

Vita  
**LYNNE M. REDER**  
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**EDUCATION AND ACADEMIC HONORS:**

1968 - 1972	Stanford University, Major in Psychology, B.A.
1972	Graduated with honors in Psychology Graduated Phi Beta Kappa
1972 - 1976	University of Michigan, Ph.D. in Psychology
1973 - 1976	Awarded NSF Graduate Fellowship
1976	Awarded Rackham Dissertation Grant
1976 - 1978	NIMH Post-Doctoral Fellowship
1977 - 1978	Lecturer at Yale University
1978 - 1983	Assistant Professor, Carnegie-Mellon University
1983 - 1992	Associate Professor, Carnegie-Mellon University
1992 -	Professor, Carnegie-Mellon University Faculty, Center for the Neural Basis of Cognition Member, Human Computer Interaction Institute Fellow, American Psychological Association, Div. 3 Fellow, American Association for the Advancement of Science Fellow, Association for Psychological Science

**RESEARCH SUPPORT:**

<b>Principal Investigator</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>
<b>Years Inclusive</b>		
1996 - 2009	R01 MH52808-09 "Exploring the SAC Model of Memory"	NIMH
1998 - 2008	T32 MH19983-07 "Training in Combined Computational and Behavioral Approaches to Cognition"	NIMH
1997 - 2001	AASERT grant to accompany "A Computational Model of Individual Differences in Working Memory"	AFOSR
1997 - 1999	"A Computational Model of Individual Differences in Working Memory"	AFOSR
1997 - 1999	Control # 98NL255 "Localizing Individual Differences in Task Performance via Computational Models of Working Memory Capacity"	AFOSR

1995 – 1999	“A Proposal to Model ATC in ACT”	ONR
1995 - 1998	ASSERT grant to accompany “A Proposal to Model ATC in ACT”	ONR
1995 - 1996	Grant to support Carnegie Symposium on Cognition, entitled “Metacognition and Implicit Memory”	ONR
1990 - 1994	“Tests of a Model of Question Answering”	NSF
1988 - 1990	“Components of Initial Skill Learning: Development of Effective Examples and Training Procedures”	NSF
1983 - 1988	“Strategies for Question-Answering: A Three-Stage Model”	NSF
1983 - 1987	“Design of Instructional Material for Optimizing Skill Learning”	ONR
1983 – 1984	Carnegie-Mellon University grant for development of software for Educational Computing purposes	CMU
1979 - 1980	Grant from Institute on Aging, Portland, for memory research	Institute on Aging

<b>Co-Investigator Years Inclusive</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>
2007 -	GM75770-01A1 “Research Training in Anesthesiology and Pain Management”	NIGMS
2002 – 2005	N00014-02-2-0269 “Cognitive Modeling of Individual Differences in Working Memory: Predicting Individual Differences in Complex, Interactive Environments”	ONR
2000 - 2002	“Computational Modeling of Individual Differences in Working Memory and Strategy Adaptivity”	NSF
1998 - 2001	“Computational Models and Coordinated Neuroimaging of Learning and Cognitive Function”	NSF: Learning and Intelligent Systems

**PUBLICATIONS AND PAPERS IN PRESS:**

- Reder, L.M., Paynter, C., Diana, R.A., Ngiam, J., & Dickison, D. (in press). Experience is a double-edged sword: A computational model of the encoding/retrieval tradeoff with familiarity. In Ross, B. & Benjamin, A.S. (Eds.), *The Psychology of Learning and Motivation*, Academic Press.
- Reder, L.M., Oates, J.M., Dickison, D., Anderson, J.R., Gyulai, F., Quinlan, J.J., Ferris, J.L., Dulik, M. & Jefferson, B. (in press). Retrograde facilitation under midazolam: The role of general and specific interference. *Psychonomic Bulletin & Review*.

- Buchler, N.E.G., & Reder, L.M. (2007). Modeling age-related memory deficits: A two-parameter solution. *Psychology & Aging*, 22(1), 104-121.
- Reder, L.M., Proctor, I., Anderson, J.R., Gyulai, F., Quinlan, J.J., & Oates, J. M. (2006). Midazolam does not inhibit association formation, just its storage and strengthening. *Psychopharmacology*, 188(4), 462-471. Available online <http://dx.doi.org/10.1007/s00213-006-0436-x>
- Park, H., Arndt, J.D., & Reder, L.M. (2006). A contextual interference account of distinctiveness effects in recognition. *Memory & Cognition*, 34(4), 743-751. [Lead Article]
- Reder, L.M., Oates, J.M., Thornton, E.R., Quinlan, J.J., Kaufer, A., & Sauer, J. (2006). Drug induced amnesia hurts recognition, but only for memories that can be unitized. *Psychological Science*, 17(7), 562-567.
- Diana, R., Reder, L.M., Arndt, J., & Park, H. (2006). Models of recognition: A review of arguments in favor of a dual process account. *Psychonomic Bulletin & Review*, 13, 1-21. [Lead Article]
- Diana, R.A. & Reder, L.M. (2006). The low frequency encoding disadvantage: Word frequency affects processing demands. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 32(4), 805-815.
- Diana, R., & Reder, L.M. (2005). The list strength effect: A contextual competition account. *Memory & Cognition*, 33(7), 1289-1302.
- Diana, R., Vilberg, K.L., & Reder, L.M. (2005). Identifying the ERP correlate of a recognition memory search attempt. *Cognitive Brain Research*, 24, 674-684.
- Park, H., Reder, L.M., & Dickison, D. (2005). The effects of word frequency and similarity on recognition judgments: The role of recollection. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 31(3), 568-578.
- Diana, R. & Reder, L.M. (2004). Visual vs. verbal metacognition: Are they really different? In Levin, D.T. (Ed), *Thinking and Seeing: Visual Metacognition in Adults and Children*. Cambridge: MIT Press, pp. 187-201.
- Park H., Quinlan, J.J., Thornton, E.R., & Reder, L.M. (2004). The effect of midazolam on visual search: Implications for understanding amnesia. *Proceedings of the National Academy of Sciences*, 101(51), 17879-17883.
- Park, H. & Reder, L.M. (2004). Moses illusion: Implication for human cognition. In Pohl, R.F. (Ed), *Cognitive Illusions*. Hove: Psychology Press, pp. 275-291.
- Rehling, J., Lovett, M., Lebiere, C., Reder, L., & Demiral, B. (2004) Modeling complex tasks: An individual difference approach. In *Proceedings of the 26th Annual Conference of the Cognitive Science Society* (pp. 1137-1142). August 4-7, Chicago, USA.
- Sohn, M.H., Anderson, J. R., Reder, L. M. & Goode, A. (2004). Differential fan effect and attentional focus. *Psychonomic Bulletin & Review*, 11(4), 729-734.
- Diana, R., Peterson, M.J., & Reder, L.M. (2004). The role of spurious feature familiarity in recognition memory. *Psychonomic Bulletin & Review*, 11(1), 150-256.

- Reder, L.M., Weber, K., Shang, Y., & Vanyukov, P. (2003). The adaptive character of the attentional system: Statistical sensitivity in a target localization task. *Journal of Experimental Psychology: Human Perception and Performance*, 29, 631-649.
- Arndt, J. & Reder, L.M. (2003). The effect of distinctive visual information on false recognition. *Journal of Memory and Language*, 48, 1-15. [lead article].
- Cary, M. & Reder, L.M. (2003). A dual-process account of the list-length and strength-based mirror effects in recognition. *Journal of Memory and Language*, 49(2), 231-248.
- Rehling, J., Demiral, B., Lebiere, C., Lovett, M., & Reder, L. (2003). Modeling individual difference factors in a complex task environment. In F. Detje, D. Doerner, & H. Schaub (Eds.), *In Proceedings of the Fifth International Conference on Cognitive Modeling* (pp. 287-288). Bamberg, Germany: Universitats-Verlag Bamberg.
- Arndt, J. & Reder, L.M. (2002). Word frequency and receiver-operating characteristic curves in recognition memory: Evidence for a dual-process interpretation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28, 830-842.
- Cary, M. & Reder, L.M. (2002). Metacognition in strategy selection: Giving consciousness too much credit. In Izaute, M., Chambres, P., & Marescaux, P.J. (Eds.), *Metacognition: Process, Function, and Use*. New York, NY: Kluwer, pp. 63-78.
- Reder, L.M., Angstadt, P., Cary, M., Erickson, M.A., & Ayers, M.A. (2002). A Reexamination of stimulus-frequency effects in recognition: Two mirrors for low- and high-frequency pseudowords. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 28, 138-152.
- Reder, L.M., Donavos, D.K., & Erickson, M.A. (2002). Perceptual match effects in direct tests of memory: The role of contextual fan. *Memory & Cognition*, 30(2), 312-323.
- Anderson, J.R., Budiu, R., & Reder, L.M. (2001). A theory of sentence memory as part of a general theory of memory. *Journal of Memory and Language*, 45, 337-367 [Lead Article].
- Daily, L.Z., Lovett, M.C., & Reder, L.M. (2001). Modeling individual differences in working memory performance: A source activation account. *Cognitive Science*, 25, 315-353 [Lead Article].
- Schunn, C.D., Lovett, M.C., & Reder, L.M. (2001). Awareness and working memory in strategy adaptivity. *Memory & Cognition*, 29(2), 254-266.
- Schunn, C.D. & Reder, L.M. (2001). Another source of individual differences: Strategy adaptivity to changing rates of success. *Journal of Experimental Psychology: General*, 130, 59-76.
- Simmons, M.R., Reder, L.M., & Fiez, J. (2001). The role of perceptual fan in explicit recognition: Functional neuroimaging evidence [Abstract]. *Journal of Cognitive Neuroscience* (Suppl.).
- Anderson, J.R., Greeno, J.G., Reder, L.M., & Simon, H.A. (2000). Perspectives on learning, thinking, and activity. *Educational Researcher*, 29 (4), 11-13.

- Anderson, J.R., Reder, L.M., & Simon, H.A. (2000, Summer). Applications and misapplications of cognitive psychology to mathematics education. *Texas Educational Review*.
- Lovett, M.C., Daily, L.Z., & Reder, L.M. (2000). A source activation theory of working memory: Cross-task prediction of performance in ACT-R. *Journal of Cognitive Systems Research*, 99-118.
- Reder, L.M., Nhouyvansivong, A., Schunn, C.D., Ayers, M.S., Angstadt, P., & Hiraki, K. (2000). A mechanistic account of the mirror effect for word frequency: A computational model of remember/know judgments in a continuous recognition paradigm. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 26(2), 294-320.
- Spehn, M.K. & Reder, L.M. (2000). The unconscious feeling of knowing: A commentary on Koriat's paper. *Consciousness and Cognition*, 9, 187-192.
- Anderson, J.R. & Reder, L.M. (1999). Process, not representation: Reply to Radvansky (1999). *Journal of Experimental Psychology: General*, 128(2), 207-210.
- Anderson, J.R. & Reder, L.M. (1999). The fan effect: New results and new theories. *Journal of Experimental Psychology: General*, 128(2), 186-197.
- Lemaire, P. & Reder, L.M. (1999). What affects strategy selection in arithmetic? An examination of parity and five effects on product verification. *Memory & Cognition*, 27(2), 364-382.
- Lovett, M.C., Reder, L.M., & Lebiere, C. (1999). Modeling Working Memory in a Unified Architecture: An ACT-R Perspective. In Miyake, A. & Shah, P. (Eds.), *Models of Working Memory: Mechanisms of Active Maintenance and Executive Control*. Cambridge University Press, 135-182.
- Reder, L.M. & Schunn, C.D. (1999). Bringing together the psychometric and strategy worlds: Predicting adaptivity in a dynamic task. In Gopher, D. & Koriat, A. (Eds.), *Cognitive Regulation of Performance: Interaction of Theory and Application. Attention and Performance XVII*. MIT Press, 315-342.
- Anderson, J.R., Lebiere, C., Lovett, M.C., & Reder, L.M. (1998). ACT-R: A higher-level account of processing capacity. (Commentary on Halford, Wilson & Phillips Processing capacity defined by relational complexity: Implications for comparative, *Developmental and Cognitive Psychology*.) *Behavioral and Brain Sciences*, 831-832.
- Anderson, J.R., Reder, L.M., & Simon, H.A. (1998). Radical constructivism and cognitive psychology. In Ravitch, D. (Ed), *Brookings Papers on Education Policy: 1998*. Washington, D.C: Brookings Institution, pp. 227-255.  
Also published in Chile in Spanish Translation (2001). Educación: El constructivismo radical y la psicología cognitiva. *Estudios Públicos*, 81, 89-127.
- Ayers, M.S. & Reder, L.M. (1998). A theoretical review of the misinformation effect: predictions from an activation-based memory model. *Psychonomic Bulletin & Review*, 5(1), 1-21. [Lead Article].
- Best, B.J., Schunn, C.D., & Reder, L.M. (1998). Modeling adaptivity in a dynamic task. In Gernsbacher, M.A. & Derry, S.J. (Eds.), *Proceedings of the Twentieth Annual Conference of the Cognitive Science Society*, Mahwah, NJ: Erlbaum, 144-159.

- Delaney, P., Reder, L.M., Staszewski, J., & Ritter, F. (1998). The strategy specific nature of improvement: The power law applies by strategy within task. *Psychological Science*, 9(1), 1-7. [Lead Article].
- Erickson, M.A. & Reder, L.M. (1998). The influence of repeated presentations and intervening trials on negative priming. In Gernsbacher, M.A. & Derry, S.J. (Eds.), *Proceedings of the Twentieth Annual Conference of the Cognitive Science Society*, Mahwah, NJ: Erlbaum, 327-332.
- Nhouyvanisvong, A. & Reder, L.M. (1998). Rapid feeling-of-knowing: A strategy selection mechanism. In: Yzerbyt, V.Y., Lories, G., Dardenne, B. *Metacognition: Cognitive and Social Dimensions*. London: Sage, 35-52.
- Schunn, C.D. & Reder, L.M. (1998). Strategy adaptivity and individual differences. In Medin, D.L. (Ed.), *The Psychology of Learning and Motivation*, Academic Press, 115-154.
- Anderson, J.R., Reder, L.M., & Simon, H.A. (1997). Rejoinder: Situated versus cognitive perspectives: Form versus substance. *Educational Researcher*, 26(1), 18-21.
- Lovett, M.C., Reder, L.M., & Lebiere, C. (1997). Modeling individual differences in a digit working memory task. In *Proceedings of the Nineteenth Annual Cognitive Science Conference*, Mahwah, NJ: Erlbaum, 460-465.
- Reder, L.M. & Gordon, J.S. (1997). Subliminal perception: Nothing special, cognitively speaking. In Cohen, J. and Schooler, J. (Eds.), *Cognitive and Neuropsychological approaches to the study of Consciousness*, Mahwah, NJ: Erlbaum, 125-134.
- Reder, L.M., Nhouyvanisvong, A., Schunn, C.D., Ayers, M.S., Angstadt, P., & Hiraki, K. (1997). Modeling the mirror effect in a continuous remember/know paradigm. *Proceedings of the Nineteenth Annual Cognitive Science Conference*, Mahwah, NJ: Erlbaum, 644-649.
- Schunn, C.D., Reder, L.M., Nhouyvanisvong, A., Richards, D.R., & Stroffolino, P.J. (1997). To calculate or not calculate: A source activation confusion (SAC) model of problem-Familiarity's role in strategy selection. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 23, 1-27. [Lead Article].
- Anderson, J.R., Reder, L.M., & Lebiere, C. (1996). Working memory: Activation limitations on retrieval. *Cognitive Psychology*, 30, 221-256.
- Anderson, J.R., Reder, L.M., & Simon, H.A. (1996). Situated learning and education. *Educational Researcher*, 25(4), 5-11. [Lead Article].
- Kamas, E., Reder, L.M., & Ayers, M. (1996). Partial matching in the Moses illusion: Response bias not sensitivity. *Memory and Cognition*, 24, 687-699. [Lead Article].
- Reder, L.M. (1996). Different research programs on metacognition: Are the boundaries imaginary? *Commentary for Special Issue of Learning and Individual Differences*, 8(4), 383-390.
- Reder, L.M. (Ed.) (1996). *Implicit Memory and Metacognition*. Mahwah, NJ: Erlbaum.
- Reder, L.M. & Schunn, C.D. (1996). Metacognition does not imply awareness: Strategy choice is governed by implicit learning and memory. In Reder, L.M. (Ed.), *Implicit Memory and Metacognition*. Mahwah, NJ: Erlbaum, 45-77.

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- Schunn, C.D. & Reder, L.M. (1996). Modeling changes in strategy selections over time. *Proceedings of the AAAI-96 Workshop on Computational Cognitive Modeling. Portland, Oregon, August 1996.*
- Kamas, E. & Reder, L.M. (1994). The role of familiarity in cognitive processing. In O'Brien, E. and Lorch, R. (Eds.), *Sources of Coherence in Reading: A Festschrift in Honor of Jerome L. Myers*, New Jersey: L. Erlbaum, 177-202.
- Lebiere, C., Anderson, J.R., & Reder, L.M. (1994). Error modeling in the ACT-R production system. In *Proceedings of the Sixteenth Annual Conference of the Cognitive Science Society*, Hillsdale, NJ: Erlbaum, 555-559.
- Miner, A. & Reder, L.M. (1994). A new look at feeling of knowing: Its metacognitive role in regulating question answering. In Metcalfe, J. and Shimamura, A. (Eds.), *Metacognition: Knowing About Knowing*, Cambridge, Mass: MIT Press.
- Reder, L.M. & Klatzky, R. (1994). Transfer: training for performance. In Druckman, D. & Bjork, R.A. (Eds.), *Learning, Remembering, Believing: Enhancing team and individual performance*, Washington, D.C.: National Academy Press.
- Reder, L.M. & Ritter, F. (1992). What determines initial feeling of knowing? Familiarity with question terms, not with the answer. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 18, 435-451. [Lead Article].
- Charney, D.H., Reder, L.M., & Kusbit, G.W. (1991). Improving documentation with hands-on problem solving. *Proceedings of "Documentation: The First Conference on Quality"* sponsored by the Centre for Professional Writing, University of Waterloo, Canada.
- Reder, L.M. & Kusbit, G.W. (1991). Locus of the Moses illusion: Imperfect encoding, retrieval or match? *Journal of Memory and Language*, 30, 385-406. [Lead Article].
- Reder, L.M. & Cleeremans, A. (1990). The role of partial matches in comprehension: The Moses illusion revisited. In Graesser, A. & Bower, G. (Eds.), *The Psychology of Learning and Motivation, Vol. 25*, New York: Academic Press, 233-258.
- Charney, D.H., Reder, L.M., & Kusbit, G.W. (1990). Goal setting and procedure selection in acquiring computer skills: A comparison of tutorials, problem-solving, and learner exploration. *Cognition and Instruction*, 7(4), 323-342.
- Charney, D.H., Reder, L.M., & Wells, G.W. (1988). Studies of elaboration in instructional texts. In Doheny-Farina, S. (Ed.), *Effective Documentation: What We Have Learned from Research*, Cambridge, Mass: MIT Press, 47-72.  
Note: Above paper was the winner of the 1989 NCTE Award for Excellence in Technical and Scientific Writing: Best Article Reporting Formal Research in Technical or Scientific Communication.
- Reder, L.M. (1988). Strategic control of retrieval strategies. In Bower, G. (Ed.), *The Psychology of Learning and Motivation, Vol. 22*, New York: Academic Press, 227-259.

- Anderson, J.R. & Reder, L.M. (1987). Effects of number of facts studied on recognition versus sensibility judgments. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13(3), 355-367. [Lead Article].
- Charney, D.H. & Reder, L.M. (1987). Initial skill learning: An analysis of how elaborations facilitate the three components. In Morris, P.E. (Ed.), *Modeling Cognition*, London: Wiley Publishers, 135-165.
- Reder, L.M. (1987). Beyond associations: Strategic components in memory retrieval. In Gorfain, D. & Hoffman, R. (Eds.), *Memory and Learning: The Ebbinghaus Centennial Conference*, Hillsdale, NJ: Lawrence Erlbaum Associates, 203-220.
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Note: Above paper was reprinted in Nelson, T.O. (1992). *Metacognition: Core Readings*, Allyn & Bacon Publishers.
- Charney, D.H. & Reder, L.M. (1986). Designing tutorials for computer users: Effects of the form and spacing of practice on skill learning. *Human Computer Interaction*, 2, 297-317.
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- Reder, L.M., Wible, C., & Martin, J. (1986). Differential memory changes with age: Exact retrieval versus plausible inference. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12(1), 72-81.  
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- Reder, L.M. (1985). Techniques available to author, teacher and reader to improve retention of main ideas of a chapter. In Chipman, S., Segal, J., & Glazer, R. (Eds.), *Thinking and Learning Skills: Current Research and Open Questions*, Vol. 2. Hillsdale, NJ: Lawrence Erlbaum Associates, 37-64.
- Reder, L.M. & Wible, C. (1984). Strategy use in question-answering: Memory strength and task constraints on fan effects. *Memory and Cognition*, 12, 411-419.
- Reder, L.M. (1983). What kind of pitcher can a catcher fill? Effects of priming in sentence comprehension. *Journal of Verbal Learning and Verbal Behavior*, 22, 189-202.
- Reder, L.M. & Ross, B.H. (1983). Integrated knowledge in different tasks: The role of retrieval strategy on fan effects. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 9, 55-72.
- Allwood, C.M., Wikstrom, T., & Reder, L.M. (1982). The effects of text structure on free recall: More support for summaries. *Poetics*, 11, 145-153.
- Reder, L.M. (1982). Elaborations: When do they help and when do they hurt? *Text*, 2, 211-224.
- Reder, L.M. (1982). Plausibility judgments vs. fact retrieval: Alternative strategies for sentence verification. *Psychological Review*, 89, 250-280.

- Reder, L.M. & Anderson, J.R. (1982). Effects of spacing and embellishments on memory for the main points of a text. *Memory and Cognition*, 10, 97-102. [Lead Article].
- Reder, L.M. & Ross, B.H. (1981). The effects of integrated knowledge on fact retrieval and consistency judgments: When does it help, and when does it hurt. *Proceedings of the Cognitive Science Society*, Berkeley.
- Reder, L.M. (1980). The role of elaboration in the comprehension and retention of prose: A critical review. *Review of Educational Research*, 50, 5-53. [Lead Article].
- Reder, L.M. & Anderson, J.R. (1980). A comparison of texts and their summaries: Memorial consequences. *Journal of Verbal Learning and Verbal Behavior*, 19, 121-134. [Lead Article].
- Reder, L.M. & Anderson, J.R. (1980). A partial resolution of the paradox of interference: The role of integrating knowledge, *Cognitive Psychology*, 12, 447-472. [Lead Article].
- Anderson, J.R. & Reder, L.M. (1979). An elaborative processing explanation of depth of processing. In Cermak, L.S. & Craik, F.I.M. (Eds.), *Levels of Processing in Human Memory*. Hillsdale, NJ: Lawrence Erlbaum Associates, 385-403.
- Reder, L.M. (1979). The role of elaborations in memory for prose. *Cognitive Psychology*, 11, 221-234.
- Reder, L.M. & Anderson, J.R. (1979). Use of thematic information to speed search of semantic nets. *Proceedings of the 6th International Joint Conference on Artificial Intelligence*.
- Smith, E.E., Haviland, S.E., Reder, L.M., Brownell, H., & Adams, N. (1976). When preparation fails: Disruptive effects of prior information on perceptual recognition. *Journal of Experimental Psychology: Human Perception and Performance*, 2, 151-161. [Lead Article].
- Reder, L.M., Anderson, J.R., & Bjork, R.A. (1974). A semantic interpretation of encoding specificity. *Journal of Experimental Psychology*, 102(4), 648-656.
- Anderson, J.R. & Reder, L.M. (1974). Negative judgments in and about semantic memory. *Journal of Verbal Learning and Verbal Behavior*, 13, 664-681.

#### INVITED TALKS:

- The 115th annual convention of the American Psychological Society, Division 3 Experimental Psychology, San Francisco, 2007. Section on Uniting Psychology through Memory. "Experience is a double-edged sword: A computational model of the encoding/retrieval tradeoff with familiarity"
- The (Grand) SLAMM: Symposium on Language and Memory at Manitoba, Winnipeg, 2007. "Memory Systems Do Not Divide on Consciousness"
- The 28th Annual Conference of the Cognitive Science Society 2006 (Vancouver), Plenary Symposium on "The Synergy Of Implicit And Explicit Learning Processes" *Implicit and explicit processes in learning & metacognition: Giving consciousness too much attention.*

- Eighth Annual CNBC Retreat, Hidden Valley, October 2004  
*The effect of midazolam on visual search: Implications for understanding amnesia.*
- Conference on Metacognition and Education, Barnard College, NYC, June 2004  
*Senior moments: Memory, meta-memory, and aging.*
- Invited Address at SWIM, SEPA, Atlanta, March, 2004  
*Distinctiveness: An operational definition and its effect on encoding and retrieval.*
- Invited Symposium on the Mirror Effect. EPA, Baltimore, March, 2003  
*The mirror effect: A mechanistic, dual process account.*
- Kent Forum on Applied Psychology: Visual Metacognition, June 2002  
*Visual and verbal metacognition: Are they really different?*
- Georgia Institute of Technology, October 2000  
*Relating implicit and explicit memories: A source of activation confusion account.*
- Stanford University, February 1999  
*SAC: An activation based account of implicit and explicit memory phenomena.*
- Metacognition: Process, Function, and Use, September 1999 (Clermont-Ferrand, France)  
*Metacognition: Giving consciousness too much credit.*
- American Psychological Society, Invited Address, June 1999 (Denver, CO)  
*Relating implicit and explicit memories: A source of activation confusion account.*
- Tsukuba International Conference on Memory, 1998  
*SAC: An activation based account of implicit and explicit memory phenomena.*  
Consciousness and memory. Current Progress and Challenges (Tsukuba, Japan).
- Models of Working Memory Conference, July 1997 (Boulder, CO)  
*Modeling working memory in a unified architecture.* (Lovett, M., Reder, L.M., & Lebiere, C.)
- Attention and Performance XVII, July 1996 (Haifa, Israel)  
*Exploring individual differences in strategy selection: Adaptativity in an air traffic controller's task.*
- International Conference on Memory, July 1996 (Padova, Italy)  
Symposium speaker on the topic of Metacognition.  
Symposium organizer and speaker on the topic of Computational Models of Working Memory Performance.
- 27th Carnegie Symposium on Cognition, May 1995  
*Metacognition does not imply awareness: Strategy choice is governed by implicit learning and memory.*
- Symposium on Metacognition and Social Psychology, Universite Catholique de Louvain, Louvain La Neuve, Belgium, May 1995  
*Rapid Feeling-of-Knowing: A Strategy Selection Mechanism*
- University of Trier, May 1995

*A computational model of feeling of knowing and strategy choice.*

Practical Aspects of Memory, III, August 1994 (University of Maryland)  
*Learning in context: Situated learning and transfer.*

Lake Geneva Language Comprehension Conference, July 1994  
*Further explorations of the Moses illusion: An activation account*

Carnegie Mellon University, April 1993  
*Familiarity as a memory heuristic: Understanding cognitive illusions.*

International Congress of Psychology, July 1992 (Brussels)  
Symposium on Inferential Processes in Text.  
*Reading what isn't there: Further explanations of the Moses illusion.*

American Psychological Society, June 1992 (San Diego, CA)  
Invited Multispecialty Symposium: Theoretical, Cognitive, Developmental,  
and Neuropsychological Aspects of Metacognition.  
*Evidence and mechanisms for a strategy selection phase in memory retrieval.*

University of Colorado, February 1992  
*Strategy selection in question answering*

Conference on "Documentation: The First Conference on Quality" sponsored by the  
Centre for Professional Writing, University of Waterloo, Canada, October 1991  
*Improving documentation with hands-on problem solving* (Charney, D.H, Reder L.M  
& Kusbit, G.W)

International Conference on Memory, Lancaster University, Lancaster, UK, July 1991  
*Strategy choice in letter rotation: How sensitive are we to the dynamics of the  
environment?*

International Conference on Memory, Lancaster University, Lancaster, UK, July 1991  
*Better the second time around: Re-presentation reverses verbalization's impairment of  
face recognition* (with Schooler, J. & Ryan, R.)

The Flinders University of South Australia, March 1991  
*Locus of the Moses illusion: Imperfect encoding, retrieval, or match?*

Queensland University of Technology: School of Mathematics, Science and Technology  
Education, Queensland, February 1991 (Queensland, Australia)  
*The role of memory load in algebra problem solving*

University of Queensland, Department of Psychology, February 1991 (Queensland,  
Australia)  
*Locus of the Moses illusion: Imperfect encoding, retrieval, or match?*

AIC (Annual Interdisciplinary Conference, 15th annual) session on Memory and  
Metamemory, January 1990  
*The role of feeling of knowing in selection of question answering strategies*

Sylvia Beach Language Comprehension Conference, July 1989  
*Partial matching during reading: What word reading times tell us about the Moses  
illusion*

- Pennsylvania State University, April 1989  
*Strategy choice in question-answering: The role of feeling of knowing*
- Conference on Inference Generation during Discourse Comprehension, Memphis State University, March 1988  
*Plausible inference*
- University of Adelaide, Australia, April 1987  
*Skill learning*
- The Flinders University of South Australia, April 1987  
*Question answering*
- Smithsonian Institute, October 1986  
*Lecture on memory*
- Midwestern Psychological Association (Invited Paper), May 1986  
*Strategy selection in question-answering*
- International Workshop on Modeling Cognition, July 1985  
*The role of examples in learning a cognitive skill*
- The Ebbinghaus Centennial Conference, April 1985  
*Beyond associations: Strategic components in memory retrieval*
- Temple University, November 1984  
*A strategy selection model for question-answering*
- APA Symposium, August 1981  
*Comprehension and inference in textual information processing*
- Thinking and Learning Skills, LRDC, October 1980  
*Techniques available to author, teacher, and reader to improve retention of main ideas of a chapter*
- University of Illinois, Center for the Study of Reading, February 1980  
*Comparison of texts and their summaries*
- The National Reading Conference (Invited Address), November 1979  
*The role of elaborations in learning introductory material*
- Midwestern Psychological Association (Invited Paper), May 1979  
*Comparison of textbook chapters with their summaries: Support for cliff notes*
- Rockefeller University, April 1978  
*Thematic relatedness, plausible reasoning and the fan effect*
- Levels of Processing Conference, June 1977 (Rockport, MA)  
*Elaboration explanation of depth of processing*

## CONFERENCE PRESENTATIONS:

- Psychonomics, November 2006 (Houston)  
*A new paradigm for measuring the independent contributions of familiarity and recollection to recognition*  
Poster presentation (Buchler, N.E.G., Reder, L.M., & Light, L.L.)
- Psychonomics, November 2006 (Houston)  
*Long- and short-term negative and positive priming*  
Poster presentation (Erickson, M.A., Shang, J., Buchanan, E.E., & Reder, L.M.)
- The Fifth Annual Summer Interdisciplinary Conference (ASIC 2006), Andalsnes, Norway, July 2006  
*The interaction of implicit and explicit memory processes in learning and behavior.*
- Psychonomics, November 2005 (Toronto)  
*Recollection depends on unitization, but uncommon stimuli can be recognized by familiarity alone.*
- Psychonomics, November 2005 (Toronto)  
*Conjunction memory errors: The contribution of recollection.*  
Poster presentation (Park, H., & Reder, L.M.)
- Psychonomics, November 2005 (Toronto)  
*Manipulating word frequency effects by varying processing demands: Low-frequency words are more difficult to encode.*  
Poster presentation (Diana, R.D., & Reder, L.M.)
- The Forth Annual Summer Interdisciplinary Conference (ASIC 2005), Briancon, France, July 2005  
*The role of consolidation in memory: Comparison of general vs. specific interference using midazolam.*
- 12<sup>th</sup> Annual Cognitive Neuroscience Society Meeting, April 2005 (New York City, NY)  
*Identifying the ERP correlate of a recognition memory search attempt.*  
Poster presentation (Diana, R.D., Vilberg, K.L., & Reder, L.M.)
- Academy of Lifelong Learning at Carnegie Mellon University, January 2005  
*Mechanisms of memory and how aging affects it.*
- Psychonomics, November 2004 (Minneapolis)  
*The other race effect: How do processing time and distracting contexts influence recognition of faces?*  
Poster presentation (Diana, R.D. & Reder, L.M.)
- Psychonomics, November 2004 (Minneapolis)  
*The effect of midazolam on visual search.*  
Poster presentation (Park, H., Quinlan, J.J., Thornton, E.R., & Reder, L.M.)
- The Third Annual Summer Interdisciplinary Conference (ASIC 2004), Cavalese, Italy, July 2004  
*Picking up the gauntlet: Reply to Malmberg, Holden & Shiffrin.*
- Twenty-ninth Annual Interdisciplinary Conference, Jackson Hole, WY, February 2004

*The effect of midazolam on visual search: Implications for understanding hippocampal function.*

Psychonomics, November 2003 (Vancouver, BC, Canada)

*Distinctiveness: An operational definition with empirical support.*

Poster presentation (Park, H., Arndt, J. & Reder, L.M.)

Psychonomics, November 2002 (Kansas City)

*The effect of distinctive visual information on false recognition*

Poster presentation (Arndt, J. & Reder, L.M.)

Psychonomics, November 2002 (Kansas City)

*The effects of irrelevant perceptual information on memory for faces*

Poster presentation (Diana, R.A. & Reder, L.M.)

Psychonomics, November 2001 (Orlando)

*Evidence for a dual-process interpretation of the word frequency mirror effect*

Poster presentation (Arndt, J. & Reder, L.M.)

Psychonomics, November 2001 (Orlando)

*Support for a dual-process account of mirror effects in recognition*

Poster presentation (Cary, M. & Reder, L.M.)

Psychonomics, November 2000 (New Orleans)

*Modeling the role of perceptual features in word recognition and fragment completion*

Poster presentation (Cary, M. & Reder, L.M.)

Psychonomics, November 2000 (New Orleans)

*The role of perceptual and conceptual fan in explicit recognition: Analogous processes*

Poster presentation (Simmons, M., Reder, L.M., Donavos, D. K., & Fiez, J.)

24th Annual Interdisciplinary Conference, 1999 (Jackson Hole)

*Negative priming, habituation, implicit learning in a spatial localization task*

Psychonomics, November 1999 (Los Angeles)

*Self-regulation of study time and the retention of rare and common events*

Poster presentation (Dashen, M. & Reder, L.M.)

Psychonomics, November 1999 (Los Angeles)

*The role of perceptual similarity in explicit recognition: Evidence against multiple systems*

Poster presentation (Reder, L.M., Donavos, D.K., & Erickson, M.A.)

Psychonomics, November 1998

*Feeling of knowing and strategy selection for solving arithmetic problems*

Poster presentation (Reder, L.M. & Ritter, F.)

American Educational Research Association, April 1998 (San Diego, CA)

*The feeling-of-knowing in strategy selection.* (Schunn, C.D. & Reder, L.M.)

Psychonomics, November 1997 (Philadelphia)

*Individual differences in strategy adaptation*

Poster presentation (Schunn, C.D. & Reder, L.M.)

Cognitive Science Conference, August 1997 (Stanford)

*Modeling individual differences in a digit working memory task*

Poster presentation (Lovett, M., Reder, L.M., & Lebiere, C.)

- Cognitive Science Conference, August 1997 (Stanford)  
*Modeling the mirror effect in a continuous remember/know paradigm*
- Psychonomics, November 1997 (Philadelphia)  
*Spatial habituation and expectancy effects in a negative priming paradigm*  
 Poster presentation (Reder, L.M. & Weber, K.H.)
- Psychonomics, November 1996 (Chicago)  
*Modeling word frequency effects in a continuous remember/know judgment paradigm*  
 Poster presentation (Reder, L.M., Nhouyvanisvong, A., Schunn, C.D., Angstadt, P., & Hiraki, K.)
- Psychonomics, November 1996 (Chicago)  
*What do parity and five effects in arithmetic tell us about subjects' strategy control?*  
 Poster presentation (Lemaire, P. & Reder, L.M.)
- AAAI-96 Workshop on Computational Cognitive Modeling, August 1996 (Portland, OR)  
*Modeling Changes in Strategy Selections Over Time.* (Schunn, C.D. & Reder, L.M.)
- Psychonomics, November 1995 (Los Angeles)  
*Metacognition does not imply awareness: Implicit processes govern strategy selection*
- Psychonomics, November 1994 (St. Louis)  
*The malleability of validity judgements: Thinking versus justification*  
 Poster presentation (Kamas, E., Reder, L.M., & Schooler, J.)
- American Educational Research Association, April 1988 (with D. Charney)  
*Learning by example, problem-solving, and discovery learning*
- American Educational Research Association, April 1987 (with D. Charney)  
*Designing interactive tutorials for computer users: Effects of the form of practice on skill learning*
- American Educational Research Association, April 1986  
*Learning a skill from an instructional text: The role of elaborations* (with D. Charney)
- Conference on College Composition, March 1985 (with D. Charney)  
*The role of examples and explanations in teaching procedural skills*  
 (ERIC/IR Microfiche ED-259-718)
- Psychonomics, November 1985  
*Mechanisms for strategy-selection in question answering*
- Psychonomics, November 1982  
*Memory changes with age: Compensating shifts in strategy*
- Cognitive Science, August 1981  
*Effects of integrated knowledge on fact retrieval and consistency: When does it help and when does it hurt?*
- Psychonomics, November 1981  
*What kind of pitcher can a catcher fill? Priming in sentence comprehension*
- Psychonomics, November 1980  
*Plausibility judgments versus fact retrieval: efficient strategies for question-answering*

Psychonomics, November 1979  
*The role of integrating knowledge on fan effects*

International Joint Conference on Artificial Intelligence, August 1979  
*Use of thematic information to speed search of semantic nets*

Midwestern Psychological Association, May 1976  
*Elaborations and story processing*

#### **EXTRACURRICULAR SERVICE:**

##### **Editorial Board:**

Journal of Experimental Psychology: Learning, Memory and Cognition (1983 - 1986, 1989 - 2002)  
Memory and Cognition (1982 - 1990)  
Journal of Cognitive Systems (1998 - present)

##### **National Committee Membership:**

American Psychological Association nominating committee for Early Career Awards, 2003-2005

American Association for the Advancement of Science  
Electorate Nominating Committee for Psychology, Section J.  
2002 - 2005

Cognitive Neuroscience Society

National Research Council (National Academy of Sciences),  
Committee on Techniques for the Enhancement of Human Performance,  
1991 – 1994

National Research Council (National Academy of Sciences),  
Special Oversight Commission for the Mathematics Learning Study,  
1998 - 2000

National Science Foundation Human Cognition & Performance Review Panel,  
April 2000

National Institute of Health: NIDA Review Panel, November, 2000

National Institute of Mental Health T32 Review Panel, October, 2003

Institute for Educational Science, Read Panel, March, 2004

Institute for Educational Science, Basic Processes, 2007-2010

##### **Ad hoc Reviewer:**

American Educational Research Journal	Journal of Educational Psychology
American Journal of Psychology	Journal of General Psychology
American Psychologist	Journal of Gerontology
Cognition & Emotion	Journal of Memory and Language
Cognitive Psychology	Journal of Psychology and Aging
Cognitive Psychology Letters	JVLVB
Cognitive Science	Memory & Cognition
Consciousness and Cognition	Neuropsychology
Developmental Psychology	Psychology and Aging
JEP: General	Psychological Bulletin
JEP: Applied	Psychological Review
JEP: Human Learning and Memory	Psychological Science
JEP: Human Perception & Performance	Psychonomic Bulletin & Review
	Quarterly J. of Exp. Psychology
	Review of Educational Research

**External Grant Reviewer:**

National Institute of Education  
National Science Foundation  
National Sciences and Engineering Research Council of Canada  
National Academy of Sciences, Committee on Aging  
Air Force Office of Scientific Research  
Economic and Social Research Council  
University of Arizona, Center for Consciousness Studies  
Medical Research Council, U.K.  
Institute of Education Sciences, Basic Processes grant review panel

**University and Departmental Service:**

Presidential Review Committee 2006  
Director of EEG lab, fall 2006-  
Co- Director of Joint SDS/Psych training program, 2005-  
Lecture to the Academy of Lifelong Learning, January 2005  
Faculty evaluation committee, 2004-2005  
Cognitive Faculty Search Committee, 2003-2004  
Director of Training Grant on Combined Computational and Behavioral  
Approaches to the Study of Cognition, 1998-2008  
Steering Committee on SDS/Psych joint Ph.D. program, 2001 -  
Head of Cognitive Faculty Search, 1999 - 2000  
College Faculty Organization Chair 1999 - 2000  
Promotions & Tenure Committee, 1999 - 2000  
Organizer of Training Grant Core Courses, 1999  
Space Committee for New Wing, 1998 - 1999  
Planning Committee for HCI major, 1995 - 1996  
Graduate Core Course Restructuring Committee, 1995  
Organizer of the 27th Carnegie Symposium on Cognition, 1995  
Faculty Senate Nominating Committee, 1995  
University Committee on Special Faculty Appointments, 1994  
Committee of Investigation on Ethics in Research, 1994  
Faculty Senate, 1993 - 1996  
Department Head Search Committee, 1992 - 1993  
Study Abroad Coordinator, 1989 - present  
Internal Review Board, 1987 - 1991

Graduate Education Restructuring Committee, 1987  
Library Representative, 1981 - 1985  
College Computing Committee, 1984  
Colloquium Organizer, 1978 - 1980