

# Alinda Friedman, PhD

Department of Psychology | University of Alberta  
Edmonton, Alberta, Canada, T6G 2E9  
alinda@ualberta.ca | T: 780.492.0966 | C: 780.217.4567  
<https://apps.ualberta.ca/directory/person/alinda>

## Education

|       |      |  |
|-------|------|--|
| PhD   | 1977 | University of Colorado, Boulder, Colorado (Experimental Psychology)  |
| MA    | 1973 | University of Colorado, Boulder, Colorado (Experimental Psychology)  |
| BA    | 1971 | State Univ. of New York at Stony Brook (magna cum laude, Psychology) |
| Dipl. | 1967 | New York City High School of Performing Arts (Drama)                 |

## Academic Employment

### University of Alberta, Department of Psychology, Edmonton, Alberta, Canada

|           |                                   |
|-----------|-----------------------------------|
| 2014-pres | Professor Emeritus                |
| 1991-2014 | Professor                         |
| 1998-2002 | Associate Chair, Graduate Studies |
| 1983-1997 | Associate Professor               |
| 1979-1983 | Assistant Professor               |

### Nat'l Jewish Hospital & Research Center, Brain Sciences Lab, Denver, Colorado

|           |                       |
|-----------|-----------------------|
| 1978-1979 | Research Psychologist |
|-----------|-----------------------|

### Nat'l Jewish Hospital & Research Center, Psychophysiology Lab, Denver, Colorado

|           |                    |
|-----------|--------------------|
| 1976-1978 | Research Associate |
|-----------|--------------------|

### University of Colorado, Department of Psychiatry, School of Medicine, Denver, Colorado

|           |                     |
|-----------|---------------------|
| 1978-1979 | Assistant Professor |
| 1977-1978 | Instructor          |

### University of Colorado, Department of Psychology, Boulder, Colorado

|           |   |
|-----------|---|
| 1972-1976 | Research and Teaching Assistant                                   |
|           | Research Supervisors: Dr. Lyle E. Bourne, Jr., Dr. Walter Kintsch |

### University of Massachusetts, Department of Psychology, Amherst MA

|           |   |
|-----------|---|
| 1971-1972 | Research and Teaching Assistant                         |
|           | Research Supervisors: Dr. Jerome Myers, Dr. Arnie Wells |

### State University of New York, Department of Psychology, Stony Brook, New York

|           |  |
|-----------|--|
| 1969-1971 | Research and Teaching Assistant                            |
|           | Research Supervisors: Dr. Barry Gholson, Dr. Marvin Levine |

## Other Appointments

|           |   |
|-----------|---|
| 2013      | Visiting Researcher, Dept. of Geography, Univ. of Calif., Santa Barbara   |
| 2009      | Visiting Researcher, Dept. of Geography, Univ. of Calif., Santa Barbara   |
| 2002      | Visiting Researcher, Dept. of Geography, Univ. of Calif., Santa Barbara   |
| 1994-1995 | Visiting Assoc. Professor, Dept. of Psychology, Univ. of Victoria, Canada |

## Honors & Awards

|           |   |
|-----------|---|
| 2017      | Raymond S. Nickerson Award for Best Paper in <i>JEP:Applied</i> , 2016, 22(4), 381-392. |
| 2004      | Elected Fellow to the American Psychological Association (APA)                          |
| 2004      | Elected Fellow to APA Division 3 (Experimental Psychology)                              |
| 2004      | Dissertation featured in <i>Great Dissertations Mark I. APS Observer</i> , 17 (10).     |
| 2000      | JEP:G & JEP:HPP articles selected for <i>APA Monitor Science Watch</i> , 31, 7, 82.     |
| 1998      | Elected Fellow to the Association for Psychological Science                             |
| 1967-1971 | New York State Regents College Scholarship  |

## Professional Society Affiliations

|           |   |
|-----------|---|
| 1978-pres | American Psychological Association, Emeritus Fellow               |
| 1989-pres | Association for Psychological Science, Fellow                     |
| 2009-2010 | Canadian Obesity Network  |
| 1980-1991 | Canadian Psychological Association                                |
| 1990-pres | Canadian Society for Brain, Behavior, and Cognitive Science       |
| 1981-pres | Cognitive Science Society   |
| 1977-1992 | Midwestern Psychological Association                              |
| 1978-pres | Psychonomic Society, Emeritus Fellow                              |
| 1988-1992 | Rocky Mountain Psychological Association                          |
| 2007-pres | Spatial Intelligence and Learning Center, Northwestern University |
| 2008-2010 | SYSTAT Inc., Scientific Advisory Board                            |

## Peer-reviewed Papers

- [61] Galati, A., Plastira, M., Avraamides, M.N., & Friedman A. (2022). Beyond the physical divide of Greek-Cypriots and Turkish-Cypriots: Social and political variables shape geographical estimates. Online Proceedings of the 44<sup>th</sup> Annual Conference of the Cognitive Science Society, 44, 223-229, Austin, Texas.
- [60] Friedman, A., Kohler, B., Gunalp, P., Boone, A.P., & Hegarty, M. (2020). A computerized spatial orientation test. *Behavior Research Methods*, 52(2), 799-812.  
<https://doi.org/10.3758/s13428-019-01277-3>.
- [59] Mushquash, A. R., Raquinha, A. M., Friedman, A., & Ball, G. D. C. (2018). Examining the accuracy and use of portion size estimation aids in parents of children with obesity: A randomized controlled trial. *Journal of Nutrition Education and Behavior*, 50(9), 918-923. <https://doi.org/10.1016/j.jneb.2018.06.005>
- [58] Nankoo, J.F., Madan, C.R., Sawalha, J., Wylie, D.R., Friedman, A., Spetch, M.L., & Quong, Q.C. (2017). The contribution of non-rigid motion and shape information to object perception in pigeons and humans. *Journal of Vision*, 17(6), 1-12. <https://doi.org/10.1167/17.6.17>
- [57] Hegarty, M., Friedman, A., Boone, A.P., & Barrett, T.J. (2016). Where are you? The effect of uncertainty and its visual representation on location judgments in GPS-like displays. *Journal of Experimental Psychology: Applied*, 22(4), 381-392. <https://doi.org/10.1037/xap0000103>
- [56] Carson, V., Hunter, S., Kuzik, N., Wiebe, S., Spence, J.C., Friedman, A., Tremblay, M.S., Slater, L.G., Hinkley, T. (2016). Systematic review of physical activity and cognitive development in early childhood. *Journal of Science and Medicine in Sport*, 19(7), 573-578. <https://doi.org/10.1016/j.jsams.2015.07.011>

- [55] Carson, V., Kuzik, N., Hunter, S., Wiebe, S., Spence, J.C., Friedman, A., Tremblay, M.S., Slater, L.G., Hinkley, T. (2015). Systematic review of sedentary behavior and cognitive development in early childhood. *Preventive Medicine*, 78, 115-122. doi: 10.1016/j.ypmed/2015.07.016. <https://doi.org/10.1016/j.ypmed.2015.07.016>
- [54] Montello, D., & Friedman, A., & Phillips, W. (2014). Vague cognitive regions in geography and geographic information science. *International Journal of Geographic Information Science*, 28(9),1802- 1820. <https://doi.org/10.1080/13658816.2014.900178>
- [53] Friedman, A., Ludvig, E., Legge, E., & Vuong, Q.C. (2013). Bayesian combination of 2D location estimates. *Behavioral Research Methods*, 45(1), 98-107. <https://doi.org/10.3758/s13428-012-0241-x>
- [53a] Friedman, A., Ludvig, E., Legge, E., & Vuong, Q.C. (2013).BRM Supplementary material. Spreadsheet to compute 2-D Bayesian statistics.
- [52] Zhang, H., Friedman, A., Mou, W., & Waller, D. (2012). View combination in recognition of three-dimensional virtual reality layouts. *PsyCh Journal*, 1(2), 82-89. <https://doi.org/10.1002/pchj.12>
- [51] Vuong, Q.C., Friedman, A., & J.C.A. Read (2012). The relative weight of shape and non-rigid motion cues in object perception: A model of the parameters underlying similarity judgments. *Journal of Vision*, 12(3), 1-20. <https://doi.org/10.1167/12.3.16>
- [50] Friedman, A., Montello, D., & Burte, H. (2012). Location memory for dots in polygons versus cities in regions: Evaluating the category adjustment model. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 38(5), 1336-1351. <https://doi.org/10.1037/a0028074>
- [49] Friedman, A., Mohr, C., & Brugger, P. (2012). Representational pseudoneglect and reference points both influence geographic location estimates. *Psychonomic Bulletin & Review*, 19(2), 277-284. <https://doi.org/10.3758/s13423-011-0202-x>
- [48] Friedman, A., Bennet, T., Barbarich, B., Keaschuck, R.A., & Ball, G.D.C. (2012). Food portion estimation by children with obesity: The effects of estimation method and food type. *Journal of the Academy of Nutrition and Dietetics*, 112(2), 302-307. <https://doi.org/10.1016/j.jada.2011.10.008>
- [47] Friedman, A., Thrash, T, Waller, D., Greenauer, N., & Hodgson, E. (2011). View combination: A generalization mechanism for visual recognition. *Cognition*, 119(2), 229-241. <https://doi.org/10.1016/j.cognition.2011.01.012>
- [46] Uttal, D., Friedman, A., Liu, L., & Warren, C. (2010). Learning fine-grained and category information in navigable real-world space: Getting better and worse at the same time. *Memory & Cognition*, 38(8), 1026-1040. <https://doi.org/10.3758/mc.38.8.1026>
- [45] Ball, G.D.C., & Friedman, A. (2010). Dice, golf balls, and CDs: Incorrect assumptions about the volume of portion size measurement aids. *Canadian Journal of Dietetic Practice and Research*, 71(3), 146-149. <https://doi.org/10.3148/71.3.2010.146>
- [44] Spetch, M.L., Friedman, A., Bialowas, J., & Verbeek, E. (2010 ). Contributions of category and fine-grained information to location estimates: When categories don't weigh in. *Memory & Cognition*, 38(2), 154-162. <https://doi.org/10.3758/mc.38.2.154>

- [43] Friedman, A., Vuong, Q.C., & Spetch, M.L. (2010). Facilitation by view combination and coherent motion in dynamic object recognition. *Vision Research*, 50(2), 202-210. <https://doi.org/10.1016/j.visres.2009.11.010>
- [42] Vuong, Q.C., Friedman, A., & Plante, C. (2009). Modulation of viewpoint effects in object recognition by shape and motion cues. *Perception*, 38(11), 1628-1648. <https://doi.org/10.1068/p6430>
- [41] Friedman, A., Vuong, Q.C., & Spetch, M. (2009). View combination in moving objects: The role of motion in discriminating between novel and distinctive objects by humans and pigeons. *Vision Research*, 49(6), 594-607. <https://doi.org/10.1016/j.visres.2009.01.019>
- [40] Friedman, A. (2009). The role of categories and spatial cuing in global-scale location estimates. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 35(1), 94-112. <https://doi.org/10.1037/a0013590>
- [39] Waller, D., Friedman, A., Hodgson, E., & Greenauer, N. (2009). Learning scenes from multiple views: Novel views can be recognized more efficiently than learned views. *Memory & Cognition*, 37(1), 90- 99. <https://doi.org/10.3758/mc.37.1.90>
- [38] Friedman, A. & Waller, D. (2008). View combination in scene recognition. *Memory & Cognition*, 36(3), 467-478. <https://doi.org/10.3758/mc.36.3.467>
- [37] Twyman, A., Friedman, A., & Spetch, M.L. (2007). Penetrating the geometric module: Catalyzing children's use of landmarks. *Developmental Psychology*, 43(6), 1523-1530. <https://doi.org/10.1037/0012-1649.43.6.1523>
- [36] Spetch, M., & Friedman, A. (2006). Pigeons see correspondence between objects and their pictures. *Psychological Science*, 17(11), 966-972. <https://doi.org/10.1111/j.1467-9280.2006.01814.x>
- [35] Spetch, M., Friedman, A., & Vuong, Q. C. (2006). Dynamic object recognition in pigeons and humans. *Learning & Behavior*, 34(3), 215-228. <https://doi.org/10.3758/bf03192877>
- [34] Friedman, A. & Montello, D. (2006). Global-scale location and distance estimates: Common representations and strategies in absolute and relative judgments. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 32(2), 333-346. <https://doi.org/10.1037/0278-7393.32.3.333>
- [33] Spetch, M., & Friedman, A. (2006). Comparative cognition of object recognition. *Comparative Cognition and Behavior Reviews*, 1, 12-35. <https://doi.org/10.3819/ccbr.2008.10002>
- [32] Friedman, A., Kerkman, D., Brown, N.R., Stea, D., & Cappello, H. (2005). Cross-cultural similarities and differences in North Americans' geographic location estimates. *Psychonomic Bulletin & Review*, 12(6), 1054-1060. <https://doi.org/10.3758/bf03206443>
- [31] Friedman, A., Spetch, M. L., & Ferrey, A. (2005). Recognition by humans and pigeons of novel views of 3-D objects and their photographs. *Journal of Experimental Psychology: General*, 134(2), 149-162. <https://doi.org/10.1037/0096-3445.134.2.149>

- [30] Friedman, A. & Kohler, B. (2003). Bidimensional regression: Assessing the configural similarity and accuracy of cognitive maps and other two-dimensional data sets. *Psychological Methods*, 8(4), 468- 491. <https://doi.org/10.1037/1082-989x.8.4.468>
- [30a] Supplemental Material for Bidimensional Regression, *Psychological Methods*, 2003. Spreadsheet to compute bidimensional regressions. <https://doi.org/10.1037/1082.989x.8.4.468.supp>
- [29] Friedman, A., Spetch, M.L., & Lank, I. (2003). An automated apparatus for presenting depth-rotated three-dimensional objects for use in human and animal object recognition research. *Behavior Research Methods, Instruments, and Computers*, 35(2), 343-349. <https://doi.org/10.3758/bf03202563>
- [28] Kerkman, D.D., Friedman, A., & Brown, N.R., Stea, D., & Carmichael, A. (2003). The development of geographic categories and biases. *Journal of Experimental Child Psychology*, 84(4), 265-285. [https://doi.org/10.1016/s0022-0965\(03\)00028-6](https://doi.org/10.1016/s0022-0965(03)00028-6)
- [27] Spetch, M. & Friedman, A. (2003). Recognizing rotated views of objects: Interpolation versus generalization by humans and pigeons. *Psychonomic Bulletin & Review*, 10(1), 135-140. <https://doi.org/10.3758/bf03196477>
- [26] Friedman, A., Kerkman, D.D., & Brown, N. (2002). Spatial location judgments: A cross-national comparison of estimation bias in subjective North American geography. *Psychonomic Bulletin & Review*, 9, 615-623. <https://doi.org/10.3758/bf03196321>
- [25] Friedman, A. & Brown, N., & McGaffey, A. (2002). A basis for bias in geographical judgments. *Psychonomic Bulletin & Review*, 9(1), 151-159. <https://doi.org/10.3758/bf03196272>
- [24] Watson, B., Friedman, A. & McGaffey, A. (2001). Measuring and predicting visual fidelity. SIGGRAPH '01: Proceedings of the 28th annual conference on Computer graphics and interactive techniques (Los Angeles, August), 213-220. <https://doi.org/10.1145/383259.383283>
- [23] Spetch, M., Friedman, A., & Reid, S. (2001). The effect of distinctive parts on recognition of depth-rotated objects by pigeons and humans. *Journal of Experimental Psychology: General*, 130(2), 238- 255. <https://doi.org/10.1037/0096-3445.130.2.238>
- [22] Friedman, A. & Brown, N. (2000b). Updating geographical knowledge: Principles of coherence and inertia. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 26(4), 900-914. <https://doi.org/10.1037/0278-7393.26.4.900>
- [21] Friedman, A. & Brown, N. (2000a). Reasoning about geography. *Journal of Experimental Psychology: General*, 129(2), 193-219. <https://doi.org/10.1037/0096-3445.129.2.193>
- [20] Watson, B., Friedman, A., & McGaffey, A. (2000). Using naming time to evaluate quality predictors for model simplification. *CHI '00: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (The Hague, April), 113-120. <https://doi.org/10.1145/332040.332414>
- [19] Brown, N.R., & Friedman, A. (1999). Assessing and improving geographical beliefs: A cognitive approach. *Research in Geographic Education*, 1, 1-13.

- [18] Pilon, D. J. & Friedman, A. (1998). Grouping and detecting vertices in 2-D, 3-D, and quasi-3-d objects. *Canadian Journal of Psychology*, 52(3), 114-127.
- [17] Gagne, C., Friedman, A., & Faries, J. (1996). Effect of priming on the comprehension of predicative metaphors. *Metaphor & Symbol*, 11(2), 125-143.
- [16] Friedman, A., & Hall, D.L. (1996). The importance of being upright: Use of environmental and viewer-centered reference frames in shape discriminations of novel three-dimensional objects. *Memory & Cognition*, 24(3), 285-295. <https://doi.org/10.3758/bf03213293>
- [15] Friedman, A., & Pilon, D.P. (1994). Effects of distance between objects and distance from the vertical axis on shape identity judgments. *Memory & Cognition*, 22(5), 552-564. <https://doi.org/10.3758/bf03198394>
- [14] Hall, D.L., & Friedman, A. (1994). Shape discriminations of three-dimensional objects depend on the number and location of bends. *Perception & Psychophysics*, 56(3) 288-300. <https://doi.org/10.3758/bf03209763>
- [13] Friedman, A., & Harding, C.A. (1990). Seeing versus imagining movement in depth. *Canadian Journal of Psychology*, 44(3), 371-383. <https://doi.org/10.1037/h0084258>
- [12] Polson, M.C., & Friedman, A. (1988). Task-sharing within and between hemispheres: A multiple resources approach. *Human Factors*, 30(5), 633-643. <https://doi.org/10.1177/001872088803000507>
- [11] Friedman, A., Polson, M.C., & Dafoe, C.G. (1988). Dividing attention between the hands and the head: Performance trade-offs between rapid finger-tapping and verbal memory. *Journal of Experimental Psychology: Human Perception & Performance*, 14(1), 60-68. <https://doi.org/10.1037/0096-1523.14.1.60>
- [10] Dobbs, A., Friedman, A., & Lloyd, J. (1985). Frequency effects in lexical decisions: A test of the verification model. *Journal of Experimental Psychology: Human Perception & Performance*, 11(1), 81-92. <https://doi.org/10.1037/0096-1523.11.1.81>
- [09] Herdman, C., & Friedman, A. (1985). Multiple resources in divided attention: A cross-modal test of the independence of hemispheric resources. *Journal of Experimental Psychology: Human Perception & Performance*, 11(1), 40-49. <https://doi.org/10.1037/0096-1523.11.1.40>
- [08] Shucard, D.W., Spector, S.L., Euwer, R.L., Cummins, K.R., Shucard, J.L., & Friedman, A. (1985). Central nervous system effects of antiasthma medication B an EEG study. *Annals of Allergy*, 54(3), 177-184. PMID: 3977133
- [07] Friedman, A., Polson, M.C., Dafoe, C.G., & Gaskill, S.J. (1982). Dividing attention within and between hemispheres: Testing a multiple resources approach to limited-capacity information processing. *Journal of Experimental Psychology: Human Perception & Performance*, 8(5), 625-650. <https://doi.org/10.1037/0096-1523.8.5.625>
- [06] Friedman, A., & Polson, M.C. (1981). The hemispheres as independent resource systems: Limited-capacity processing and cerebral specialization. *Journal of Experimental Psychology: Human Perception & Performance*, 7(5), 1031-1058. <https://doi.org/10.1037/0096-1523.7.5.1031>

- [06a] Friedman, A., & Polson, M. C. (1983). Correction to Friedman and Polson, *Journal of Experimental Psychology: Human Perception and Performance*, 8(3), 391.
- [05] Friedman, A. (1979). Framing pictures: The role of knowledge in automatized encoding and memory for gist. *Journal of Experimental Psychology: General*, 108(3), 316-355. <https://doi.org/10.1037/0096-3445.108.3.316>
- [04] Friedman, A. (1978). Memorial comparisons without the "mind's eye." *Journal of Verbal Learning & Verbal Behavior*, 17(4), 427-444. [https://doi.org/10.1016/S0022-5371\(78\)90256-6](https://doi.org/10.1016/S0022-5371(78)90256-6)
- [03] McDaniel, M., Friedman, A. & Bourne, L.E., Jr. (1978). Remembering the levels of information in words. *Memory & Cognition*, 6(2), 156-164. <https://doi.org/10.3758/bf03197441>
- [02] Friedman, A., & Bourne, L.E., Jr. (1976). Encoding the levels of information in pictures and words. *Journal of Experimental Psychology: General*, 105(2), 169-190. <https://doi.org/10.1037/0096-3445.105.2.169>
- [02a] Friedman, A., & Bourne, L. E. (1976). Erratum to Friedman and Bourne. *Journal of Experimental Psychology: General*, 105(3), 253. <https://doi.org/10.1037/h0078228>
- [01] Friedman, A. (1976). Finding the relevant attribute with visual and auditory stimuli. *American Journal of Psychology*, 89(4), 601-616. <https://doi.org/10.2307/1421460>

## Book Chapters

- Friedman, A., & Liebelt, L.S. (2017). On the time course of viewing pictures with a view towards remembering. Ebook: D.F. Fisher, R.A. Monty, & J.W. Senders (Eds.), *Eye movements*, Routledge, 2017. ISBN: 9781315437415. Print version: D.F. Fisher, R.A. Monty, & J.W. Senders (Eds.), 1981. *Eye movements: Cognition and visual perception* (pp. 137-155). Hillsdale, N.J.: Erlbaum. <https://doi.org/10.4324/9781315437415-12>
- Kellogg, R.T., Friedman, A., Johnson, P., & Rickard, T.C. (2004). Domain-specific knowledge in intellectual skills. In A. F. Healy (Ed.), *Experimental cognitive psychology and its applications: Festschrift in honor of Lyle Bourne, Walter Kintsch, and Thomas Landauer* (pp. 3-15). Washington DC: American Psychological Association. <https://doi.org/10.1037/10895-001>
- Friedman, A. (1993). Designing graphics to support mental models. In M. Spector, M.C. Polson, & D. Muraida (Eds.), *Automating instructional design: Concepts and issues* (pp. 249-292). Englewood Cliffs, N.J.: Educational Technology Publications. [https://doi.org/10.1007/978-3-642-57821-2\\_1](https://doi.org/10.1007/978-3-642-57821-2_1)
- Friedman, A., Polson, M.C., Spector, J.M. (1991) Designing an advanced instructional design advisor: Incorporating visual materials and other research issues, Vol. 4. MEI Associates Inc., Lexington, MA. <https://www.researchgate.net/publication/235026114>

## Published Abstracts

- Friedman, A., & Ball, G.D.C. (2009, May). Portion size measurement aids: Can individuals remember the size of common objects when thinking about food? Abstract published in *Applied Physiology, Nutrition, & Metabolism*, 34, 247, and presented at the 1st National Obesity Summit of the Canadian Obesity Network, Kananaskis, Alberta.

- Friedman, A., Buchanen, L., Richard Liow, S., & Sukoni, I. (1998, June). More than one way to name a cat: Category-specific agnosia in patients with deep dyslexia. Abstract published in *Brain and Cognition*, 1998, and poster presented at TENNET IX, Montreal.
- Friedman, A., & Hall, D. (1992, July). The importance of being upright: The Y-Axis advantage in mental rotation (with D. Hall). Paper presented at the 25th International Congress of Psychology, Brussels, Belgium. Abstract published in *the International Journal of Psychology*, 27, p. 27.
- Hall, D.L., & Friedman, A. (1991, June). Mental rotation and the principal axis principle. Poster presented at the meetings of the Canadian Psychological Association and the Canadian Society for Brain, Behavior, and Cognitive Science, Calgary, Alberta. Abstract published in *Canadian Psychology*, 1991, 32, p. 291.
- Friedman, A., & Gagne, C. (1991, June). The role of subject and predicate attributes in metaphor comprehension. Poster presented at the meetings of the Canadian Psychological Association, Calgary, Alberta. Abstract published in *Canadian Psychology*, 32, p. 289.
- Friedman, A., & Hall, D.L. (1990, July). Representing and manipulating objects in working memory: Similarities between high and low spatial individuals. Symposium on "Mental image generation, rotation, and interhemispheric transfer: Perspectives on subprocesses," 13th European Conference of the International Neuropsychological Society, Innsbruck, Austria. Abstract published in the *Journal of Clinical and Experimental Neuropsychology*, 12, p. 402.
- Hall, D.L., & Friedman, A. (1989, June). Effects of figural complexity, principal axis, and spatial ability on mental rotation performance (with D. Hall). Poster presented at the meetings of the Canadian Psychological Association, Halifax, Nova Scotia. Abstract published in *Canadian Psychology*, 30, p. 454.
- Friedman, A., Pilon, D. J., & Gabrys, G. L. (1988, May). Cognitive coordinate systems for mental rotation. Invited presentation to the Banff Annual Symposium in Cognitive Science, Banff, Alberta. Abstract published in *Canadian Psychology*, 29, p. 383.

### Invited Presentations

- May 17, 2013. *Reasoning about geography: Is Bayes best?* Keynote Address for a conference entitled: *Spatial Memory: Bayes and Beyond*, sponsored by the U.S. National Science Foundation's Spatial Intelligence and Learning and the University of Richmond.
- February 8, 2011. *Why teaching people to use portion size measurement aids might not be such a good idea.* Presented to Nutrition 440, the capstone class for dieticians at the University of Alberta, Canada.
- January 29, 2010. *Location estimates in real-world space.* Presented to the members of the Spatial Learning and Intelligence Center, Temple University and the University of Pennsylvania.
- February 26, 2009. *The role of geographic categories and spatial cuing in global-scale location estimates.* Presented at the Department of Geography Colloquium Series, University of California, Santa Barbara, California.
- February 20, 2009. *What do object and scene recognition have in common?* Presented at the Cognitive Psychology & Cognitive Neuroscience Series, Department of Psychology, University of California, Santa Barbara, California.

February 13, 2009. *Learning scenes (and arrays) from multiple views: View combination as a all-purpose recognition mechanism*. Presented at the Cognitive Psychology & Cognitive Neuroscience Series, Department of Psychology, University of California, Santa Barbara, California.

April, 2007. *The dominance of categories in remembering global locations*. Presented at the 2007 Battig-Ellis Memory Symposium, Rocky Mountain Psychological Association, Denver, Colorado.

March, 2004. *Reasoning with regions: Discovering geographical categories and assessing their effects on judgments about global locations*. Presented at “Frontiers of Behavioral Geography”, a symposium at the Centennial Meetings of the Association of American Geographers, Philadelphia, Pennsylvania.

December, 2003. *Recognizing 3D objects and their photographs by people and pigeons*. Presented to the Department of Psychology, Miami University, Oxford, Ohio.

May, 2003. *The role of categories in geographical judgments*. Presented at the Symposium on Reasoning and Representation in Specific Knowledge Domains, which was part of the Triple Festschrift Conference for Lyle E. Bourne, Jr., Walter Kintsch, and Tom Landauer, Department of Psychology, University of Colorado, Boulder.

March, 2004. *Reasoning with regions: Discovering geographical categories and assessing their effects on judgments about global locations*. Presented at the “Frontiers of Behavioral Geography” Symposium, at the Centennial Meetings of the Association of American Geographers, Philadelphia, Pennsylvania.

December, 2003. *Recognizing 3D objects and their photographs by people and pigeons*. Presented to the Department of Psychology, Miami University, Oxford, Ohio.

December, 2003. *The regional representation of global geography: Influences on location judgments and geographical biases*. Presented to the Department of Psychology, Miami University, Oxford, Ohio.

May, 2003. *The role of categories in geographical judgments*. Presented at the Symposium on Reasoning and Representation in Specific Knowledge Domains, part of the Triple Festschrift Conference for Lyle E. Bourne, Jr., Walter Kintsch, and Tom Landauer, Department of Psychology, University of Colorado, Boulder, Colorado.

March, 2003. *Toward an explanation of bias in mental representations and judgments about global geography*. Presented to the Department of Geography, University of California at Santa Barbara.

March, 2003. *How people represent and think about large-scale space*. Presented to the Department of Psychology, University of California at Santa Barbara.

August, 2003. *Reasoning with regions*. Presented at the symposium on Large-Scale Spatial Cognition, at the meetings of the Cognitive Science Association for Interdisciplinary Learning, Hood River, Oregon.

December, 2003. *Recognizing 3D objects and their photographs by people and pigeons*. Presented to the Department of Psychology, Miami University, Oxford, Ohio.

December, 2003. *The regional representation of global geography: Influences on location judgments and geographical biases*. Presented to the Department of Psychology, Miami University, Oxford, Ohio.

May, 2003. *The role of categories in geographical judgments*. Presented at the Symposium on Reasoning and Representation in Specific Knowledge Domains, which was part of the Triple Festschrift Conference for Lyle E. Bourne, Jr., Walter Kintsch, and Tom Landauer, Department of Psychology, University of Colorado, Boulder.

March, 2003. *Toward an explanation of bias in mental representations and judgments about global geography*. Presented to the Department of Geography, University of California at Santa Barbara.

March, 2003. *How people represent and think about large-scale space*. Presented to the Department of Psychology, University of California at Santa Barbara.

August, 2003. *Reasoning with regions*. Presented at a symposium on Large-Scale Spatial Cognition, at the meetings of the Cognitive Science Association for Interdisciplinary Learning, Hood River, Oregon.

October, 1994. *Frames of reference in object recognition*. Presented to the Department of Psychology, University of Victoria, Victoria, B.C.

June, 1992. *What's up?: Role of environmental vs. egocentric upright in shape identification judgments*. Presented to members of the Laboratoire de Psychologie Expérimentale, Université Libre de Bruxelles.

July, 1990. *The Y-axis advantage in mental rotation of 3-D objects*. Presented to members of the Institute for Medical Psychology, University of Munich, Germany.

March, 1990. *Spinning objects in your mind: Representing and manipulating visual information in a nonvisual media*. Public address presented at Memorial University, St. John's, Newfoundland.

March, 1990. *The importance of being upright: The Y-axis advantage in mental rotation*. Presented to the Department of Psychology, Memorial University, St. John's, Newfoundland.

June, 1989. *Individual differences in spatial working memory and mental rotation*. Presented at the Ontario Institute for Studies in Education, Toronto, Ontario.

October, 1989. *On the nature of spatial working memory*. Presented to the Department of Psychology, University of Lethbridge, Lethbridge, Alberta.

June, 1988. *Human factors implications of mental rotation performance*. Presented at Bell Northern Research Laboratories, Ottawa, Ontario.

June, 1987. *Task-sharing within and between hemispheres: Implications for human factors research* (with M.C. Polson). Presented at the Third Annual Workshop on Automaticity and Multiple Resources. Sponsored by the Air Force Office of Scientific Research and the Air Force Human Resources Laboratory, Dayton, Ohio.

June, 1986. *Individual differences in spatial ability: A production system model of mental rotation*. Presented to the Laboratoire de Psychologie Expérimentale, Université Libre de Bruxelles, Brussels, Belgium.

August, 1985. *Dividing attention between the eyes and the ears and the hands and the head: A multiple resources approach*. Presented to the Institute for Cognitive Science, University of Colorado, Boulder, Colorado.

June, 1984. *Multiple resources in divided attention: A cross-modal test of the independence of hemispheric resources*. Presented at the Symposium on "Cognitive models of cerebral lateralization: Formulations and experimental evidence," 7th European Conference of the International Neuropsychological Society, Aachen, West Germany.

March, 1981. *Cerebral economics* (with M.C. Polson). Presented at the Fourth Annual Conference on Information Processing Abilities, New Haven, Connecticut.

October, 1981. *On the economy of dividing attention within or between cerebral hemispheres*. Presented to the Department of Psychology, University of Calgary, Calgary, Alberta, October 1981.

March, 1980. *Limited-capacity processing and cerebral specialization* (with M.C. Polson). Presented at the Third Annual Conference on Information Processing Abilities, Seattle, Washington.

May, 1980. *Hemispheric differences in levels of processing and resource allocation* (with M.C. Polson). Presented at the Naval Air Test Center, Patuxent River, Maryland.

June, 1980. *Eye movements and picture memory*. Presented at a Seminar on Eye Movements and Cognitive Psychology, University of California, Berkeley.

February, 1980. *On the time course of viewing pictures with a view towards remembering* (with L.S. Liebelt). Presented at the Conference on Eye Movements and Cognitive Processes, Tampa, Florida.

## Conference Presentations

Galati, A., Plastira, M.N., Friedman, A., Avraamides, M.N. (2021, November). *Beyond the physical divide of Greek-Cypriots and Turkish-Cypriots: Social and political variables shape geographical estimates*. Presented at the 62th Annual Meeting of the Psychonomic Society, A Virtual Conference, New Orleans, Louisiana.

Montello, D.R., Friedman, A., & Phillips, R. (2013, April) "Like total SoCal": *A high resolution assessment of vague cognitive regions*. Paper presented at the 109th Annual Meeting of the Association of American Geographers, Los Angeles, CA.

Friedman, A. (2011, May). *Learning from multiple views: View combination as an all-purpose recognition mechanism*. Paper presented at JC4 (the Joint Canadian-Colorado Cognition Conference, Parksville, British Columbia. [All participants were at some point in the Psychology program at the University of Colorado, Boulder, as either graduate students, post-docs, or visiting professors. They are now scattered around the world].

Cameron, N. & Friedman, A. (2011, April). *Becoming familiar: Analyzing the process of acquiring knowledge of a new travel route and destination*. Paper presented at the American Association of Geographers Annual Meeting, Seattle, Washington.

Friedman, A., & Ball, G.D.C. (2009, November). *Estimation by proxy: Size judgments of common objects from perception, memory, and as proxies for food portions*. Paper presented at the Meetings of the Psychonomic Society, Boston, Massachusetts.

Friedman, A., & Ball, G.C.D. (2009, May). *Portion size measurement aids: Can people remember the size of common objects when thinking about food?* Paper presented at the 1st National Obesity Summit of the Canadian Obesity Network, Kananaskis, Alberta.

Twyman, A., Friedman, A. & Spetch, M.L. (2007, August). *Penetrating the geometric module: Catalyzing children's use of landmarks*. In D.S. McNamara & J.G. Trafton (Eds.), *Proceedings of the 29th Annual Cognitive Science Society*, Nashville, Tennessee (pg 671-676).

Friedman, A. (2006, November). *Maps and memory aids do not trump category effects in geographic location judgments*. Paper presented at the Meetings of the Psychonomic Society, Houston, Texas.

Kerkman, D. D., Friedman, A., Brown, N. R., & Stea, D. (2003, May). *Subjective representations of North American geography: Mexicans view it differently*. Paper presented at a symposium entitled, "Universal Mapping Project," at Geo-Nexus: Research in Geographic and Environmental Education, San Marcos, Texas.

Kerkman, D.D., Friedman, A., Brown, N.R., & Cappello, H.M. (2001, December). *Measuring and dispelling misconceptions about our next-door neighbours*. Paper presented at a meeting of the Texas/World Health Organization Collaborating Center, Austin, Texas.

Friedman, A., Kerkman, A., & Brown, N.R. (2001, November). *A cross-national comparison of biases in subjective North American geography*. Paper presented at the meetings of the Psychonomic Society, Orlando, Florida.

Brown, N.R., Friedman, A., & Lee, P. J. (2001, November). *Distance estimates reflect objective and subjective geographical categories*. Paper presented at the meetings of the Psychonomic Society, Orlando, Florida.

Brown, N.R., Friedman, A., Kerkman, D., Pinon, M., & Stea, D. (2000, April). *El Mar Bravo, or, how wide, really, is the Rio Grande?* Presented at the meetings of the Association of Borderlands Studies, San Diego-Tijuana.

Brown, N., & Friedman, A. (1999, May). *Assessing and improving geographical beliefs: A cognitive approach*. Paper presented at the International Conference on Research in Geographic Education, San Marcos, Texas.

Friedman, A., & Brown, N.R. (1999, July). *Cognitive coherence and inertia: Principles governing the effects of seed facts on representations of geographical knowledge*. Paper presented at the meetings of the Society for Applied Research in Memory and Cognition, Boulder, Colorado.

Friedman, A., & Brown, N.R. (1996, November). *Geographical illusions: The effect of new information on old biases*. Paper presented at the meetings of the Psychonomic Society, Chicago, Illinois.

Friedman, A., & Brown, N.R. (1996, July). *Effect of category and item knowledge on absolute and relative geographical judgment*. Paper presented at the XX International Conference on Memory, Albano Terme, Italy.

Abecassis, M., Cornell, E., & Friedman, A. (1996, March). *Hansel and Gretel reconsidered: Landmark selection and usage by children and adults in unfamiliar environments*. Paper presented at the conference on Human Development, Birmingham, Alabama.

Lloyd, J., Friedman, A., & Dobbs, A. (1984, June). *The persistence of the word frequency effect in lexical decisions*. Presented at the meetings of the Canadian Psychological Association, Ottawa, Ontario.

Friedman, A., & Pullyblank, J. (1982, November). *Remembering information about oneself and others: The role of distinctiveness*. Presented at the meetings of the Psychonomic Society, Minneapolis, Minnesota.

Polson, M.C., & Friedman, A. (1980, November). *Cerebral economics: One hemisphere's energy crisis is the other's free ride*. Presented at the meetings of the Psychonomic Society, St. Louis, Missouri.

Friedman, A. (1977, January). *Eye movements, world knowledge, and the "gistification" of pictures in memory*. Second Interdisciplinary Conference on Psychology, Jackson Hole, Wyoming.

Friedman, A. (1977, May). *The "gistification" of pictures in memory: The more you know the less you'll remember*. Presented at the meetings of the Midwestern Psychological Association, Chicago, Illinois.

Friedman, A. (1976, July). *Comparing words: An "internal psychophysics" for a nonphysical dimension*. Presented at the 21st International Congress of Psychology, Paris, France.

## Conference Posters

Nankoo, J.F., Sawalha, J., Wylie, D., Friedman, A., Vuong, Q., & Spetch, M. (2015, May). *The use of shape and motion cues for object perception in pigeons*. Poster presented at the Banff Annual Symposium in Cognitive Science, Banff, Alberta.

Carson, V., Kuzik, N., Hunter, S., Wiebe, S.A., Spence, J.C., Friedman, A., Tremblay, M.S., Slater, L., Hinkley, T. (2015, June). *Systematic review of sedentary behavior and cognitive development in early childhood*. Poster presentation at the 2015 Annual Meeting of the International Society for Behavioral Nutrition and Physical Activity (ISBNPA), Edinburgh, Scotland.

Parnes, M., & Friedman, A. (2012, May). *The effect of instructions on spatial memory in virtual environment learners*. Poster presented at the Banff Annual Seminar in Cognitive Science. Banff, Alberta.

Brubaker, D., Coleman, L., Karzmarek, T., Nielsen, D.K., Krug, C., Smith, S., Ambler, K., Brunet, K., Friedman, A., & Ball, G.D.C. (2010, April). *Estimation accuracy, usefulness, and satisfaction related to Portion Size Measurement Aids*. Poster presented at a symposium entitled "Nutrition to Grow: Exploring Maternal and Child Health", at the University of Alberta.

Spetch, M.L., Friedman, A., Biawolas, J., & Verbeek, E., (2009, November). *Category- and item-level contributions to location memory: When categories don't weigh in*. Poster presented at the Meetings of the Psychonomic Society, Boston, Massachusetts.

Kaczmarek, T.G., Friedman, A., Barbarich, B.N., Keaschuk, R.A., Ball, G.D.C. (2009, May). *Does the perception of food portion size vary in accuracy according to estimation method and food type in overweight boys and girls?* Poster presented at the 1st National Obesity Summit of the Canadian Obesity Network, Kananaskis, Alberta.

Plante, C., Friedman, A., & Vuong, Q.C. (2008, May). *The role of dynamic information and structural similarity on object recognition*. Poster presented at the Connecting Minds 2008 Conference, Richmond, Virginia.

Waller, D., Friedman, A., Greenhauer, N., & Hodges, E. (2006). *Rapid prototyping of visual scenes: Evidence for view combination*. Poster presented at the Meetings of the Psychonomic Society, Houston, Texas.

Vuong, Q.C., Friedman, A., & Hof, A. (2005, November). *The role of motion variability in recognizing dynamic novel objects*. Poster presented at the 13th Annual Workshop on Object Perception, Attention, and Memory (OPAM), Toronto, Ontario.

- Spetch, M.L., & Friedman, A. (2004, March). *Do pigeons recognize the correspondence between objects and images of objects?* Poster presented at the International Conference on Comparative Cognition, Melbourne, Florida.
- Spetch, M., Friedman, A., & Ferrey, A. (2003, March). *A rose from any other view is still a rose: Viewpoint effects in pigeons' object recognition.* Paper presented at the International Conference on Comparative Cognition, Melbourne, Florida.
- Spetch, M.L. & Friedman, A. (2002, June). Recognition of depth-rotated objects: Humans interpolate and pigeons generalize. Poster presented at the meeting of the Behavior, Brain, and Cognitive Science Society, Vancouver, BC.
- Friedman, A., & Quong, Q.C. (1999, August). *Cats, cows, cameras, and cars: The role of structural similarity in naming disoriented pictures.* Poster presented at the meetings of the Cognitive Science Society, Vancouver, British Columbia.
- Rabiau, M., & Friedman, A. (1999, June). *Lions and tigers and bears: Structural similarity and visual detail in naming disoriented objects.* Poster presented at the meetings of the Canadian Society for Brain, Behavior, and Cognitive Science, Edmonton, Alberta.
- Vuong, Q.C., & Friedman, A. (1999, June). *What's in a name? The dissociation between pictures and names in picture matching and naming.* Poster presented at the meetings of the Canadian Society for Brain, Behavior, and Cognitive Science, Edmonton, Alberta.
- Spetch, M., Friedman, A., & Reid, S. (1998, November). *Recognition of depth-rotated objects by pigeons and humans.* Poster presented at the meetings of the Psychonomic Society, Dallas, Texas
- Friedman, A., & Pilon, D. (1991, November). *Mental rotation and the gravitational upright.* Poster presented at the meetings of the Psychonomic Society, San Francisco, California.

## Technical Reports

- Friedman, A., Polson, M.C., & Spector, M. (1991). *Designing an advanced instructional design advisor: Incorporating visual materials and other research issues (Volume 4 of 6).* Technical Paper AL-TP-1991-0017, Armstrong Laboratory, Human Resources Directorate, Brooks Air Force Base, Texas.
- Friedman, A. (1986). *A study of the value and use of graphics in educational applications with emphasis on Telidon graphics.* The Behavioral Research and Evaluation Group, Information and Technology Branch, Department of Communication, Ottawa, Canada. Contract No. OST84-0028.
- Friedman, A., Polson, M.C., & Dafoe, C.G. (1981, June). *Cerebral economics: Resource competition within but not between hemispheres.* U.S. Office of Naval Research, Contract No. N00014-79-C-0679, University of Alberta, Technical Report No. 3.
- Polson, M.C., Friedman, A., & Gaskill, S.J. (1981, July). *Competition for left hemisphere resources: Right hemisphere superiority at abstract verbal information processing.* U.S. Office of Naval Research, Contract No. N00014-79-C-0679, University of Colorado, Technical Report No.2.
- Friedman, A. & Polson, M.C. (1980, January). *Resource allocation in cerebral specialization.* U.S. Office of Naval Research, Contract No. N00014-79-C-0679, University of Alberta, Technical Report No. 1.

McDaniel, M.A., Friedman, A., & Bourne, L.E., Jr. (1977, March). *Remembering the levels of information in words*. Program on Cognitive Factors in Human Learning and Memory Report No. 60, University of Colorado.

Friedman, A. & Bourne, L.E., Jr. (1975, June). *Abstracting semantic information from pictures and words*. Program on Cognitive Factors in Human Learning and Memory Report No. 38, University of Colorado.

Friedman, A. & Bourne, L.E., Jr. (1975, March). *Encoding perceptual and conceptual information in pictures and words*. Program on Cognitive Factors in Human Learning and Memory Report No. 31, University of Colorado Boulder.

## Editorial Positions

- 2007 – 2018 Editorial Board, *Spatial Cognition and Computation: An Interdisciplinary Journal*  
1997 – 2004 Consulting Editor, *Canadian Journal of Experimental Psychology*  
1989 - 1997 Consulting Editor, *Memory and Cognition*  
1979 – 1982 Consulting Editor, *Journal of Experimental Psychology: Perception & Performance*

## Ad Hoc Reviewing

### Conferences

Cognitive Science Society  
Conference on Spatial Information Theory (COSIT 2001)

### Granting Agencies

Canada Council for the Arts  
Natural Sciences and Engineering Research Council (Canada)  
National Science Foundation (USA)  
Israel Science Foundation

### Journals

Acta Psychologica  
American Educational Research Journal  
Applied Cognitive Psychology  
Canadian Journal of Experimental Psychology  
Canadian Journal of Psychology, Child Development  
Cognitive Psychology  
Developmental Psychology  
IEEE Transactions in Applied Perception  
Field Methods  
Journal of Experimental Psychology: Applied  
Journal of Experimental Psychology: General  
Journal of Experimental Psychology: Human Perception & Performance  
Journal of Experimental Psychology: Human Learning & Memory  
Journal of Memory & Language  
Journal of Verbal Learning & Verbal Behaviour  
Memory & Cognition  
Perception & Psychophysics  
Psychological Science  
Psychonomic Bulletin & Review  
Quarterly Journal of Experimental Psychology: Human Experimental Psychology  
Spatial Cognition & Computation

## Teaching & Mentoring

### PhD Supervision & Committees

|      |   |
|------|---|
| 2014 | Ruojing Zhang, Psychology                                     |
| 2014 | Oliver Schweickhert, Psychology                               |
| 2010 | Eric Legge, Psychology  |
| 2003 | Blaine Mullins, Psychology                                    |
| 2001 | Tamsen Taylor, Psychology                                     |
| 2000 | Debbie Kelly, Psychology                                      |
| 1999 | Peter Lee, Psychology   |
| 1998 | Tenaha O'Reilly, Psychology                                   |
| 1998 | Scott Glover, Psychology                                      |
| 1997 | Corinne Zimmerman, Psychology                                 |
| 1997 | Michael Boshra, Computing Science                             |
| 1994 | Daniel Pilon, Psychology (Supervisor)                         |
| 1994 | David Hall, Psychology (Supervisor)                           |
| 1992 | Andrew Maquistan, Psychology                                  |
| 1990 | Robert McEwan, Special Education – O.I.S.E. External Examiner |
| 1987 | Roy Ballantine, Psychology (Supervisor)                       |
| 1985 | Ian Humphreys, Physical Education                             |
| 1982 | Peter Holt, Psychology  |
| 1980 | Michael Katzko, Psychology                                    |

### M.A. & MSc Supervision & Committees

|      |  |
|------|--|
| 2014 | Lei Zhang                              |
| 2012 | Ruojing Zhang                          |
| 2011 | Daniel Huntley, Computing Science      |
| 2010 | Michael Parnes (Supervisor)            |
| 2009 | Ryan van Kroonenburg                   |
| 2008 | Mathew Rangel, Fine Arts               |
| 2007 | Ken Boyd, Philosophy                   |
| 2006 | Gail Moroschan                         |
| 2006 | Brian Duffels, Psychology              |
| 1999 | Dmitry Brodsky, Computing Science      |
| 1999 | Oscar Meruvia, Computing Science       |
| 1998 | Ping Gu, Computing Science             |
| 1992 | Carey Herbert, Faculty of Business     |
| 1991 | David Hall, Psychology (Supervisor)    |
| 1989 | Bonita Wong, Computing Science         |
| 1989 | Daniel Pilon, Psychology (Supervisor)  |
| 1988 | Paul Bergen, Linguistics               |
| 1986 | Jerome Yuzyk                           |
| 1986 | Paternela Scharf, Computing Science    |
| 1985 | Gurminder Singh, Computing Science     |
| 1985 | Jo-Anne LeFevre                        |
| 1985 | Eilen Thauberger, Nursing              |
| 1984 | Bruce Galenza, Psychology (Supervisor) |
| 1983 | Chris Herdman, Psychology (Supervisor) |

1981 Lew Stelmach  
1980 Donna Murray

### Non-thesis Graduate Research Supervision

2010 Connie Svob, Individual Research (Psych 698-699)  
1989 David Hall, First Year Research Project  
1984 Jeremiah Faries, First Year Research Project  
1983 Roy Ballantine, Individual Research (Psych 698-699)  
1982 Lew Stelmach, Individual Research (Psych 698-699)

### Undergraduate Honors & Independent Studies

2010 – 2012 Josh Hamaluik, Honors (Psy 390, 490)  
2006 – 2008 Courtney Plante, Honors (Psy 390, 490)  
2006 – 2007 Magda Piwowarczyk, Individual Research (Psy 496 A1, B1)  
2005 – 2006 Alexandra Twyman, Individual Research (Psy 496 A1, B1);  
Co-supervised with M. Spetch.  
2004-2005 Tom Marsh, Individual Research (Psy 496 A1, B1)  
2002 Katherine Wiebe, Individual Research (Psy 496 B1)  
2001 – 2002 Nolan Boucher, Individual Research (Psy 496 A1, B1)  
2001 – 2002 Rachel Keaschuk, Individual Research (Psy 496 A1, B1)  
1997 – 2009 Aaron McGaffey, Honors (Psy 390), Individual Research (Psy 497, Cmput 497),  
NSERC Summer Award  
1997 – 1999 Marjorie Rabiau, Honors (Psy 390, 490)  
1997 Teresa Dmytriw, Individual Resesarch (Psy 496)  
1997 Nancy Ward, Individual Research (Psy 496)  
1996 – 1998 Quoc Vuong, Honors (Psy 390, 490), NSERC Summer Award  
1996 Jonathan Nieuwendyck, Individual Research (Psy 496)  
1996 Suzanne Wong, , Individual Research (Psy 496)  
1992 Marian Morry, NSERC Summer Award  
1992 Siobhan Nearey, NSERC Summer Award  
1991 Steven Ozar, Honors Thesis (Psy 490)  
1991 Shauntelle Paul, Honors Thesis (Psy 490)  
1990 Ben Mack, NSERC Summer Award  
1989 – 1991 Christina Gagne, Honors thesis (Psy 490); NSERC Summer Award  
1988 – 1989 Cory Harding, Individual Research (Psy 496-497)  
1986 – 1988 Judy Shedden, Honors Thesis (Psy 599); NSERC Summer Award  
1984 – 1985 Randall Kopach, Individual Research (Psy 496 – 497)  
1984 – 1985 Brian Lake, , Individual Research (Psy 496 – 497)  
1982 – 1983 Julie Lloyd, Individual Research (Psy 496 – 497)  
1981 – 1982 Jeanette DeRosario, Individual Research (Psy 496 – 497)

### Courses Taught

100 – level Introductory Psychology

200 – level Statistical Methods for Psychological Research  
Introduction to Cognitive Psychology  
Introduction to Research Methods in Psychology

300 – level Learning and Memory  
Honors Psychology: The Research Proposal

Human Information Processing  
 Visual Information Processing

400 - level     Advanced Analysis of Variance and Experimental Design

Honors Psychology:

Writing for the Psychological Literature  
 Computer Models of Psychological Processes  
 Advanced Statistics and Experimental Design  
 Seminar in Advanced Cognitive Psychology (various topics. Including  
 attention, spatial cognition, spatial memory, perception, computer models,  
 psycholinguistics, visual information processing, language processing, memory)

Graduate     Advanced Statistics and Experimental Design  
 Professional Issues and Ethics

## Administrative Service

### Faculty

1998 – 2005     Faculty of Arts Representative to Faculty of Science Council  
 2010             FEC Representative for W. Mou Tenure & Promotion  
 2006 – 2007     Faculty of Arts Selection Committee (for Cognitive Psychology Candidate)  
 2004 – 2005     Psychology Chair Review Committee  
 2000             Faculty of Arts Selection Committee (for Linguistics candidate)  
 1998 – 2002     Faculty of Graduate Studies and Research  
 1993 – 1994     Faculty of Arts Ad Hoc Cttee on the Future of Computing in the Faculty  
 1993             Faculty of Science Rep for Combined B.Sc/M.B.A. program  
 1992             Faculty of Arts Visiting Committee  
 1991             Faculty of Arts Rep. to Faculty St. Jean Search & Selection Committee  
 1991             Faculty of Arts Selection Committee (Cognitive Psych candidate)  
 1990 – 1993     Faculty of Arts Research Committee (Chair, 1991-1993)  
 1989 – 1994     Faculty of Arts Rep. to Council of Faculty of Rehab. Medicine  
 1988 – 1991     B.A. Honors Committee  
 1987 – 1988     B.A. Honors Executive Committee  
 1987 – 1988     SAS Grants Committee (Alternate)  
 1986 – 1994     B.A. Honors Advisor  
 1982 – 1985     Ad Hoc Review Committee on Human Research (Arts)  
 1980 – 1985     Ad Hoc Review Committee on Human Research (Science)  
 1980 – 1983     B.Sc. 4-year Specialization Advisor (Science)  
 1980 – 1981     Task Force on Contract Research in the Social Sciences (Arts;  
 Dean's Advisory Committee)

### Department

2014             Carthy Chair Selection Committee  
 2010 – 2012     Graduate Admissions Committee  
 2006 – 2007     Chair, Cognitive Psychology Search Committee  
 2005 – 2008     Research Participation Committee  
 2004 – 2005     Cultural and Social Psychology Selection Committee  
 2003 – 2008     Undergraduate Curriculum Committee  
 1998 – 2002     Chair, Graduate Curriculum Committee  
 1998 – 2002     Chair, Graduate Scholarship Committee  
 1998 – 2002     Chair, Graduate Assistantship Committee

|             |   |
|-------------|---|
| 1998 – 2002 | Chair, Graduate Recruitment and Admissions Committee              |
| 1998 – 1999 | Chair's Advisory Committee  |
| 1996 – 1999 | Department of Psychology Chair Selection Committee                |
| 1996 – 1997 | Graduate Recruitment Committee                                    |
| 1993 – 1994 | Graduate Curriculum Committee                                     |
| 1993        | Chair, Cognitive Psychology Search Committee                      |
| 1991 – 1994 | NSERC and SSHRC Scholarship Screening Subcommittee                |
| 1991 – 1992 | Coordinator for Introductory Psychology                           |
| 1990 – 1992 | Cognitive Psychology Search Committee                             |
| 1990        | A.P.O. Selection Committee  |
| 1988 – 1994 | Chair, Undergraduate NSERC Award Committee                        |
| 1987 – 1990 | Chairman's Advisory Committee                                     |
| 1987 – 1988 | Ad Hoc Committee on Chairman's Advisory Committee                 |
| 1987 – 1988 | NSERC and SSHRC Scholarship Screening Subcommittee                |
| 1987        | Ad Hoc Committee on Computing Requirements in the Social Sciences |
| 1986 – 1994 | Undergraduate Advisor for Honors Psychology Students              |
| 1983 – 1985 | Graduate Curriculum Committee                                     |
| 1982        | Chair, Post-Doctoral Fellow Search Committee                      |
| 1980 – 1984 | Computer Policy Committee   |
| 1980 – 1984 | Undergraduate Advisor for BSc Psychology Majors                   |
| 1980 – 1981 | Chair, Search Committee for Arts Faculty Position                 |
| 1979 – 1980 | Undergraduate Curriculum Committee                                |

## Research Support

### Operating Grants

|             |   |
|-------------|---|
| 2011 – 2017 | <i>Spatial Cognition</i> . Natural Sciences and Engineering Research Council, Canada (NSERC), \$135,000.  |
| 2014 – 2015 | Co-principal investigator, <i>Dose-response relationships between physical activity, sedentary behavior, and neuro-cognitive development among children of the early years</i> . ACCFCR/Norlien Foundation, \$30,000. |
| 2009 – 2012 | Co-Principal Investigator, <i>Pediatric weight management: Advancing the evidence in family-centred care</i> . Faculty of Medicine & Dentistry, U Alberta & Alberta Health Services, Emerging Team Grant. \$300,000.  |
| 2006 – 2011 | <i>Spatial representation and reasoning about global-scale geography</i> , NSERC, \$110,000.  |
| 2001 – 2005 | <i>Recognizing and categorizing familiar objects</i> . NSERC, \$110,000.  |
| 1996 – 2000 | <i>Frames of reference in object recognition</i> . NSERC, \$80,845.   |
| 1992 – 1995 | <i>Factors in mental rotation, object recognition, and metaphor comprehension</i> . NSERC, \$45,000.  |
| 1988 – 1991 | <i>Divided attention, cerebral specialization, and spatial cognition</i> . NSERC, \$54,000.   |
| 1985 – 1988 | <i>Multiple resources in cerebral specialization, divided attention, and mental rotation</i> . NSERC, \$50,085.   |
| 1984 – 1985 | <i>A study of the value &amp; use of graphics in educational applications with emphasis on Telidon graphics</i> . Gov't. of Canada Dept. of Communications, \$20,498.   |
| 1982 – 1985 | <i>Limited capacity processing and cerebral specialization</i> . NSERC, \$45,000.   |
| 1979 – 1982 | <i>Resource allocation in cerebral specialization</i> . U.S. Office of Naval Research; University of Alberta subcontract USD\$79,725.   |
| 1978 – 1979 | <i>Resource allocation in cerebral specialization</i> . National Jewish Hospital & Research Center, Denver, Colorado. USD\$4,637.   |
| 1997 – 1998 | <i>Frames of reference in object recognition</i> , NSERC, \$15,550.   |

## Equipment & Infrastructure Grants

- 2001 – 2002 *Recognizing and categorizing familiar objects*, NSERC, \$17,589.  
2000 – 2001 *University of Alberta Faculty of Arts Research Grant*, Lab Renovation, \$84,848.  
1997 – 1998 *Frames of reference in object recognition*, NSERC, \$15,550.  
1989 – 1990 Co-Principal Investigator, *Eye movement monitor for cognitive research*, NSERC, \$53,146.  
1989 University of Alberta, VP-CRF Equipment Grant, \$5,000.  
1977 – 1978 *Levels of processing in cerebral specialization*. National Jewish Hospital and Research Center, \$6,960USD.

## Miscellaneous Grants

- 1998 Canada Heritage, Young Canada Works, \$1,500.  
1992 University of Alberta, CRF Travel Grant, \$1,100.  
1990 University of Alberta, CRF Travel Grant, \$1,000.  
1985 Travel Grant, NSERC, \$560.  
1984 Travel Grant, Alberta Heritage Foundation for Medical Research, \$1,600.  
1984 Co-Supervisor, NSERC Summer Canada Internship Program, \$5,274.  
1983 Co-Supervisor, NSERC Summer Canada Internship Program, \$10,800.