

CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	JUAN MANUEL		
Family name	ROSAS SANTOS		
Gender (*)		Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	jmosas@ujaen.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		https://orcid.org/0000-0002-5383-9876	

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	September 1, 2008		
Institution	University of Jaén		
Department/Center	Psychology	Faculty of Humanities and Educational Sciences	
Country	Spain	Teleph. number	696845358
Key words	Associative Learning – Causal Learning – Predictive Learning – Memory – Context – Extinction – Interference – Mechanisms of information Retrieval – Virtual Reality		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
01/09/2008 – Currently	Full Professor / U. Jaén / Spain
05/07/2000 – 31/08/2008	Associate Professor / U. Jaén / Spain
14/10/1997 – 04/07/2000	Non-permanent tenure track positions / U. Jaén / Spain
10/09/1996 – 10/10/1997	Post Doc Researcher / U. of Pennsylvania / USA
01/10/1994 – 10/09/1996	Post Doc-Research Assistant Professor / U. of Vermont / USA
01/10/1990 – 30/09/1994	Predoctoral fellow / U. of the Basque Country / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed	University of the Basque Country/ Spain	1990
PhD	University of the Basque Country/ Spain	1994

Part B. CV SUMMARY (max. 5000 characters, including spaces)

Scientific Contributions. My work as an independent researcher started in 1994, during my stay as a postdoc at UVM. I led a project on the parallels between the effects of retention intervals and context change on retrieval of information. The goal of those studies was to resolve the paradox of attributing forgetting to changes in background contextual cues over time when generalization between stimuli increases over time. The resolution of the paradox was published together with Bouton and Nelson in the *Psychological Bulletin* in 1999, an influential publication that has received 200 citations. I have kept the study of the precursors and mechanisms of contextual control of behavior on human and nonhuman animals as my main line of research [16, 17, 18, 19]. The development of this research led to the proposal of the Attentional Theory of Contextual Processing (ATCP) in 2006. Notably, though the theory was published in the *International Journal of Psychology, and Psychological Therapy*, an open



journal that is not indexed in the JCR, it has already received 126 cites. A unique prediction of ATPC is that any information learned after an interference experience would become context-specific, setting the grounds for the discovery of the Extinction Makes Acquisition Context Specific (EMACS) effect [1, 2, 4, 5, 9]. The EMACS and Renewal effects will be the main tools that we will use to explore the precursors and mechanisms of contextual control in the coordinated project proposed [1, 2, 11]. We have found evidence consistent with the ATPC prediction that contextual control appears when interference/uncertainty raises the organism's attention to the contexts [4, 6, 7, 10], and that the EMACS effect disappears once uncertainty fades with increased training [1, 14]. Our most recent studies show that experiencing interference facilitates subsequent new learning because it seems to activate an exploratory attentional mechanism, suggesting that attention to the contexts may be a side effect of that activation [3, 13, 15]. We have recently developed a new fully immersive virtual reality technique to study all these phenomena in humans that will be used within the proposed project as it allows us to expand our research to a more ecological situation for young adults [12].

Funding and Scientific Dissemination. This research has been funded by different local (2) autonomic (2) national (5) or international agencies (1). I have been the lead researcher in the 5 national projects and in 1 of the autonomic ones in which I have participated. Scientific dissemination of the results of my research has included 89 articles (28 in Q1 journals), 8 books, 20 book chapters, and over 170 presentations at international scientific meetings in collaboration with researchers of the UVM [8], Boston College [2], UPV-EHU [3, 4], and UNAM [5, 9], among others.

Evaluation activity. Throughout my career, I have been regular reviewer for over 20 scientific journals, including *Psych. Bulletin*, *Psych Review*, *JEP:Animal Learning & Cognition*, *Behavioral Brain Research*, *Neurobiology of Learning and Memory* or *Behaviour Research and Therapy*, among others. I have been consulting editor of the *JEP:ALC*, and *Psicologica* (currently associated editor). I have been reviewer for 8 national and international agencies, including ANEP, *European Science Foundation*, *Research Foundation Flanders*, etc.

Contributions to society. Aware of the role that we scientist should play in transferring our knowledge to the society, I work on disseminating my work and the findings of the projects I lead in various ways such as through assistance contracts with different companies [20, 21], by publishing dissemination works in [The conversation](#), or by the book on psychology of learning that has been published in Spain, Argentina, México, and Chile, and translated to Italian, Portuguese, and Romanian [22]. I also participate in dissemination activities such as the *European Researchers' Night*, *Science Coffee*, *Week of Science* or *Open Classroom*.

Contributions to the development of the careers of young researchers. As a senior researcher, and the first full professor of the Department of Psychology at the University of Jaén, I have always worked under the assumption that my leadership should promote, rather than overshadow, the professional development and the leadership skills of my colleagues and students. That philosophy guided my decision of starting, in 2016, a leadership rotation among the senior members of the research group "[HUM642, Comparative Psychology: Learning, Attention and Memory](#)" that I created in 2001, allowing each to develop their leadership skills. Along the same lines, I decided to co-advise all my PhD students, setting the grounds for members of the research group with less experience to acquire the abilities associated to the advisor's role. Perhaps the best example of the success of that approach is shown by the fact that the 9 out of 10 former students, that decided to develop their career in academics after getting their PhD under my co-supervision, are successfully holding tenure/tenure-track positions at UCM, UJA, UGR, UCO and URJC, or currently hired as pos-docs at the U. of Seville, or at the University of Iowa (see section 7.3 of the grant proposal).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- [1] Ogallar, P. M., **Rosas, J. M.**, & Callejas-Aguilera, J. E. (2024). Increasing previous but not concurrent extinction attenuates the "extinction makes acquisition context specific" effect

- in human predictive learning. *Journal of Experimental Psychology: Animal Learning and Cognition*, 50, 39–55. <https://doi.org/10.1037/xan0000372>. [IF: 1,3 (2022), Zoology, 88/182 – Q2].
- [2] Ogallar, P. M., Callejas-Aguilera, J. E., **Rosas J. M.**, & Lamoureux, J. A. (2021). Concurrent evidence of extinction making acquisition context specific and ABA and ABC renewal effects in human predictive learning. *Journal of Experimental Psychology: Animal Learning and Cognition*, 47, 137-149. <https://doi.org/10.1037/xan0000288> [IF: 2.478 (2021), Zoology, 62/176 – Q2].
- [3] Alcalá, J. A., Callejas-Aguilera, J. E., Nelson, J. B., & **Rosas, J. M.** (2020). Reversal training facilitates acquisition of new learning in a Morris water maze. *Learning & Behavior*, 48, 208-220. <https://doi.org/10.3758/s13420-019-00392-7> [IF: 1.986 (2020), Zoology, 56/175 – Q2].
- [4] Ogallar, P. M., **Rosas, J. M.**, Ramos-Álvarez, M. M., Alcalá, J. A., Nelson, J. B., Aranzubia, M., & Callejas-Aguilera, J. E. (2019). Prior extinction increases acquisition context specificity in human predictive learning. *Behavioural Processes*, 169, 9. <https://doi.org/10.1016/j.beproc.2019.103984> [IF: 1.846 (2019), Zoology, 42/169 – Q1].
- [5] Bernal-Gamboa, R., **Rosas, J. M.**, & Nieto, J. (2018). Extinction makes acquisition context-specific in conditioned taste aversion regardless of the context where acquisition and testing take place. *Journal of experimental psychology. Animal learning and cognition*, 44, 385–395. <https://doi.org/10.1037/xan0000183> [IF:2.132, Zoology, 30/163 - Q1].
- [6] Aristizabal, J. A., Ramos-Álvarez, M. M., Callejas-Aguilera, J. E., & **Rosas, J. M.** (2017). Testing a cue outside the training context increases attention to the contexts and impairs performance in human predictive learning. *Behavioural Processes*. 145, 31-36. <https://doi.org/10.1016/j.beproc.2017.10.001> [IF: 1.746, Zoology 40/162 –Q1].
- [7] Aristizabal, J. A., Ramos-Álvarez, M. M., Callejas-Aguilera, J. E., & **Rosas, J. M.** (2016). Attention to Irrelevant Contexts Decreases as Training Increases: Evidence from Eye-Fixations in a Human Predictive Learning Task. *Behavioural Processes*. 124, 66-73. <https://doi.org/10.1016/j.beproc.2015.12.008> [IF: 1.746, Zoology 40/162 –Q1].
- [8] **Rosas, J. M.**, Todd, T. P. & Bouton, M. E. (2013). Context change and associative learning. *Wiley Interdisciplinary Reviews: Cognitive Science*, 4, 237-244. <https://doi.org/10.1002/wcs.1225> [IF: 1.413, Psychology, Experimental, 59/83 –Q3].
- [9] Bernal-Gamboa, R., Callejas-Aguilera, J.E., Nieto, J. & **Rosas, J. M.** (2013). Extinction makes conditioning time-dependent. *Journal of Experimental Psychology: Animal Behavior Processes*, 39, 221-232. <https://psycnet.apa.org/doi/10.1037/a0032181>[IF: 2.376, Zoology –Q1].
- [10] Callejas-Aguilera, J. E. & **Rosas, J. M.** (2010). Ambiguity and context processing in human predictive learning. *Journal of Experimental Psychology: Animal Behavior Processes*, 36, 482-494. <https://doi.org/10.1037/a0018527> [IF: 2.078, Zoology: 18/125 – Q1].

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

- [11] **Rosas, J. M.** (2023, October). Side effects of increases in prediction errors: Attention, context, and learning. INVITED TALK presented at the *Bouton Research Symposium* (Burlington, USA).
- [12] Moreno, J., Callejas-Aguilera, J. E., Jiménez-Pérez, R., Jurado, J. M. & **Rosas, J. M.** (2023, September). AAB Renewal appears regardless of context-outcome associations or differential experience in a VR spatial learning task. ORAL TALK presented in the *XXXII International conference of the Spanish Society for Comparative Psychology* (Granada, Spain).
- [13] **Rosas, J. M.** (2022, September). Prediction error and context relevance as sources of differential contextual control: Revisiting renewal. INVITED TALK ON THE SYMPOSIUM 43 Years of Renewal, at the *XXXII International conference of the Spanish Society for Comparative Psychology* (Almería, Spain).

- [14] **Rosas, J. M.**, Ogallar, P. M. y Callejas-Aguilera, J. E. (2022, March). Increasing extinction of a cue reduces context-specificity of non-extinguished cues. ORAL TALK presented at the 93rd Annual Meeting of the Eastern Psychological Association (New York, USA).
- [15] **Rosas, J. M.** (2021, December). The role of prediction-error on new learning or the side effects of surprise. INVITED TALK ON THE SYMPOSIUM “Learning what and how: A symposium in honor of Robert A. Rescorla” organized by JM Rosas at the 20th Biennial Meeting of the International Society for Comparative Psychology (Santiago de Chile, Chile).

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

- [16] Title: A comparative approach of the effects of two types of attention and arousal in contextual control/Reference: PGC2018-097769-B-C22 /Ministerio de Ciencia e Innovación /Afiliation: Universidad de Jaén / Duration (months): 48 /Start: 01/01/2019 End: 31/12/2022 /Amount: 128,502€ /Rol: Principal Researcher /Participants: 5. Coordinated project with the University of the Basque Country.
- [17] Title: A comparative approach to the conditions and context of contextual control of learning /Reference: PSI2014-52263-C2-1-P /Ministerio de Ciencia e Innovación /Afiliation: Universidad de Jaén / Duration (months): 48 /Start: 01/01/2015 End: 30/06/2018 /Amount: 86.757€ /Rol: Principal Researcher /Participants: 3. Coordinated project with the University of the Basque Country
- [18] Title: Comparative evaluation of an attentional explanation of the role of context in information retrieval /Reference: MICINN_2010/PSI2010-15215 / Ministerio de Ciencia e Innovación /Afiliation: Universidad de Jaén /Duration (months): 42 /Start: 01/01/2011 End: 30/06/2014 /Amount: 66.550€ /Rol: Principal Researcher /Participants: 7.
- [19] Title: Influence of context on retrieval of the information in human predictive learning /Reference: SEJ2007-67053/PSIC /Ministerio de Educación y Ciencia /Afiliation: Universidad de Jaén /Duration (months): 36 /Start: 01/10/2007 End: 30/09/2010 /Amount: 31.339€ /Rol: Principal Researcher /Participants: 5.

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

Contracts:

- [20] Services delivery of technical-scientific advising in matters of “Innovation in the marketing techniques of the Company Software Delsol S.A.” /Code: 2021140 /Researchers: 5 (Principal Researcher) /Department: Psychology /Company: Software Delsol, S. A. /Duration: November-December 2021 /Amount: 6,166.67€
- [21] Services delivery of assistance in experimental research and data analysis /Code: 2566 /Researchers: 5 (Principal Researcher) /Department: Psychology /Company: Abbott Laboratories, S. A. /Duration: April-December 2012 /Amount: 10,542.22€

Main Dissemination Activity:

- [22] **Rosas Santos, J. M.** (2021). *Psicología del aprendizaje. No tan distintos del perro de Pavlov*. Barcelona: PRISA Colecciones y EMSE EDAPP, S. L. [144 pp. ISBN:978-84-1354-314-7].
- Translated to Italian as *Psicologia dell'apprendimento. Non così diversi dal cane di Pavlov*. (2021). Milán: EMSE Italia srl.
 - Translated to Portuguese as *Psicologia da aprendizagem. Não muito diferente do cão de Pavlov* (2022). Lisboa: Correio da manhã.
 - Translated to Romanian as *Psihologia învățării. Nu atât de diferit de câinele lui Pavlov* (2022). Bucarest: Editura Litera.