

**Vita**  
**Timothy C. Rickard**

April 10<sup>th</sup>, 2005

**General Information**

Current Employment: Associate Professor  
Department of Psychology  
University of California, San Diego

Business Address: Department of Psychology  
University of California, San Diego  
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**Educational History**

Post Doctoral Fellowship Cognitive Neuroscience Section, National Institutes of Health,  
Bethesda, Md., 1994 to 1996

Ph.D. Cognitive Psychology, University of Colorado  
Summer, 1994

M.A. Cognitive Psychology, University of Colorado  
December, 1992

M.S. Applied Statistics, University of Alabama  
May, 1989

B.S. Mechanical Engineering, University of Alabama  
December, 1987

**Research Interests**

My research addresses several related topics in cognitive psychology and cognitive neuroscience, including skill acquisition and transfer, memory retrieval processes, attention and memory, numerical cognition, and amnesia following damage to the medial temporal lobes.

## Papers Presented

- Rickard, T. C. (2004, November). A revised identical elements model of the asymptotic organization of multi-term facts: The case of arithmetic. Paper presented at the 44<sup>th</sup> Annual Meeting of the Psychonomic Society. Minneapolis, Minnesota
- Rickard, T. C. (2003, May). Skill acquisition, strategy shifts, and the law of practice. Invited address at the University of Colorado, Boulder.
- Rickard, T. C. (2003, February). Strategy execution in cognitive skill learning and its relation to an early-stage retrieval bottleneck. Invited address at Georgia Tech University, Atlanta, Georgia.
- Rickard, T. C. (2001, November). Do mnemonics leave us stuck in non-optimal retrieval pathways? Poster presented at the 42<sup>nd</sup> Annual Meeting of the Psychonomic Society. New Orlando, Florida.
- Rickard, T. C. (2001, January). Memory retrieval from two independent cues: is there response time facilitation? Paper presented at the 26<sup>th</sup> Annual Interdisciplinary conference. Jackson, Wyoming.
- Rickard, T. C. (2000, November). Can two independently learned cues operate in parallel to retrieve a single response? Paper presented at the 41<sup>th</sup> Annual Meeting of the Psychonomic Society. New Orleans, Louisiana.
- Nino, R. & Rickard, T. C. (1999, November). Practice effects on two retrievals from a single cue. Poster presented at the 40<sup>th</sup> Annual Meeting of the Psychonomic Society. Los Angeles, CA.
- Rickard, T. C., & Pashler, H. (1998, November). A bottleneck in memory retrieval from a single cue. Paper presented at the 39<sup>th</sup> Annual Meeting of the Psychonomic Society. Dallas, TX.
- Rickard, T. C., & Grafman, J. (1997, November). Losing their configural mind: Amnesics fail on transverse patterning. Poster presented at the 38<sup>th</sup> Annual Meeting of the Psychonomic Society. Philadelphia, PA.
- Romero, S., Rickard, T., Wharton, C, Basso, G., and Grafman, J. (1997, March). Where the brain verifies a numerical fact. Poster presented at the 4<sup>th</sup> Annual Meeting of the Cognitive Neuroscience Society. Boston, Mass.
- Rickard, T. (1996, December). Task design and other methodological issues in fMRI studies of neuroplasticity. Paper presented at the NIH Workshop on Neuroplasticity and Reorganization of Function After Brain Injury. Bethesda, Maryland.

Rickard, T. C. (1995, November) Bending the power law: The transition from algorithm-based to memory-based performance. Poster presented at the 36th Annual Meeting of the Psychonomic Society. Los Angeles, California.

Rickard, T. C. (1994, March). Bending the power law: The transition from algorithm-based to memory-based performance. Invited address at Columbia University, New York, NY.

Romero, S., Rickard, T. C., & Bourne L. E., Jr. (1994, November). On Verification of Multiplication Facts: An Investigation using Retrospective Protocols. Poster presented at the Psychonomic Society's 35th Annual Meeting, St. Louis, Missouri.

Rickard, T. C., & Bourne, L. E., Jr. (1992, November). Cross operation transfer of mental arithmetic skill. Paper presented at the 33rd Annual Meeting of the Psychonomics Society, Saint Louis, Missouri.

Bourne, L. E., Jr., & Rickard, T. C. (1991, June). Mental calculation: The development of a cognitive skill. Paper presented at the Inter-American Congress of Psychology, Costa Rica.

Rickard, T. C., & Bourne, L. E., Jr. (1990, November). Network interference processes in mental multiplication and division skills. Paper presented at the 31st Annual Meeting of the Psychonomic Society. New Orleans, Louisiana.

## **Publications**

Rickard, T. C. & Bajic, D. (in press). In search of cross-talk facilitation in a dual cued-recall task. Journal of Experimental Psychology: Learning, Memory, and Cognition.

Romero, S., Rickard, T. C., & Bourne, L. E. (in press). On verification of multiplication facts: An investigation using retrospective protocols. American Journal of Psychology.

Rickard, T. C. (2005). A revised identical elements model of arithmetic fact representation. Journal of Experimental Psychology: Learning, Memory, and Cognition, 31(2), 250-257.

Rickard, T. C. & Bajic, D. (2004). Memory retrieval given two independent cues: Cue selection or parallel access? Cognitive Psychology, 48, 243-294.

Rickard, T. C. (2004). Strategy execution in cognition skill learning: An item-level test of candidate models. Journal of Experimental Psychology: Learning, Memory, and Cognition, 30, 65-82.

- Kellog, R.T., Friedman, A., Johnson, P & Rickard, T. C. (2004). Domain-specific knowledge in intellectual skills: A symposium in honor of Lyle Bourne. In A. F. Healy (Ed.) Experimental Cognitive Psychology and its Applications. Washington, DC, American Psychological association.
- Rickard, T. C. & Bajic, D. (2003). Automatic mediation or absence of mediation? Commentary on Crutcher and Ericsson (2000). Journal of Experimental Psychology: Learning, Memory, and Cognition, 29, 1381-1386.
- Nino, R. & Rickard, T. C. (2003). Practice effects on two retrievals from a single cue. Journal of Experimental Psychology: Learning, Memory and Cognition, 29, 373-388.
- Bourne, L. E., Jr., Pauli, P., Fendrich, D., Rickard, T.C., & Healy, A. (2002). Deliberate and automatic processes in mental arithmetic. Cognitive Processing, 4, 487 - 52.
- Rickard, T. C. (2000). Methodological issues in functional magnetic resonance imaging studies of plasticity following brain injury. In H. Levin & J. Grafman (Eds.) Cerebral reorganization of function after brain damage. (p. 304 – 317). Oxford University Press.
- Rickard, T. C., Romero, S. T., Basso, G., Wharton, C., Flitman, S., & Grafman, J. (2000). The calculating brain: An fMRI study. Neuropsychologia, 38, 325-335.
- Grafman, J. & Rickard, T. C. (2000). Acalculia. Farah, M. J. & Feinberg, T. E. (Eds.) Patient-based approaches to cognitive neuroscience. (p. 345-351). Cambridge, MA: MIT Press.
- Bourne, L. E., Healy, A. F, Parker, J., & Rickard, T. C. (1999). The strategic basis of performance in binary classification tasks: Strategy choices and strategy transitions. Journal of Memory and Language, 41, 223-252.
- Rickard, T. C. (1999). A CMPL alternative account of practice effects in numerosity judgment tasks. Journal of Experimental Psychology: Learning, Memory, and Cognition, 25, 532-542.
- Healy, A. F., Barshi, I., Crutcher, R. J., Tao, L., Rickard, T. C., Marmie, W. R., Schneider, V. I., Feldman, A., Buck-Gengler, C., Romero, S., Sherrod, N. B., Parker, J., & Bourne, L. E., Jr. (1998). Towards the improvement of training in foreign languages. In A. F. Healy & L. E. Bourne, Jr. (Eds.), Foreign language learning: Psycholinguistic experiments on training and retention, (p. 3-56). Mahwah, NJ: Erlbaum.
- Rickard, T. C. & Grafman, J. (1998). Losing their configural mind: Amnesics fail on transverse patterning. Journal of Cognitive Neuroscience, 10, 509-524.

- Grafman, J., & Rickard, T. C. (1997). Acalculia. Feinberg, T. E. & Farah, M. J. (Eds.) Behavioral Neurology and Neuropsychology. (p. 219-226). New York: McGraw-Hill.
- Rickard, T. C. (1997). Bending the power law: A CMPL theory of strategy shifts and the automatization of cognitive skills. Journal of Experimental Psychology: General, *126*, 288-311.
- Rickard, T., & Bourne, L. E., Jr. (1996). Some tests of an identical elements model of basic arithmetic skills. Journal of Experimental Psychology: Learning, Memory, and Cognition, *22*, 1281-1295
- Levin, H. S., Scheller, J., Rickard, T., Grafman, J., Martinkowski, K., Winslow, M. & Mirvis, S. (1996). Dyscalculia and dyslexia after right hemisphere injury in infancy. Archives of Neurology, *53*, 88-96
- Pauli, P., Lutzenberger, W., Birbaumer N., Rickard T. C., and Bourne L. E. Jr. (1996). Neuropsychological correlates of mental arithmetic. Psychophysiology, *33*, 522-529.
- Healy, A. F., King, C. L., Clawson, D. M., Sinclair, G. P., Rickard, T. C., Crutcher, R. J., Hammerle, O., Ericsson, K. A., & Bourne, L. E., Jr. (1994). Optimizing the long-term retention of skills. In Healy, A. F., & Bourne, L. E. Jr. (Eds.) Learning and memory of knowledge and skills. (p. 1-29). Newbury Park, CA: Sage.
- Rickard, T. C., & Bourne, L. E., Jr. (1995). An identical elements model of basic arithmetic skills. In Healy, A. F., & Bourne, L. E., Jr. (Eds.) Learning and memory of knowledge and skills. (p. 255-281). Newbury Park, CA: Sage.
- Rickard, T. C., Healy, A. F., & Bourne, L. E., Jr. (1994). On the cognitive structure of basic arithmetic skills: Operation, order, & symbol transfer effects. Journal of Experimental Psychology: Learning, Memory, & Cognition, *20*, 1139-1153.
- Pauli, P., Lutzenberger, W., Rau, H., Birbaumer, N., Rickard, T. C., Yaroush, R. A., & Bourne, L. E., Jr. (1994). Brain potentials during mental arithmetic: The effects of extensive practice and problem difficulty. Cognitive Brain Research, *2*, 21-29.
- Healy, A. F., Clawson, D. M., McNamara, D., Marmie W., Schneider, V. I., Rickard, T. C. et al. (1993). The long-term retention of knowledge and skills. In D. L. Medin (Ed.), The Psychology of learning and motivation: Advances in research and theory. (Vol. 30, p.135-164). San Diego: Academic Press.
- Rickard, T. C., Mozer, M., & Bourne, L. E., Jr. (1993). An interactive activation model of numerical fact retrieval. Institute of Cognitive Science, Technical Report 92-15, University of Colorado, Boulder, Colorado.
- Ellis, N. R., & Rickard, T. C. (1989). The retention of automatically and effortfully encoded stimulus attributes. Bulletin of the Psychonomic Society, *27*, 299-302.

## **Editorial Experience**

Consulting Editor: *Psychonomic Bulletin & Review*  
January 1<sup>st</sup> 2001 to present.

Ad Hoc Reviewer: *Psychological Review*  
*Psychonomic Bulletin and Review (multiple)*  
*Cognitive Psychology (multiple)*  
*Journal of Experimental Psychology: General (multiple)*  
*Journal of Experimental Psychology: Learning, Memory, and Cognition (multiple)*  
*Journal of Experimental Psychology: Human Perception and Performance (multiple)*  
*Journal of Experimental Psychology: Applied (multiple)*  
*Psychological Methods*  
*Memory & Cognition (multiple)*  
*Psychological Science (multiple)*  
*Neuropsychologia*  
*Acta Psychologica*  
*International Journal of Neuroscience*  
*Mathematical Cognition*  
*Journal of Child Experimental Psychology*  
*Canadian Journal of Experimental Psychology (multiple)*

## **Grant Review Experience**

Institute for Educational Sciences, Cognition and Student Learning Section, Bethesda, MD, January, 2005.

NIMH B-Start program, December, 2004.

## **Association Memberships**

The Psychonomic Society  
The Cognitive Neuroscience Society

## **Awards and Honors**

National Institutes of Health Grant #R29 MH58202 (1998 through 2005).

Second place, Best Paper by a Young Investigator in the Journal of Experimental Psychology: Learning, Memory, and Cognition. Awarded by the American Psychological Association (1999).

UCSD Academic Senate Research Grant (1997, 2000).

UCSD Chancellor's Summer Research Fellowship (1998).