July 14, 2023

Noelle E. Cockett, Ph.D. President Utah State University

Via e-mail: Noelle.Cockett@usu.edu

Dear President Cockett:

Thank you in advance for your time. I am writing in reference to PETA's letter to you dated September 2, 2022,¹ regarding the use of live animals in the laboratory portion of Advanced Analysis of Behavior undergraduate course (PSY 3400) at Utah State University (USU),² and the subsequent replies dated October 13, 2022,³ and November 18, 2022,⁴ from Amanda DeRito, USU Associate Vice President for Strategic Communications, who confirmed that the course "is no longer using pigeons" but is still exposing "rats to various experimental stimuli."

Recently, PETA obtained disturbing public records and video footage of USU's rats and pigeons used in the PSY 3400 course for operant conditioning experiments. Based on the information described below—which includes new simulation models not mentioned in our September 2, 2022, letter—we urge you to fully replace the use of animals in PSY 3400 with effective, non-animal teaching methods.

In the videos we have obtained, rats (and previously pigeons) were locked inside barren and noisy metal boxes, where they were deprived of water and blasted with random bursts of bright light while being trained to push a lever to receive food pellets.

In our September 2, 2022, letter to you, we pointed out several examples of engaging and effective methods designed to help undergraduate^{5,6,7} and

 ²Syllabus for Spring 2021 PSY-3400. Utah State University. Accessed July 6, 2023. <u>https://www.peta.org/wp-content/uploads/2023/07/PSY3400Spring21SyllabusUSU.pdf</u>.
³DeRito A.NE. E-mail reply to Wiśniewska M. October 13, 2022.

https://www.peta.org/wp-content/uploads/2023/07/RE-For-President-Cockett-from-PETA-%E2%80%93-request-to-end-animal-use-in-USU-PSY-3400_Redacted.pdf

⁴DeRito A. E-mail reply to Wiśniewska M. November 18, 2022. <u>https://www.peta.org/wp-content/uploads/2023/07/2022-11-18-reply-letter-to-clarify-end-animal-use-in-psy3400_Redacted.pdf</u>.

PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS

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¹Wiśniewska M. Letter to President Cockett. September 2, 2022. <u>https://www.peta.org/wp-content/uploads/2023/06/2022-09-02-letter-to-usu-president-cockett.pdf.</u>

⁵Bish JP, Schleidt S. Effective use of computer simulations in an introductory neuroscience laboratory. *J Undergrad Neurosci Educ.* 2008;6(2):A64–A67.

⁶Evert DL, Goodwin G, Stazvener AJ. Integration of computer technology into an introductorylevel neuroscience laboratory. *Teach Psychol.* 2005;2(1):69–73.

⁷Griffin JD. Technology in the teaching of neuroscience: Enhanced student learning. *Adv Physiol Educ.* 2003;27:146–155.

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graduate^{8,9} students of psychology and neuroscience to conduct virtual experiments, observe animal behavior, and collect and analyze data—all without exploiting or killing animals including, (AI)² Inc.'s CyberRat Operant Laboratory Simulations Program,¹⁰ The Learning Simulator,¹¹ Sniffy the Virtual Rat,¹² humane field studies^{13,14,15,16} and assorted other non-animal classroom experiments.^{17,18} Unfortunately, in her November 18, 2022, e-mail reply to us, Ms. DeRito wrote, "USU's review of currently available non-animal behavior models failed to identify any viable alternatives. The computer simulations mentioned in your previous letter are inadequate as they are woefully out of date, and do not accurately model the response of rats to various experimental stimuli."¹⁹

While we strongly disagree with Ms. DeRito's assessment regarding the efficacy and up-to-date status of the simulation models we had described, we would like to address her concerns directly by providing more animal-free simulation methods for your consideration, namely:

• **The Shaping Game:**²⁰ This game allows students to design psychology experiments and practice with some operant conditioning principles such the effects of positive reinforcement, positive punishment, superstitious behavior and operant extinction with very little additional equipment.²¹ A simple application of the shaping game may be where the shaper (student A) manipulates movement behavior of the learner (student B) via the clicker or a piece of candy as conditioning reinforcers. The learner "may start by standing away from the chairs in the room. As the learner leans, looks, or moves in the direction of a chair, the shaper [may] provide a click as a reinforcer."²² With time, the learner should recognize the conditioning reinforcers and exhibit more moving towards a chair, and eventually sit in the chair (target behavior).

⁸Sheen J, Sutherland-Smith W, Thompson E, et al. Evaluating the impact of simulation-based education on clinical psychology students' confidence and clinical competence. *Clin Psychol.* 2021;1923125.

⁹Naudé L, Botha A. It's a virtual child! Postgraduate students' experiences in a developmental psychology class. *Perspect Educ.* 2017;35(1):54–65.

¹⁰(AI)² Inc. CyberRat. Accessed June 15, 2023. <u>https://www.ai2inc.com/HomeProducts/cyberrat.html</u>

¹¹The Learning Simulator. Accessed June 15, 2023. <u>https://www.learningsimulator.org/</u> ¹²Sniffy the Virtual Rat. Accessed June 15, 2023. <u>http://www.sniffythevirtualrat.com/</u>

¹³Cohen PS, Block M. Replacement of laboratory animals in an introductory-level psychology laboratory. *Humane Innovations and Alternatives*. 1991;5:221–225.

¹⁴Flaisher-Grinberg S. For the love of dogs: An academia-community partnership targeting a mutual goal. *The Journal of the Center of Interdisciplinary Teaching and Learning*. 2021;9(1):8–15.

¹⁵McDonald TW, Caso R, Fugit D. Teaching and learning operant principles in animal shelters: Perspectives from faculty, students, and shelter staff. *J Instr Psychol*. 2005;32(4):310–321.

¹⁶Back to Shool Operant Conditioning with Tigers. Carolina Tiger Rescue. Accessed June 19, 2023. <u>https://carolinatigerrescue.org/newsroom/back-to-school/</u>

¹⁷Shields C, Gredle M. A problem-solving approach to teaching operant conditioning. *Teach Psychol*. 2003;30:114–116.

¹⁸Chrisler JC. Conditioning the instructor's behavior: A class project in psychology of learning. *Teach Psychol*. 1998;15:135–137.

¹⁹ DeRito A. E-mail reply to Wiśniewska M. November 18, 2022. <u>https://www.peta.org/wp-content/uploads/2023/07/2022-11-18-reply-letter-to-clarify-end-animal-use-in-psy3400_Redacted.pdf</u>.

²⁰Morgan, W. G. (1974). The shaping game: A teaching technique. *Behavior Therapy*. 1974:5: 271-272. <u>https://psycnet.apa.org/doi/10.1016/S0005-7894(74)80144-9</u>

²¹Swisher M. Teaching Operant Conditioning Principles via Virtual reality and In-Class Demonstrations. May 31, 2023. Accessed July 6, 2023. <u>https://science.abainternational.org/2023/05/31/teaching-operant-conditioning-principles-via-virtual-reality-and-in-class-demonstrations/</u>

- **PsychMate**®:²³ "PsychMate is a set of software tools for undergraduate psychology students to [develop], run..., and analyze [realistic] experiments... in the areas of perception, cognition, social psychology, human factors, and cognitive neuroscience." ^{24,25} While using this platform, the student can work independently or collaborate with others. "The automatic spreadsheet analysis forms allow [students to analyze their data, and create] presentations and Web pages.... Associated applications such as [t]he Brain-Tutor and BrainViewer teach brain anatomy and permit students to analyze fMRI brain imaging data from subjects who have performed... memory experiments [similar to those covered by PsychMate users]."²⁶ "PsychMate has been used in 83 classes in which 1,533 students submitted 5,464 completed experiments with few (less than 1%) requests for help and a very positive rating of the research experience."²⁷
- **Open Access Data Analysis:** Data literacy is considered as a key twenty-first century skill set.²⁸ Asking students to characterize open data sets through visualization and statistical inference, can not only help them explore themes in psychology, but also develop transferable analytical skills. For instance, data types relevant to learning about emotional and motivational factors of behavior include traffic violation records vis-à-vis questions about repeated offense behaviors, and credit card reward program participation records vis-à-vis questions about compulsive buying disorder.²⁹ Many open access repositories offer educators the freedom to access data on a range of topics in psychology³⁰ and design unique activities with real-world relevance.

Again, there is no legal, scientific or ethical justification to continue to harm animals to prepare students for careers in brain science. It is also critical that young psychologists and neuroscientists have the opportunity to discuss the problems associated with animal use in education, and are presented with the plethora of non-animal tools. Otherwise, we risk fostering a "culture of disengagement" regarding issues of public welfare³¹ or alienating talented and compassionate people from the field.

You can contact me directly at MaggieW@peta.org. Please reply by August 4, 2023. Thank you.

²⁵Experiments for Teching Psychology. Accessed July 11, 2023. <u>https://pstnet.com/wp-content/uploads/2017/09/PsychMateProductSheet.pdf</u>

³⁰PsychArchives. Disciplinary Repository for Psychological Science. Accessed June 15, 2023. <u>https://psycharchives.org/</u>

²³PsychMate. Psychology Software Tools. Accessed July 11, 2023.

https://pstnet.com/products/psychmate/

²⁴Eschman A, James JS, Schneider W, Zuccolotto A. PsychMate: Providing psychology majors the tools to do real experiments and learn empirical methods. *Behav Res Methods*. 2005: 301–311.

²⁶Ibid.

 ²⁷ Eschman A, James JS, Schneider W, Zuccolotto A. PsychMate: Providing psychology majors the tools to do real experiments and learn empirical methods. *Behav Res Methods*. 2005: 301–311.

 ²⁸Coughlan T. The use of open data as a material for learning. *Education Tech Research Dev.* 2030:68, 383–411.
²⁹Cornell D. 13 Operant Conditioning Examples. Helpful Professor. May 13, 2023. Accessed June 15, 2023. https://helpfulprofessor.com/operant-conditioning-examples/.

³¹Cech EA. Culture of Disengagement in Engineering Education? Sci Technol Human Values. 2014;39(1);42–72.

Sincerely,

Winiau C. y

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cc: Amy Odum, Ph.D., Professor, Department of Psychology (<u>amy.odum@usu.edu</u>) Robert Wagner, Ph.D., Executive Vice President (<u>robert.wagner@usu.edu</u>)