

JENNIFER M. CHEN

Department of Animal Science, University of California
One Shields Avenue, Davis, CA 95616
jmchen@ucdavis.edu
530-752-3643 (lab)

EDUCATION

Ph.D., Animal Behavior, University of California, Davis, CA (2010 – 2015)

B.A., Psychology, *Magna cum Laude*, Harvard University, Cambridge, MA (2000 – 2004)

RESEARCH EXPERIENCE

Postdoctoral Research (2016 – Present)

Department of Animal Science, UC Davis

Research Focus: Dairy cattle comfort when exposed to extreme environmental conditions (heat, mud); beef cattle motivation to obtain roughage

Principal Investigator: Cassandra Tucker, Ph.D.

Doctoral Dissertation Research (2010 – 2015)

Department of Animal Science, UC Davis

Dissertation: Cooling dairy cows efficiently with sprinklers: Behavioral, physiological, and production responses to water spray

Committee: Cassandra Tucker, Ph.D. (*supervisor*), Joy Mench, Ph.D., Karin Schütz, Ph.D.

Honors Thesis Research (2001 – 2004)

Department of Psychology, Harvard University, Cambridge, MA

Department of Neurology, Brigham & Women's Hospital, Boston, MA

Honors Thesis: Individual differences in use of the distinctiveness heuristic¹ by Alzheimer's patients: The role of anosognosia² in the reduction of false recognition

(¹a meta-cognitive strategy to avoid false memories; ²self-awareness of cognitive deficits)

Supervisors: Andrew Budson, M.D., Daniel Schacter, Ph.D.

TEACHING EXPERIENCE

Teaching Assistant, UC Davis

Delivered lectures, led laboratory and discussion sections, developed curriculum material, supervised undergraduate teaching assistants, graded assignments and exams

Animal Welfare (ANS 103; 2013)

Domestic Animal Behavior (ANS 104; 2014)

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Domestic Animal Production (ANS 41; 2014)
Domestic Animal Production Laboratory (ANS 41L; 2012)
Introduction to Biology: Principles of Ecology & Evolution (BIS 2B; 2011 – 2015)
Introduction to Ecology (EVE 101; 2015)
Introductory Horse Husbandry (ANS 15; 2015)
Statistical Analysis of Psychological Data (PSC 103A; 2010)

Undergraduate Mentoring, UC Davis

Co-supervised Animal Biology practicum (2013 – 2015): Alex Tsai, “Dairy cattle change head posture when walking through cooling sprinklers with higher flow rates”

Supervised 20 research assistants (2011 – 2015): Jordan Alarcon, Esteban Aleman, Setareh Badr, Theresa Chao, Renee Dematei, Amanda Dilbeck, Zoe Hsi, Steven Hsu, Ivana Hui, Laura MacIntyre, Louise Peckre, Rianna Ragland, Anna Roach, Ingrid Rodriguez, Cierra Scriven, Katherine Swanson, Veronica Wang, Matthew Warren, Sarah Watkins, Aaron Yoder

Supervised 2 teaching assistants (2011 – 2013): Janice Feng, Julian Roque

PROFESSIONAL EXPERIENCE

Merchandise Planning Analyst (2007 – 2010)

Sport Chalet, La Cañada, CA

Created strategic analyses and item-level directives for sporting goods retail chain, which helped increase gross profit margin by 4.2% despite challenging retail environment (2009 – 2010), and decreased inventory liability by 26%. As interim department head, coordinated submission of annual financial plan, and was awarded company stock in recognition of leadership.

Sales and Customer Service Supervisor (2004 – 2007)

McMaster-Carr Supply Company, Santa Fe Springs, CA

Supervised 11 sales and customer service representatives for industrial supply distributor; reduced employee errors by >46% and increased productivity by >12% through coaching and feedback. Composed budget justification and managed staffing and scheduling for department of 80; improved staffing model predictive accuracy by >1.5 employees/day.

GRANTS, FELLOWSHIPS, AWARDS, AND SCHOLARSHIPS

Grants

Henry A. Jastro Graduate Research Award (2013: \$3,000; 2012: \$3,000; 2011: \$2,000)

Fellowships

Rosenberg Graduate Research Fellowship (2015: \$4,500)

Lillie May Richards Fellowship (2014: \$15,000; 2013: \$15,885; 2012: \$16,200; 2010: \$22,500)

Hart, Cole, Goss Fellowship (2013: \$4,200)

G. Kirk Swingle Fellowship (2012: \$4,200)

Animal Behavior Graduate Group Fellowship (2011: \$5,232)

Awards

Student Poster Competition: *First Place* (2015: \$1,250). California Animal Nutrition Conference, Fresno, CA

Graduate Student Oral Presentation Competition: *First Place* (2014: \$150). 12th North American Regional Meeting of the International Society for Applied Ethology (ISAE), East Lansing, MI

People's Choice for Best Oral Presentation: *First Place* (2013: \$200). Interdisciplinary Graduate and Professional Student Symposium, UC Davis

Student Poster Competition: *First Place* (2011). 45th Congress of the ISAE, Indianapolis, IN

Graduate Research Fellowship: *Honorable Mention* (2011). National Science Foundation
Harvard Psychology Faculty Prize for honors thesis (2004)

Scholarships

Humane Society International/Humane Society US Travel Award (2015: \$200; 2013: \$500)
ISAE Travel Award (2015: £350)

UC Davis Graduate Student Association Travel Award (2011: \$500)

UC Davis Office of Graduate Studies Travel Award (2014: \$500)

Harvard College Scholarship for academic distinction (2001 – 2004)

PUBLICATIONS

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. *In press* (2016). Cooling cows efficiently with water spray: Behavioral, physiological, and production responses to sprinklers at the feed bunk. *Journal of Dairy Science*. (*Ph.D. dissertation work*)

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. *In press* (2016). Sprinkler flow rate affects dairy cattle avoidance of spray to the head, but not overall, in an aversion race. *Applied Animal Behaviour Science*. (*Ph.D. dissertation work*)

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. 2015. Cooling cows efficiently with sprinklers: Physiological responses to water spray. *Journal of Dairy Science*. 98:6925-6938. (*Ph.D. dissertation work*)

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. 2013. Dairy cows use and prefer feed bunks fitted with sprinklers. *Journal of Dairy Science*. 96:5035-5045. (*Ph.D. pre-dissertation work*)

Gallo, David A., **Jennifer M. Chen**, Amy L. Wiseman, Daniel L. Schacter, and Andrew E. Budson. 2007. Retrieval monitoring and anosognosia in Alzheimer's disease. *Neuropsychology*. 21:559-568. (*B.A. honors thesis work*)

Submitted

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. Sprinkler flow rate affects dairy cattle preferences, heat load, and insect-deterrence behavior. *Applied Animal Behaviour Science*. (Ph.D. dissertation work, submitted August 25, 2015)

Manuscripts in Preparation

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. Comparison of instantaneous scan sampling and continuous observation of dairy cattle behavior in freestall housing. (Postdoctoral work, manuscript completed and in review with co-authors)

Chen, Jennifer M., Carolyn L. Stull, David N. Ledgerwood, and Cassandra B. Tucker. Muddy conditions affect lying time, cleanliness, and immune status in dairy cattle. (Postdoctoral work, analysis completed, manuscript in preparation)

Chen, Jennifer M., Erin M. Mintline, and Cassandra B. Tucker. Motivation of beef heifers to obtain concentrate or roughage, and individual behavioral responses to novel feed. (Postdoctoral work, data collection and preliminary analysis completed)

Chen, Jennifer M., Erin M. Mintline, and Cassandra B. Tucker. Motivation of beef heifers to obtain roughage when fed a diet of concentrate versus hay. (Postdoctoral work, data collection and preliminary analysis completed)

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. Physiological responses of dairy cattle to water spray applied for different amounts of time. (Postdoctoral work, data collection completed, analysis in progress)

Non-Refereed Publications

Chen, Jennifer M., Grazyne Tresoldi, and Cassandra B. Tucker. 2014. Are your cows hot? *Hoard's Dairyman Magazine*. July:447. [In Spanish: Sept:570-571]

Chen, Jennifer M. and Cassandra B. Tucker. 2014. Water costs: Soaker nozzle type affects water use, but not cow cooling. *California Dairy Magazine*. Oct:12.

Chen, Jennifer M. and Cassandra B. Tucker. 2014. Soaker nozzle type affects water use, but not cow cooling. *California Dairy Newsletter*. University of California Agriculture and Natural Resources. July:5-6.

PRESENTATIONS

Invited Presentations

Chen, Jennifer M. and Cassandra B. Tucker. January, 2015. Soakers to cool cows: Can we reduce water use? *Managing Cow Comfort in Hot Weather*. University of California Cooperative Extension, Tulare, CA.

Chen, Jennifer M., Grazyne Tresoldi, Karin E. Schütz, and Cassandra B. Tucker. August, 2014. Optimizing use of water for cooling heat stressed dairy cows. *Symposium on Climate Change and Animal Production*. Davis, CA.

Refereed Abstracts

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. September, 2015. Cooling dairy cows efficiently with water: Effects of soaker flow rate on behavior and body temperature. *49th International Congress of the ISAE*. Sapporo, Japan.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. May, 2015. *Poster*: Cooling dairy cows efficiently with water: Effects of soaker flow rate on body temperature and behavior. *California Animal Nutrition Conference*. Fresno, CA.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. July, 2014. Sprinkler flow rate affects dairy cattle physiological and behavioral responses. *Joint Annual Meeting of the American Dairy Science Association (ADSA) and American Society of Animal Science*. Kansas City, MO.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. May, 2014. Sprinkler flow rate affects dairy cattle behavioral and physiological responses. *12th North American Regional Meeting of the ISAE*. East Lansing, MI.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. May, 2014. *Poster*: Sprinkler flow rate affects dairy cattle physiological and behavioral responses. *27th ADSA Discover Conference*. Itasca, IL.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. June, 2013. Dairy cattle preferences for sprinklers delivering different water volumes. *47th International Congress of the ISAE*. Florianopolis, Brazil.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. April, 2013. Dairy cattle interactions with sprinklers used to reduce heat load in summer. *3rd Annual Interdisciplinary Graduate and Professional Student Symposium*. Davis, CA.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. August, 2011. *Poster*: Dairy cattle preferences for feed bunks with or without sprinklers in summer. *45th International Congress of the ISAE*. Indianapolis, IN.

Non-refereed Scientific Meetings

Chen, Jennifer M., Grazyne Tresoldi, Karin E. Schütz, and Cassandra B. Tucker. July, 2014. Heat abatement on California dairies. *Annual Meeting of the USDA-W2173 Project (Impacts of Stress Factors on Performance, Health, and Well-Being of Farm Animals)*. Nebraska City, NE.

Chen, Jennifer M., Karin E. Schütz, and Cassandra B. Tucker. August, 2013. Dairy cattle physiological and behavioral responses to sprinklers delivering different water volumes. *Annual Meeting of the USDA-W2173 Project*. Davis, CA.

Invited Lectures and Seminars

Understanding dairy cow behavior to reduce heat load and conserve water. April, 2015. *Animal Behavior Seminar Series*. UC Davis.

Applying behavior to improve cattle management and welfare. July, 2015 and July, 2014. *Animal Behavior (NPB 102)*. UC Davis.

The dairy industry. May, 2015 and May, 2014. *Ethics of Animal Use (ANS 170)*. UC Davis.

Motivation. February, 2014 (2 lectures). *Domestic Animal Behavior (ANS 104)*. UC Davis.

Dairy cow behavioral research. December, 2013. *River City High School Science Club*. River City High School, West Sacramento, CA.

SERVICE EXPERIENCE

Reviewer

Applied Animal Behaviour Science (6), *Journal of Dairy Science* (5), *Animal* (1)

Animal Behavior Graduate Group, UC Davis

Advising committee: Peer academic advisor (2013 – 2015)

Interscholastic Regional Animal Behavior Student Conference: Co-organizer (2012 – 2013)

Seminar committee (2011 – 2012)

Department of Animal Science, UC Davis

Picnic Day committee (annual campus-wide public outreach event; 2013 – 2015)

Seminar committee (2011 – 2012)

Covell Commons Homeowners Association, Davis, CA

Board of Directors: Secretary (2011 – Present)

SOCIETY AFFILIATIONS

American Association for the Advancement of Science (since 2014)

American Dairy Science Association (since 2012)

California Cattlemen's Association (California Beef Quality Assurance Certified since 2012)

International Society for Applied Ethology (since 2011)

Phi Beta Kappa honor society (since 2004)

Phi Sigma biological sciences honor society (since 2011)