

CURRICULUM VITAE

Liza R. Moscovice, PhD

Postdoctoral Research Fellow
Department of Anthropology
Emory University
1557 Dickey Drive, Atlanta, GA 30322

Phone: 1-404-727-4169
E-mail: lmoscov@emory.edu
lizamoscovice-research.com

EDUCATION

1999- 2006 **PhD**, Psychology. University of Wisconsin-Madison

1993- 1997 **BA**, Neuroscience. Oberlin College, Oberlin, Ohio

RESEARCH FOCUS

I use a psychobiological framework to investigate the underlying mechanisms and adaptive function of social relationships, social integration and cooperation in animal models, focusing on non-human primates. My research investigates why individuals vary in their propensities to affiliate and cooperate with others and how this variation influences their fitness. This work has broader implications for understanding the evolution of human sociality and the mechanisms by which social support provides health benefits to humans.

RESEARCH EXPERIENCE

2016- **Postdoctoral Research Fellow, Anthropology Department, Emory University**

Lead investigator on a long-term field study of the socioendocrinology of affiliation and cooperation among female bonobos (*Pan paniscus*). In collaboration with Dr. Adrian Jaeggi, Dr. Barbara Fruth and Dr. Gottfried Hohmann.

2011- 2016 **Postdoctoral Research Fellow, Department of Primatology, Max Planck Institute for Evolutionary Anthropology**

Lead investigator of captive and field research to develop a behavioral endocrine model of social relationships in bonobos (*Pan paniscus*). In collaboration with Dr. Gottfried Hohmann and Dr. Tobias Deschner.

2006- 2009 **Postdoctoral Research, Biology Department, University of Pennsylvania.**

Topic: Mechanisms and function of social relationships in chacma baboons (*Papio hamadryas ursinus*). Advisors: Dr. Dorothy Cheney & Dr. Robert Seyfarth.

- 2001- 2006 **Dissertation Research, Psychology Department, University of Wisconsin-Madison.** Thesis title: *Behavioral ecology of chimpanzees (Pan troglodytes) on Rubondo Island: Habitat, diet, grouping and ranging at a release site.* Advisors: Dr. Charles Snowdon and Dr. Michael Huffman.
- 1999- 2001 **Graduate Research, Psychology Department, University of Wisconsin-Madison.** Topic: Influence of social dynamics on social learning in cotton-top tamarins (*Saguinus oedipus*). Advisor: Dr. Charles Snowdon.
- 1997-1999 **Senior Lab Technician, Neurology Department, University of Minnesota.** Topic: Memory deficits in a transgenic mouse model of Alzheimers Disease. Principal Investigator: Dr. Karen Hsiao.
- Fall 1996 **Senior Research Project, Oberlin College and School for International Training, Tanzania.** Topic: Responses of olive baboons (*Papio hamadryas anubis*) and Sykes monkeys (*Cercopithecus mitis*) to tourist presence at Lake Manyara National Park, Tanzania. Advisor: Dr. Catherine McCormick.

GRANTS AND AWARDS

- 2016 **L.S.B. Leakey Foundation Research Grant (USD 24,920)**
Grant to support the project: "Explaining patterns of within- and between-group cooperation among LuiKotale bonobos."
- 2011 **VolkswagenStiftung Evolutionary Biology Postdoctorate Fellowship (EUR 122,000)**
Funding to support the project "Social bonds without genetic ties: a behavioral endocrine model in bonobos (*Pan paniscus*)."
- 2011 **Wenner-Gren Foundation Research Grant (USD 20,000)**
Grant to support field research on bonobo socioendocrinology.
- 2010 **L.S.B. Leakey Foundation Research Grant (USD 21,760)**
Grant to support field research on bonobo socioendocrinology.
- 2010 **Evolutionary Studies Program Research Grant (USD 3,500)**
Grant to support research on the behavioral endocrinology of female social bonds in rodents and primates.
- 2010 **Binghamton University Individual Development Award (USD 2,000)**
Award in support of collaborative research with Dr. Nicole Cameron, Psychology Department, to develop a hormone assay lab.

- 2010 **Cozzarelli Prize for Scientific Excellence**
Award by the National Academy of Sciences in recognition of our publication on contingency-based cooperation among wild female baboons.
- 2003 **L.S.B. Leakey Foundation Research Grant (USD 12,000)**
Grant to support dissertation fieldwork on Rubondo Island, Tanzania.
- 2002 **Ruth Dickie Research Scholarship for Graduate Women in Science (USD 3,000)**
Grant to support dissertation fieldwork on Rubondo Island, Tanzania.
- 2001 **Graduate Research Grant, Animal Behaviour Society (USD 2,000)**
Grant to support a pilot study on Rubondo Island, Tanzania.
- 2000 **APAGS Forest Honaker Scholarship for Masters Research, American Psychological Association.**
Award in recognition of research on social learning in cotton-top tamarins.

TEACHING EXPERIENCE

- 2014- 2015 **Instructor, International Max Planck Research School.**
I designed and taught modules in behavioral research methods to graduate students in a joint program in human evolution through the Max Planck Institute for Evolutionary Anthropology and the University of Leipzig.
- 2009- 2011 **Visiting Assistant Professor, Biology Department, Binghamton University**
I designed and taught undergraduate and graduate courses in evolutionary theory, animal behavior and hormones and behavior.
- 2008- 2009 **Adjunct Faculty, Biology Department, Bard College**
I taught an undergraduate course and lab in Introduction to Animal Behavior to first generation college students from diverse backgrounds.

STUDENT ADVISING

- 2010-2011 Advisor on Senior Honors Thesis of Rachel Perlman, Biology Department, Binghamton University. Thesis Title: *“Behavioral and hormonal responses of chacma baboons to a seasonal flood plain environment.”*
- 2006-2007 Co-advisor on Masters Thesis of Marlies Heesen, Oxford Brookes University, Great Britain. Thesis title: *“Feeding competition among chacma baboons in the Okavango Delta, Botswana.”*

PEER-REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS

Moscovice, L. R., Surbeck, M., Hohmann, G. & Deschner, T. (*in prep*): The Sex that Binds: Genito-genital rubbing is associated with increases in urinary oxytocin among wild female bonobos. *Hormones and Behavior*

Moscovice, L. R., Douglas, P. H., Martinez-Iñigo L., Surbeck, M., Vigilant, L. & Hohmann, G. (2017): Stable and fluctuating social preferences and implications for cooperation among female bonobos at LuiKotale, Salonga National Park, DRC. *American Journal of Physical Anthropology*. 163, 158-172. DOI: 10.1002/ajpa.23197

Moscovice, L. R. (2016). The Max Planck Institute for Evolutionary Anthropology, Department of Primatology. In A. Fuentes (Ed.): *International Encyclopedia of Primatology*, Wiley Blackwell Publishers. DOI: 10.1002/9781119179313

Douglas, H. & **Moscovice, L. R.** (2015): Pointing and pantomime in great apes? Female bonobos use referential gestures to request genito-genital rubbing. *Scientific Reports* 5, 13999, DOI:10.1038/srep13999

Moscovice, L. R., Deschner, T & Hohmann, G. (2015). Welcome back: Responses of female bonobos (*Pan paniscus*) to fusions. *PLoS One* 10(5): e0127305. DOI: 10.1371/journal.pone.0127305

Moscovice, L. R. (2013). Getting by with a little help from friends: The importance of social bonds for female primates. In M. L. Fisher, J. Garcia & R. S. Chang (Eds.): *Evolution's Empress: Darwinian Perspectives on the Nature of Women*. Pp 63-84. Oxford University Press. DOI:10.1093/acprof:oso/9780199892747.003.0003

Moscovice, L. R. & Ziegler, T. E. (2012). Peripheral oxytocin in female baboons relates to estrous state and maintenance of sexual consortships. *Hormones and Behavior* 62, 592-597

Moscovice, L. R., Mbago, F., Snowdon, C. T. & Huffman, M. A. (2010). Ecological features and ranging patterns at a chimpanzee release site on Rubondo Island, Tanzania. *Biological Conservation* 143, 2711-2721

Silk, J. B., Beehner, J. C., Bergman, J. T., Crockford, C., Engh, A. L., **Moscovice, L. R.**, Wittig, R. W., Seyfarth, R. M. & Cheney, D. L. (2010). Strong and consistent social bonds enhance the longevity of female baboons. *Current Biology* 20(15), 1359-1361

Cheney, D. L., **Moscovice, L. R.**, Heesen, M. & Seyfarth, R. M. (2010). Contingency-based cooperation between wild female baboons. *Proceedings of the National Academy of Sciences* 107(21), 9562-9566. Recipient of the Cozzarelli Prize for scientific excellence.

Moscovice, L. R., Di Fiore, A., Crockford, C., Kitchen, D., Wittig, R. W., Seyfarth, R. M. & Cheney, D. L. (2010). Hedging their bets? Chacma baboons form friendships based on likelihood of paternity. *Animal Behaviour* 79(5), 1007-1015

Petrzelkova, K. J., Hasegawa, H., Appleton, C. C., Huffman, M. A., Archer, C. E., **Moscovice, L. R.**, Issa Mapua, M., Singh, J. & Kaur, T. (2010). Gastrointestinal parasites of the chimpanzee population introduced onto Rubondo Island National Park, Tanzania. *American Journal of Primatology* 72(4), 307-316

Silk, J. B., Beehner, J. C., Bergman, J. T., Crockford, C., Engh, A. L., **Moscovice, L. R.**, Wittig, R. W., Seyfarth, R. M. & Cheney, D. L. (2010). Female chacma baboons form strong, equitable and enduring social bonds. *Behavioral Ecology and Sociobiology*, 64, 1733-1747

Moscovice, L. R., Hessen, M., Di Fiore, A., Seyfarth, R. M. & Cheney, D. L. (2009). Paternity alone does not predict long-term investment in juveniles by male baboons. *Behavioral Ecology and Sociobiology*. 63 (10), 1471–1482

Silk, J. B., Beehner, J. C., Bergman, J. T., Crockford, C., Engh, A. L., **Moscovice, L. R.**, Wittig, R. W., Seyfarth, R. M. & Cheney, D. L. (2009). The Benefits of Social Capital: Close Social Bonds among Female Baboons Enhance Offspring Survival. *Proceedings of the Royal Society B*. 276 (1670), 3099-3104

Huffman, M. A., Petrzelkova, K., **Moscovice, L. R.**, Mapua, M. I., Bobakova, L., Mazoch, V., Singh, J. & Kaur, T. (2008). Introduction of chimpanzees onto Rubondo Island National Park, Tanzania. In: Pritpal S. Soorae (Ed.): *Global Re-introduction Perspectives: re-introduction case-studies from around the globe*. IUCN/SSC Re-introduction Specialist Group. Abu Dhabi, UAE. Pp. 213- 216

Moscovice, L. R., Issa, M. H., Petrzelkova, K. J., Keuler, N. S., Snowdon, C.T. & Huffman, M. A. (2007). Fruit availability, chimpanzee diet and grouping patterns on Rubondo Island, Tanzania. *American Journal of Primatology*, 69(5), 487-502

Moscovice, L. R. & Snowdon, C. T. (2006). The role of social context and individual experience in novel task acquisition in cotton-top tamarins (*Saguinus oedipus*). *Animal Behaviour*, 71(4), 933-943

Petrzelkova, K. J., Hasegawa, H., **Moscovice, L. R.**, Kaur, T., Issa, M. H. & Huffman, M. A. (2006). Parasitic nematodes in the chimpanzee population on Rubondo Island, Tanzania. *International Journal of Primatology*, 27(3), 767-777

Hasegawa, H., Ikeda, Y., Fujisaki, A., **Moscovice, L. R.**, Petrzelkova, K. J., Kaur, T. & Huffman, M. A. (2005). Morphology of chimpanzee pinworms, *Enterobius anthropopithecii* (Geddoelst, 1916) (Nematoda: Oxyuridae), collected from chimpanzees, *Pan troglodytes*, on Rubondo Island, Tanzania. *Journal of Parasitology*, 91(6), 1314-1317

SELECTED INVITED TALKS AND CONFERENCE PRESENTATIONS

Moscovice, L. R., Surbeck, M., Fruth, B., Hohmann, G. & Deschner, T. (2018). The Sex that Binds: Genito-genital rubbing is associated with increases in urinary oxytocin among wild female bonobos. Presented at the American Association of Physical Anthropology Annual Meeting, Apr 11-14, Texas, USA

Moscovice, L. R. (2018). The Sex that Binds: Changes in oxytocin in female bonobos following different social interactions. Invited speaker. South Eastern Evolution and Human Behavior annual meeting. Mar 2-3, Georgia, USA.

Moscovice, L.R., Douglas, P. H., Martinez-Iñigo, L., Surbeck, M., Vigilant, L. & Hohmann, G. (2016) Selective or opportunistic? Novel indices of social relationships among wild female bonobos at LuiKotale, DRC. Invited symposium presentation. Joint meeting of the International Primatological Society and the American Society of Primatologists, Aug 21-27, Illinois, USA.

Moscovice, L. R., Deschner, T. & Hohmann, G. (2015). Welcome Back: Behavioral and physiological responses of female bonobos (*Pan paniscus*) to fusions. Presented at the European Federation of Primatology Meeting, Aug 25-28, Rome, Italy.

Moscovice, L. R. & Hohmann, G. (2015). Social bonds without genetic ties? A new framework for characterizing social relationships among female bonobos. Invited symposium presentation. American Association of Physical Anthropology Annual Meeting, Mar 25-29, Missouri, USA.

Moscovice, L. R., Deschner, T. & Hohmann, G. (2014). Welcome Back: Responses of female bonobos to fusions. Presented at the International Primate Society Meeting, Aug 11-17, Hanoi, Vietnam.

Moscovice, L. R. (2013). Developing a behavioural endocrine model of affiliation during fusion events in bonobos (*Pan paniscus*). Invited Speaker, Göttingen Regional Primate Center, April 4, Göttingen, Germany.

Moscovice, L. R. & Ziegler, T. E. (2012). Peripheral oxytocin in female baboons relates to estrus and maintenance of consortships. Presented at the Non-invasive Monitoring of Hormones annual conference, Sept 23-26, Vienna, Austria.

Moscovice, L. R., Ziegler, T. E., Cheney, D. L. & Seyfarth, R. M. (2010). Behavioral endocrine correlates of social support in wild chacma baboons (*Papio hamadryas ursinus*). Presented at the Society for Behavioral Neuroendocrinology annual meeting, July 18-21, Toronto, Canada.

Moscovice, L. R., Cheney, D. L., Heesen, M. & Seyfarth, R. M. (2010) Getting by with a little help from friends: Affiliation and reciprocity among female baboons. Presented at the NorthEastern Evolutionary Psychology Society annual conference, Mar 26-28, New Paltz, NY.

Moscovice, L. R., Heesen, M., Di Fiore A., Seyfarth, R. M. & Cheney, D. L. (2009). Use of behavioral rules about probability of paternity can explain long-term investment in juveniles by male chacma baboons. Presented at the American Society of Primatologists 32nd Annual Meeting, Sept. 18-21, San Diego, CA.

Moscovice, L. R., Heesen, M., Di Fiore, A., Seyfarth, R. M. & Cheney, D. L. (2008): Evidence for male caretaker roles in chacma baboons and the relationship to paternity. Presented at the International Primatological Society 22nd Annual Meeting, August 3-8, Edinburgh, UK.

Moscovice, L. R., Mbago, F., Issa, M. H., Petrzalkova, K. J., Snowdon, C. T. & Huffman, M. A. (2005): Habitat and diet of chimpanzees on Rubondo Island, Tanzania: Important ecological factors at a release site. Presented at the American Society of Primatologists 28th Annual Meeting, August 17-20, Portland, Oregon.

SELECTED MEDIA ATTENTION

Sept 10, 2016. *New York Times*, "In the bonobo world, female camaraderie prevails." Our research on gestural communication among female bonobos is mentioned. http://www.nytimes.com/2016/09/13/science/bonobos-apes-matriarchy.html?_r=0

Sept 11, 2015. *United Press International*, "Bonobos use pointing hand gestures to communicate."

June 6, 2014. *GEO*, "Die Geheimnisvollen". Interviewed about my field research with bonobos for a feature article.

March 23, 2012. *Science News*, "Furry Friends Forever". Interviewed about my research http://www.sciencenews.org/view/feature/id/339326/title/Furry_Friends_Forever

June 3, 2011. *Proceedings of the National Academy of Sciences* Podcast. Interviewed about our award-winning research on contingency-based cooperation among wild female baboons. <http://www.pnas.org/site/misc/lizaMoscovicePodcast.mp3>

PROFESSIONAL AFFILIATIONS

American Association of Physical Anthropologists
International Primatological Society
Society for Behavioral Neuroendocrinology

REFERENCES

Adrian Jaeggi, Ph.D., Assistant Professor, Anthropology Department, Emory University, 1557 Dickey Dr. NE, Atlanta, GA 30322. Phone: 404 727 3117 E-mail: adrian.jaeggi@emory.edu

Gottfried Hohmann, Ph.D., Research Scientist, Department of Primatology, Max Planck Institute for Evolutionary Anthropology, Deutscher Platz 6, 04103 Leipzig, Germany. Phone: +49 341 3550 208. E-mail: hohmann@eva.mpg.de

Charles T. Snowdon, Ph.D., Professor Emeritus of Psychology and Zoology. University of Wisconsin-Madison. 1202 W. Johnson Street, Madison, WI 53706, USA. Phone: 608 262 3974. E-mail: snowdon@wisc.edu