *Behaviour*, **136**, 1005-1039.
- Geissmann, T. (1993). *Evolution of communication in gibbons (Hylobatidae)*. Ph.D. thesis. Anthropological institute, Philosoph. Faculty II. Zürich University.
- Geissmann, T. (2000). Duet-splitting in the evolution of gibbon songs. *Folia Primatol.*, **71**, 194.
- Geissmann, T. & Orgeldinger, M. (2000). The relationship between duet songs and pair bonds in siamangs, *Hylobates syndactylus*. *Anim. Behav.*, **60**, 805-809.
- Gemba, H., Kyuhou, S., Matsuzaki, R. & Amino, Y. (1999). Cortical field potentials associated with audio-

- initiated vocalization in monkeys. *Neurosci. Lett.*, **272**, 45-48.
- Ghazanfar, A. A. & Hauser, M. D. (2000). Temporal cues, orienting asymmetries and brain lateralization in the perception of species-specific vocalizations by rhesus macaques: field studies. *Soc. Neurosci. Abstr.*, **26**.
- Ghazanfar, A. A., Smith-Rohrberg, D. & Hauser, M. D. (2001). The role of temporal cues in rhesus monkey vocal recognition: orienting asymmetries to reversed calls. *Brain Behav. Evol.*, **58**, 163-172.
- Ghazanfar, A. A., Flombaum, J. I., Miller, C. T. & Hauser, M. D. (2001). The units of perception in the antiphonal calling behavior of cotton-top tamarin monkeys (*Saguinus oedipus*): playback experiments with long calls. *J. Comp. Physiol. A.*, **187**, 27-35.
- Ghazanfar, A. A. & Hauser, M. D. (2001). The auditory behaviour of primates: a neuroethological perspective. *Curr. Opin. Neurobiol.*, **11**, 712-720.
- Ghazanfar, A. A. & Hauser, M. D. (1999). The neuroethology of primate vocal communication: substrates for the evolution of speech. *Trends Cogn. Sci.*, **3**, 377-384.
- Glenn, M. (2002). Loud calls in adult male mona monkeys on the island of Grenada, West Indies. *Am. J. Phys. Anthropol.*, Suppl., **34**, 76.
- Goedeking, P. & Immelmann, K. (1986). Vocal cues in cotton-top tamarin play vocalizations. *Ethology*, **73**, 219-224.
- Gouzoules, H., Gouzoules, S. & Miller, K. (1996). Skeptical responding in rhesus monkeys (*Macaca mulatta*). *Int. J. Primatol.*, **17**, 549-568.
- Gouzoules, H., Gouzoules, S. & Marler, P. (1986). Vocal communication: a vehicle for the study of social relationships. In *The Cayo Santiago macaques* (R. G. Rawlins & M. J. Kessler, eds.). State University of New York press; Albany, N. Y., pp. 111-129.
- Gouzoules, H. & Gouzoules, S. (1995). Recruitment screams of pigtail monkeys (*Macaca nemestrina*): ontogenetic perspectives. *Behaviour*, **132**, 431-450.
- Gouzoules, H. & Gouzoules, S. (1990). Body size effects on the acoustic structure of pigtail macaque (*Macaca nemestrina*) screams. *Ethology*, **85**, 324-334.
- Gouzoules, H., Gouzoules, S. & Ashley, J. (1995). Representational signaling in nonhuman primate vocal communication. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum; New York, pp. 235-252.
- Gouzoules, H., Gouzoules, S. & Tomaszycki, M. (1998). Agonistic screams and the classification of dominance relationships: are monkeys fuzzy logicians? *Anim. Behav.*, **55**, 51-60.
- Gouzoules, H. & Gouzoules, S. (2000). Agonistic screams differ among four species of macaques: the significance of motivation-structural rules. *Anim. Behav.*, **59**, 501-512.
- Grohrock, P., Haeusler, U. & Juergens, U. (1997). Dual-channel telemetry system for recording vocalization-correlated neuronal activity in freely moving squirrel monkeys. *J. Neurosci. Methods*, **76**, 7-13.
- Grunewald, A., Linden, J. F. & Andersen, R. A. (1999). Responses to auditory stimuli in macaque lateral intraparietal area. I. Effects of training. *J. Neurophysiol.*, **82**, 330-342.
- Gust, D. A., St Andre, E., Minter, C., Gordon, T. & Gouzoules, H. (1990). Female copulatory vocalisations in a captive group of sooty mangabeys (*Cercocebus torquatus atys*). *Am. J. Primatol.*, **20**, 196.
- Hacket, T. A., Stepniewska, I. & Kaas, J. H. (1999). Prefrontal connections of the parabelt auditory cortex in macaque monkeys. *Brain Res.*, **817**, 45-58.
- Haeusler, U. (2000). Vocalization-correlated respiratory movements in the squirrel monkey. *J. Acoust. Soc. Am.*, **108**, 1443-1450.
- Haeusler, U. (1996). Respiratory movements during vocalization in the squirrel monkey. *Exp. Biol. Online*, **1**, 9.
- Hafen, T., Neveu, H., Rumpler, Y., Wilden, I. & Zimmermann, E. (1998). Acoustically dimorphic advertisement calls separate morphologically and genetically homogenous populations of the grey mouse lemur. *Folia Primatol.*, **69**, 342-356.
- Halloy, M. & Kleiman, D. G. (1994). Acoustic structure of long calls in free-ranging groups of golden lion tamarins, *Leontopithecus rosalia*. *Am. J. Primatol.*, **32**, 303-310.
- Hammerschmidt, K. & Fischer, J. (1998). The vocal repertoire of barbary macaques: A quantitative analysis of a graded signal system. *Ethology*, **104**, 203-216.
- Hammerschmidt, K. & Fischer, J. (1998). Maternal discrimination of offspring vocalizations in barbary macaques (*Macaca sylvanus*). *Primates*, **39**, 231-236.
- Hammerschmidt, K., Newman, J. D., Champoux, M. & Suomi, S. J. (2000). Changes in rhesus macaque 'coo' vocalizations during early development. *Ethology*, **106**, 873-886.
- Hammerschmidt, K. & Juergens, U. (2000). Amplitude correlated changes in the vocalisation of squirrel monkeys (*Saimiri sciureus*). *Folia Primatol.*, **71**, 195-196.
- Hammerschmidt, K. & Fichtel, C. (2001). 'Call pitch' as an indicator of the intensity of affective states. *Adv. Ethol.*, **36**, 16.
- Hammerschmidt, K. (1990). *Individual sound patterns in barbary macaques (Macaca sylvanus): A contribution*

- to the understanding of their vocal communication. Ph.D. Dissertation, Freie Universität; Berlin. (German).
- Hammerschmidt, K. & Newman, J. (1996). A quantitative analysis of vocal development in captive Rhesus macaques. *Abstr. XVIIth Congr. of the IPS, Madison*, p. 411.
- Hammerschmidt, K., Newman, J. D., Champoux M. & Suomi, S. J. (1997). An analysis of developmental changes in Rhesus macaque coo vocalisations. *Adv. Ethol.*, **32**, 100.
- Hammerschmidt, K. & Todt, D. (1995). Individual differences in vocalisations of young barbary macaques (*Macaca sylvanus*): a multi-parametric analysis to identify critical cues in acoustic signalling. *Behaviour*, **132**, 381-399.
- Hammerschmidt, K., Ansorge, V., Fischer, J. & Todt, D. (1994). Dusk calling in barbary macaques (*Macaca sylvanus*): Demand for social shelter. *Am. J. Primatol.*, **18**, 324-335.
- Hammerschmidt, K., Ansorge, V., Fischer, J. & Todt, D. (1994). Age-related variations in the vocal repertoire of barbary macaques. In *Current Primatology, Vol. 2* (J. J. Roeder, B. Thierry, J. R. Anderson & N. Herrenschmidt, eds.), pp. 287-296.
- Haraway, M. M. & Maples, E. G. (1998). Flexibility in the species-typical songs of gibbons. *Primates*, **39**, 1-12.
- Harcourt, A. H. & Stewart, K. J. (1996). Function and meaning of wild gorilla "close" calls. 2. Correlations with rank and relatedness. *Behaviour*, **133**, 827-845.
- Harcourt, A. H., Stewart, K. J. & Hauser, M. (1993). Functions of wild gorilla close calls. I. Repertoire context and interspecific comparison. *Behaviour*, **124**, 89-122.
- Harrington, I. A., Heffner, R. S. & Heffner, H. E. (2001). An investigation of sensory deficits underlying the aphasia-like behavior of macaques with auditory cortex lesions. *NeuroReport*, **12**, 1217-1221.
- Hashiwaka, T., Molinari, M., Rausell, E. & Jones, E. G. (1995). Patchy laminar terminations of medial geniculate axons in monkey auditory cortex. *J. Comp. Neurol.*, **362**, 195-208.
- Hauser, M. D. (1989). Ontogenetic changes in the comprehension and production of vervet monkey (*Cercopithecus aethiops*) vocalizations. *J. Comp. Psychol.*, **103**, 149-158.
- Hauser, M. D. & Wrangham, R. W. (1990). Recognition of predator and competitor calls in nonhuman primates and birds: a preliminary report. *Ethology*, **86**, 116-130.
- Hauser, M. D. (1999). The evolution of a lopsided brain: asymmetries underlying facial and vocal expressions in nonhuman primates. In *The Design of Animal Communication* (M. D. Hauser & M. Konishi, eds.). MIT Press; Cambridge, Massachusetts, pp. 597-628.
- Hauser, M. D. & Akre, K. (2001). Asymmetries in the timing of facial and vocal expressions by rhesus monkeys: implications for hemispheric specialization. *Anim. Behav.*, **61**, 391-400.
- Hauser, M. D. & Schoen Ybarra, M. (1994). The role of lip configuration in monkey vocalizations: experiments using xylocaine as a nerve block. *Brain and Language*, **46**, 232-244.
- Hauser, M. D. (1996). Vocal communication in macaques: causes of variation. In *Evolution and Ecology of Macaque Societies* (J. E. Fa and D. G. Lindburg, eds.). Cambridge University Press; Cambridge, pp. 551-577.
- Hauser, M. D. (1998). Functional referents and acoustic similarity: field playback experiments with rhesus monkeys. *Anim. Behav.*, **55**, 1647-1658.
- Hauser, M. D. & Andersson, K. (1994). Left hemisphere dominance for processing vocalizations in adult, but not infant rhesus monkeys: field experiments. *Proc. Natl. Acad. Sci. USA*, **91**, 3946-3948.
- Hauser, M. D. & Fowler, C. (1991). Declination in fundamental frequency is not unique to human speech: Evidence from nonhuman primates. *J. Acoust. Soc. Am.*, **91**, 363-369.
- Hauser, M. D., Agnetta, B. & Perez, C. (1998). Orienting asymmetries in rhesus monkeys: the effect of time-domain changes on acoustic perception. *Anim. Behav.*, **56**, 41-47.
- Hauser, M. D., Teixidor, P., Fields, L. & Flaherty, R. (1993). Food elicited calls in chimpanzees: effects of food quantity and divisibility. *Anim. Behav.*, **45**, 817-819.
- Hauser, M. D., Evans, C. S. & Marler, P. (1993). The role of articulation in the production of rhesus monkey *Macaca mulatta* vocalizations. *Anim. Behav.*, **45**, 423-433.
- Hauser, M. D. (2000). A primate dictionary? Decoding the function and meaning of another species' vocalizations. *Cogn. Sci.*, **24**, 445-475.
- Hauser, M. D. (1993). The evolution of nonhuman primate vocalizations: effects of phylogeny, body weight, and social context. *Am. Natur.*, **142**, 528-542.
- Hauser, M. D. (1993). Do vervet monkey infants cry wolf? *Anim. Behav.*, **45**, 1242-1244.
- Hauser, M. D. & Marler, P. (1993). Food associated calls in rhesus macaques *Macaca mulatta*. II. Costs and benefits of call production and suppression. *Behav. Ecol.*, **4**, 206-212.
- Hauser, M. D. & Marler, P. (1993). Food associated calls in rhesus macaques *Macaca mulatta*. I. Socioecological factors. *Behav. Ecol.*, **4**, 194-205.
- Hauser, M. D. (1993). Rhesus monkey (*Macaca mulatta*) copulation calls: honest signals for female choice? *Proc. Roy. Soc. Lond., Ser. B., Biol. Sci.*, **254**, 93-96.

- Henzi, S. P. (1996). Copulation calls and paternity in chacma baboons. *Anim. Behav.*, **51**, 233-234.
- Hook-Castigan, M. & Rogers, L. J. (1998). Lateralized use of the mouth in production of vocalizations by marmosets. *Neuropsychologia*, **36**, 1265-1273.
- Hostetter, A. B., Cantero, M. & Hopkins, W. D. (2001). Differential use of vocal and gestural communication by chimpanzees (*Pan troglodytes*) in response to the attentional status of a human (*Homo sapiens*). *J. Comp. Psychol.*, **115**, 337-343.
- Hultsch, H. (1992). Scientific documentation of acoustic signals in frequency spectrograms: how should sonograms be read? In *Lemurs in the zoo: current research results, species protection, prospects* (V. Ceska, H.-U. Hoffmann & K.-H. Winkelstraeter, eds). Verlag Paul Parey; Berlin, pp. 78-80 (German).
- Izumi, A. (2002). Auditory stream segregation in Japanese monkeys. *Cognition*, **82**, B113-B122.
- Jackson, L. L., Heffner, R. S. & Heffner, H. E. (1999). Free-field audiogram of the Japanese macaque (*Macaca fuscata*). *J. Acoust. Soc. Am.*, **106**, 3017-3023.
- Johns, A. J. (1986). Behavioural responses of two Malaysian primates (*Hylobates lar* and *Presbytis melalophos*) to selective logging: vocal behaviour, territoriality, and nonemigration. *Int. J. Primatol.*, **6**, 423-433.
- Jones, B. S., Harris, D. H. R. & Catchpole, C. K. (1993). The stability of the vocal signature in phee calls of the common marmoset *Callithrix jacchus*. *Am. J. Primatol.*, **31**, 67-75.
- Jones, E. G., Dell'Anna, M. E., Molinari, M., Rausell, E. & Hashikawa, T. (1995). Subdivisions of macaque monkey auditory cortex revealed by calcium-binding protein immunoreactivity. *J. Comp. Neurol.*, **362**, 153-165.
- Jorgensen, D. D. & French, J. A. (1998). Individuality but not stability in marmoset long calls. *Ethology*, **104**, 709-742.
- Jovanovic, T. & Gouzoules, H. (2001). Effects of nonmaternal restraint on the vocalizations of infant rhesus monkeys (*Macaca mulatta*). *Am. J. Primatol.*, **53**, 33-45.
- Jovanovic, T. & Gouzoules, H. (1997). Vocalisations of kidnapped rhesus infants elicit differential responses from their mothers. *Adv. Ethol.*, **32**, 124.
- Jovanovic, T., Megna, N. L. & Maestriperi, D. (2000). Early maternal recognition of offspring vocalizations in rhesus macaques (*Macaca mulatta*). *Primates*, **41**, 421-428.
- Jovanovic, T., Davis, J. E., Stoinski, T., Mayo, L. & Muller, C. (2001). Individual and contextual differences in orangutan (*Pongo pygmaeus*) vocalisation. *Adv. Ethol.*, **36**, 186-187.
- Juergens, U. (2001). Neurobiology of primate vocal communications. *Adv. Ethol.*, **36**, 17.
- Juergens, U. (1998). Neuronal control of mammalian vocalization, with special reference to the squirrel monkey. *Naturwissenschaften*, **85**, 376-388.
- Juergens, U. (2002). Neural pathways underlying vocal control. *Neurosci. Biobehav. Rev.*, **26**, 235-258.
- Juergens, U. (1995). Neuronal control of vocal production in nonhuman and human primates. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York.
- Juergens, U. & Lu, C. (1993). Interactions between glutamate, GABA, acetylcholine and histamine in the periaqueductal gray's control of vocalizations in the squirrel monkey. *Neurosci. Lett.*, **152**, 5-8.
- Juergens, U. & Zwirner, P. (2000). Individual hemispheric asymmetry in vocal fold control of the squirrel monkey. *Behav. Brain Res.*, **109**, 213-217.
- Juergens, U. & Lu, C.-L. (1993). The effects of periaqueductally injected transmitter antagonists on forebrain-elicited vocalization in the squirrel monkey. *Eur. J. Neurosci.*, **5**, 735-741.
- Juergens, U. (1992). On the neurobiology of vocal communication. In *Nonverbal Vocal Communication* (H. Papousek, U. Juergens & M. Papousek, eds.). Cambridge University Press; Cambridge, pp. 31-42.
- Juergens, U. (2000). Localization of a pontine vocalization controlling area. *J. Acoust. Soc. Am.*, **108**, 1393-1396.
- Kajikawa, S. & Hasegawa, T. (2000). Acoustic variation of pant hoot calls by male chimpanzees: a playback experiment. *J. Ethol.*, **18**, 133-139.
- Kamada, T. & Kameda, K. (1992). Neural responses in the auditory cortex of Japanese monkey to the combination of two pure tones. *Jpn. J. Physiol.*, **42** (Suppl.), 195.
- Karpanty, S. M. & Grella, R. (2001). Lemur responses to diurnal raptor calls in Ranomafana National Park, Madagascar. *Folia Primatol.*, **72**, 100-103.
- Kipper, S. & Todt, D. (2002). The use of vocal signals in the social play of barbary macaques. *Primates; J. Primatol.*, **43**, 3-17.
- Kirzinger, A. & Juergens, U. (1991). Vocalization-correlated single-unit activity in the brainstem of squirrel monkeys. *Exp. Brain Res.*, **84**, 545-560.
- Kohler, E., Umiltà, M. A., Keysers, C., Gallese, V., Fogassi, L. & Rizzolatti, G. (2001). Auditory mirror neurons in the ventral premotor cortex of the monkey. *Soc. Neurosci. Abstr.*, **27**, 336.
- Kojima, S. (2001). Early vocal development in a chimpanzee infant. *Prim. Orig. Human Cogn. Behav.*, **2001**, 190-196.

- Krunkelsven, E. van, Dupain, J., van Elsacker, L. & Verheyen, R. F. (1996). Food calling by captive bonobos (*Pan paniscus*): An experiment. *Int. J. Primatol.*, **17**, 207-217.
- Kureta, Y. (1997). Vocal exchange of cotton-top tamarins in an isolated situation. *Adv. Ethol.*, **32**, 125.
- Kaas, J. H., Hackett, T. A. & Tramo, M. J. (1999). Auditory processing in primate cerebral cortex. [Erratum: p. 500]. *Curr. Opin. Neurobiol.*, **9**, 164-170.
- Lan, D.-Y. (1993). Feeding and vocal behaviours of black gibbons *Hylobates concolor* in Yunnan: a preliminary study. *Folia Primatol.*, **60**, 94-105.
- Lasky, R. E., Snodgrass, E. B., Laughlin, N. K. & Hecox, K. E. (1995). Distortion product otoacoustic emissions in *Macaca mulatta* and humans. *Hear. Res.*, **89**, 35-51.
- Lasky, R. E., Maier, M. M., Snodgrass, E. B., Laughlin, N. K. & Hecox, K. E. (1995). Auditory evoked brainstem and middle latency responses in *Macaca mulatta* and humans. *Hear. Res.*, **89**, 212-225.
- Laughlin, N. K., Hartup, B. K., Lasky, R. E., Meier, M. M. & Hecox, K. E. (1999). The development of auditory event related potentials in the rhesus monkey (*Macaca mulatta*). *Dev. Psychobiol.*, **34**, 37-56.
- Laughlin, N. K., Hartup, B. K., Lasky, R. E., Meier, M. M. & Hecox, K. E. (1999). The development of auditory event related potentials in the rhesus monkey (*Macaca mulatta*). *Dev. Psychobiol.*, **34**, 37-56.
- Le Prell, C. G., Hauser, M. D. & Moody, D. B. (2002). Discrete and graded variation within rhesus monkey screams? Psychophysical experiments on classification. *Anim. Behav.*, **63**, 47-62.
- Le Prell, C. G. & Moody, D. B. (2000). Factors influencing the salience of temporal cues in the discrimination of synthetic Japanese monkey (*Macaca fuscata*) coo calls. *J. Exp. Psychol. Anim. Behav. Process.*, **26**, 261-273.
- Le Prell, C. G. & Moody, D. B. (1997). Perceptual salience of acoustic features of Japanese monkey coo calls. *J. Comp. Psychol.*, **111**, 261-274.
- Leinonen, L., Linnankoski, I. & Laakso, M.-L. (2000). Shared features in emotional vocalization of *Macaca arctoides* and man. *Acta Physiol. Scand.*, **170**, A112-A113.
- Liang, L., Lu, T. & Wang, X. (1999). Temporal encoding of amplitude modulated sounds with noise carrier in the lateral belt areas of the auditory cortex in awake marmoset monkeys. *Soc. Neurosci. Abstr.*, **25**, 396.
- Linden, J. F., Grunewald, A. & Andersen, R. A. (1999). Responses to auditory stimuli in macaque lateral intraparietal area. II. Behavioral modulation. *J. Neurophysiol.*, **82**, 343-358.
- Locke, J. L. & Snow, C. (1997). Social influences on vocal learning in human and nonhuman primates. In *Social Influences on Vocal Development* (C. T. Snowdon and M. Hausberger, eds.). Cambridge University Press; Cambridge, pp. 274-292.
- Locke, J. L. & Hauser, M. D. (1999). Sex and status effects on primate volubility: Clues to the origin of vocal languages? *Evol. Human Behav.*, **20**, 151-158.
- Lu, C. L. & Juergens, U. (1993). Effects of chemical stimulation in the periaqueductal gray on vocalization in the squirrel monkey. *Brain Res. Bull.*, **32**, 143-151.
- Luethe, L., Haeusler, U. & Juergens, U. (2000). Neuronal activity in the medulla oblongata during vocalization. A single-unit recording study in the squirrel monkey. *Behav. Brain Res.*, **116**, 197-210.
- Macedonia, J. M. (1994). The vocal repertoire of the ringtailed lemur (*Lemur catta*). *Folia Primatol.*, **61**, 186-217.
- Macedonia, J. M. (1990). What is communicated in the antipredator calls of lemurs: Evidence from antipredator call playbacks to ring-tailed and ruffed lemurs. *Ethology*, **86**, 177-190.
- Macedonia, J. M. (1993). The vocal repertoire of the ringtailed lemur (*Lemur catta*). *Folia Primatol.*, **61**, 186-217.
- Macedonia, J. M. & Evans, C. S. (1993). Variation among mammalian alarm call systems and the problem of meaning in animal signals. *Ethology*, **93**, 177-197.
- Macedonia, J. M. & Stanger, K. F. (1994). Phylogeny of the Lemuridae revisited: evidence from communication signals. *Folia Primatol.*, **63**, 1-43.
- Maeda, T. & Masataka, N. (1987). Locale-specific vocal behaviour of the tamarin (*Saguinus l. labiatus*). *Ethology*, **75**, 25-30.
- Manser, M. B., Seyfarth, R. M. & Cheney, D. L. (2002). Suricate alarm calls signal predator class and urgency. *Trends Cogn. Sci.*, **6**, 55-57.
- Manser, M. B., Bell, M. B. & Fletcher, L. B. (2001). The information that receivers extract from alarm calls in suricates. *Proc. Roy. Soc. Lond. B.*, **268**, 2485-2491.
- Marshall, A. J., Wrangham, R. W. & Arcadi, A. C. (1999). Does learning affect the structure of vocalizations in chimpanzees? *Anim. Behav.*, **58**, 825-830.
- Martin-Malivel, J. & Fagot, J. (2001). Cross-modal integration and conceptual categorization in baboons. *Behav. Brain Res.*, **122**, 209-213.
- Masataka, N. & Thierry, B. (1993). Vocal communication of Tonkean macaques in confined environments. *Primates*, **34**, 169-180.



- Masataka, N. (1987). The perception of sex-specificity in long calls of the tamarin (*Saguinus labiatus labiatus*). *Ethology*, **76**, 56-64.
- Masataka, N. (1989). Motivational referents of contact calls in Japanese macaques. *Ethology*, **80**, 265-273.
- Mascagni, O. & Doyle, G. A. (1993). Infant distress vocalizations in the Southern African lesser bushbaby *Galago moholi*. *Int. J. Primatol.*, **14**, 41-60.
- McCowan, B. & Reiss, D. (1997). Vocal learning in captive bottlenose dolphins: A comparison with humans and nonhuman animals. In *Social Influence on Vocal Development* (C. T. Snowdon and M. Hausberger, eds.). Cambridge University Press; Cambridge, pp. 178-207.
- McCowan, B., Franceschini, N. V. & Vicino, G. A. (2001). Age differences and developmental trends in alarm peep responses by squirrel monkeys (*Saimiri sciureus*). *Am. J. Primatol.*, **53**, 19-31.
- Mendez-Cardenas, M. G. (2000). Vocal variation in howler monkey (genus *Alouatta*) on allopatric and sympatric populations and its use for phylogenetic analysis. *Am. J. Primatol.*, **51**, Suppl. 1, 72-73.
- Merker, B. & Cox, C. (1999). Development of the female great call in *Hylobates gabriellae*: A case study. *Folia Primatol.*, **70**, 97-106.
- Miller, C. T., Dibble, E. & Hauser, M. D. (2001). Amodal completion of acoustic signals by a nonhuman primate. *Nature Neurosci.*, **4**, 783-784.
- Mitani, J. C. (1996). Comparative studies of African ape vocal behaviour. In *Great Ape Societies* (W. C. McGrew, L. F. Marchant and T. Nishida, eds.). Cambridge University Press; Cambridge, pp. 241-254.
- Mitani, J. C., Hunley, K. L. & Murdoch, M. E. (1999). Geographic variation in the calls of wild chimpanzees: A reassessment. *Am. J. Primatol.*, **47**, 133-152.
- Mitani, J. C., Gros-Louis, J. & Macedonia, J. M. (1996). Selection for acoustic individuality within the vocal repertoire of wild chimpanzees. *Int. J. Primatol.*, **17**, 569-583.
- Mitani, J. C. & Stuht, J. (1998). The evolution of nonhuman primate loud calls: Acoustic adaptation for long-distance transmission. *Primates*, **39**, 171-182.
- Mitani, J. C. & Nishida, T. (1993). Contexts and social correlates of long-distance calling by male chimpanzees. *Anim. Behav.*, **45**, 735-746.
- Mitani, J. C. & Gros-Louis, J. (1998). Chorusing and call convergence in chimpanzees: Tests of three hypotheses. *Behaviour*, **135**, 1041-1064.
- Mitani, J. C. & Brandt, K. L. (1994). Social factors influence the acoustic variability in the long-distance calls of male chimpanzees. *Ethology*, **96**, 233-252.
- Mitani, J. C. (1988). Male gibbon (*Hylobates agilis*) singing behaviour: natural history, song variations and function. *Ethology*, **79**, 177-194.
- Molinari, M., Dell'Anna, M. E., Rausell, E., Leggio, M. G., Hashikawa, T. & Jones, E. G. (1995). Auditory thalamocortical pathways defined in monkeys by calcium-binding protein immunoreactivity. *J. Comp. Neurol.*, **362**, 171-194.
- Moody, D. B., Stebbins, W. C. & May, B. J. (1990). Auditory perception of communication signals by Japanese monkeys. In *Comparative perception: Complex Signals. Vol. II* (W. C. Stebbins & M. A. Berkley, eds.). Wiley & Sons; New York, pp. 311-343.
- Moody, D. B., Le Prell, C. G. & Niemiec, A. J. (1998). Monaural phase discrimination by macaque monkeys: Use of multiple cues. *J. Acoust. Soc. Am.*, **103**, 2618-2623.
- Morel, A., Garraghty, P. E. & Kaas, J. H. (1993). Tonotopic organization, architectonic fields, and connections of auditory cortex in macaque monkeys. *J. Comp. Neurol.*, **335**, 437-459.
- Morel, A. & Kaas, H. (1992). Subdivisions and connections of auditory cortex in owl monkeys. *J. Comp. Neurol.*, **318**, 27-63.
- Mueller-Preuss, P., Bieser, A., Preuss, A. & Fastl, H. (1988). Neural processing of AM-sounds within central parts of the auditory pathway. In *Auditory Pathway: Structure and Function* (J. Syka & B. Masterton, eds.). Plenum; New York, pp. 327-331.
- Mueller-Preuss, P., Flachskamm, C. & Bieser, A. (1994). Neural encoding of amplitude modulation within the auditory midbrain of squirrel monkeys. *Hear. Res.*, **80**, 197-208.
- Muroyama, Y. & Thierry, B. (1998). Species differences of male loud calls and their perception in Sulawesi macaques. *Primates*, **39**, 115-126.
- Muroyama, Y. & Thierry, B. (1997). Species differences of male loud calls and their perception in Sulawesi macaques. *Adv. Ethol.*, **32**, 118.
- Nagarajan, S., Cheung, S. W., Bedenbaugh, P., Beitel, R. E., Schreiner, C. E. & Merzenich, M. M. (2002). Representation of spectral and temporal envelope of twitter vocalizations in common marmoset primary auditory cortex. *J. Neurophysiol.*, **87**, 1723-1737.
- Nakagawa, N. (1998). Indiscriminate response to infant calls in wild Patas monkeys. *Folia Primatol.*, **69**, 93-99.
- Newman, J. D. (1997). Evolution of the primate isolation call. *Adv. Ethol.*, **32**, 128.
- Newman, J. D. & Bachevalier, J. (1997). Neonatal ablations of the amygdala and inferior temporal cortex alter the vocal response to social separation in rhesus macaques. *Brain Res.*, **758**, 180-186.

- Newman, J. D. & Goedekeing, P. (1992). Noncategorical vocal communication in primates: The example of common marmoset phee calls. In *Nonverbal Vocal Communication* (H. Papousek, U. Juergens & M. Papousek, eds.). Cambridge University Press; Cambridge, pp. 87-101.
- Newman, J. D. (1995). Vocal ontogeny in macaques and marmosets: convergent and divergent lines of development. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York, pp. 73-97.
- Nietsch, A. & Kopp, M.-L. (1998). Role of vocalization in species differentiation of Sulawesi tarsiers. *Folia Primatol.*, **69**, 371-378.
- Nietsch, A. (1999). Duet vocalizations among different populations of Sulawesi tarsiers. *Int. J. Primatol.*, **20**, 567-584.
- Norcross, J. L. & Newman, J. D. (1993). Context and gender specific differences in the acoustic structure of common marmoset *Callithrix jacchus* phee calls. *Am. J. Primatol.*, **30**, 37-54.
- Norcross, J. L. & Newman, J. D. (1999). Effects of separation and novelty on distress vocalizations and cortisol in the common marmoset (*Callithrix jacchus*). *Am. J. Primatol.*, **47**, 209-222.
- Norcross, J. L. & Newman, J. D. (1997). Social context affects phee call production by nonreproductive common marmosets (*Callithrix jacchus*). *Am. J. Primatol.*, **43**, 135-146.
- Norcross, J. L., Newman, J. D. & Cofrancesco, L. M. (1999). Context and sex differences exist in the acoustic structure of phee calls by newly-paired common marmosets (*Callithrix jacchus*). *Am. J. Primatol.*, **48**, 165-181.
- Norcross, J. L., Newman, J. D. & Fitch, W. (1994). Responses to natural and synthetic phee calls by common marmosets (*Callithrix jacchus*). *Am. J. Primatol.*, **33**, 15-29.
- Nunn, C. L. (2000). Maternal recognition of infant calls in ring-tailed lemurs. *Folia Primatol.*, **71**, 142-146.
- O'Connell, S. M. & Cowlishaw, G. (1994). Infanticide avoidance, sperm competition and mate choice: the function of copulation calls in female baboons. *Anim. Behav.*, **48**, 687-694.
- O'Connor, K. N., Barruel, P. & Sutter, M. L. (2000). Global processing of spectrally complex sounds in macaques (*Macaca mullata*) and humans. *J. Comp. Physiol. A.*, **186**, 903-912.
- Oda, R. (1996). Effects of contextual and social variables on contact call production in free-ranging ringtailed lemurs (*Lemur catta*). *Int. J. Primatol.*, **17**, 191-205.
- Oda, R. & Masataka, N. (1996). Interspecific responses of ringtailed lemurs to playback of antipredator alarm calls given by Verreaux's sifakas. *Ethology*, **102**, 441-453.
- Oda, R. (1999). Scent marking and contact call production in ring-tailed lemurs (*Lemur catta*). *Folia Primatol.*, **70**, 21-64.
- Oda, R. (1998). The responses of Verreaux's sifakas to anti-predator alarm calls given by sympatric ring-tailed lemurs. *Folia Primatol.*, **69**, 357-360.
- Oda, R. & Masataka, N. (1995). Function of copulatory vocalizations in mate choice by females of Japanese macaques (*Macaca fuscata*). *Folia Primatol.*, **64**, 132-139.
- Okamoto, K. & Matsumura, S. (1998). A preliminary study on the variables correlated with the emission of loud calls in wild moor macaques. *Folia Primatol.*, **69**, 277-283.
- Olsen, J. F. & Rauschecker, J. P. (1992). Medial geniculate neurons in the squirrel monkey sensitive to combinations of components in a species-specific vocalization. *Soc. Neurosci. Abstr.*, **18**, 882.
- Olupot, W., Waser, P. M. & Chapman, C. A. (1998). Fruit finding by mangabeys (*Lophocebus albigena*): Are monitoring of fig trees and use of sympatric frugivore calls possible strategies? *Int. J. Primatol.*, **19**, 339-353.
- Owren, M. J., Dieter, M. J., Seyfarth, R. M. & Cheney, D. L. (1993). Vocalizations of rhesus (*Macaca mulatta*) and Japanese (*M. fuscata*) macaques cross-fostered between species show evidence of only limited modification. *Dev. Psychobiol.*, **26**, 389-406.
- Owren, M. J., Seyfarth, R. M. & Cheney, D. L. (1997). The acoustic features of vowel-like grunt calls in chacma baboons (*Papio cynocephalus ursinus*): implications for production processes and functions. *J. Acoust. Soc. Am.*, **101**, 2951-2963.
- Owren, M. J. & Linker, C. D. (1995). Some analysis methods that may be useful to acoustic primatologists. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York, London.
- Owren, M. J., Dieter, J. A., Seyfarth, R. M. & Cheney, D. L. (1992). Evidence of limited modification in the vocalizations of cross-fostered rhesus (*Macaca mulatta*) and Japanese (*Macaca fuscata*) macaques. In *Topics in Primatology, Vol. 1: Human Origins* (T. Nishida, W. C. McGrew, P. Marler, M. Pickford and F. B. M. DeWaal, eds.). University of Tokyo Press; Tokyo, pp. 257-270.
- Owren, M. J. & Rendall, D. (1997). An affect-conditioning model of nonhuman primate vocal signalling. In *Perspectives in Ethology, Vol. 12* (D. H. Owings, M. D. Beecher and N. S. Thompson, eds.). Plenum; New York, pp. 299-346.
- Owren, M. J., Hopp, S. L., Sinnott, J. M. & Petersen, M. R. (1988). Absolute auditory threshold in three old

- world monkey species (*Cercopithecus aethiops*, *C. neglectus*, *Macaca fuscata*) and humans (*Homo sapiens*). *J. Comp. Psychol.*, **102**, 99-107.
- Owren, M. J. & Rendall, D. (2001). Sound on the rebound: Bringing form and function back to the forefront in understanding nonhuman primate vocal signaling. *Evolutionary Anthropology: Issues, News, and Reviews*, **10**, 58-71.
- Owren, M. J. (1990). Acoustic classification of alarm calls by vervet monkeys (*Cercopithecus aethiops*) and humans (*Homo sapiens*). II. Synthetic calls. *J. Comp. Psychol.*, **104**, 29-40.
- Owren, M. J. (1990). Acoustic classification of alarm calls by vervet monkeys (*Cercopithecus aethiops*) and humans (*Homo sapiens*). I. Natural calls. *J. Comp. Psychol.*, **104**, 20-28.
- Owren, M. J., Seyfarth, R. M. & Hopps, S. L. (1992). Categorical vocal signaling in nonhuman primates. In *Nonverbal Communication: Comparative and Developmental Approaches* (H. Papousek, U. Juergens & M. Papousek, eds.). Cambridge University Press; Cambridge, pp. 102-112.
- Palombit, R. A., Cheney, D. L. & Seyfarth, R. M. (1999). Male grunts as mediators of social interaction with females in wild chacma baboons (*Papio cynocephalus ursinus*). *Behaviour*, **136**, 221-242.
- Partan, S. & Marler, P. (1999). Communication goes multimodal. *Science*, **283**, 1272-1273.
- Pelleg-Toiba, R. & Wollberg, Z. (1991). Discrimination of communication calls in the squirrel monkey: call detectors or cell ensembles? *J. Basic Clin. Physiol. Pharmacol.*, **2**, 257-272.
- Pepperberg, I. M. (1997). Social influences on the acquisition of human-based codes in parrots and nonhuman primates. In *Social Influences on Vocal Development* (C. T. Snowdon and M. Hausberger, eds.). Cambridge University Press; Cambridge, pp. 157-177.
- Pereira, M. E. & Macedonia, J. M. (1990). Ringtailed lemur antipredator calls denote predators not response urgency. *Anim. Behav.*, **41**, 543-544.
- Peters, H. H. (2001). Tool use to modify calls by wild orang-utans. *Folia Primatol.*, **72**, 242-244.
- Poremba, A., Carson, R. E., Malloy, M. M., Territo, W., Saunders, R. C., Herscovitch, P. & Mishkin, M. (2001). FDG-PET imaging reveals hemispheric lateralization in macaque rostral superior temporal gyrus for species-specific monkey calls. *Soc. Neurosci. Abstr.*, **27**, 906.
- Preuschoft, S. (1995). *'Laughter' and 'Smiling' in Macaques: an Evolutionary Approach*. University of Utrecht Press; Utrecht.
- Preuss, A. & Mueller-Preuss, P. (1990). Processing of amplitude modulated sounds in the medial geniculate body of squirrel monkeys. *Exp. Brain Res.*, **79**, 207-211.
- Provine, R. R. (1996). Laughter. *Am. Sci.*, **84**, 38-45.
- Ramakrishnan, U. & Coss, R. G. (2000). Age differences in the responses to adult and juvenile alarm calls by bonnet macaques (*Macaca radiata*). *Ethology*, **106**, 131-144.
- Ramakrishnan, U. & Coss, R. G. (2000). Recognition of heterospecific alarm vocalizations by bonnet macaques (*Macaca radiata*). *J. Comp. Psychol.*, **114**, 3-12.
- Ramus, F., Hauser, M. D., Miller, C., Morris, D. & Mehler, J. (2000). Language discrimination by human newborns and by cotton-top tamarin monkeys. *Science*, **288**, 349-351
- Rasoloharijaona, S., Altrichter, H., Rakotosamimanana, B. & Zimmermann, E. (2001). Sex- and individual-specificity in the signaling system of a sexually monomorphic, nocturnal primate, the Milne Edwards sportive lemur (*Lepilemur edwardsi*). *Adv. Ethol.*, **36**, 246.
- Rauschecker, J. P. & Tian, B. (2000). Mechanisms and streams for processing of 'what' and 'where' in auditory cortex. *Proc. Natl. Acad. Sci. USA*, **97**, 11800-11806.
- Rauschecker, J. P., Tian, B. & Hauser, M. (1995). Processing of complex sounds in the macaque nonprimary auditory cortex. *Science*, **268**, 111-114.
- Rauschecker, J. p. & Tian, B. (2001). Spectral and temporal integration in rhesus monkey auditory cortex. *Adv. Ethol.*, **36**, 21.
- Recanzone, G. H., Guard, D. C., Phan, M. L. & Su, T. K. (2000). Correlation between the activity of single auditory cortical neurons and sound-localization behavior in the macaque monkey. *J. Neurophysiol.*, **83**, 2723-2739.
- Recanzone, G. H., Guard, D. C. & Phan, M. L. (2000). Frequency and intensity response properties of single neurons in the auditory cortex of the behaving macaque monkey. *J. Neurophysiol.*, **83**, 2315-2331.
- Recanzone, G. H., Schreiner, C. E., Sutter, M. L., Beitel, R. E. & Merzenich, M. M. (1999). Functional organization of spectral receptive fields in the primary auditory cortex of the owl monkey. *J. Comp. Neurol.*, **415**, 460-481.
- Renard, S., Savage-Rumbaugh, E. S. & Greaves, W. (2001). Intonation and meanings in Bonobo vocalizations. *Am. J. Primatol.*, **54**, Suppl. 1, 71-72.
- Rendall, D., Rodman, P. S. & Emond, R. E. (1996). Vocal recognition of individuals and kin in free-ranging rhesus monkeys. *Anim. Behav.*, **51**, 1007-1015.
- Rendall, D., Seyfarth, R. M., Cheney, D. L. & Owren, M. J. (1999). The meaning and function of grunt variants in baboons. *Anim. Behav.*, **57**, 583-592.

- Rendall, D., Owren, M. J. & Rodman, P. S. (1998). The role of vocal tract filtering in identity cueing in rhesus monkey (*Macaca mulatta*) vocalizations. *J. Acoust. Soc. Am.*, **103**, 602-614.
- Rendall, D., Cheney, D. L. & Seyfarth, R. M. (2000). Proximate factors mediating 'contact' calls in adult female baboons and their infants. *J. Comp. Psychol.*, **114**, 36-46.
- Reser, D. H., Fishman, Y. I., Arezzo, J. C. & Steinschneider, M. (1997). Rate encoding of binaurally alternating low-frequency tone bursts in macaque A1. *J. Acoust. Soc. Am.*, **101**, 3123.
- Riede, T. (1996). Vocalization in Japanese macaque infants *Macaca fuscata*: individual differences and parameter dynamics. *Bioacoustics*, **6**, 321.
- Riede, T. & Tembrock, G. (1997). Subharmonics, biphonations and frequency jumps in the vocalisation of Japanese macaques *Macaca fuscata*. *Bioacoustics*, **8**, 256-257.
- Rigamonti, M. M., Previde, E. P. & Poli, M. D. (1997). Physical and functional features of vocalisation in the young of *Macaca nemestrina*: A preliminary study. *Bioacoustics*, **8**, 271.
- Rocca, F., Boero, D. L. & Lenti, C. (2001). Individual differences in the human infant cry in a comparative perspective. *Folia Primatol.*, **72**, 137.
- Romanski, L. M. & Goldman-Rakic, P. S. (2002). An auditory domain in primate prefrontal cortex. *Nature Neurosci.*, **5**, 15-16.
- Roush, R. S. & Snowdon, C. T. (2001). Food transfer and development of feeding behavior and food-associated vocalizations in cotton-top tamarins. *Ethology*, **107**, 415-429.
- Roush, R. S. & Snowdon, C. T. (1999). The effects of social status on food-associated calling behaviour in captive cotton-top tamarins. *Anim. Behav.*, **58**, 1299-1305.
- Roush, R. S. (1996). Food-associated calling behaviour in cotton-top tamarins (*Saguinus oedipus*): environmental and developmental factors. Ph.D. thesis. University of Wisconsin, Madison.
- Roush, R. S. & Snowdon, C. T. (1994). Ontogeny of food-associated calls in cotton-top tamarins. *Anim. Behav.*, **47**, 263-273.
- Roush, R. S. & Snowdon, C. T. (2000). Quality, quantity, distribution and audience effects on food calling in cotton-top tamarins. *Ethology*, **106**, 673-690.
- Sakuro, O. (1989). Variability in contact calls between troops of Japanese macaques: a possible case of neutral evolution of animal culture. *Anim. Behav.*, **38**, 900-902.
- Savage-Rumbaugh, E. S. (1990). Language acquisition in a nonhuman species: Implications for the innateness debate. *Devl. Psychobiol.*, **23**, 599-620.
- Savage-Rumbaugh, S., Spircu, T. & Taglialatela, J. (2001). Vocal speech in a nonhuman primate. *Adv. Ethol.*, **36**, 9.
- Schoen Ybarra, M. A. (1995). A comparative approach to the non-human primate vocal tract: implications for sound production. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York, pp. 185-198.
- Schrader, L. & Todt, D. (1993). Contact call parameters covary with social context in common marmosets, *Callithrix j. jacchus*. *Anim. Behav.*, **46**, 1026-1028.
- Schroeder, C. E., Lindley, R. W., Specht, C., Marcovici, A., Smiley, J. & Javitt, D. C. (2001). Somatosensory input to auditory association cortex in the macaque monkey. *J. Neurophysiol.*, **85**, 1322-1327.
- Semple, S., McComb, K., Alberts, S. & Altmann, J. (2002). Information content of female copulation calls in yellow baboons. *Am. J. Primatol.*, **56**, 43-56.
- Semple, S. (1998). *Female copulation calls in primates*. Ph.D. thesis. University of Sussex.
- Semple, S. (1998). The function of barbary macaque copulation calls. *Proc. Roy. Soc. Lond., Ser. B., Biol. Sci.*, **265**, 287-291.
- Semple, S. (2001). Individuality and male discrimination of female copulation calls in the yellow baboon. *Anim. Behav.*, **61**, 1023-1028.
- Seyfarth, R. M., Cheney, D. L., Harcourt, A. H. & Stewart, K. J. (1994). The acoustic features of gorilla double grunts and their relation to behavior. *Am. J. Primatol.*, **33**, 31-50.
- Seyfarth, R. M. (1987). Vocal communication and its relation to language. In *Primate Societies* (B. Smuts, D. Cheney, R. Seyfarth, R. Wrangham & T. Struhsaker, eds.). University of Chicago Press; Chicago, pp. 440-451.
- Seyfarth, R. M. & Cheney, D. L. (1999). Production, usage, and response in nonhuman primate vocal development. In *The Design of Animal Communication* (M. D. Hauser and M. Konishi, eds.). MIT Press; Cambridge, Massachusetts, pp. 391-417.
- Seyfarth, R. M. & Cheney, D. L. (1997). Some general features of vocal development in nonhuman primates. In *Social Influences on Vocal Development* (C. T. Snowdon and M. Hausberger, eds.). Cambridge University Press; Cambridge, pp. 249-273.
- Seyfarth, R. M. & Cheney, D. L. (1997). Behavioral mechanisms underlying vocal communication in nonhuman primates. *Anim. Learn. Behav.*, **25**, 249-267.
- Shizawa, Y. (2001). Vocalization before grooming interactions in Japanese macaques. *Jap. J. Anim. Psychol.*,

- Silk, J. B., Kaldor, E. & Boyd, R. (2000). Cheap talk when interests conflict. *Anim. Behav.*, **59**, 423-432.
- Sinnott, J. M. & Saporita, T. A. (2000). Differences in American English, Spanish, and monkey perception of the say-stay trading relation. *Percept. Psychophys.*, **62**, 1312-1319.
- Sinnott, J. M. & Brown, C. H. (1993). Effects of varying signal and noise levels on pure-tone frequency discrimination in humans and monkeys. *J. Acoust. Soc. Am.*, **93**, 1535-1540.
- Sinnott, J. M. & Brown, C. H. (1993). Effects of varying signal duration on pure-tone frequency discrimination in humans and monkeys. *J. Acoust. Soc. Am.*, **93**, 1541-1546.
- Skirl, J. & Todt, D. (1996). Laughter in response to tickling: a comparative approach. *Bioacoustics*, **6**, 321-322.
- Smith, D. W. & Olszyk, V. B. (1997). Auditory behavioral thresholds for Japanese macaques using insert earphones. *Am. J. Primatol.*, **41**, 323-329.
- Snowdon, C. T. & Elowson, A. M. (1999). Pygmy marmosets modify call structure when paired. *Ethology*, **105**, 893-908.
- Snowdon, C. T. (1993). A vocal taxonomy of the callitrichids. In *Marmosets and Tamarins: Systematics, Behaviour, and Ecology* (A. B. Rylands, ed.). Oxford University Press; New York, pp. 78-94.
- Snowdon, C. T., Elowson, A. M. & Rousch, R. S. (1997). Social influences on vocal development in New World primates. In *Social Influences on Vocal Development* (C. T. Snowdon and M. Hausberger, eds.). Cambridge University Press; Cambridge, pp. 234-249.
- Snowdon, C. T. (1997). Is speech special? Lessons from New World primates. In *New World Primates: Ecology, Evolution, and Behavior* (W. G. Kinzey, ed.). Walter de Gruyter; New York, pp. 75-93.
- Snowdon, C. T. & de la Torre, S. (2002). Multiple environmental contexts and communication in pygmy marmosets (*Cebuella pygmaea*). *J. Comp. Psychol.*, **116**, 182-188.
- Snowdon, C. T. & Elowson, A. M. (1992). Ontogeny of primate vocal communication. In *Topics in Primatology, Vol. 1: Human Origins* (T. Nishida, W. C. McGrew, P. Marler, M. Pickford & F. B. M. de Waal, eds.). University of Tokyo Press; Tokyo, pp. 279-290.
- Soltis, J., Newman, J. D., Bernhards, D. & Donkin, H. (2001). The structure and function of the chuck vocalization in captive squirrel monkeys. *Am. J. Primatol.*, **54**, Suppl. 1, 38.
- Soltis, J., Bernhards, D., Donkin, H. & Newman, J. D. (2002). Squirrel monkey chuck call: vocal response to playback chucks based on acoustic structure and affiliative relationship with the caller. *Am. J. Primatol.*, **57**, 119-130.
- Stanger, K. F. (1993). Structure and function of the vocalizations of nocturnal prosimians (Cheirogaleidae). Ph.D. dissertation. Eberhard-Karls-Universität. Tübingen.
- Steenbeek, R., Assink, P. & Wich, S. A. (1999). Tenure related changes in wild Thomas's langurs. II. Loud calls. *Behaviour*, **136**, 627-650.
- Steenbeek, R. & Assink, P. (1998). Individual differences in long-distance calls of male wild Thomas langurs. *Folia Primatol.*, **69**, 77-80.
- Steenbeek, R. (1999). Tenure related changes in wild Thomas's langurs. I: Between-group interactions. *Behaviour*, **136**, 595-626.
- Steinschneider, M., Reser, D. H., Fishman, Y. I., Schroeder, C. E. & Arezzo, J. C. (1998). Click train encoding in primary auditory cortex of the awake monkey: Evidence for two mechanisms subserving pitch perception. *J. Acoust. Soc. Am.*, **104**, 2935-2955.
- Stewart, K. J. & Harcourt, A. H. (1994). Gorilla's vocalizations during rest periods: signals of impending departure? *Behaviour*, **130**, 29-40.
- Su, T. K., Woods, T. M. & Recanzone, G. H. (2001). Responses of auditory cortical neurons to frequency modulated sweeps and conspecific vocalizations in the macaque monkey. *Soc. Neurosci. Abstr.*, **27**, 1345.
- Suarez, S. (2002). The response of white-bellied spider monkeys to the vocalizations of sympatric frugivores. *Am. J. Phys. Anthropol.*, Suppl., **34**, 151.
- Sugiura, H. (1998). Matching of acoustic features during the vocal exchange of coo calls by Japanese macaques. *Anim. Behav.*, **55**, 673-687.
- Sugiura, H. & Masataka, N. (1995). Temporal and acoustic flexibility in vocal exchanges of coo calls in Japanese macaques (*Macaca fuscata*). In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York, pp. 121-140.
- Sugiura, H. (1993). Temporal and acoustic correlates in vocal exchange of coo calls in Japanese macaques. *Behaviour*, **124**, 207-225.
- Symmes, D. & Biben, M. (1986). Maternal recognition of individual infant squirrel monkeys from isolation call playbacks. *Am. J. Primatol.*, **9**, 39-46.
- Symmes, D. & Biben, M. (1992). Vocal development in nonhuman primates. In *Nonverbal Vocal Communication* (H. Papoušek, U. Juergens & M. Papoušek, eds.). Cambridge University Press; Cambridge, pp. 123-140.

- Tagliabue, J. P. & Savage-Rumbaugh, E. S. (2000). Vocalization production and usage in language-competent, captive bonobos (*Pan paniscus*). *Am. J. Primatol.*, **51**, Suppl. 1, 95.
- Teixidor, P. & Byrne, R. W. (1999). The 'whinny' of spider monkeys: Individual recognition before situational meaning. *Behaviour*, **136**, 279-308.
- Teixidor, P. & Byrne, R. W. (1997). Can spider monkeys (*Ateles geoffroyi*) discriminate vocalizations of familiar individuals and strangers? *Folia Primatol.*, **68**, 254-264.
- Tembrock, G. (1996). Communication by falsetto. *Bioacoustics*, **6**, 309.
- Thoms, G. & Juergens, U. (1987). Common input of the cranial motor nuclei involved in phonation in the squirrel monkey. *Exp. Neurol.*, **95**, 85-99.
- Tian, B., Reser, D., Durham, A., Kustov, A. & Rauschecker, J. P. (2001). Functional specialization in rhesus monkey auditory cortex. *Science*, **292**, 290-293.
- Todt, D. (1996). The dynamic of crying and its interactional role: phasic versus tonic components. In *Social and Biological Aspects of Infant Crying* (B. Lester, J. D. Newman & F. Pederson, eds.). Plenum Press; New York.
- Todt, D., Hammerschmidt, K., Ansorge, V. & Fischer, J. (1995). The vocal behavior of barbary macaques (*Macaca sylvanus*): call features and their performance in infants and adults. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York, pp. 141-160.
- Todt, D. & Hultsch, H. (1996). Functional aspects of parameter variation in serial vocalizations. In *Proceedings of the XXth Congress of the International Primatology Society, Djakarta* (J. Supriatna, ed.).
- Tomaszycki, M. L., Davis, J. E., Gouzoules, H. & Wallen, K. (2001). Sex differences in infant rhesus macaque separation-rejection vocalizations and effects of prenatal androgens. *Horm. Behav.*, **39**, 267-276.
- Torre, S. de la & Snowdon, C. T. (2002). Environmental correlates of vocal communication of wild pygmy marmosets, *Cebuella pygmaea*. *Anim. Behav.*, **63**, 847-856.
- Torre, S. de la (1999). Environmental correlates of vocal communication of wild pygmy marmosets, *Cebuella pygmaea*. Ph.D. dissertation. University of Wisconsin. Madison.
- Tramo, M. J., Rosenbaum, E. R., Cariani, P. A. & Hauser, M. D. (2001). Differential responses of auditory cortex neurons to natural and unnatural vocalizations in alert *Macaca mulatta*. *Soc. Neurosci. Abstr.*, **27**, 1920.
- Tramo, M. J., Bellow, B. F. & Hauser, M. D. (1996). Discharge patterns of auditory cortical neurons evoked by species-specific vocalizations and synthetic complex signals in alert *Macaca mulatta*. *Soc. Neurosci. Abstr.*, **22**, 1623.
- Trincheri, C., Gamba, M., Ampollini, M. & Giacoma, C. (2000). Ontogeny of vocalisations of captive black-and-white ruffed lemur (*Varecia variegata variegata*). *Folia Primatol.*, **72**, 282-283.
- Trincheri, C., Giacoma, C., Gamba, M. & Ampollini, M. (1997). Vocalisations of captive black and white ruffed lemur *Varecia variegata*: stability and mother-offspring comparison. *Bioacoustics*, **8**, 258.
- Ujhelyi, M. (1999). Territorial song and facial gesture: A language precursor in apes. *Behav. Brain Sci.*, **22**, 572.
- Valone, T. J. (1996). Food-associated calls as public information about patch quality. *Oikos*, **77**, 153-157.
- VanderHorst, V. G., Terasawa, E. & Ralston, H. J. 3rd. (2001). Monosynaptic projections from the nucleus retroambiguus region to laryngeal motoneurons in the rhesus monkey. *Neurosci.*, **107**, 117-125.
- Vogt, B. A. & Barbas, H. (1988). Structure and connections of the cingulate vocalization region in the rhesus monkey. In *The Physiological Control of Mammalian Vocalization* (J. D. Newman, ed.). Plenum Press; New York, pp. 203-225.
- Wang, X., Pistorio, A. & Snider, R. K. (2001). Ontogenetic changes in vocal production and usage in common marmoset monkeys. *Soc. Neurosci. Abstr.*, **27**, 1433.
- Wang, X. & Kadia, S. C. (2001). Differential representation of species-specific primate vocalizations in the auditory cortices of marmoset and cat. *J. Neurophysiol.*, **86**, 2616-2620.
- Wang, X., Merzenich, M. M., Beitel, R. & Schreiner, C. E. (1995). Representation of a species-specific vocalization in the primary auditory cortex of the common marmoset: temporal and spectral characteristics. *J. Neurophysiol.*, **74**, 2685-2702.
- Webster, D. B., Popper, A. N. & Fay, R. R., eds. (1992). *The Mammalian Auditory Pathway: Neuroanatomy*. Springer-Verlag; New York.
- Weiss, D. J., Garibaldi, B. T. & Hauser, M. D. (2001). The production and perception of long calls by cotton-top tamarins (*Saguinus oedipus*): acoustic analysis and playback experiments. *J. Comp. Psychol.*, **115**, 258-271.
- Whitehead, J. M. (1995). Vox Allouatinae: a preliminary survey of the acoustic characteristics and behavioral consequences of long-distance calls of howling monkeys. *Int. J. Primatol.*, **16**, 121-144.
- Wich, S. A., Assink, P. R., Becher, F. & Sterck, E. H. M. (2002). Playbacks of loud calls to wild Thomas langurs (*Presbytis thomasi*): The effect of familiarity. *Behaviour*, **139**, 79-87.
- Wienicke, A., Haeusler, U. & Juergens, U. (2001). Auditory frequency discrimination in the squirrel monkey. *J.*

- Comp. Physiol. A.*, **187**, 189-195.
- Windfelder, T. L. (2001). Interspecific communication in mixed-species groups of tamarins: evidence from playback experiments. *Anim. Behav.*, **61**, 1193-1201.
- Windfelder, T. L. (1997). *Polyspecific association and interspecific communication between two neotropical primates: saddle-back tamarins (Saguinus fuscicollis) and emperor tamarins (Saguinus imperator)*. PhD. thesis. Duke University.
- Wissinger, L. S. (1986). *The taxonomic implications of mangabey and baboon vocalizations*. M.S. Thesis. Purdue University.
- Wright, A. A. (1999). Auditory list memory and interference processes in monkeys. *J. Exp. Psychol., Anim. Behav. Proc.*, **25**, 284-296.
- Wright, A. A. & Rivera, J. J. (1997). Memory of auditory lists by rhesus monkeys (*Macaca mulatta*). *J. Exp. Psychol.: Anim. Behav. Processes*, **23**, 441-449.
- Wright, A. A., Rivera, J. J., Hulse, S. H., Shyan, M. & Neiwirth, J. J. (2000). Music perception and octave generalization in rhesus monkeys. *J. Exp. Psychol.*, **129**, 291-307.
- Waal, F. de (1988). The communicative repertoire of captive bonobos (*Pan paniscus*), compared to that of chimpanzees. *Behaviour*, **106**, 183-251.
- Yajima, Y. & Larson, C. R. (1993). Multifunctional properties of ambiguous neurons identified electrophysiologically during vocalization in the awake monkey. *J. Neurophysiol.*, **70**, 529-540.
- Ybarra, M. A. S. (1992). A comparative approach to the nonhuman primate vocal tract: implications for sound production. *J. Acoust. Soc. Am.*, **91**, 2465.
- Zanzoni, M., Vitale, A. & Chiarotti, F. (2001). Social context affects the emission of food-calls in common marmosets (*Callithrix jacchus*). *Folia Primatol.*, **72**, 137-138.
- Zimmermann, E. (1996). Castration affects the emission of an ultrasonic vocalization in a nocturnal primate, the grey mouse lemur (*Microcebus murinus*). *Physiol. Behav.*, **60**, 693-697.
- Zimmermann, E. (1995). Acoustic communication in nocturnal prosimians. In *Creatures of the Dark. Biology of Nocturnal Prosimians* (L. Alterman, G. A. Doyle & M. K. Izard, eds.). Plenum Press; New York.
- Zimmermann, E. (1995). Loud calls in nocturnal prosimians: Structure, evolution and ontogeny. In *Current Topics in Primate Vocal Communication* (E. Zimmermann, J. D. Newman & U. Juergens, eds.). Plenum Press; New York, 47-72.
- Zimmermann, E., Newman, J. D. & Juergens, U., eds. (1995). *Current Topics in Primate Vocal Communication*. Plenum Press; New York and London.
- Zimmermann, E., Vorobieva, E., Wrogemann, D. & Hafen, T. (2000). Use of vocal fingerprinting for specific discrimination of gray (*Microcebus murinus*) and rufous mouse lemurs (*Microcebus rufus*). *Int. J. Primatol.*, **21**, 837-852.
- Zimmermann, E. & Hafen, T. G. (2001). Colony specificity in a social call of mouse lemurs (*Microcebus* spp.). *Am. J. Primatol.*, **54**, 129-141.
- Zimmermann, E. & Lerch, C. (1993). The complex acoustic design of an advertisement call in male mouse lemurs *Microcebus murinus* (Prosimii, Primates), and sources of its variation. *Ethology*, **93**, 211-224.
- Zimmermann, E., Binz, H. & Rahmann, H. (1992). Changes in hearing and sound induced 2-DG-pattern in the auditory system of developing tree shrews. *Soc. Neurosci. Abstr.*, **18**, 1195.
- Zimmermann, E. (1993). Behavioral measures of auditory thresholds in developing tree shrews (*Tupaia belangeri*). *J. Acoust. Soc. Am.*, **94**, 3071-3075.
- Zuberbuehler, K., Jenny, D. & Bshary, R. (1999). The predator deterrence function of primate alarm calls. *Ethology*, **105**, 477-490.
- Zuberbuehler, K., Noe, R. & Seyfarth, R. M. (1997). Diana monkey long-distance calls: messages for conspecifics and predators. *Anim. Behav.*, **53**, 589-604.
- Zuberbuehler, K. (2000). Referential labelling in Diana monkeys. *Anim. Behav.*, **59**, 917-927.
- Zuberbuehler, K. (2000). Causal cognition in a non-human primate: field playback experiments with Diana monkeys. *Cognition*, **76**, 195-207.
- Zuberbuehler, K. (2001). Predator-specific alarm calls in Campbell's monkeys, *Cercopithecus campbelli*. *Behav. Ecol. Sociobiol.*, **50**, 414-422.
- Zuberbuehler, K. (2002). A syntactic rule in forest monkey communication. *Anim. Behav.*, **63**, 293-299.
- Zuberbuehler, K., Cheney, D. L. & Seyfarth, R. M. (1999). Conceptual semantics in a nonhuman primate. *J. Comp. Psychol.*, **113**, 33-42.