

CURRICULUM VITAE

Charles R. Crowell

Address

University Office
 Department of Psychology
 University of Notre Dame
 462 Corbett Family Hall
 Notre Dame, IN 46556
 (574) 631-6660
ccrowell@nd.edu (email)
<https://ccrowell.nd.edu> (web)

Home Office
 17470 Lancaster CT.
 South Bend, IN 46635
 (574) 277-4774 Phone
 (574) 277-2058 Fax
ccrowell@gmail.com

Research Lab
 eMotion & eCognition Lab
 B09A Flanner Hall
 (574) 631-4732
<http://emotecog.nd.edu> (web)

Educational History

<u>Institution</u>	<u>Dates Attended</u>	<u>Degree</u>
University of Notre Dame	1966-1969	BA
University of Iowa	1969-1973	MA/PhD
McMaster University	1973-1974	Post-doctoral

Field of Specialization: General Experimental - Learning and Motivation

Academic Employment History

Emeritus Professor of Psychology, University of Notre Dame, June, 2019 - present.
 Director, Computing & Digital Technologies Program, University of Notre Dame, 2015
 – March, 2022.
 Full Professor of Psychology, University of Notre Dame, May, 2017 - 2019.
 Director, Department of Psychology, Cognitive, Brain & Behavior Area, May, 2017 -
 2019.
 Associate Professor of Psychology, University of Notre Dame, Sept., 1981 - April,
 2017.
 Director, Computer Applications Program, University of Notre Dame, 2001 – 2016.
 Director, Cognitive Psychology Program, University of Notre Dame, 2005 – 2011.
 Associate Professor and Director of Graduate Studies, Notre Dame, 1982 – 1984.
 Assistant Professor of Psychology, University of Notre Dame, Sept., 1974 – 1981.

Assistant Prof and Acting Director of Graduate Studies, Notre Dame, 1977 – 1978.
Professional Associate in Psychology, McMaster University, Sept., 1973 – Aug., 1974.
Assistant Prof in School of Adult Ed, McMaster University, Sept., 1973 – June, 1974.
Instructor in Psychology (part-time), Portland State University, Jan., 1972 – May, 1973.
Research coordinator, Oregon Health Sciences Center, Sept. 1972 – Aug., 1973.
Graduate research assistant, University of Iowa, Sept. 1969 – Aug., 1972
Undergraduate research assistant, University of Notre Dame, 1968 – 1969.

Present or Past Professional Affiliations

The Psychonomic Society
Society for Applied Learning Technology
National Society for Performance and Instruction
Association for Applied Behavior Analysis International
OBM Network
APS
IEEE

Honors

Invited Hesburgh Lecture Series Speaker, University of Notre Dame, 2006 – 20`9
Best Full paper Award Winner, 2011 Healthcom Conference
Invited participant for
*Pontifical Council for Culture Workshop on Endogenous Processes and Causation
in Brain and Behavioral Sciences, Vatican City, April, 2009*
Invited Speaker at ND Alumni College, June, 2008
Presidential Faculty Award, University of Notre Dame, 2005
Magna cum laude, University of Notre Dame, 1969

Professional Activities

Advisory Board, *Arts & Letters Center for Creative Computing*, 2003 – present.
Editorial Board for *Journal of Organizational Behavior Management*, 1984 – present.
Research Grants Coordinator, OBM Network, 2006 – 2017.
Faculty advisor, ND chapter of Students in Free Enterprise (SIFE), 2008 – 2013.
Member of the ConvergeUS Council of Innovation Advisors, 2011 – 2012.
Advisory Board, *Indiana Careers at Notre Dame*, 2004 – 2010.
Advisory Board, *Notre Dame College of Business MIS Program*, 2002 – 2009.
Panel reviewer for National Research Council, 1984.
Consulting editor, *Learning Systems in Psychology*, Allyn & Bacon, Inc., 1983 – 1988.
Editorial Board for electronic *Journal of Behavior Analysis and Therapy* (jBAT), 1982
– 1984.
Faculty representative to Midwest Institute of Studies on Alcohol, 1975 – 1978.
Consulting reviewer for

Journal of Comparative and Physiological Psychology
Animal Learning & Behavior
Learning and Motivation
Journal of Applied Behavior Analysis
American Journal of Mental Retardation
International Journal for Human Computer Studies
Journal of Social Psychology
Psychology and Marketing
Journal of Organizational Behavior Management
Journal of Social Robotics
Interaction Studies
Human Robot Interaction (HRI)
Intelligent Robots and Systems (IROS)
National Science Foundation
Prentice-Hall Publishers
Allyn & Bacon Publishers

Consultant to numerous organizations and corporations including:

Abbott Laboratories	General Motors
Bristol, Meyers, Squibb, Inc.	Hillshire Farms
AT&T	Huntington Bank
Bell Labs	IBM
Financial Training Resources	Krueger, Inc.
First Interstate Bancorporation	National City Bank Corporation
First Source Bank	Merck & Co., Inc.
Golden Dome Productions	Miles Laboratories
Green Bay Packers	Raddison Hotels

Research Interests

Basic Processes in Learning, Cognition, & Motivation
Behavioral Teaching Methods and PSI
Educational and Learning Technology
Organizational Behavior Management and Performance Technology
Human-Technology (Computer/Robot) Interaction
Ethical Implications of Technology

Courses Taught

Conditioning and Learning, Motivation, Physiological Psychology, General Psychology, Instrumentation and Laboratory Techniques, Research Methodology, Computer Applications in Research and Education, Behavior Management, Performance Technology, Practicum in Robots

Grant ActivityExternal Applications with Crowell as PI or Co-PI

YEAR	SPONSOR	AMOUNT	OTHER CO-PIs	STATUS	SOURCE
2021	Department of Justice	\$450,000	Nabrzyski, Kajzer, Tamashasky	Funded	External
2019	Department of Justice	\$450,000	Nabrzyski, Kajzer, Tamashasky	Funded	External
2016	Air Force Office of Scientific Reseach	\$390,000	Villano	Funded	External
2016	Air Force Office of Scientific Reseach	\$125,000	Villano	Funded	External
2014	Wells Fargo Trust Foundations	\$10,000	Diehl, Kuboski, Villano, Wier	Funded	External
2013	Autism Speaks	\$135,000	Diehl, Villano, Wier	Declined	External
2013	National Institute of Justice	\$866,072	Crowell, Kajzer, Villano, D'Mello	Declined	External
2012	Autism Speaks	\$119,268	Diehl, Villano, Wier	Declined	External
2012	NSF--NRI	\$571,449	Schiemedeler, Stanisic, Riek	Declined	External
2011	NSF – Smart Health & Well Being	\$500,000	Schmiedeler, Striegel	Funded	External
2011	NSF—National Robots Initiative	\$1,845,661	Diehl, Riek, Villano	Declined	External
2011	CDMRP – Autism Research Program	\$147,954	Diehl, Bowyer, Villano	Declined	External
2011	Arby's Foundation	\$23,500	Dunlap, Diehl, Villano, Wier	Funded	External
2011	NSF--HCC	\$499,998	Schiemedeler, Stanisic	Declined	External
2009	NSF – Trustworthy Computing	\$477,783	Striegel, D'Arcy	Funded	External
2009	NSF - CPATH	\$297,844	Striegel, Chaudary, Villano	Declined	External
2009	NSF – CCLI	\$199,940	Striegel, Chaudary	Funded	External
2008	NSF - Cybertrust	\$496,429	Striegel, D'Arcy	Declined	External
2008	NWIGC	\$56,000	Villano, Mangini	Declined	External
2008	Lilley Endowment	\$500,000	Edinburgh, Svete, Anderson	Funded	External

2008	NSF – Trustworthy Computing	\$496,429	Striegel, D'Arcy	Declined	External
2008	NSF - IT Creativity	\$169,498	Striegel	Declined	External
2007	NSF- PAC	\$338,170	Villano	Declined	External
2004	Lilley Endowment	\$1,000,000	Svete, Anderson	Funded	External

Internal/Matching (to Notre Dame) Applications with Crowell as PI or Co-PI

YEAR	SPONSOR	AMOUNT	OTHER CO-PIs	STATUS	SOURCE
2015	Global Collaborative Initiative	\$20,000	Villano, Christen, Howard	Declined	Internal
2015	Henkels Large Grant	\$30,000	Villano, Howard	Declined	Internal
2013	Ganey Grant	\$7,000	Kajzer, Villano	Funded	Internal
2011	ISLA International Travel	\$2,000	None	Funded	Internal
2011	ISLA – Small Research Grant	\$2,500	None	Funded	Internal
2010	ND-CTSI PDT Pilot Grant	\$12,988	Striegel, Schmiedeler, Villano	Funded	Internal
2010	Ganey Grant	\$7,000	Diehl, Villano	Funded	Internal
2010	ND – CTSI PDT Pilot Grant	\$20,000	Diehl, Villano	Funded	Internal
2009	ISLA – Pilot Funds	\$15,000	Davis, Villano	Declined	Internal
2008	ND ISLA	\$7,117	Villano	Funded	Internal
2008	ND Matching Grant	\$500,000	Edinborough, Svete, Anderson	Funded	Internal
2007	ND SAPC	\$5,500,000	Misc	Declined	Internal
2007	ND SAPC	\$7,500,000	Boyd	Declined	Internal
2006	ND ERR	\$95,521	Villano, Chow	Funded	Internal
2005	ISLA Henkel's	\$1,500	None	Funded	Internal
2004	ND Matching Grant	\$250,000	Svete, Anderson	Funded	Internal

2015	Global Collaborative Initiative	\$20,000	Villano, Christen, Howard	Declined	Internal
------	---------------------------------	----------	---------------------------	----------	----------

Grant Application/Award Summary

Total Funds Requested since 2004 =	\$24,136,621
Total Funds Awarded since 2004 =	\$5,031,849
Total External Funds Requested since 2004 =	\$10,165,995
Total External Funds Awarded since 2004 =	\$4,126,223
Total Internal Funds Requested since 2004 =	\$13,970,626
Total Internal Funds Awarded since 2004 =	\$905,626

Works Published, In Press, Submitted, and In Progress

In this section, an emboldened first author name together with the "" denotes one of my undergraduate, co-advised, or advised graduate students granted first authorship. I have been the primary advisor to some students on certain projects, even though they were in other departments. In these cases when a student is first author, depending on other circumstances, I do not always place myself in the second authorship position. NOTE: Impact factors and/or rejection rates are presented below only for publications after 2010.*

Books, Monographs, Technical Reports, and White Papers

Crowell, C. R. (Ed., 2022). *Technology Enhanced Warfare: Perspectives from Ethics and Social Science*. Book contract under consideration with Routledge War, Conflict & Ethics Series.

Crowell, C. R. (2004). *Guided Self Development: A New Leadership Paradigm for Achieving and Sustaining Peak Performance*. E-book available at <https://ccrowell.nd.edu/>.

Crowell, C. R. (1998). *On the Road to Organizational Success*. South Bend, IN: White Paper available at <https://ccrowell.nd.edu/>.

Crowell, C. R. (1998). *Paradigms for Organizational Effectiveness: Achieving Lasting Change*. South Bend, IN: White Paper available at <https://ccrowell.nd.edu/>.

Crowell, C. R. (1996). *On the nature and evaluation of "performance diagnosis."* South Bend, IN: White Paper

Crowell, C. R. (1996). *Performance care: A Diagnostically Driven Approach to Employee Development*. South Bend, IN: White Paper available at <https://ccrowell.nd.edu/>.

- Crowell, C. R.,** Worland, P. W. & Jones, J. W. (1996). *Are you in search of cost-effective training?* South Bend, IN: White Paper available at <https://ccrowell.nd.edu/>.
- Crowell, C. R.** (1993). Consultative Review 1992: Factors that characterize high and average sales performers in the Caribbean region. *Unpublished technical report 9301.*
- Crowell, C. R.** (1992). Consultative Review 1992: Factors that characterize high and average sales performers in MSD New Zealand. *Unpublished technical report 9201.*
- Crowell, C. R.** (1992). Consultative Review 1992: Factors that characterize high and average sales performers in MSD Belgium. *Unpublished technical report 9202.*
- Crowell, C. R.** (1992). Consultative Review 1992: Factors that characterize high and average sales performers in MSD Mexico. *Unpublished technical report 9203.*
- Crowell, C. R.** (1991). An analysis of behaviors that distinguish high and average sales performers in MSD Australia. *Unpublished technical report 9101.*
- Crowell, C. R.** (1991). Progress Analysis 1991: Factors that characterize and distinguish high and average sales performers in MSD France. *Unpublished technical report 9102.*
- Crowell, C. R.** (1991). Consultative Review 1991: Factors that characterize and/or distinguish high and average sales performers in MSD Holland B. V.. *Unpublished technical report 9103.*
- Crowell, C. R.** (1991). Consultative Review 1991: Factors that characterize high and average sales performers in MSD Portugal. *Unpublished technical report 9104.*
- Crowell, C. R. & Wikoff, M. B.** (1990). An analysis of behaviors that distinguish high and low pharmaceutical sales performers in Saudi Arabia. *Unpublished technical report 9001.*
- Crowell, C. R. & Wikoff, M. B.** (1990). An analysis of behaviors that distinguish high and low pharmaceutical sales performers in Puerto Rico. *Unpublished technical report 9002.*
- Crowell, C. R.** (1990). An analysis of behaviors that distinguish high and average pharmaceutical sales performers in France. *Unpublished technical report*

9003.

Crowell, C. R. (1990). An analysis of behaviors that distinguish high and average pharmaceutical sales performers in Portugal. *Unpublished technical report 9004.*

Crowell, C. R. (1990). An analysis of behaviors that distinguish high and average pharmaceutical sales performers in Spain. *Unpublished technical report 9005.*

Crowell, C. R. & Wikoff, M. B. (1989). A second analysis of behaviors that distinguish high and low pharmaceutical sales performers in the UK. *Unpublished technical report 8901.*

Crowell, C. R. & Wikoff, M. B. (1989). A second analysis of behaviors that distinguish high and low pharmaceutical sales performers in Italy. *Unpublished technical report 8902.*

Crowell, C. R. & Wikoff, M. B. (1989). An analysis of behaviors that distinguish high and low pharmaceutical sales performers in Mexico. *Unpublished technical report 8903.*

Crowell, C. R. & Wikoff, M. B. (1987) An analysis of behaviors that distinguish high and low pharmaceutical sales performers in the UK and Spain. *Unpublished technical report 8701.*

Crowell, C. R. & Wikoff, M. B. (1987). An analysis of behaviors that distinguish high and low pharmaceutical sales performers in Italy. *Unpublished technical report 8702.*

Crowell, C. R. with Anderson, D. C. (1983; Brandon Hall special issue editor). *OBM in multiple business environments*. New York: Haworth Press. (Special issue of JOBM)

Works Submitted/Under Review in Peer-Reviewed Outlets

Crowell, C. R., Kajzer, M., Villano, M., Striegel, A., O'Brien, K., and Schmeideler, J. P. (revision under review). Balance performance with visual feedback in older subjects compared to young healthies and clinical populations. *Smart Health*. IF = not available.

McArthur, K.*, Hantula, D. A., & **Crowell, C. R.** (revision submitted). Customer as Performance Manager: Improving the In-Home Repair Service Provided by a Major Home Appliance Manufacturer Using a Customer-based Metric. *Journal of Organizational Behavior Management*. IF = 2.14

Articles in Peer-Reviewed Outlets

- Mujica, A*., Crowell, C., Villano, M., & Uddin, K.** (2022). ADDICTION BY DESIGN: Some Dimensions and Challenges of Excessive Social Media Use. *Medical Research Archives*, 10(2). doi:10.18103/mra.v10i2.2677
- Christen M, Narvaez D, Zenk JD, Villano M, **Crowell CR**, Moore DR (2021) Trolley dilemma in the sky: Context matters when civilians and cadets make remotely piloted aircraft decisions. *PLoS ONE* 16(3): e0247273. <https://doi.org/10.1371/journal.pone.0247273>
- Crowell, C.,** Deska, J.C., Villano, M., Zenk, J., Roddy, J,T. (2019). Anthropomorphism of Robots: Study of Appearance and Agency. *JMIR Human Factors*, 6(2), e12629. IF = 4.85.
- O'Brien, K., **Crowell, C. R.,** & Schmeideler, J. P. (2017). Error Augmentation Feedback for Lateral Weight Shifting. *Gait & Posture*, 54, 178-182. IF = 2.75
- Zenk, J.*,** **Crowell, C. R.,** Villano, M., Kaboski, J., Tang, K., & Diehl, J.J. (2017). Unconventional Students in Robotics and HRI Education: A Review of Two Initiatives. *Journal of Human Robot Interaction*, 6(2), 92-110, DOI 10.5898/JHRI.6.2.Zenk. IF = not available.
- Kennedy, M. W.*,** **Crowell, C. R.,** Villano, M., & Schmiedeler, J. P. (2016). Effects of Filtering the Center of Pressure Feedback Provided in Visually Guided Mediolateral Weight Shifting. *Plos One*, 11(3). <http://dx.doi.org/10.1371/journal.pone.0151393>. IF = 3.53.
- Hantula, D. A.*,** & **Crowell, C. R.** (2016). Matching and Behavioral Contrast in a Two-Option Repeated Investment Simulation. *Managerial and Decision Economics*, 37(4-5), 294-305, doi: 10.1002/mde.2717 IF = 1.904.
- Oomiyale, O., **Crowell, C. R.,** & Madhavan, S. (2015). Effects of Wii-based balance training on corticomotor excitability post stroke. *Journal of Motor Behavior*, 47(3),190-200. doi: 10.1080/00222895.2014.971699 IF = 1.418.
- Cunningham, T.*,** **Crowell, C.,** Alger, S., Villano, M., Mattingly, S., and Payne, J. (2014). Sleep's role in the depotentiation of psychophysiological reactivity and its relationship to subsequent memory. *Neurobiology of Learning and Memory*, 114, 155-164. IF = 4.035
- Christen, M., Villano, M., Narvaez, D., Serrano, J., & **Crowell C. R.** (2014). Measuring the moral impact of operating “drones” on pilots in combat,

- disaster management and surveillance. *Proceedings of the Twenty Second European Conference on Information Systems*, acceptance rate=.23
- Kaboski, J.R., Diehl, J.J., Beriont, J., **Crowell, C.R.**, Villano, M., Wier, K., & Tang, K. (2014). Brief Report: A pilot summer robotics camp to reduce social anxiety and improve social/vocational skills for adolescents with ASD and their peers. *Journal of Autism and Developmental Disorders*. doi: 10.1007/s10803-014-2153-3. IF=2.96.
- Kajzer, M.***, D'Arcy, J., **Crowell, C. R.**, Striegel, A., Van Bruggen, D. (2014). An Exploratory Investigation of Message-Person Congruence in Security Awareness Campaigns. *Computers & Security*,43, 64-76. IF = 1.158
- Newkirk, J. T. , Tomsic, M., **Crowell, C. R.**, Villano, M. A., & Michael M. Staniscic, M. M. (2013). Measurement and Quantification of Gross Human Shoulder Motion. *Applied Bionics and Biomechanics*, 10, 159–173. DOI 10.3233/ABB-140083. IF=0.483
- Van Bruggen, D., Liu, S., Kajzer, M., Striegel, A., **Crowell, C. R.**, & D'Arcy, J. (2013). Modifying smartphone user locking behavior. In Proceedings of the Ninth Symposium on Usable Privacy and Security (full paper). ACM. acceptance rate =29%.
- Kennedy, M. W.***, **Crowell, C. R.**, Striegel, A. D., Villano, M., & Schmiedeler, J. P. (2013). Relative efficacy of various strategies for visual feedback in standing balance activities. *Experimental Brain Research*, 230(1), 117-125. IF=2.21
- Hayes, C. J.***, **Crowell, C. R.**, & Riek, L. D. (2013). Automatic processing of irrelevant co-speech gestures with human but not robot actors. *Proceedings of the 6th ACM IEEE International Conference on Human-Robot Interaction*, Tokyo, Japan: ACM/IEEE. H5-index=32; acceptance rate=.20
- Crowell, C. R.** (2012). What does JOBIM want to be when it grows up? *Journal of Organizational Behavior Management*, 32(2), 127-130. IF=1.23
- Biggs, A. T., Kreager, R. D., Gibson, B. S, Villano, M., & **Crowell, C. R.** (2012). Semantic and affective salience: The role of meaning and preference in attentional capture and disengagement. *Journal of Experimental Psychology: Human Perception and Performance*, 38(2), 531-541. IF=3.06
- Diehl, J. J., Schmitt, L. M., Villano, M., & **Crowell, C. R.** (2012). The clinical use of robots for individuals with Autism Spectrum Disorders: A critical review. *Research in Autism Spectrum Disorders*, 6(1), 249-262. IF=2.96

- Crowell, C. R.**, Hantula, D. A., & McArthur, K. (2011). From job analysis to performance management: A synergistic rapprochement to organizational effectiveness. Invited submission for a special issue of *Journal of Organizational Behavior Management*, 31, 316-332. IF=1.23
- Kennedy, M. W.***, Schmiedeler, J. P., Striegel, A. D., **Crowell, C. R.**, Villano, M., & Kuitse, J. (2011). Enhanced Feedback in Balance Rehabilitation using the Nintendo Wii Balance Board. *Proceedings of the IEEE Healthcom 2011 - Technology Enabled Personalized Medicine, Columbia, Missouri: IEEE-Healthcom*. (Best Paper Award)
- Villano, M., **Crowell, C. R.**, Wier, K. Tang, K., Thomas, B., Shea, N., Schmitt, L. M., & Diehl, J. J. (2011). DOMER: A Wizard of Oz Interface for Using Interactive Robots to Scaffold Social Skills for Children with Autism Spectrum Disorders. *Proceedings of the 4th ACM IEEE International Conference on Human-Robot Interaction, Lausanne, Switzerland: ACM/IEEE*. H5-index=32; acceptance rate=.22
- Crowell, C.**, Shermerhorn, P., Scheutz, M. & Villano, M. (2009). Social presence effects of gendered voice and robot entities: perceptions and preconceptions, *Proceedings of the 2009 IEEE/RSJ International Conference on Intelligent Robots and Systems*, St. Louis, MO: IEEE-RSJ.
- Scheutz, M., & **Crowell, C.** (2008). Robot autonomy: some ensuing ethical questions. *Proceedings of the 2008 NA-CAP Conference*. Bloomington, IN: IACP.
- Shermerhorn, P., Scheutz, M, and **Crowell, C. R.** (2008). Robot social presence and gender: do females view robots differently than males? *Proceedings of the 3rd ACM IEEE International Conference on Human-Robot Interaction*. Amsterdam, Netherlands: ACM/IEEE. H5-index=32; acceptance rate=.18
- Scheutz, M., & **Crowell, C.** (2007). The burden of embodied autonomy: Some reflections on the social and ethical implications of autonomous robots. *Proceedings of the 2007 IRCA Conference*. Rome, IT: IEEE-RAS.
- Crowell, C. R.** (2007). Of rats and humans: a 35-year odyssey in OBM from the laboratory to the real world. *Journal of Organizational Behavior Management*, 27(2), 37-64
- Crowell, C. R.** (2005). Beyond positive reinforcement: OBM as a humanizing approach to management practices. *Journal of Organizational Behavior Management*, 24(1/2), 195-202.

- Crowell, C. R., & Anderson, D. C.** (2005). On reinventing OBM: Comments on Geller's proposals for change. *Journal of Organizational Behavior Management*, *24*(1/2), 27-53.
- Boker, S., & **Crowell, C. R.** (2004). Proposal for the creation of a Web-based heterogeneous distributed archive for psychological data. *Behavior Research Methods Instrumentation & Computers*, *36*(4), 670-677.
- Anderson, D. C., & **Crowell, C. R.** (2003). The Sacred and the secular in OBM. *OBM Network News*, *17*, 4-7.
- Anderson, D. C., **Crowell, C. R.**, DePaul, M., & McEachin, J. (1997). Intensification of punishment effects through exposure to brief, fixed-duration shocks: The role of shock cues as a stimulus for fear. *Animal Learning & Behavior*, *25*, 68-83.
- Hantula, D. A.***, & **Crowell, C. R.** (1994). Behavioral contrast in a two-option analogue task of financial decision making. *Journal of Applied Behavior Analysis*, *27*, 607-617
- Anderson, D. C., **Crowell, C. R.**, Boyd, N., & Hantula, D. (1995). Fixed-duration shock treatment: Pre- and post-treatment stimulation, activity, and skin resistance as predictors of escape performance. *Psychobiology*, *23*, 329-344.
- Hantula, D. A.***, & **Crowell, C. R.** (1994). Intermittent reinforcement and escalation processes in sequential decision making: A replication and theoretical analysis. *Journal of Organizational Behavior Management*, *14*, 7-36.
- Williams, C. J.***, & **Crowell, C. R.** (1993). Providing institutional support for developing and using educational technologies: A case study. *Technological Horizons of Education Journal*, *21*, 114-118.
- Crowell, C. R.**, & Anderson, D. C. (1991). Behavior management in a book bindery: Can OBM work against the odds? *Proceedings of the Association of Management*, *29*, 55-60.
- Hantula, D. A.***, & **Crowell, C. R.** (1991). Experience or framing? Further inquiry into the dynamics of persistence and escalation of commitment. *Proceedings of the Academy of Management*, *54*, 198-204.
- Quintanar, L. R.***, & **Crowell, C. R.** (1991). The PC/PBX exploration guide system for PC-based sales demonstrations and training. *Proceedings of the AT&T Human Factors and Behavioral Sciences Symposium*. Hinsdale, NJ.

- Hantula, D. A.***, Boyd, J., & **Crowell, C. R.** (1989). Ten years of behavioral instruction with computers: Trials, tribulations, and reflections. *Proceedings of the Academic Microcomputer Conference*, 5, 143-155.
- Anderson, D. C., **Crowell, C. R.**, Hantula, D., & Siroky, L. (1988). Task clarification and individual performance posting to increase cleaning in a student-run university bar. *Journal of Organizational Behavior Management*, 2, 73-90.
- Crowell, C. R.**, Boyd, N., & Setzer, M. (1988). Software recording technology: Promise for reducing the hidden costs of computerization. *Proceedings of the Academic Microcomputer Conference*, 4, 120-129.
- Crowell, C. R.**, Anderson, D. C., Abel, D., & Sergio, J. (1988). Task clarification, performance feedback, and social praise: Procedures for improving the customer service of bank tellers. *Journal of Applied Behavior Analysis*, 21, 65-71.
- Anderson, D. C., **Crowell, C. R.**, Doman, M. & Howard, G. (1988). Performance posting, goal setting, and activity-contingent praise as applied to a university hockey team. *Journal of Applied Psychology*, 73, 87-95.
- Crowell, C. R.**, Johnson, J. F., Selner, M. B., Miller, A. E., Sayer, N. & Raine, B. (1987). Developing a model curriculum with database capabilities for severely handicapped adults. *Proceedings of the CTG 5th International Conference, Computer Technology for Special Education and Rehabilitation*, 25-32.
- Anderson, D. C., **Crowell, C. R.**, & Ramirez, R. (1987). Stepwise reductions in US density and intensity: Maintenance and extinction of conditioned suppression. *Animal Learning & Behavior*, 15, 312-320.
- Crowell, C. R.**, Hantula, D. L., Johnson, J. M., & Miller, A. E. (1987). Authoring for interactive learning: Some features and considerations. *Proceedings of the Academic Microcomputer Conference*, 4, 110-119.
- Widerquist, K. L.***, Birdsell, J, Johnson, J. F., **Crowell, C. R.**, & Miller, A. E. (1987). Designing a course to train secondary teachers to develop interactive videodisc courseware. *T.H.E. Journal*, 6, (February), 25-34.
- Phillips, J.***, Villano, M., **Crowell, C. R.**, Setzer, M., & Miller, A. E. (1986). Typing versus menu selection for data entry: In search of the crossover point for maximum efficiency. *Proceedings of the Academic Microcomputer Conference*, 2, 157-169.

- Birdsell, J.***, Widerquist, K. L., **Crowell, C. R.**, Johnson, J. F., & Miller, A. E. (1986). Components of a level III interactive videodisc delivery system. *Proceedings of the Academic Microcomputer Conference, 2*, 149-156.
- Crowell, C. R.**, Hantula, D. A., Johnson, J. F., & Miller, A. E. (1986). The psychology of interactive learning. *Proceedings of the Academic Microcomputer Conference, 2*, 137-148.
- Steck, E. J.***, **Crowell, C. R.**, & Johnson, J. F. (1986). Comparing the instructional effectiveness of CAI and traditional methods in the freshmen chemistry lab. *Proceedings of the National Educational Computing Conference, 7*, 190-195.
- Anderson, D. C., **Crowell, C. R.**, & Siroky, L. (1985). Activity, startle magnitude, and prolonged food and water deprivation: Two failures to duplicate. *Bulletin of the Psychonomic Society, 23*, 423-426.
- Konarski, E. A., Jr.***, **Crowell, C. R.**, & Duggan, L. M. (1985). Use of the response deprivation hypothesis to increase the academic performance of EMR students. *Applied Research in Mental Retardation, 6*, 15-31.
- Anderson, D. C., **Crowell, C. R.**, & Brown, J. S. (1985). Startle potentiation and heart rate as affected by fear and hunger. *Psychological Reports, 56*, 95-109.
- Anderson, D. C., **Crowell, C. R.**, Wikoff, M., & Sergio, J. (1983). On getting people to do what they could and should be doing. *Proceedings: The 1983 SPC/IREAPS technical symposium, 10*, 680-719.
- Crowell, C. R.** and Anderson, D. C. (1983). The scientific and methodological basis of a systematic approach to human behavior management. *Journal of Organizational Behavior Management, 4*, 1-32.
- Anderson, D. C., **Crowell, C. R.**, Sponsel, S. S., Clark, M. & Brence, J. (1983). Behavior management in the public accommodations industry: A three-project demonstration. *Journal of Organizational Behavior Management, 4*, 33-66.
- Anderson, D. C., **Crowell, C. R.**, Sucec, J. & Gilligan, K. D. (1983). Behavior management in a real estate brokerage: Getting agents to sell more. *Journal of Organizational Behavior Management, 4*, 67-95.
- Wikoff, M. B.***, **Crowell, C. R.** & Anderson, D. C. (1983). Behavior management in manufacturing: Increasing work efficiency. *Journal of Organizational Behavior Management, 4*, 97-128.

- Crowell, C. R., & Anderson, D. C.** (1983). Systematic behavior management: General program considerations. *Journal of Organizational Behavior Management*, 4, 129-163.
- Konarski, E. A., Jr.***, **Crowell, C. R.**, Johnson, M. R., & Whitman, T. L. (1982). Response deprivation, reinforcement, and instrumental academic performance in an EMR classroom. *Behavior Therapy*, 13, 94-102.
- Anderson, D. C., **Crowell, C. R.**, & Brown, J. S. (1982). Retardation of extinction of an escape response by prolonged intense goal-box shock. *Journal of Comparative and Physiological Psychology*, 96, 184-191.
- Quintanar, L. R.***, **Crowell, C. R.**, Pryor, J. B. & Adamopoulos, J. (1982). Human-computer interaction: A preliminary social-psychological analysis. *Behavior Research Methods & Instrumentation*, 14, 210-220.
- Crowell, C. R., & Anderson, D. C.** (1981). Influence of duration and number of inescapable shocks on intrashock activity and subsequent interference effects. *Animal Learning & Behavior*, 9, 28-37.
- Crowell, C. R.**, Hinson, R., & Siegel, S. (1981). The role of conditional drug responses in tolerance to the hypothermic effects of ethanol. *Psychopharmacology*, 73, 51-54.
- Crowell, C. R.**, Quintanar, L. R., & Grant, K. L. (1981). PROCTOR: An online student evaluation and monitoring system for use with PSI format courses. *Behavior Research Methods & Instrumentation*, 13, 121-127.
- Crowell, C. R.** and Moskal, P. (1981). On the manifestation of stimulus-directed behavior in the rat. *Bulletin of the Psychonomic Society*, 17, 41-44.
- Konarski, E. A., Jr.***, Johnson, M. R., **Crowell, C. R.**, & Whitman, T. L. (1981). An alternative approach to reinforcement for applied researchers: Response deprivation. *Behavior Therapy*, 12, 653-666.
- Anderson, D. C., **Crowell, C. R.**, Wikoff, M. B., & Lupo, J. V. (1980). Activity during prior shock determines subsequent shock-elicited fighting in the rat. *Animal Learning & Behavior*, 8, 664-672.
- Konarski, E. A., Jr.***, Johnson, M. R., **Crowell, C. R.**, & Whitman, T. L. (1980). Response deprivation and reinforcement in applied settings: A preliminary analysis. *Journal of Applied Behavior Analysis*, 13, 595-609.
- Quintanar, L. R*.**, Grant, K. L., & **Crowell, C. R.** (1980). PSIPROG: An interactive system for self-paced instruction in a PSI-format psychology

- course. *Proceedings of the Fourth Biennial Conference on Computing in Indiana*, 4, 85-100.
- Crowell, C. R.**, & Bernhardt, T. (1979). The feature-positive effect and sign-tracking behavior during discrimination learning in the rat. *Animal Learning & Behavior*, 5, 313-317.
- Anderson, D. C., **Crowell, C. R.**, Cunningham, C. L., & Lupo, J. V. (1979). Behavior during shock as a determinant of the magnitude of interference with escape-avoidance learning in the rat. *Journal of Experimental Psychology: Animal Behavior Processes*, 5, 243-257.
- Crowell, C. R.**, & Anderson, D. C. (1979). Shuttle interference effects in the rat depend upon activity during prior shock: A replication. *Bulletin of the Psychonomic Society*, 14, 413-416.
- Crowell, C. R.**, Lupo, J. V., Cunningham, C. L., & Anderson, D. C. (1978). Temporal form of shock is a determinant of magnitude of interference with escape-avoidance learning produced by exposure to inescapable shock. *Bulletin of the Psychonomic Society*, 12, 407-410.
- Eaton, N. K., and **Crowell, C. R.** (1977). Two-way self-punitive locomotor behavior. *Bulletin of the Psychonomic Society*, 9, 73-76.
- Crowell, C. R.** and Brown, J. S. (1977). The psychology of conflict. In B. Wolman (Ed.), *International Encyclopedia of Neurology, Psychiatry, Psychoanalysis, and Psychology*. New York: Aesculapius Publishers.
- Anderson, D. C., **Crowell, C. R.**, Lupo, J. V., & Sarmina, T. (1977). The effects of sex and exposure to inescapable shock on shock-elicited fighting in albino rats. *Physiological Psychology*, 5, 445-448.
- Anderson, D. C., **Crowell, C. R.**, Koehn, D., and Lupo, J. V. (1976). Different intensities of unsignalled inescapable shock treatments as determinants of non-shock motivated upon open field behavior: A resolution of disparate results. *Physiology and Behavior*, 17, 391-394.
- Brown, J. S., and **Crowell, C. R.** (1974). Alcohol and conflict resolution: A theoretical analysis. *Quarterly Journal of Studies on Alcohol*, 35, 66-85.
- Crowell, C. R.** (1974). Shock-frequency reduction and avoidance behavior in a running wheel. *Bulletin of the Psychonomic Society*, 3, 395-397.
- Crowell, C. R.**, and Eaton, N. K. (1974). A fully-automated locomotor-training apparatus. *Behavior Research Methods & Instrumentation*, 2, 19-22.

- Eaton, N. K., **Crowell, C. R.**, and Brown, J. S. (1974.) Acquisition and extinction of runway performance under escape, avoidance, and partial-avoidance procedures. *Animal Learning & Behavior*, 2, 193-297.
- Cunningham, C. L., **Crowell, C. R.**, Eaton, N. K., & Brown, J. S. (1974). A digital system for recording startle responses in small animals. *Behavior Research Methods & Instrumentation*, 5, 1-3.
- Crowell, C. R.** (1974). Conditioned-aversive aspects of electric shock. *Learning and Motivation*, 5, 209-220.
- Crowell, C. R.** (1974). The role of shock-induced emotionality in the reinforcing effects of response-contingent shock-rate reduction. *Dissertation Abstracts*, 34, 46-47.
- Crowell, C. R.**, and Brown, J. S. (1973). An electrifiable restraining cage for small animals. *The American Journal of Psychology*, 86, 851-854.
- Crowell, C. R.**, & Anderson, D. C. (1972). Variations in intensity, interstimulus interval, and interval between pre-conditioning CS exposures and conditioning with rats. *Journal of Comparative and Physiological Psychology*, 79, 291-298.
- Crowell, C. R.**, Brown, J. S., & Lewis, R. W. (1972). Self-punitive behavior in the rat during successive-discrimination "extinction" trials. *Psychonomic Science*, 27, 131-135.
- Crowell, C. R.**, & Frei, L. (1972). A circuit to permit an electronic drinkometer to operate during footshock. *Behavior Research Methods and Instrumentation*, 4. 193-194.

Peer-Reviewed Chapters

- Kajzer, M. D.***, **Crowell, C. R.**, Villano, M., Zenk, J., Segerson, J., Battis, N. & Behrens, N. (2020). Word-level Models to Distinguish Sex Offenders from Victims and Differentiate Among Offender Types. Johnson, Rhonda (Ed.), *Evaluating Emerging Threats and New Research Opportunities in Digital Crime and Forensics*. Hershey, PA: IGI-Global.
- Crowell, C. R.**, Segerson, J., Kajzer, M. D., Villano, M., Zenk, J., Wegner, V., & Bell, M. (2020). Luring Communication Theory: Analyzing Online Sexual Offender Behavior. Khosrow-Pour, M. (Ed.), *Encyclopedia of Criminal Activities and the Deep Web*. Hershey, PA: IGI-Global.

- Diehl, J.J., **Crowell, C.R.**, Villano, M., Wier, K., Riek, L., & Tang, K. (2014). The clinical applications of robots in the diagnosis and treatment of Autism Spectrum Disorders (ASD). In V.B. Patel, V.R. Preedy, and C.R. Martin (Eds.), *A comprehensive guide to autism*. Springer Publishing.
- Crowell, C. R.**, Moskal, J. R. Burgdorf, J., & Panksepp, J. (2013). Top down causation in the brain: Some promises and challenges. In G. Auletta, I. Colage, & M. Jeannerod (Eds.). *Brains top down: Is top-down causation challenging neuroscience?* London: World Scientific, pp. 197-230.
- Chapple, M. J., Striegel, A., & **Crowell, C. R.** (2011). Firewall Rulebase Management: Tools and Techniques. In M. Quigley (Ed.). *ICT Ethics and Security in the 21st Century: New Developments and Applications*. Hershey, PA: Idea Group.
- Chapple, M. J. & **Crowell, C. R.** (2008). Information security law and regulation. In M. Khosrow-Pour (Ed.). *Encyclopedia of Information Science and Technology*. Hershey, PA: Idea Group.
- Crowell, C. R.**, Narvaez, D., & Gomberg, A. (2007). Moral Psychology and Information Ethics: Psychological Distance and the Components of Moral Behavior in a Digital World. In H. Nemati (Ed.). *Information Security and Ethics: Concepts, Methodologies, Tools, and Applications*. Hershey, PA: Idea Group, Vol. 7, Ch. 14. (Reprinted from L. A. Freeman, & A. G. Peace (Eds.). *Information Ethics: Privacy and Intellectual Property*. Hershey, PA: Idea Group, pp. 19-37.)
- Crowell, C. R.** & Barger, R. N. (2007). A meta view of information ethics. In M. Quigley (Ed.). *Encyclopedia of Information Ethics and Security*. Hershey, PA: Idea Group.
- Chapple, M. J. & **Crowell, C. R.** (2007). Federal information security law. In M. Quigley (Ed.). *Encyclopedia of Information Ethics and Security*. Hershey, PA: Idea Group.
- Barger, R. N., & **Crowell, C. R.** (2007). The ethics of parasitic computing: Fair Use or Abuse of TCP/IP Over the Internet? In H. Nemati (Ed.). *Information Security and Ethics: Concepts, Methodologies, Tools, and Applications*. Hershey, PA: Idea Group, Vol. 7, Ch. 38. (Reprinted from L. A. Freeman, & A. G. Peace (Eds.). *Information Ethics: Privacy and Intellectual Property*. Hershey, PA: Idea Group, pp. 143-161.)
- Barger, R. N., & **Crowell, C. R.** (2005). The ethics of parasitic computing: Fair Use or Abuse of TCP/IP Over the Internet? In L. A. Freeman, & A. G. Peace

- (Eds.). *Information Ethics: Privacy and Intellectual Property*. Hershey, PA: Idea Group, pp. 143-161.
- Crowell, C. R., Narvaez, D., & Gomberg, A.** (2005). Moral Psychology and Information Ethics: Psychological Distance and the Components of Moral Behavior in a Digital World. In L. A. Freeman, & A. G. Peace (Eds.). *Information Ethics: Privacy and Intellectual Property*. Hershey, PA: Idea Group, pp. 19-37.
- Crowell, C. R., & Worland, P. D.** (1994). Behavioral instruction and computers: An 18-year experience at Notre Dame. In Langthorne, M. & Williams, C. J. *Changing the process of teaching and learning: Essays by Notre Dame faculty*. University of Notre Dame, 1994.
- Quintanar, L. R.*, Crowell, C. R., & Moskal, P. M.** (1987). The interactive computer as a social stimulus in human-computer interactions. In G. Salvendy, S. L. Sauter and J. J. Hurrell, Jr. (Eds.), *Social ergonomic and stress aspects of work with computers*. Amsterdam: Elsevier Publishers.
- Crowell, C. R.** (1976). Fear of crime: Overview and bibliography. In J. Kromkowski, *Neighborhood deterioration and juvenile crime*. South Bend: Urban Observatory.
- Abstracts, Reviews, and Other Publications
- Crowell, C. R.** (2007). [Review of the book Cyberbullying and cyberthreats: responding to the challenge of online social cruelty, threats, and distress]. *Journal of Moral Education*, 36(4), 539-541.
- Crowell, C. R., Worland, P. W., & Jones, J. W.** (1995). Cost-effective approaches to training in banks. *Bank Administration Institute Newsletter*, Mar., 2-3.
- Sayer, N., Raine, B., Johnson, J., & **Crowell, C. R.** (1988). A model curriculum with database capabilities for severely handicapped adults. *Closing the gap*, 6, 1-4.
- Quintanar, L. R.*, Cacioppo, J. T., Crowell, C. R., Sklar, J. A., & Snyder, C. W.** (1981). Comparative effects of cranial vasoconstriction and digital vasodilation feedback on migraine. *Psychophysiology*, 18, 159-160 (Abstract).

Works in Process for Submission

Mujica, A.L.*, **Crowell, C. R.**, & Villano, M. Social media addiction: A review of findings and potential solutions.

Zenk, J*, **Crowell, C. R.**, Villano, M., Striegel, A., O'Brien, K., and Schmiedeler, J. P. The effects of visual quantitative balance feedback on the therapist-patient conversation during physical therapy for stroke rehabilitation.

LoBasso, M. A.*, **Crowell, C. R.**, Villano, M, O'Brien, K, Zenk, J, Striegel, A, & Schmiedeler, J. A Comparison of Visual, Auditory, and Audio-Visual Feedback Modalities Under Static and Dynamic Weight-Shifting Conditions.

Villano, M, Moore, D., Zenk, J., **Crowell, C. R.**, Christen, M. Moral Decision Making in an RPA Simulation Context. Chapter to be included the edited volume, *Technology Enhanced Warfare: Perspectives from Ethics and Social Science*.

Jeter, A.*, Villano, Zenk, J., & **Crowell, C. R.** The imitation game: The enigma of gender codes.

Hagan, E. M.*, Matthews, A. R., & **Crowell, C. R.** The impact of study guide use on performance in a PSI course.

Crowell, C. R., Kreager, R. D., & Villano, M. Do as I should, not as I do: The role of action context in imitation.

Works with Data Collection Finished

Kajzer, M.*, **Crowell, C.R.**, & Villano, M. Using chat utterances to predict type of Internet child sexual offender.

Kajzer, M.*, **Crowell, C. R.**, D'Arcy, J. & Striegel, A. Memorability of computer security posters as affected by message type.

Crowell, C. R., Davis, D., Villano, M. & Kelly, M. It depends on who's asking: A racial accommodation factor in a simulated interview situation.

Works in Progress

Crowell, C. R., McGinnis, K., & Villano, M. Individual differences in the anthropomorphism of robots.

Crowell, C. R., Villano, M., & Zenk, J. Validation of a computer-based pilot assessment tool.

Published Instructional and Learning Systems

- Hantula, D. A.*, & Crowell, C. R.** (1989). *Memory and cognition: A SIMLABS unit for introductory psychology*. South Bend, IN: Soft Productions.
- Crowell, C. R., & Hantula, D. A.** (1989). *Social Psychology: A SIMLABS unit for introductory psychology*. South Bend, IN: Soft Productions.
- Crowell, C. R., Setzer, M., & Quintanar, L. R.** (1989). *The PC/PBX exploration guide*. Denver, CO: AT&T
- Crowell, C. R., & Hantula, D. A.** (1989). *Basic conditioning and learning: A SIMLABS unit for introductory psychology*. South Bend, IN: Soft Productions.
- Crowell, C. R. & Martin, H.** (1987). *The Notre Dame learning skills program*. Office of Academic Advising: University of Notre Dame.
- Crowell, C. R., Johnson, J, & Miller, A. E.** (1986). *A prototype videodisc program for teaching manufacturing-specific chemical safety practices*. Endicott, NY: IBM Corporation.
- Crowell, C. R., & Miller, A. E.** (1986). *A videodisc module for teaching the pre-control method of quality assurance*. Endicott, NY: IBM Corporation.
- Crowell, C. R.** (Ed., 1984). *Discovering psychology: A study guide for Psychology by Carlson*. Boston: Allyn & Bacon.
- Crowell, C. R. and Villano, M.** (1983). *Micro-Proctor: A user's guide*. Boston: Allyn & Bacon.

Professional Papers

First-Authored or Student First-Authored

- Zenk, J. D., Christen, M., Narvaez, D., Villano, M., Crowell, C. R., Moore, D. R.** (2020). Trolley Dilemma in the Sky: Investigating Context in Moral Decision-Making. Poster presented at Midwestern Psychological Association. April, 2020, Chicago: IL.
- Crowell, C.R., Villano, M., Moore, D., Zenk, J., Ley-Han, C., & Kang, S.,** (2018, April). *Validation of a pilot assessment tool*. Poster presented at the 88th annual Rocky Mountain Psychological Association Conference, Denver, CO.

- Crowell, C.R.**, Villano, M., Moore, D., Zenk, J., Mendez-Lynch, B., Pickhinke, T., & Williams, A. (2018, April). *Moral decision making in remotely piloted aircraft: Does morality play a part in pilot decision making?* Poster presented at the 88th annual Rocky Mountain Psychological Association Conference, Denver, CO.
- Crowell, C.R.**, Villano, M., Moore, D., Chapa, J., Burton, S., Schwartz, A., Marshall, S., & Grattan, M. (2017, May). Decision making and stress reaction of remotely piloted aircraft pilots. In *Remote Combat Stress Impact and Mitigation: ISR in the Kill Chain*. Panel Presentation at the 87 annual meeting of the Aerospace Medical Association, Denver, CO.
- Crowell, C.R.**, Villano, M., Moore, D., Chapa, J., Schwartz, A., Burton, S., Marshall, S., & Grattan, M. (2017, May). *Moral decision making for the RPA pilot*. Poster presented at the 19th International Symposium on Aviation Psychology, Dayton, OH.
- Zenk, J.***, **Crowell, C. R.**, Villano, M., Kaboski, J., Tang, K., & Diehl, J.J. (2018, March). Unconventional Students in Robotics and HRI Education: A Review of Two Initiatives. Paper presented at the 13th ACM IEEE International Conference on Human-Robot Interaction, Chicago, IL.
- Crowell, C. R.** (2017, October). *Technology Enhanced Warfare: Perspectives from Ethics and Social Science*. Symposium I organized that was held at the Notre Dame Rome Gateway Facility, October, 2017. See conference details at <https://ccrowell.nd.edu/home/tew/>.
- Crowell, C. R.** (2017, October). Day 1 Welcome and Opening Remarks. Presented at the *Technology Enhanced Warfare: Perspectives from Ethics and Social Science* symposium held at the Notre Dame Rome Gateway Facility.
- Crowell, C. R.** & Latiff, R. (2017, October). The Importance of Ethics for Understanding Technology Enhanced Warfare. Remarks delivered on behalf of Robert Latiff at the *Technology Enhanced Warfare: Perspectives from Ethics and Social Science* symposium held at the Notre Dame Rome Gateway Facility.
- Crowell, C. R.** (2017, October). Day 2 Opening Remarks. Presented at the *Technology Enhanced Warfare: Perspectives from Ethics and Social Science* symposium held at the Notre Dame Rome Gateway Facility.
- Crowell, C. R.** & Latiff, R. (2017, October). The Importance of Social Science for Understanding Technology Enhanced Warfare. Remarks delivered on behalf of Robert Latiff at the *Technology Enhanced Warfare: Perspectives from*

Ethics and Social Science symposium held at the Notre Dame Rome Gateway Facility.

- Crowell, C. R.** (2017, October). Closing Remarks. Presented at the *Technology Enhanced Warfare: Perspectives from Ethics and Social Science* symposium held at the Notre Dame Rome Gateway Facility.
- Crowell, C. R.** (2016, July). Designing Moral Technologies: A Look Back and Other Thoughts. Invited Rapporteur Address for Conference on Designing Moral Technologies, Monte Verita, Switzerland.
- Kajzer, M.*, Crowell, C. R., & Villano, M.** (2014, July). Text Mining Chat Utterances to Automatically Predict Contact-Driven or Fantasy-Driven Internet Child Sexual Offenders. Paper presented at the International Family Violence and Child Victimization Research Conference, Portsmouth, NH.
- Kajzer, M.*, Crowell, C. R., Ferreira, A., D'Arcy, J., Van Bruggen, D., & Striegel, A.** (2013, July). Memorability of Computer Security Posters as Affected by Message Type. Poster presented at Ninth Symposium on Usable Privacy and Security, Newcastle, UK.
- Cunningham, T.*, Crowell, C., Villano, M., Mattingly, S., and Payne, J.** (2013). Sleep's depotentiating effect on heart rate deceleration and skin conductance response. Poster presentation at the annual Society for Psychophysiological Research Meeting, Florence, Italy.
- Cunningham, T.*, Crowell, C., Villano, M., Mattingly, S., and Payne, J.** (2013). Increased heart rate deceleration at encoding predicts memory for negative items only after a night of sleep. Poster presentation at the annual Society for Psychophysiological Research Meeting, Florence, Italy.
- Cunningham, T.*, Crowell, C., Villano, M., Mattingly, S., Kensinger, E., and Payne, J.** (2013). Psychophysiological Reactivity at Encoding Predicts Memory for Negative Items After a Night of Sleep. Poster presentation at the annual Associated Professional Sleep Society Conference, Baltimore, MD.
- Vernon, J.*, Kumar, J., Villano, M., Crowell, C.R., Wier, K., Tang, K., Zona, J., Portenier, D., & Diehl, J.J.** (2013, May). NAO-BASE: A multimedia database to support socially-assistive robotics for individuals with autism spectrum disorder. Presented at the International Meeting for Autism Research in San Sebastián, Spain.
- Kajzer, M.*, Crowell, C.R., & Villano, M.** (2013, August). Using chat utterances to predict Internet child sexual offending. Poster presented at the 121st Annual American Psychological Association Convention, Honolulu, HI.

- Kajzer, M.***, **Crowell, C.R.**, & Villano, M. (2013, May). Using chat evidence to predict child or sexual offender. Poster presented at the 25th Annual Association for Psychological Science Convention, Washington, DC.
- Hayes, C. J.***, **Crowell, C. R.**, & Riek, L. D. (2013, March). Automatic processing of irrelevant co-speech gestures with human but not robot actors. Paper presented at the 6th ACM IEEE International Conference on Human-Robot Interaction, Tokyo, Japan.
- Vernon, J.***, Kumar, J., Villano, M., **Crowell, C. R.**, Wier, K., Tang, K., Zona, J., Portenier, D., & Diehl, J. J. (2012). Nao-Base: A Multimedia Database to Support Socially-Assistive Robotics for Individuals with Autism Spectrum Disorder. Poster presentation at College of Science, Fall Research Expo, University of Notre Dame.
- Cunningham, T.***, **Crowell, C.**, Villano, M., Mattingly, S., Kensinger, E., & Payne, J. (2012, May). Emotional memory and psychophysiological regulation following a night of sleep. Poster presentation at the annual Association for Psychological Science Convention, Chicago, IL.
- Cunningham, T.***, **Crowell, C.**, Villano, M., Mattingly, S., Kensinger, E., & Payne, J. (2012). The effect of REM sleep on the emotional memory trade-off effect, cortisol awakening response, and psychophysiological reactions to negatively rated scenes. Poster presentation at the annual Associated Professional Sleep Society Conference, Boston, MA.
- Kennedy, M. W.***, Schmiedeler, J. P., Striegel, A. D., **Crowell, C. R.**, Villano, M., & Kuitse, J. (2011, April). Enhanced Feedback in Balance Rehabilitation using the Nintendo Wii Balance Board. Paper presented at the IEEE Healthcom 2011 - Technology Enabled Personalized Medicine conference, Columbia, Missouri: IEEE-Healthcom.
- Mangini, M.***, Villano, M. A., & **Crowell, C. R.** (2010, May). Visual Short term Memory for One Item. Annual Meeting of the Vision Sciences Society, Naples, FL: VSS.
- Kreager, R.***, **Crowell, C. R.**, & Villano, M. (2010, October). Context effects on imitation: How action context can modulate imitation performance. Indiana Academic of Social Sciences Annual Meeting, Indianapolis, IN.
- Kreager, R.***, Biggs, A., Gibson, B., Villano, M., & **Crowell, C. R.** (2010, Nov.). Effects of need-based stimuli on attentional capture and interference. Annual Object Perception, Attention and Memory (OPAM) Conference, St. Louis, MO.

- Crowell, C. R.** The Promise and Challenge of Understanding Top-Down Causation in the Brain. Pontifical Council for Culture Workshop on Endogenous Processes and Causation in Brain and Behavioral Sciences, Vatican City, April, 2009.
- Crowell, C.**, Shermerhorn, P., Scheutz, M. & Villano, M. Social presence effects of gendered voice and robot entities: perceptions and preconceptions. IEEE/RSJ International Conference on Intelligent Robots and Systems, St. Louis, MO: IEEE-RSJ, October, 2009.
- Worland, P. W.***, Matthews, A., Hagen, E., & **Crowell, C. R.** OBM Research Using the PSI Classroom as an Analogue Work Environment. Association for Behavior Analysis, May, 2006.
- Crowell, C. R.** Do companies know who their high performers are? Association for Behavior Analysis, May, 2005.
- Crowell, C. R.** Performance Diagnosis in a Sales Context. Association for Behavior Analysis, May, 2004.
- Crowell, C. R.** (Chair) The Challenges and Rewards of OBM Research: A Symposium in Honor of Dr. Chris Anderson. Association for Behavior Analysis, May, 2004.
- Siroky, L M.***, Anderson, D. C., & **Crowell, C. R.** Quality Improvement as a Means of Increasing Productivity: Behavior Management, Task Complexity, and Shared Vision. Association for Behavior Analysis, May, 2004.
- McArthur, K.***, Anderson, D. C., & **Crowell, C. R.** An analysis of service: Implications for the behavior management of factory service technicians of a large appliance manufacturer. Association for Behavior Analysis, May, 2004.
- Biedenharn, P. D.***, Anderson, D. C., & **Crowell, C. R.** OBM and Geriatric Health-Care Delivery: A Preliminary Investigation. Association for Behavior Analysis, May, 2004.
- Sergio, J. P.***, **Crowell, C. R.**, & Anderson, D. C.. Behavioral Coaching as an Intervention to Reduce Production Costs Through a Decrease in Scrap. Association for Behavior Analysis, May, 2004.
- Crowell, C. R.** Using Technology to Help Manage and Develop People. Asian Sales Management Conference for Pharmaceutical Executives, Tokyo, Japan, June, 1999

- Crowell, C. R.** Developing Sales Managers. Invited lecture for conference of Brazilian Sales Executives, Aug., 1999.
- Crowell, C. R.** Achieving Peak Performance Through Non-directive Coaching and Counseling. European Sales Management Conference for Pharmaceutical Executives, Rome, IT, May, 1998.
- Crowell, C. R.** Achieving Peak Performance Through Non-directive Coaching and Counseling. Asian Sales Management Conference for Pharmaceutical Executives, Tokyo, Japan, May, 1998.
- Crowell, C. R.** Achieving Peak Performance Through Non-directive Coaching and Counseling. MidEastern Sales Management Conference for Pharmaceutical Executives, Istanbul, Turkey, July, 1998.
- Crowell, C. R., & Hubbard, J.** Getting bottom-line sales results: Tools for Managers. American Bankers Assn. Trust & Asset Management Mtg, Feb., 1998.
- Crowell, C. R.** Achieving Peak Performance Through Non-directive Coaching and Counseling. Sales Management Conference for Pharmaceutical Executives, Miami, FL, Mar. 1998.
- Crowell, C. R.** Selection & Training. Annual meeting of the National Wholesalers Drug Association, April, 1996.
- Hantula, D. A.*, & Crowell, C. R.** Experience or framing? Further inquiry into the dynamics of persistence and escalation of commitment. 51st Annual Meeting of the Academy of Management, 1991.
- Crowell, C. R., & Anderson, D. C.** Behavior management in a book bindery: Can OBM work against the odds? Association of Management, 1991.
- Hantula, D. A.*, Crowell, C. R., & Schumacher, W. S.** Persistence and escalation in a failing course of action: Interactions between experience and information. ABA, 1990.
- Hantula, D. A.*, Boyd, J., & Crowell, C. R.** Ten years of behavioral instruction with computers: Trials, tribulations and reflections. Academic Microcomputer Conference, 1989.
- Hantula, D. A.*, Crowell, C. R., & Goltz, S. M.** Investment choices in a computer-simulated environment: Persistence, escalation and contrast effects. ABA, 1989.

- Crowell, C. R.**, Setzer, M., & Boyd, N. Software Recording Technology: Promise for reducing the hidden costs of computerization. Academic Microcomputer Conference, 1988.
- Hantula, D.***, **Crowell, C. R.**, Anderson, D. C., & Setzer, M. Elimination of a free-operant avoidance response: Variations in response-shock contingencies. MPA, 1987.
- Crowell, C. R.**, Johnson, J. F., Selner, M. B., Miller, A. E., Sayer, N. & Raine, B. Developing a model curriculum with database capabilities for severely handicapped adults. The CTG 5th International Conference, Computer Technology for Special Education and Rehabilitation, 1987.
- Quintanar, L. R.***, **Crowell, C. R.**, & Moskal, P. M. The interactive computer as a social stimulus in human-computer interaction. Second international conference on human-computer interaction, 1987.
- Crowell, C. R.**, Hantula, D. L., Johnson, J. M., & Miller, A. E. Authoring for interactive learning: Some features and considerations. Academic Microcomputer Conference, 1987.
- Crowell, C. R.**, Hantula, D. A., Johnson, J. F., & Miller, A. E. The psychology of interactive learning. Academic Microcomputer Conference, 1986.
- Birdsell, J.***, Widerquist, K. L., **Crowell, C. R.**, Johnson, J. F., & Miller, A. E. Components of a level III interactive videodisc delivery system. Academic Microcomputer Conference, 1986.
- Phillips, J.***, Villano, M., **Crowell, C. R.**, Setzer, M., & Miller, A. E. Typing versus menu selection for data entry: In search of the crossover point for maximum efficiency. Academic Microcomputer Conference, 1986.
- Steck, E. J.***, **Crowell, C. R.**, & Johnson, J. F. Comparing the instructional effectiveness of CAI and traditional methods in the freshmen chemistry lab. National Educational Computing Conference, 1986.
- Crowell, C. R.**, Anderson, D. C., Able, D., & Sergio, J. Systematic changes in teller courtesy behavior through variations in expectations, feedback, and social reinforcement. Psychonomic Society, 1983.
- Wikoff, M. B.***, Anderson, D. C., & **Crowell, C. R.** Increasing factory worker productivity using performance feedback and social reinforcement. Psychonomic Society, 1982.

- Wikoff, M. B.***, Resch, R. J., Anderson, D. C., & **Crowell, C. R.** Corporate-wide applications of behavior management in a manufacturing organization: Longitudinal data and recent developments. ABA, 1983
- Sergio, J.***, Anderson, D. C., **Crowell, C. R.**, & Wyczkowski, T. Some recent OBM applications and preliminary findings: Manufacturing and food-processing. ABA, 1983.
- Quintanar, L. R.***, **Crowell, C. R.**, Pryor, J., & Adamopoulos, J. Human-computer interaction: A preliminary social-psychological analysis. National Conference on the Use of Online Computers in Psychology, 1981.
- Crowell, C. R.**, Quintanar, L. R., & Grant, K. L. PROCTOR: An online student evaluation and monitoring system for use with PSI format courses. National Conference on the Use of Online Computers in Psychology, 1980.
- Konarski, E. A., Jr.***, **Crowell, C. R.**, Johnson, M. R., & Duggan, L. M. Application of the response deprivation hypothesis to improve handwriting of EMR students. Fourteenth Annual Gatlinburg Conference on Research in Mental Retardation and Developmental Disabilities, 1981.
- Konarski, E. A., Jr.***, **Crowell, C. R.**, Johnson, M. R., & Whitman, T. L. An alternative approach to reinforcement for applied researchers: Response deprivation. Invited Address, ABA, 1980.
- Konarski, E. A., Jr.***, **Crowell, C. R.**, Johnson, M. R., & Whitman, T. L. Response deprivation, reinforcement, and instrumental academic performance in an EMR classroom. Thirteenth Annual Gatlinburg Conference on Research in Mental Retardation and Developmental Disabilities, 1980.
- Quintanar, L. R.***, Grant, K. L., & **Crowell, C. R.** PSIPROG: An interactive system for self-paced instruction in a PSI-format psychology course. Fourth Biennial Conference on computing in Indiana, 1980.
- Quintanar, L. R.***, Cacioppo, J. T., **Crowell, C. R.**, Sklar, J. A., & Snyder, C. W. Comparative effects of cranial vasoconstriction and digital vasodilation feedback on migraine. Society for Psychophysiological Research, 1980.
- Crowell, C. R.**, Hinson, R. E., & Siegel, S. Extinction of tolerance to ethanol-induced hypothermia by exposure to drug related cues only. MPA, 1979.
- Wikoff, M.***, **Crowell, C. R.**, Anderson, D. C., & Lupo, J. V. Prior Inescapable vs. Escapable Shock Treatments: Effects on Shock-Elicited Aggression. MPA, 1978.

Sucec, J.*, Anderson, D. C., **Crowell, C. R.**, Wikoff, M., & Gilligan, K. Behavior Modification and Personnel Management in the Real Estate Industry: Getting Agents to Work and Sell More. MABA, 1978.

Wikoff, M.*, Anderson, D. C., **Crowell, C. R.**, Schneider, C., & Resch, R. Increasing Productivity Within the Factory Setting: Behavior Management of Press Operators and Related Personnel. MABA, 1978.

Konarski, E. A., Jr.*, Johnson, M. R., **Crowell, C. R.**, & Whitman, T. Use and evaluation of a response deprivation hypothesis to increase academic responding. AABT, 1978.

Crowell, C. R., Lupo, J. V., Bernhardt, T. & Kubiak, P. Feature positive and feature negative learning in the rat. MPA, 1976.

Crowell, C. R., & Anderson, D. C. Intensity of pre-conditioning CS exposure as a determinant of response suppression during testing. MPA, 1969.

Other Collaborative Papers

Villano, M, Moore, D., Zenk, J., **Crowell, C. R.**, Christen, M. (2017, October) Moral Decision Making in an RPA Simulation Context. Paper presented at the *Technology Enhanced Warfare: Perspectives from Ethics and Social Science* symposium held at the Notre Dame Rome Gateway Facility.

Kaboski, J., Beriont, **Crowell, C. R.**, Villano, M., Tang, K., Miller, H., Flatley, A., Hartman, N., Kawalec, K., Prough, M., Simon, L., VanSteenwyk, H., McWherter, W., Won, M., & Diehl, J. J. (2015, March). Summer Robotics Camp: A Social/Vocational Intervention for Adolescents with ASD and Their Peers. Poster presentation at the 2015 SRCD Biennial Meeting, Philadelphia, PA.

Tang, K., Dammann, A. Won, M., Hartman, N., Flatley, A. J., Kawalec, K., Van Steenwyk, H. N., **Crowell, C. R.**, Villano, M., Wier, K. G., & Diehl, J. J. (2015, May). GREAT Expectations: The Influence of Parent Outcome Expectancies on Social Skills Gains in Children with Autism Spectrum Disorder. Paper submitted to the 2015 International Meeting for Autism Research, Salt Lake City, UT.

Diehl, J. J., Kaboski, J. Beriont, J., Villano, M., Tang, K., Miller, H., Flatley, A. J., Hartman, Kawalec, N.K., Prough, M., Simon, L. T., Van Steenwyk, H. N., McWherter, W., Won, M., & **Crowell, C. R.** (2015, May). Using a Summer Robotics Camp to Reduce Social Anxiety and Improve Social/Vocational Skills in ASD. Paper submitted to the 2015 International Meeting for Autism Research, Salt Lake City, UT.

- Musolff, J., Portenier, D. Diehl, J. J., Villano, M., & **Crowell, C. R.** (2015, May). The Effects of an Interactive Robot on Increasing Communication Skills for Children with Autism Spectrum Disorders. Paper submitted to the 2015 International Meeting for Autism Research, Salt Lake City, UT.
- Villano, M., & **Crowell, C. R.** (2015, November). The psychological and emotional consequences of pilot choices during moral dilemmas embedded in remotely piloted aircraft simulations. Paper presented at the Workshop on The Transformation of War through Information Technology and its Impact on the Ethics and Law of Armed Conflicts – the Example of “Drones”, Zurich Switzerland.
- Villano, M., Christen, M., **Crowell, C. R.**, & Narvaez, D. (2014, October). An experimental study of decision making in operating Remotely Piloted Aircraft (RPAs/drones). Paper presented at the Workshop on Technology-mediated tragic decisions in military, cybersecurity, and humanitarian crises, Zurich Switzerland.
- Van Bruggen, D., Liu, S., Kajzer, M., Striegel, A., **Crowell, C. R.**, & D'Arcy, J. (2013, July). Modifying smartphone user locking behavior. Paper presented at Ninth Symposium on Usable Privacy and Security, Newcastle, UK.
- Diehl, J.J., **Crowell, C.R.**, Villano, M., Wier, K., Tang, K., Van Ness, M., Flores, J., Freeman, T., Klinepeter, E., Matthews, S., Mazur, S., & Shea, N. (2013, May). Humanoid robots as co-therapists in ABA therapy for children with autism spectrum disorder. International Meeting for Autism Research in San Sebastián, Spain.
- DiPiero, K., Stoddart, R., Diehl, J. J., Villano M., **Crowell, C. R.**, & Wier, K. Improvement in Eye Contact for Children with Autism Spectrum Disorder: Robot or Human Intervention? (2012, May). Eighty-Fourth Annual Meeting Midwestern Psychological Association, Chicago, IL: MPA.
- Klinepeter, E.A., Shea, N.M., Thomas, B., Van Ness, M., Kumar, J., Mazur, S.L., Millea, M.A., Wier, K., Tang, K., Villano, M., **Crowell, C.R.**, & Diehl, J.J. (2012, May). The effect of a co-robot therapist on repetitive behaviors during applied behavior analysis in individuals with autism spectrum disorders. Presented at the International Meeting For Autism Research, Toronto, Canada.
- Van Bruggen, D., Liu, S., Striegel, A., **Crowell, C.**, D'Arcy, .J. (2012, July). Cellphones and Punishment: Encouraging Secure Mobile Behavior Through Morality. Symposium On Usable Privacy and Security. Washington, D.C.

- Schmidt, M., Burgdorf, J. S., Kroes, R. A., **Crowell, C. R.**, Diehl, J. J., Brudzynski, S. M., Panksepp, J., & Moskal, J. R. (2011, Nov.). A novel NMDA receptor glycine-site partial agonist, GLYX-13, has therapeutic potential for the treatment of autism. Poster session presented at the meeting of the Society for Neuroscience, Washington, D.C.
- Villano, M., **Crowell, C. R.**, Wier, K. Tang, K., Thomas, B., Shea, N., Schmitt, L. M., & Diehl, J. J. (2011, Mar.). DOMER: A Wizard of Oz Interface for Using Interactive Robots to Scaffold Social Skills for Children with Autism Spectrum Disorders. Poster presentation at the 4th ACM IEEE International Conference on Human-Robot Interaction, Lausanne, Switzerland.
- Tang, K., Diehl, J. J., Villano, M., Wier, K., Thomas, B., Shea, N. M., DuBois, Z., Millea, M. A., Uhland, K. A., & **Crowell, C. R.** (2011, May). Enhancing empirically-supported treatments for autism spectrum disorders: A case study using an interactive robot. Poster session presented at the International Meeting for Autism Research, San Diego, CA.
- Biggs, A., Kreager, R., Gibson, B., Villano, M., & **Crowell, C.** (2010, Nov.). Semantic and affective salience: The role of meaning and preference in attentional capture. OPAM Annual Conference, St. Louis, MO.
- Shermerhorn, P., Scheutz, M., & **Crowell, C. R.**. Robot social presence and gender: do females view robots differently than males? 3rd ACM IEEE International Conference on Human-Robot Interaction, Amsterdam, March, 2008.
- Scheutz, M., & **Crowell, C.** Robot autonomy: some ensuing ethical questions. NA-CAP Conference, Bloomington, IN, July, 2008.
- Scheutz, M., & **Crowell, C. R.**, The burden of embodied autonomy: Some reflections on the social and ethical implications of autonomous robots. IRCA, Rome, IT, April, 2007.
- Anderson, D. C., & **Crowell, C. R.** An uptime-downtime model of work performance. Association for Behavior Analysis, May, 2003.
- Anderson, D. C., **Crowell, C. R.**, Boud, N., & Hantula, D. Feedback and fixed duration shocks. Psychonomic Society, 1991.
- Anderson, D. C., Hantula, D., **Crowell, C. R.**, & Tolzman, K. Feedback, interpolated shocks, and bivalent alteration of inescapable shock-treatment effects. Psychonomic Society, 1987.

- Anderson, D. C., Sergio, J., Wikoff, M., Doman, M, **Crowell, C. R.**, Hantula, D., Pauls, J, & Czerney, J. A total organization-wide performance system: Views from the outside in and the inside out. Symposium, ABA, 1987.
- Neumann, B., Welch, E., Wikoff, M. B., & **Crowell, C. R.** Performance management of bank teller courtesy. ABA, 1986.
- Anderson, D. C., **Crowell, C. R.**, Hantula, D. A., & Siroky, L. Acquisition and maintenance of cleaning behaviors in a college bar. ABA, 1986.
- Anderson, D. C., Sergio, J., **Crowell, C. R.**, & Wikoff, M. Symposium on Behavior and organizational success or failure. ABA, 1985.
- Anderson, D. C., **Crowell, C. R.**, Wikoff, M. B. & Sergio, J. Symposium on measurement issues in Organizational Behavior Management. ABA, 1984.
- Anderson, D. C., **Crowell, C. R.** & Doman, M. Performance improvement within multiple university settings. Psychonomic Society, 1984.
- Anderson, D. C., **Crowell, C. R.**, & Brown, J. S. Appetitive control of spontaneous, stereotyped behavior in the rat. Psychonomic Society, 1984.
- Anderson, D. C., & **Crowell, C. R.** Effects of Pre- and post-treatment short fixed-duration shocks on longer fixed-duration shock treatments. Psychonomic Society, 1983.
- Brown, J. S., Anderson, D. C., & **Crowell, C. R.** Startle magnitude and movement as determined by design, hunger, and stimulus spacing conditions. Psychonomic Society, 1983.
- Lupo, J. V., **Crowell, C. R.**, & Anderson, D. C. Inescapable shock treatment and interference of fighting behavior: Helplessness or competing behavior? MPA, 1975.
- Lupo, J. V., Anderson, D. C., & **Crowell, C. R.** The respective roles of the treatment and test environments as sources of differential responding in an off-the-baseline CER paradigm. MPA, 1975.
- Anderson, D. C., **Crowell, C. R.**, Abel, D., Sergio, J., & Wyczkowski, T. Behavior management in a bank setting: First class service, cross-selling, and customer selling. ABA, 1983.
- Anderson, D. C., **Crowell, C. R.**, Kennedy, M., Dransig, J., D'Angelo, T., Schmidt, J., & Logan, J. Two non-artificial applications of OBM in a university setting. ABA, 1983.

- Anderson, D. C., & **Crowell, C. R.** Broad Spectrum applications of OBM: Updates and new applications in manufacturing, sales, and service settings. ABA, 1983.
- Anderson, D. C., Lupo, J. V., & **Crowell, C. R.** Fixed-duration treatment-shock types and intensities as determinants of FR-1 and FR-2 shuttlebox learning. Psychonomic Society, 1982.
- Anderson, D. C., **Crowell, C. R.**, Derse, R., Sergio, J., Madonna, J. & Snyder, C. Individual differences in the rat: Some preliminary explorations. MPA, 1981.
- Hinson, R. E., **Crowell, C. R.**, & Siegel, S. Pavlovian conditioning mediates tolerance to ethanol-induced hypothermia. EPA, 1979.
- Lupo, J. V., Anderson, D. C., & **Crowell, C. R.** Variations in current type, typography, and intensity of inescapable shock treatments: Effects on two-way, discriminated shuttlebox escape-avoidance. Psychonomic Society, 1977.
- Anderson, D. C., **Crowell, C. R.**, Lupo, J. V., McEachin, J., & Depaul, M. Brief, spaced, inescapable shocks can reduce the intensifying effect of prior inescapable shocks on punishment learning. MPA, 1977.
- Anderson, D. C., Lupo, J. V., & **Crowell, C. R.** Goalshock (GS) can retard extinction of shock-escape alley running: The role of GS during acquisition, delayed GS, and goal box confinement. Psychonomic Society, 1976.