

Allison B. Kaufman

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South Glastonbury, CT 06073
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Education

- 2010** University of California at Riverside
Riverside, California
Ph.D., Neuroscience
Ecology and Evolutionary Biology Graduate Research Unit
Advisor: Dr. Curt Burgess
Dissertation: "Assessing Animal Vocalizations Using the
Hyperspace Analog to Language (HAL) Model"
- 2000** Rutgers University, Cook College
New Brunswick, New Jersey
- B.S., Biology
Magna Cum Laude
- B.S., Natural Resource Management
Magna Cum Laude
Undergraduate Honors Thesis - "Reinforcement Used in the
Training of Captive Seals"

Employment

- 2013 – present** University of Connecticut
Storrs, CT
Department of Ecology and Evolutionary Biology
Research Scientist
- 2024 – present** Busch Gardens Williamsburg
Williamsburg, VA
Associate Animal Care Specialist, Highland Stables
- 2024 – present** Virginia Living Museum
Newport News, VA
Research Fellow
- 2024** AnimalConcepts
External Global Collaborator

2013 – 2024 Mystic Aquarium
Mystic, CT
Husbandry volunteer, marine mammals and birds
(3300+ hours)

2023 University of Connecticut
Storrs, CT
Department of Animal Science
Adjunct Professor

2021 Brookfield Zoo, Chicago Zoological Society
Chicago, IL
Marine Mammal Curator Intern (virtual)

2021 – 2022 Lutz Children’s Museum
Manchester, CT
Curator of Natural Sciences
Animal Care Specialist
Educator
Curriculum Specialist

2020 - 2021 Eastern Connecticut State University
Willimantic, CT
Department of Biology
Adjunct Professor

2019 - 2021 Manchester Community College
Manchester, CT
Department of Psychology
Adjunct Professor

2014 – 2019 University of Connecticut, Avery Point
Groton, CT
Department of Psychology
Adjunct Professor

2014 University of Connecticut, Avery Point
Groton, CT
Department of Marine Science
Adjunct Professor

2009 – 2013 California State University, San Bernardino
San Bernardino, CA
Department of Psychology
Adjunct Professor

2004 – 2009

University of California, Riverside
Riverside, California
Departments of Biology and Cell Biology/Neuroscience
Teaching Assistant

Publications

(work conducted before May, 2002 was as Allison B. Katz)

Books

Kaufman, A.B., Call, J., and J.C. Kaufman, eds. (2021). *Cambridge Handbook of Animal Cognition*. Cambridge University Press.

Kaufman, A.B., Bashaw, M.J, and T. Maple, eds. (2019). *The scientific foundation of zoos and aquariums: Their role in conservation and research*. Cambridge, UK: Cambridge University Press.

Colbert-White, E.N., and A.B. Kaufman. (2019). *Animal Cognition 101*. Psychology 101 series, Springer Publishing.

Kaufman, A.B. and J.C. Kaufman, eds. (2017). *Pseudoscience: The conspiracy against science*. Boston, MA: MIT Press.

Kaufman, A. B., and J.C. Kaufman, eds. (2015). *Animal creativity and innovation*. San Diego, CA: Academic Press.

Articles

Sorensen, B., & Kaufman, A. B. (in preparation). Training and enrichment of ectotherms at the Virginia Living Museum

Sorensen, B., Xie, L., & Kaufman, A. B. (in preparation). Analysis of the effects of enrichment on animals at the Virginia Living Museum.

Ciletti, J., & Kaufman, A.B. (in preparation). Training novel vocalizations in a beluga whale (*Delphinapterus leucas*)

Kaufman, A. B., & Kaufman, J. C. (in preparation). Fluency, flexibility, originality, and elaboration: Using trained raters and adapting methods from the Torrance Tests of Creative Thinking to score animals trained to innovate behaviors.

Kaufman, A.B. (under review). The Theory of Universal Grammar – Unarguable, Unstoppable, Unrelenting, Uncompromising, and Unprovable. *Lingua*.

- Kaufman, A.B., Reynolds, M, and A.S. Kaufman. (2019). The structure of ape (*Hominoidea*) intelligence. *Journal of Comparative Psychology*. 133(1):92-105.
- Kaufman, J.C. and A.B. Kaufman. (2016). Capacity, potential, and ability: Integrating different approaches to studying animal vs human creative processes. *RUDN Journal of Psychology and Pedagogics*. 4:29-36.
- Kaufman, A.B. (2014). Let's talk about Citizen Science: What *doesn't* work. *Animal Behaviour and Cognition*. 1:442-447.
- Kaufman, A.B., and J.C. Kaufman. (2014). Applying theoretical models of human creativity to animal studies. *Animal Behaviour and Cognition*.1: 77-89.
- Kaufman, A.B., Colbert-White, E.N., and R. Rosenthal. (2014). A novel rater agreement methodology for language transcriptions: Evidence from a nonhuman speaker. *Quality and Quantity*. 48: 2329-2339.
- Kaufman, A.B., Colbert-White, E.N., and C. Burgess. (2013). Higher-order syntactical structures in an African Grey parrot's vocalizations: Evidence from the Hyperspace Analog to Language (HAL) model. *Animal Cognition*. 16: 789-801.
- Kaufman, A.B., Green, S.R., Seitz, A.R., and C. Burgess. (2012). Using a Self-Organizing Map (SOM) and the Hyperspace Analog to Language (HAL) model to identify patterns of syntax and structure in the songs of humpback whales. *International Journal of Comparative Psychology*. 25: 237-275.
- Kaufman, A.B., Butt, A.E., Kaufman, J.C., and E. N. Colbert-White (2011). Towards a neurobiological model of creativity in animals. *Journal of Comparative Psychology*. 125: 255-272
- Kaufman, A.B., and R. Rosenthal. (2009). Can you believe my eyes? The importance of inter-observer reliability statistics in observations of animal behaviour. *Animal Behaviour*. 78: 1487-1491.
- Kaufman, A. B. (2004). A model for creativity in animals: Its development and some applications for marine animals. *Soundings: The Quarterly Publication of the International Marine Animal Trainers Association*. 29, 8 - 11.
- Kaufman, J.C., and A. B. Kaufman. (2004). Applying a creativity framework to animal cognition. *New Ideas in Psychology*. 22, 143 – 155.

Chapters

- Kaufman, A.B. (2021). Innovation in Marine Mammals. In: A.B. Kaufman, J. Call, and J.C. Kaufman (eds), *The Cambridge Handbook of Animal Cognition*. New York: Cambridge University Press.
- Kaufman, A.B. and M. Pagel. (2018). Feedback in Animals. In: A. Lipnevick and J. Smith (eds), *The Cambridge Handbook of Educational Feedback*. New York: Cambridge University Press.
- Kaufman, A.B. and W. J. O'Hearn. (2017). Animal Creativity. In: J. C. Kaufman, V. P. Glaveanu and J. Baer (eds), *The Cambridge Handbook of Creativity Across Disciplines*. New York: Cambridge University Press.
- O'Hearn, W.J., Kaufman, A.B., and J.C. Kaufman. (2015). Animal Creativity and Innovation: An Integrated Look at the Field. In: A.B. Kaufman and J.C. Kaufman (eds.), *Animal Creativity and Innovation* (pp. 501-506). Waltham, MA: Academic Press.
- Kaufman, A.B., Kornilov, S.A., Bristol, A.S., Tan, M., and E.L. Grigorenko. (2010). The neurobiological foundations of creative cognition. In: J.C. Kaufman and R.J. Sternberg (eds.), *Cambridge Handbook of Creativity* (pp. 216-232). New York: Cambridge University Press.
- McCowan, B., Doyle, L. R., Kaufman, A.B., Hanser, S. F., and C. Burgess. (2008). Detection and estimation of complexity and contextual flexibility in nonhuman animal communication systems. In: U. Griebel and K. Oller (eds.), *Evolution of Communicative Flexibility: Complexity, Creativity, and Adaptability in Human and Animal Communication* (pp. 281-304). Cambridge, MA: MIT Press.
- Kaufman, J. C., Plucker, J. A., Dow, G. T., Baer, J., Andrews, C. J., Mitchell, E. R., and A.B. Kaufman. (2006). Creativity and the special education student. In E. Fletcher-Janzen & C. R. Reynolds (Eds), *Special Education Almanac* (pp. 369-390). New York: John Wiley.
- Kodrlová, I., Kaufman, A. B., Kaufman, J. C., Čermák, I., and C. Burgess. (2005). Analýza deníků Sylvie Plathové pomocí HAL. (Analyses of Sylvia Plath's journals with the help of HAL). In M. Miovisky, I. Cermak, & Vladimír Chrz (Eds.), *Kvalitativní přístup a metody ve vědách o člověku IV*. Olomouc, Czech Republic: Olomouc.

Book Reviews

Kaufman, A.B. and J.C. Kaufman. (2009). Review of Scenario Visualization by Robert Arp. *American Journal of Biology*. 21, 139-140.

Kaufman, A.B. (2007). An Overview of the Neuroscience of Creativity: Review of Creativity and the Brain by Kenneth M. Heilman. *Psychology of Aesthetics, Creativity, and the Arts*, 1(4), 250 –251.

Encyclopedia Entries

Kaufman, A.B. (2008). Baja California. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 46-47). Wallingford, UK: CAB International.

Kaufman, A.B. (2008). Clicks. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 92). Wallingford, UK: CAB International.

Kaufman, A.B. (2008). Educational Cruises. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 150-151). Wallingford, UK: CAB International.

Kaufman, A.B. (2008). Intergovernmental Oceanographic Commission. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 234). Wallingford, UK: CAB International.

Kaufman, A.B. (2008). International Fund for Animal Welfare. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 241). Wallingford, UK: CAB International.

Kaufman, A.B. (2006). Conditional Probability. In N. J. Salkind (Ed.), *Encyclopedia of Measurement and Statistics* (pp. 176-177). London: Sage.

Katz, A. B. (2003). Acromicric Dysplasia. In E. Fletcher Janzen & C. R. Reynolds (Eds.), *Childhood Disorders Desk Reference* (pp. 8-9). New York: Wiley.

Presentations

Ciletti, J. and A.B. Kaufman (2024, April). Training novel vocalizations in a Beluga whale (*Delphinapterus leucas*). The International Marine Animal Trainers Association.

** 2nd place, "Training" category

** Winner, best abstract

Kaufman, A.B., and J.C. Kaufman (2021, September). Animal Innovation. Invited keynote at The International Conference on Computational Creativity, Mexico City, Mexico.

Kaufman, A.B. (2016, August). *Biological roots of creativity: From neuroscience to ecology and evolution*. Invited talk at Pontificia Universidad Catolica de Chile, Santiago, Chile.

Kaufman, A.B. (2015, November). *Innovation and Tool Use in Animals*. Invited talk at the Connecticut Parrot Society, Berlin, Connecticut.

Kaufman, A.B., and J.C. Kaufman. (2014, November). *The Psychology of Animal Creativity*. Invited talk at Western Connecticut State University.

Kaufman, A.B. (2014, November). *Innovation Abilities in Animals and Their Necessity for Survival in Global Climate Change*. Talk presented for The Global Café at The University of Connecticut, Avery Point.

Yeater, D., Kaufman, A.B., Dudzinski, K.M., and D.K. Melzer. (2014, August). *Who trains what and whom?* Poster presented at the *Animal Behavior Society*, Princeton, NJ.

Kaufman, A.B. (2014, January). *The neuropsychological roots of creativity*. Invited talk at Nanyang Technical University, Singapore

Kaufman, A.B. (2013, May). Creativity and animals: A cognitive and neurological model. Invited talk at Shaanxi Normal University, Xi'an, China.

Kaufman, A. B., Reynolds, M.R. and A.S. Kaufman. (2013, August). Psychometric analysis of the abilities of apes and 2.5 year olds. Paper presented at *American Psychological Association*, Honolulu.

Kaufman, A.B. (2007, November). *The neuropsychological roots of creativity*. Invited talk given at National Kaohsiung Normal University, Kaohsiung, Taiwan.

- Kaufman, A.B., Butt, A.E., and J.C. Kaufman. (2007, November). Creativity and animals: A cognitive and neurological model. Talk presented at the *Society for Neuroscience Convention*, San Diego.
- Burgess, C. and A.B. Kaufman. (2007, November). Examining the evidence for recursion in animals. Poster presented at the *Psychonomics Society Convention*, Long Beach.
- Kaufman, A. B., Burgess, C., Chakravartty, A., and B. McCowan. (2006, November). HAL meets flipper: Modeling of marine mammal vocalizations in high dimensional semantic space. Poster presented at *Psychonomics Society Conference*, Houston.
- Kaufman, A. B., Burgess, C., and B. McCowan. (2006, August). Modeling Marine Mammal Vocalizations in High-Dimensional Semantic Space. Poster presented at *American Psychological Association*, New Orleans.
- Kaufman, A. B., Butt, A. E., and J.C. Kaufman. (2006, August). Creativity in Animals: A Cognitive and Neurological Model. Poster presented at *American Psychological Association*, New Orleans.
- Kaufman, A. B., Burgess, C., and B. McCowan. (2005, November). HAL "sleeps with the fishes": Modeling of marine mammal vocalizations in high dimensional semantic space. Poster presented at the *Society for Computers in Psychology (SCiP) Conference*, Toronto, Ontario, Canada.
- Kaufman, A. B., Burgess, C., and B. McCowan. (2005, December). HAL meets flipper: Modeling of marine mammal vocalizations in high dimensional semantic space. Poster presented at the *Society for Marine Mammalogy Conference*, San Diego, California.
- Kaufman, A.B. (2005, May). *Creativity and Linguistic Modeling in Animals*. Invited talk at National Yang Ming University, Taipei, Taiwan.
- Kaufman, A.B. (2005, May). *Creativity and Linguistic Modeling in Marine Mammals*. Invited talk at National Taiwan University, Taipei, Taiwan.
- Kaufman A. B., Kodrlová, I., Čermák, I., and C. Burgess. (2005, January). HAL (The Hyperspace Analog to Language Model). Poster presentation at *IV. ročník česko-slovenské konference Kvalitativní přístup ve výzkumu ve vědách o člověku & II. ročník konference Kvalitativní přístup v adiktologickém výzkumu*, Olomouc, Czech Republic.

Kodrilová, I., Kaufman A. B., Kaufman, J. C., Čermák, I., and C. Burgess. (2005, January). Analýza deníků Sylvie Plathové pomocí HAL (The Hyperspace Analog to Language Model). Presented at *IV. ročník česko-slovenské konference Kvalitativní přístup ve výzkumu ve vědách o člověku & II. ročník konference Kvalitativní přístup v adiktologickém výzkumu*, Olomouc, Czech Republic.

Kaufman, A.B. (2004, March). *A model for creativity in animals: Its development and applications*. Invited talk at Akdeniz University, Antalya, Turkey.

Kaufman, A. B. (2003, November). A model for creativity in animals: Its development and some applications for marine animals. Presented at the *International Marine Animal Trainers Association (IMATA) Conference*, Long Beach, California.

Grants

Creating an Insect Exhibit at the Lutz Children's Museum.

- Written to convert half of the Nature Center at the Lutz Children's Museum into an interactive exhibit space showcasing invertebrates.
- Funded for \$803.00 in 2021.

Editorial Activities

Editorial Board: *International Journal of Creativity and Problem Solving*

Manuscript Reviewer: Jossey-Bass; McGraw Hill Publishers; Worth Publishing

Ad Hoc Reviewer: *Animal Behaviour, Animal Cognition, Aquatic Mammals, Behavioural Processes, International Journal of Biodiversity and Conservation, International Journal of Comparative Psychology, Journal of Applied Animal Welfare Science, Journal of Creative Behavior, Learning and Individual Difference, Neurocase, Perceptual and Motor Skills, Psychology of Popular Media Culture, Psychological Assessment, Psychological Reports, PNAS Nexus, Science*

Media

Critical Thinking. 2021. The Helyx Show Student Podcast.

Langley, Liz. (2018). Can animals be creative? Pigcasso the painting pig is Making her case. National Geographic's Weird Animal Questions of the

Week. <https://news.nationalgeographic.com/2016/02/animals-culture-pigs-art-painting/>

Genie et folie: L'oeuf ou la Poule? (Engineering and Madness: The chicken or the egg?). 2017. Le Cercle Psy. (in French)

Noach and Zoos 2016/5777. 2016. Parshacast.

Animal Cognition. 2016. The Brainwaves Video Anthology.

Language Capabilities in Animals. 2016. The Brainwaves Video Anthology

60 Seconds with Allison Kaufman. 2016. The Brainwaves Video Anthology.

Animal Creativity and Innovation. 2016. The Brainwaves Video Anthology.

Animal Love Stories. 2013. BBC Natural World documentary series.
Consultant.

Media Review for *Discovering Biological Psychology*, by Laura Freberg,
Cengage Publishing

Animal Artists. Interview aired on June 30, 2006 on *Studio 360*, a National Public Radio program.

Non-Peer Reviewed Articles

Kaufman, A. B. (2004). The Creative Canine. *The Clicker Journal*. 68, 4-7.

Kaufman, A. B. (2004). Creativity and innovation in clicker training.
The Clicker Journal. 64, 4-6.

Academic Honors and Awards

Chancellor's Dissertation Fellowship, 2 quarters, 2009-2010

Janet M. Boyce Memorial Scholarship, 2007, 2008

George H. Cook Scholar, 1999

Professional Organizations

AZA, American Zoo and Aquarium Association

IMATA, International Marine Animal Trainer's Association

The Society for Marine Mammalogy

Professional Certifications

State of Connecticut licensed wildlife rehabilitator (2023)
SSI Open Water Diver SCUBA certification (2023)

Other Teaching/Work Experience

- 2019 – 2020** The Zoo at Forrest Park
Springfield, MA
Husbandry volunteer
- Interrupted due to Covid19
- 2014 - 2019** Carolina Loving Hound Rescue
Greenville, SC
Board Member of Hound Rescue organization
- 2002 – 2003** San Bernardino County Museum
Redlands, California
Animal care and education specialist
- 2001 – 2002** Educational Testing Service
Princeton, NJ
Research assistant
- 2000** The New York Aquarium
Brooklyn, NY
Instructor, education department
- 1997 - 2001** New Jersey State Aquarium (now Adventure Aquarium)
Camden, NJ
Intern, volunteer, temporary staff; seal and penguin team
- 1999 – 2000** The Douglass Project for Rutgers Women in Math, Science,
and Engineering
New Brunswick, NJ
Program assistant
- 1995 – present** Girl Scouts of the USA (adult member)
East Brunswick, NJ; Redlands, CA; and Hartford, CT
Troop leader (all ages), Trainer (specializing in leadership,
age level, outdoors), Committee Chair,
Representative on International committees (including
UN Non-Governmental Organizations), Co-Chair
Friends of Sangam USA (international fundraising
organization)