

<i>Contact Information</i>	Leonard Davis School of Gerontology University of Southern California 3715 McClintock Ave. Los Angeles, CA 90089	ycaza@usc.edu ycazaherrera.com
<i>Employment</i>	2019 - 2014 – 2019	Assistant Professor of Research USC Leonard Davis School of Gerontology Post-doctoral Scholar USC Leonard Davis School of Gerontology University of Southern California, Los Angeles CA
<i>Education</i>	2014 2009 2005	Ph.D., Psychology: Cognitive Neuroscience University of Southern California, Los Angeles CA Thesis: Effects of estradiol on cortisol response, working memory, and emotional memory during stress in young and post-menopausal women M.A., Psychology: Behavioral Neuroscience University of Southern California, Los Angeles CA Thesis: Age-related changes in cognitive functioning and their implications for the reacquisition of conditioned taste avoidances B.A., Psychology: Biological Emphasis University of Southern California, Los Angeles CA

PUBLICATIONS

* = undergraduate mentee; † = graduate co-mentee; ‡ = visiting international graduate co-mentee

H-index: 5 (Web of Science, 4/17/2021)

Mean/Weighted RCR: 1.48/8.85 (iCite, 4/17/2021)

Journal Articles

1. Nasser, P.†, **Herrera, A.Y.**, Gillette, K.*, Faude, S.*, White, J.D.*, Velasco, R., & Mather, M. (2020). Hormonal contraceptive phases matter: Resting-state functional connectivity of emotion-processing regions under stress.
2. **Herrera, A.Y.**, Velasco, R., Faude, S.*, White, J.*, Opitz, P.C., Huang, R., Tu, K., & Mather, M. (2020). Brain activity during a post-stress working memory task differs between the hormone-present and hormone-absent phase of hormonal contraception. *Neurobiology of Stress*, <https://doi.org/10.1016/j.ynstr.2020.100248>

3. **Herrera, A.Y.**, Faude, S.* , Nielsen, S.E., Locke, M.* , & Mather, M. (2019). Effects of hormonal contraceptive phase and progestin generation on stress-induced cortisol and progesterone release. *Neurobiology of stress*, <https://doi.org/10.1016/j.ynstr.2019.100151>
4. **Herrera, A.Y.**, Wang.J.†, & Mather, M. (2019). The gist and details of sex differences in cognition and the brain: How parallels in sex differences across domains are shaped by the locus coeruleus and catecholamine systems. *Progress in neurobiology*, 176, 120-133.
5. **Herrera, A.Y.**, Hodis, H.N., Mack, W.J., & Mather, M. (2017). Estradiol after menopause reduces cortisol response to stress and mitigates effects of stress on working memory. *Journal of Clinical Endocrinology & Metabolism*, <https://doi.org/10.1210/jc.2017-00825>
6. **Herrera, A.Y.**, Nielsen, S. E., & Mather, M. (2016). Stress-induced increases in progesterone and cortisol in naturally cycling women. *Neurobiology of stress*, 3, 96-104.
7. **Herrera, A.Y.**, & Mather, M. (2015). Actions and interactions of estradiol and glucocorticoids in cognition and the brain: Implications for aging women. *Neuroscience & Biobehavioral Reviews*, 55, 36-52.
8. Sakaki, M., **Ycaza-Herrera, A.E.**, & Mather, M. (2014). Association learning for emotional harbinger cues: when do previous emotional associations impair and when do they facilitate subsequent learning of new associations? *Emotion*, 14(1), 115.

Book Chapters

1. Nielsen, S.E., & **Herrera, A.Y.** Sex Steroids, Learning and Memory. In: Pfaff, D.W and Joëls, M. (editors-in-chief), *Hormones, Brain, and Behavior* 3rd edition, Vol 1. Oxford: Academic Press; 2017. pp. 399–422.

Submitted & In Preparation

1. Jiménez-Balado, J., **Herrera, A.Y.**, Igwe, K., Klem, L.P., Buyukturkoglu, K., Irimia, A., Liu, C., Guo, J., Brickman, A.M., and Eich, T.S. (submitted). Reduced Hippocampal GABA is associated with Poorer Episodic Memory in Healthy Older Women: A Pilot Study.
2. **Herrera, A.Y.**, Gillette, K.* , Clewett, D., Velasco, R., Faude, S.* , White, J.* , & Mather, M. (in preparation). Hormonal contraceptive phase modulates salience processing under stress.

FUNDING

2018

USC Postdoctoral Training & Travel Award

Total Amount: \$2,000

- 2015-2018 National Institute on Aging (R21-AG0488463)
Effect of Estrogen on Working Memory During Stress (co-authored)
Role: Co-Investigator
PI: Mara Mather
Funded amount: \$453,438.00 (direct + indirect)
- 2013 Fellow, Dornsife 2020 Graduate Fellowship
Social Neuroscience: Integrating Society, Mind, and Brain
Total Amount: \$1,000
- 2012-2013 Fellow, Department of Psychology Valentine Fellowship
- 2012 Department of Psychology Summer Research Fellowship
Total Amount: \$5,000
- 2011 Department of Psychology Summer Research Award
Total Amount: \$3,000
- 2010 Department of Psychology Summer Research Award
Total Amount: \$3,000

CONFERENCE PRESENTATIONS

* = undergraduate mentee; † = graduate co-mentee

- Talks*
1. Frontoparietal network activation during an auditory oddball task differs across the hormonal contraceptive cycle. For Society for Neuroscience, Neuroscience **2018**: Behavioral Neuroendocrinology. San Diego, California, US.
 2. Effect of hormonal contraceptive phase on brain activation during a working memory task: Differences in The Default Mode Network. For the Winter Conference on Brain Research: Sex, Signaling and Human Brain Development **2018**. Whistler, B.C., Canada.
- Poster Presentations*
1. **Herrera, A.Y.**, Nasser, P.†, Gillette, K.* , Faude, S.* , White, J.* , Velasco, R., Mather, M. (2019). Resting state functional connectivity under stress differs across the hormonal contraceptive cycle. Neuroscience 2019 Abstracts, Chicago, IL, US: Society for Neuroscience, 2017. Online
 2. Gillette, K.* , **Herrera, A.Y.**, Velasco, R., Faude, S.* , White, J.* , Mather, M. (2018). Differential effects of stress exposure on salience network activation across the hormonal contraceptive cycle. University of Southern California Undergraduate Symposium for Creative and Scholarly Work, Los Angeles, CA, US.

3. **Herrera, A.Y.**, Velasco, R., Faude, S.*, White, J.*, Opitz, P.C., Huang, R., Tu, K., Mather, M. (2018). Effect of hormonal contraceptive phase on default mode network activity during working memory under stress. Winter Conference on Brain Research, Whistler, B.C, Canada.
4. **Herrera, A.Y.**, Velasco, R., Faude, S.*, White, J.*, Opitz, P.C., Huang, R., Tu, K., Mather, M. (2017). Differential effects of stress exposure on working memory performance across the hormonal contraceptive cycle. Neuroscience 2017 Abstracts, Washington, D.C., US: Society for Neuroscience, 2017. Online
5. White, J.*, **Herrera, A.Y.**, Mather, M. (2017). The effects of hormonal contraception on hippocampal volume in young women: a neuroimaging study. University of Southern California Undergraduate Symposium for Creative and Scholarly Work, Los Angeles, CA, US.
6. Faude, S.*, **Herrera, A.Y.**, Mather, M. (2016). The relationship between female sex hormones, mood, and the stress response in women using and not using hormonal contraception. University of Southern California Undergraduate Symposium for Creative and Scholarly Work, Los Angeles, CA, US.
7. **Ycaza, A.E.**, Nielsen, S.E., Mather, M. (2015). Stress response profiles in women during the active hormone and inactive no-hormone weeks of hormonal contraception. Neuroscience 2015 Abstracts, Chicago, IL, US: Society for Neuroscience, 2015. Online
8. **Ycaza, A.E.**, Nielsen, S.E., Mather, M. (2014). Cortisol response to cold pressor stress varies during the follicular phase of the menstrual cycle depending on progesterone levels. Neuroscience 2014 Abstracts, Washington, DC, US: Society for Neuroscience, 2014. Online.
9. **Ycaza, A.E.**, Hodis, H.N., Mack, W.J., Mather, M. (2013). Estrogen treatment after menopause protects against stress-induced impairments in working memory. Neuroscience 2013 Abstracts, San Diego, California, US: Society for Neuroscience, 2013. Online.
10. Sakaki, M., **Ycaza, A.**, & Mather, M. (2012). When do previous emotional associations impair and when do they facilitate subsequent learning of new associations? 53rd Annual Meeting of Psychonomic Society, Minneapolis, US.
11. Lighthall N, Nga L, **Ycaza A**, Jang J, Velasco R, Mather M. (2012). Stress effects on reinforcement learning in younger and older women: An fMRI investigation. Cognitive Neuroscience Society. Chicago, IL, US.
12. Hintiryan, H., Foster, N.N., **Ycaza, A.E.**, Chambers, A.Y., Keebler, C.N., Lavond, D.G., and Chambers, K.C. (2006). Contribution of unconditioned reductions in food consumption to conditioned taste avoidance induced

by estradiol. Neuroscience 2006 Abstracts, Atlanta, Georgia, US: Society for Neuroscience, 2006. Online.

INVITED TALKS & MEDIA

- 2021 Jacobs Lab, UCSD
- 2017 Byte of Science for The Hamed Mirzaei Foundation for the Arts & Sciences, Venice, CA
- 2015 Brain and Cognitive Sciences and Developmental Psychology Seminar Series, USC
- 2013 Invited Panelist for Neuroscience 2013 Hormones and Sex Differences Press Conference. Hormones impact stress, memories, and understanding social cues: Research reveals new roles for estrogen and finds potential biomarker for maternal stress. Society for Neuroscience. San Diego, California, US.

OTHER TRAINING

- 2019 Future Faculty Teaching Institute, USC
- 2017 [Neuroscience School of Advanced Studies](#), Siena, Italy
Advanced Course in Cognitive Decline and Aging

TEACHING AND MENTORING EXPERIENCE

Teaching

- 2017 Guest Lecturer, Emotion-Cognition Interactions in Aging
Effects of age-related hormonal shifts on health and behavior.
- 2017 Guest Lecturer, Psychology of Adult Development and Aging
Reproductive senescence in the human female.
- 2015-2016 Guest Lecturer, Psychology of Adult Development and Aging
Hormone changes in aging: symptoms and effects.
- 2015 Guest Lecturer, Seminar in the Life Sciences
Estradiol and stress: implications for system changes after menopause.
- 2008-2014 Teaching Assistant, Behavioral Neuroscience (PSYC 326)
- 2009-2010 Teaching Assistant, Learning and Memory (PSYC 305)
- 2007-2008 Teaching Assistant, Statistics I (PSYC 274)
- 2006-2007 Teaching Assistant, Introduction to Psychology (PSYC 100)

Mentoring

Graduate advising:

- Padideh Nasser, Ph.D. student USC Neuroscience Graduate Program, Co-Mentor
University of Southern California
- Evan Michael Hess, Ed.D., Dissertation Committee Member
University of Southern California
- Jia-xi Wang, Ph.D. student visiting from East China Normal University, Co-Mentor

Undergraduate advising: Research Assistants

- Erin Silliman
- Kerry McAuley

Anne Marie Collins
Katherine Gillette+
Jessica White**
Sophia Faude+
Aimee Ochsner
Mallory Locke
Henna Shin
Audrey Chai
Claire Bazley
Simran Mazloom
Rohit Jayakar+
Grant Chandler
Stephanie Chan

*USC Neuroscience Honors Program student

+student presented at the USC Undergraduate Symposium for Creative and Scholarly Work

PROFESSIONAL SERVICE

Ad-hoc Emotion
Reviewer Hormones and Behavior
Psychoneuroendocrinology
PLOS One
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Brain and Cognition

Society Society for Neuroscience
Affiliations American Association for the Advancement of Science
Association for Psychological Science
Psi Chi Honor Society (Psychology)