

**GLORIA SYDNA WATERS**  
 VICE PRESIDENT and ASSOCIATE PROVOST FOR RESEARCH  
 ONE SILBER WAY, BOSTON, MA 02215  
 617-358-2040 | [gwaters@bu.edu](mailto:gwaters@bu.edu)

**EDUCATION**

Ph.D. (1981)	Psychology	Concordia University Montreal, Quebec
M.A. (1977)	Applied Psychology	Concordia University Montreal, Quebec
B.A. (1975)	Honors Psychology	McGill University

**ACADEMIC APPOINTMENTS**

**Boston University**

Vice President and Associate Provost for Research	2013-Present
Dean, College of Health & Rehabilitation Sciences: Sargent College	2005-2013
Dean ad-interim, School of Hospitality Administration	1/2012-7/2012
Professor, Dept. of Speech, Language and Hearing Sciences	1997-Present

**McGill University**

Acting Director, School of Communication Sciences and Disorders Faculty of Medicine	1996-1997
Associate Professor, School of Communication Sciences and Disorders, Faculty of Medicine	1991-1997
Adjunct Professor, Division of Geriatric Medicine	1993-2000
Assistant Professor, School of Communication Sciences and Disorders	1985-1991
Research Associate, Montreal Neurological Institute	1985-1988
Research Associate, School of Communication Sciences and Disorders	1983-1985
Post-doctoral Fellow School of Communication Sciences and Disorders	1981-1983

**ADMINISTRATIVE APPOINTMENTS**

**Boston University**

Vice President and Associate Provost for Research	2013-present
---	--------------

- Responsible for overseeing the research enterprise for the university as whole at a time when research awards and expenditures increased from \$350m to over \$600m
- Areas of oversight include pre- and post-award financial operations, research compliance, technology transfer, corporate relations and industry engagement, research development, post-doctoral affairs, and over a dozen university-wide research centers; focused on operational excellence – streamlining processes, reducing burdens, and improving customer service with participants from different areas of research administration
- **Sponsored Programs and Post-award Financial Operations (PAFO):** Worked with the Associate VP of Sponsored Programs to increase the quality and level of service and develop a set of performance metrics which resulted in dramatic increase in level of service offered to faculty; managed the merger of PAFO with Sponsored Programs to provide holistic support to the faculty; created shared service for smaller centers and colleges; created a strong research administrative community with launch of the Advisory Council for Research Administration and inaugural annual Award for Research Administration
- **Research Compliance:** Focused on streamlining processes, reducing burden, and improving customer service; worked with IS&T to introduce new suites of software to ease the burden of compliance and reduce the risk associated with outdated and poorly supported software packages, created new position for HIPPA Privacy Officer; at request of President created and chaired Research Compliance Committee – university wide committee tasked with apprising the President and Provost about current and emerging issues associated with our obligation to comply with federally-sponsored research regulations and to review

our policies and procedures to ensure BU is in accord with best practices; also chaired the Task Force on Research Security and Conflict of Commitment and Implemented its Recommendations to Ensure Compliance with Federal Regulations

- **University Council Committee on Research and Scholarly Activities:** Chair committee tasked with developing and revising policies for research; policies developed include intellectual property, open access, crowd-funding, policy on classified research, research financial conflict of interest; guidelines for student engagement with industry; data retention; revised Principal Investigator policy; website policy; policy on PhD research outside of BU; policy on visiting scholars.
- **Research Development:** Put in place mechanisms to help identify and support major interdisciplinary research initiatives that are of strategic importance to the university, work with Foundation Relations and Federal Relations to identify funding opportunities, host meetings with funders and workshops on aspects of grantsmanship (e.g., developing broader participation plans, DEI statements); fostered interdisciplinary collaboration with events that bring faculty across disciplines together (e.g., Research on Tap series)
- **Professional Development and Postdoctoral Affairs:** Established University-wide office to provide professional development and support for postdocs; created policies related to minimum salary, years of service, health care benefits
- **Industry Engagement:** Chaired Task Force on Industry Relations resulting in the creation of a new office of Industry Engagement; appointed new Director of the Office of Technology Transfer and an Associate Vice President for Industry Engagement; transitioned Director of Corporate Relations from Development to Industry Engagement; negotiated \$24m sponsored research agreement with JNJ; launched Red Hat Collaboratory; created a Working Group on Fee for Service and Institutional Consulting and put in place processes to manage the new types of relationships that are developing with industry
- **Interdisciplinary Biomedical Research Office:** In collaboration with the Department of Medicine, launched a new office under the direction of Dr. Katya Ravid to catalyze, promote and support biomedical research across the CRC and MED.
- **University-wide Research Centers:** Undertook an assessment to determine whether each of the existing centers was meeting the mission of increasing interdisciplinary collaboration and was appropriately placed in the organizational structure of Boston University – resulted in the merger of several Centers, closure of some and transition of some to Schools/Colleges. Evaluated the need to establish new research centers in areas of strategic importance to the University resulting in the establishment of the Center for Systems Neuroscience, the Center for Sensory Systems and Neural Technologies, the Institute for Global Sustainability and the Biological Design Center as a center within ENG. Instituted yearly review of centers with cognate deans and five-year external reviews
- **National Emerging Infectious Disease Lab (NEIDL):** Represented University at public hearings for the granting of a permit for the NEIDL; following a major facilities event re-organized staffing resulting in successful awarding of permits to carry out BSL4 research; Chair University Operational Oversight Committee consisting of University Provost and leadership of each of the areas of operation within the NEIDL; Ex Officio member of committee resulting in successful Search for Director – 2022
- **CARB-X:** Worked with faculty to develop the funding model for a private-public partnership to support the development of *Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator* (CARB-X) a global non-profit partnership accelerating antibacterial products to address drug-resistant bacteria; created central administrative structure to support CARB-X and negotiated administrative costs with funders with federal and foundation funders; managed central administration of CARB-X and acted as a liaison between the funders and the CARB-X team resulting in greater satisfaction of the funders with our responsiveness to their needs; chaired a successful search for an independent Chair of CARB-X's governing body, the Joint Oversight Board (JOB)
- **Kilachand Fund:** Oversee the call for proposals for interdisciplinary research across the life sciences and engineering supported by a \$100m endowed research fund and work with the President, Provost and Deans to decide on funding priorities
- **Center for Integrated Life Sciences and Engineering:** Served as the “client” for a new life sciences and engineering building working with the architects on lab design, furniture selection etc., with the deans to determine which faculty would have space in the building, developing a budget, hiring and overseeing a director of operations for the building
- **Cognitive Neuroimaging Center:** Worked with the faculty to create the, obtain external funding, staff it and develop a financial model
- **Communications:** Worked with Marketing and Communications (MarCom) to create a new website, an internal newsletter (*Research Revealed*), a monthly research magazine (*The Brink*) and Research Annual report to promote the work of the faculty to external constituents; collaborated with MarCom to establish a science communication series

- **Research DEI:** Motivated by the successful University Day of Reflection, formed a committee comprised of staff from each of the areas within Research; committee presented a report to research leadership with short and long term recommendations, presented their report to the broader group of staff working in Research at our annual fall luncheon, appointed an implementation committee

Dean, College of Health & Rehabilitation Sciences: Sargent College 2005-2013

- Took on deanship at a time when undergraduate enrollments had dropped from 900 (1997) to 589 (2004)
- Academic programs had proliferated without an increase in faculty
- Research funding had dropped due to the transfer of a major research center to the School of Public Health and majority of clinical faculty were not involved in research or scholarship
- Worked with the faculty to develop a plan to narrow the focus and eliminate academic programs that were undersubscribed and to create new undergraduate programs
- Closed Department of Rehabilitation Counselling and several programs
- Developed new undergraduate major in Health Science, transitioned the undergraduate Human Physiology program to a viable pre-med option for undergraduates, instituted a college-wide freshman seminar and internships for students in all undergraduate programs, improved academic advising
- As a result of changes, number of applications, quality of the students and yield increased and overall undergraduate enrollment increased from 589 to 1,016 in 2011
- Strengthened the quality of the tenure-track faculty resulting in an increase in research funding from \$5.9 million to approximately \$10 million; faculty were successful in competing for a major Rehabilitation Research and Training Center
- Strengthen non-tenure track faculty by providing incentives for them to earn doctoral degrees and instituting a scholarship program which allowed them to apply on a competitive basis for a month of summer salary to engage in research or other scholarly work.
- Worked with faculty to increase the quality, ranking and visibility of graduate programs resulting in an increase in applications from 541 to 1,324 and an improvement in selectivity from 66% to 34%.

Dean ad-interim, School of Hospitality Administration 1/2012-7/2012  
 Chair, Dept. of Health Sciences, Boston University 2002-2005  
 Chair, Dept. of Speech, Language and Hearing Sciences 2001-2002  
 Acting Chair, Dept. of Speech, Language and Hearing Sciences 1999-2000

**McGill University**

Acting Director School of Communication Sciences and Disorders 1996-1997  
 • Served as the Director of 1 of 5 Schools within the Faculty of Medicine  
 Research Director 1990-92  
 Ph.D. Program Director 1990-92

**UNIVERSITY SERVICE**

**Boston University**

University-level Committees

Member Search Committee for VP of Human Resources 2021  
 Member Search Committee for Sr. Director of Occupational Health 2021-2022  
 Member Provost's Cabinet 2013-present  
 Member President's Administrative Group 2013-present  
 Member University Leadership Group 2013-present  
 Chair Research Computing Governance Committee 2013-present  
 Chair Research and Scholarly Activities Committee 2013-present  
 Member Working Group on Gender-based Harassment 2019  
 Member Charles River Campus IRB Advisory Board 2011-2013  
 Member University-Industry Relations Committee 2012-2013  
 Member Task Force Evaluating BU Student Health Services 2012-2013  
 Member of the University Research Council 2011-2013

Member of the BU Clinical Translational Science Award Advisory Board	2010-present
Member of the SHA Dean Search Committee	2012
Member of the Search Committee for Chair of BU Orthopedics	2011-2012
Member of the Search Committee for the Chair of BU Family Medicine	2011-2012
Member of Task Force on Funding of Doctoral Students	2010-2011
Member Advisory Committee Concerning the Merger of the CRC and MED IRBs	2009-2010
Member, Task Force on Post-doctoral Affairs	2009-2010
Member, Research Support Committee	2009-2010
Member, Boston University Conflict of Interest Task Force	2009-2010
Co-chair, Boston University Freshman Orientation Task Force	2009-2010
Chair, Boston University Search Committee for University Ombuds	2008-2009
Co-chair, Boston University Curriculum and Degrees Committee	2007-2010
Member, Dean Search Committee, College of Engineering, Boston University	2005-2006
Member, Boston University Presidential Search Committee	2005-2006
Member, Boston University Promotion and Tenure Committee	2000-2001

#### Other Significant University-level Service

University Response to COVID-19 2020-2023

- Played a major role in the non-medical aspects of the University's response to COVID
- Oversaw ramp down and reinstatement of research
- Led a committee of faculty in BME and leadership in key areas of the University tasked with determining the feasibility of developing a CLIA certified testing lab to administer over 5,000 tests a day and also of developing a financial model for its implementation
- Oversaw the hiring of a lab manager and 35 staff for the lab and almost 200 staff for the collection sites and served as the member of the senior leadership responsible for the operation of the lab and collection sites, ensuring that they met our goals in terms of cost and operational efficiency
- Chaired the Community Health Oversight Group – leadership from across the University which monitored the health of the campus daily; provided leadership with recommendations for new policies related to COVID
- Co-chaired the Vaccine Preparedness Group – to make recommendations about requirements for vaccine and work with the State and City officials to have BU be a distribution site for vaccines in Phase II and beyond, to serve as the point of contact with the State and to create priorities for vaccine distribution and prioritized lists of individuals according to State guidelines to be implemented in a phased approach.
- Member of the Augmented Budget Committee: Provided input on the budgetary implications of implementing public health measures
- Post-COVID, worked with the faculty to transform the lab to a university-wide core for research as well as to put in place policies and procedures for the use of data collected in the lab for research purposes

Co-chair, Council on Faculty Diversity and Inclusion 2006-2009

- At the request of the President, co-chaired with the University Provost and Chair of Faculty Council, a Council of 13 faculty whose goal was to recommend policies and actions to the President and Provost that would help Boston University sustain an environment that attracts and supports a diverse faculty with the ultimate goal of enriching the intellectual environment and increasing excellence
- Gathered data on the demographics of the faculty at BU, faculty satisfaction, and faculty salaries and surveyed best practices concerning a wide variety of issues ranging from conducting faculty searches, to faculty development and family-friendly policies
- Carried out first University-wide climate survey of faculty and staff
- Implemented recommendations including developing a search manual that was distributed to deans, chairs, and search committee members, and chairing the search for a University Ombuds

#### External Committees

Chair, MGHPCC Executive Committee	2019-2021
Member, AAU Senior Research Officers (SRO) planning committee	2019-2023
Member, AAU (SRO) Committee	2013-2019
Member, MGHPCC Executive Committee	2013-2019
Member, University Research Association	2013-present

#### College-level Committees

Chair, Sargent College Administrative Advisory Council	2005-2013
Member, Sargent College Management Team	2001-2005
Member, Sargent College Budget Committee	2001-2005
Chair, Sargent College Committee on Academic Promotion and Tenure	2000-2001
Member, Dean's Advisory Council	1999-2000
Member, Strategic Planning Committee	1999-2000
Member, Academic Advisory Council	1999-2000
Member, Sargent College Web Committee	1999-2000
Member, Sargent College Committee on Academic Promotion and Tenure	1997-2000
Member, Dudley Allen Sargent Research Awards Committee	1998-2000
Chair, Faculty Search Committee (Communication Disorders)	2000-2001
Member, Admissions Committee	1997-2004
Chair, Graduate Curriculum Committee	1990-1992

#### **McGill University**

##### University-level Committees

Member of the Faculty of Medicine Executive Deanery	1996-1997
Member of the Faculty of Medicine Committee on Student Placements	1996-1997
Member of the Canadian Council of Directors of University Programs in Speech Language Pathology and Audiology	1996-1997
Member of the Executive Committee of the Order of Speech Language Pathologists and Audiologists of Quebec	1996-1997
Member McGill University Faculty Senate	1995-1996
Director of the McGill-IBM Cooperative Project	1990-1992
Member of the Faculty of Medicine Executive Committee	1990-1992
Director of the Cognitive Psychopathology Section of the McGill-IBM Co-operative Project	1988-1992
Council Member, McGill University Faculty of Graduate Studies and Research	1989-1990

##### School-level Committees

Chair Task Force on the Ph.D. Program	1990
Member of Faculty Search Committee in Audiology	1990
Member of Faculty Search Committee in Speech-language Pathology	1989
Member of the Curriculum Committee	1989-1994
Member of Search Committee for a Director	1987
Member of the Admissions Committee for Speech Language Pathology	1985-1997

#### OTHER APPOINTMENTS

---

Associate in Neurology, Massachusetts General Hospital and Harvard University, Boston, MA.	1993-2005
Research Associate, Spaulding Rehabilitation Hospital, Boston, MA.	1993-2000
Lorraine C. Snell Visiting Professor in Health Care, Dept. of	1994-1995

Communication Disorders, Northeastern University, Boston, MA.	
Neuropsychology Intern, Dept. of Neurology, Montreal Children's Hospital	1980-81
Lecturer, Concordia University, Psychology Department, Montreal	1981-84
Part-time Psychologist, Lansdowne Tutoring Center, Montreal	1977-78
Intern, McGill Montreal Children's Hospital Learning Center	1976
Intern, Applied Psychology Center, Concordia University	1975-1977
Part-time Psychometrician, Laval School Commission	1975
Teaching Assistant, Psychology Department, Concordia University	1975-1976
Teaching Assistant, Psychology Department, McGill University	1974-1975
Research Assistant, Speech and Language Research Project, Jewish General Hospital, Montreal	1973-1974

#### EDUCATIONAL HONORS AND AWARDS

---

Royal Society London, U.K./Natural Sciences and Engineering Research Council of Canada Bilateral Exchange Fellowship	1992-1993
<u>Career Investigator Awards (Salary Support)</u>	
Medical Research Council of Canada Centennial Fellowship	1985-1987
National Health and Welfare Canada National Health Scholar Award	1985-1990
Fonds de la Recherche en Sante du Quebec Chercheur Boursier Award	1985-1988
Natural Sciences and Engineering Research Council of Canada Faculty Award for Women	1985-1993
<u>Post-graduate</u>	
Social Sciences and Humanities Research Council of Canada Post-doctoral Fellowship	1981-1983
<u>Graduate</u>	
Quebec Government Graduate Fellowship	1976-1980
Canada Council Doctoral Fellowship	1978-1981
<u>Undergraduate</u>	
Scholarship for High Scholastic Achievement, McGill University	1974-75
First Class Honors, McGill University	1975-1976
University Scholar, McGill University	1975-1976

#### RESEARCH AND SCHOLARSHIP

---

##### Research Interests

Individual Differences in Working Memory Capacity and Language Comprehension  
Sentence Comprehension in Aphasia  
Localization of Language Functions  
Psycholinguistic Assessment of Acquired Language Disorders  
Acquisition of Reading and Spelling Skills  
Assessment of Reading Skills in Older Struggling Readers  
Effects of Deafness on Word Recognition and Reading Ability

##### Teaching Experience

Psychology of Reading  
Adult Language Disorders  
Aging and Communication  
Language Learning Disabilities  
Research Methods

## EXTERNAL RESEARCH EVALUATION

---

### Membership on Research Grant and Scholarship Committees

Member of Peer Review Panel for the CDC Health Promotion and Disease Prevention Research Centers: Special Interest Project Competitive Supplements	2013
Ad Hoc Member of the Perception and Cognition Study Section Panel, National Institutes of Health	2000-2001
Member of the Behavioral Sciences Evaluation Committee for Research Grants, Medical Research Council of Canada (MRC)	1994-1997
Member of the Psychology and Linguistics Evaluation Committee for Team Research Grants, Le Fonds Pour La Formation du Chercheurs et l'Aide a la Recherche (FCAR)	1991-1994
Member of the Selection Committee for University Research Fellowships and Faculty Awards for Women, Natural Sciences and Engineering Research Council of Canada (NSERC)	1990-1993
Member of the Life Sciences Scholarships and Fellowships Committee Natural Sciences and Engineering Research Council of Canada (NSERC)	1989-1990
Member of the Basic Science Graduate Scholarship Committee, Le Fonds Pour La Formation du Chercheurs et l'Aide a la Recherche (FCAR)	1988-1990
Member of the Applied Science Graduate Scholarship Committee, Le Fonds Pour La Formation du Chercheurs et l'Aide a la Recherche (FCAR)	1987-1988

### Grant Reviews

Social Science and Humanities Research Council of Canada  
Natural Sciences and Engineering Research Council of Canada  
Medical Research Council of Canada  
Fonds de la Recherche en Sante du Quebec  
Le Fonds FCAR (Quebec)

### Journal Editorial Reviews

Memory and Cognition  
Journal of Experimental Child Psychology  
Language and Cognitive Processes  
Journal of Memory and Language  
Quarterly Journal of Experimental Psychology  
Cognitive Neuropsychology

Journal of Experimental Psychology: Learning, Memory and Cognition  
Speech and Language  
Journal of Speech Language Pathology and Audiology  
The Volta Review  
Canadian Journal of Behavioral Science

#### EXTERNAL FUNDING

---

**U.S. Department of Education: Institute of Education Sciences** 2010-2014  
Title: Assessment of Comprehension in Older Struggling Readers  
Principal Investigator: **G. Waters**, Co-investigator: D. Caplan  
Total Costs: \$1,597,063

**National Institute of Deafness and Communication Disorders (R21/R33)** 2009-2014  
Title: Theoretically Based Treatment for Sentence Comprehension in Aphasia  
Principal Investigator: S. Kiran, Co-PI's: D. Caplan, **G. Waters**  
Total Costs: \$2,234,980

**National Institute of Deafness and Communication Disorders (R01)** 2007-2010  
Title: Functional Neuroimaging Studies of Syntactic Comprehension  
Principal Investigator: D. Caplan, Co-investigator: **G. Waters**  
Total Costs: \$1,653,825

**U.S. Department of Education: Institute of Education Sciences** 2005-2009  
Title: Assessment of Comprehension in Older Struggling Readers  
Principal Investigator: **G. Waters**, Co-investigator: D. Caplan  
Total Costs: \$1,255,025

**National Institute of Aging (R01)** 2002-2007  
Title: Language Comprehension in Aging and AD  
Principal Investigator: **G. Waters**, Co-investigators: D. Caplan, N. Alpert  
Total Costs: \$1,753,976

**National Institute of Deafness and Communication Disorders (R01)** 2002-2007  
Title: Plausibility and Syntactic Processing Load  
Principal Investigator: N. Pearlmutter, Co-investigators: D. Caplan,  
**G. Waters**, P. Holcomb  
Total Costs: \$2,409,500

**National Institute of Deafness and Communication Disorders (R01)** 2002-2007  
Title: Sources of rCBF Effects in Syntactic Comprehension  
Principal Investigator: D. Caplan, Co-investigators: N. Alpert **G. Waters**  
Total Costs: \$950,386

**National Institute of Deafness and Communication Disorders (R01)** 2001-2006  
Title: Functional Neuroimaging Studies of Syntactic Processing  
Principal Investigator: D. Caplan, Co-investigator: **G. Waters**  
Total Costs: \$1,653,825

<p><b>National Institute of Deafness and Communication Disorders (R01)</b>  Title: An Investigation of the Trace Deletion Hypothesis  Principal Investigator: D. Caplan, Co-investigators: <b>G. Waters</b>, N. Alpert  Total Costs: \$606,300</p>	2000-2004
<p><b>National Institute of Aging (R01)</b>  Title: Sentence Processing in Aging and DAT  Principal Investigator: <b>G. Waters</b>, Co-investigators: D. Caplan, N. Alpert  Total Costs: \$1,247,695</p>	1997-2002
<p><b>National Institute of Deafness and Communication Disorders (R01)</b>  Title: Localization of Disorders of Syntax-Based Comprehension  Principal Investigator: D. Caplan, Co-investigators: <b>G. Waters</b>, N. Alpert  Total Costs: \$2,256,184</p>	1997-2002
<p><b>Medical Research Council of Canada</b>  Title: Working Memory Capacity and Language Comprehension in Parkinson's Disease  Principal Investigator: <b>G. Waters</b>  Total Costs: \$370,765</p>	1997-2000
<p><b>Natural Sciences and Engineering Research Council</b>  Title: The nature of the representations used in auditory-verbal short-term memory  Principal Investigator: <b>G. Waters</b>  Total Costs : \$160,000</p>	1996-2000
<p><b>Le Fonds de Recherche en Sante du Quebec (FRSQ)</b>  Title: Early diagnosis of Alzheimer's disease-- Multidisciplinary investigation of mild memory impairment in the elderly  Principal Investigators: H. Chertkow, D. Lorrain, <b>G. Waters</b>  Total Costs: \$134,532</p>	1997-1999
<p><b>Le Fonds FCAR</b>  Title: Selective impairments of the ability to abstract form and meaning  Principal Investigators <b>G. Waters</b>, S. Baum &amp; H. Chertkow  Total Costs: \$113,059</p>	1996-1999
<p><b>Medical Research Council of Canada</b>  Title: Working Memory and Language Comprehension  Principal Investigator: <b>G. Waters</b>  Total Costs: \$135,000</p>	1994-1997
<p><b>Alzheimer's Association of America</b>  Title: Cognitive and Positron Emission Tomography Studies in Alzheimer's Disease  Co-investigators: <b>G. Waters</b>, H. Chertkow  Total Costs: \$65,000</p>	1994-1997
<p><b>Le Fonds de Recherche en Sante du Quebec (FRSQ)</b></p>	1995-1997

Title: Early diagnosis of Alzheimer's disease-- Multidisciplinary investigation of mild memory impairment in the elderly  
Co-investigators: H. Chertkow, D. Lorrain, **G. Waters**  
Total Costs: \$150,000

**National Institutes of Aging**

Title: Processing resources and sentence comprehension in patients with DAT 1992-1996  
Principal Investigator: D. Caplan, Co: PI's **G. Waters** and J. Sherman  
Total Costs: \$890,723

**National Institute on Neurological Disease and Stroke**

Title: Neuropsychological models and focal CNS disease 1993-1997  
Principal Investigator: D. Caplan, Co: Investigator: **G. Waters**  
Total Costs: \$689,130

**Natural Sciences and Engineering Research Council of Canada**

Title: The nature of representations used in language processing 1993-1996  
Principal Investigator: **G. Waters**  
Total Costs: \$87,000

**Le Fonds FCAR**

Title: Selective impairments of the ability to abstract form and meaning 1993-1996  
Principal Investigators: **G. Waters**, S. Baum, H. Chertkow, & D. Bub  
Total Costs: \$264,000

**Le Fonds de Recherche en Sante du Quebec (FRSQ)**

Title: Early diagnosis of Alzheimer's disease 1993-1995  
Co-investigators: H. Chertkow, D. Lorrain & **G. Waters**  
Total Costs: \$150,000

**Medical Research Council of Canada**

Title: Disorders of syntactic comprehension 1991-1994  
Principal Investigator **G. Waters**; Co-investigator Dr. D. Caplan  
Total Costs: \$135,000

**Hoffmann-LaRoche Inc.**

Title: Cognitive studies of Lazabemide in Alzheimer's Disease 1993-1994  
Co-investigator with H. Chertkow  
Total Costs: \$75,000

**Natural Sciences and Engineering Research Council of Canada**

Title: An investigation of the processes used in single word reading and spelling: Insights from the congenitally deaf 1990-1993  
Principal Investigator: **G. Waters**  
Total Costs: \$74,460

**Alzheimer's Association of America** Investigator-Initiated Research Grant 1990-1993

Title: Processing resources in sentence comprehension in aging and dementia of the Alzheimer's type

Principal Investigator: **G. Waters**  
Total Costs: \$132,984

**Le Fonds FCAR** 1989-1992  
Title: The role of auditory verbal short-term memory in language comprehension  
Principal Investigators: **G. Waters**, S. Baum, T. Gallagher, K. Watkin  
Total Costs: \$88,500

**Medical Research Council of Canada** 1988-1991  
Title: Syntactic comprehension after brain damage and syntactic comprehension in aphasia  
Principal Investigator: **G. Waters**  
Total Costs: \$188,111

**Natural Sciences and Engineering Research Council of Canada** 1988-1990  
Title: Processes involved in word recognition and sentence comprehension  
Principal Investigator: **G. Waters**  
Total Costs: \$44,000

**Natural Sciences and Engineering Research Council of Canada** 1985-1988  
Title: The Acquisition of Spelling Skills in Children  
Principal Investigator: **G. Waters**  
Total Costs: \$48,000

**Fonds de la Recherche en Sante du Quebec** 1985-1988  
Title: An Investigation of the Reading Skills of the Congenitally Deaf  
Principal Investigator: **G. Waters**  
Total Costs: \$40,000

## PUBLICATIONS and PRESENTATIONS

---

### Peer-Reviewed Papers

Hoover, E.L., Caplan, D.N., Waters, G.S., Carney, A. (2016). Communication and quality of life outcomes from an interprofessional intensive, comprehensive, aphasia program (ICAP). **Topics in Stroke Rehabilitation**.

Caplan, D., Waters, G., Bertram, J., Ostrowski, A., Michaud, J, (2015) Effects of Written and Auditory Language Processing Skills on Written Passage Comprehension in Middle and High School Students, **Reading Research Quarterly**, 51(1), 67-92

Evans, W., Caplan, D., Ostrowski, A., Michaud, J., Guarino, A. J., Waters, G. (2015), Working Memory and the Revision of Syntactic and Discourse Ambiguities. **Canadian Journal of Experimental Psychology**

Hoover, W., Caplan, D., Waters, G., Budson, A (2014), Effects of Impairment-Based Individual and Socially-Oriented Group Therapies on Verb Production in Aphasia, **Aphasiology**

- Caplan, D. & Waters, G. (2013). Memory mechanisms supporting syntactic comprehension. **Psychon Bull Rev**, 20(2), 243–68.
- Caplan, D., Michaud, J., Hufford, R., Waters, G.S. (2013). Short-term memory and syntactic comprehension in aphasia. **Procedia Social and Behavioral Sciences**.
- Caplan, D., Waters, G. (2013) Working Memory and Sentence Comprehension, **Psychological Bulletin and Review**.
- Caplan D., Waters G.S., Howard, D. (2012). Slave Systems in Verbal Short Term Memory, **Aphasiology**, 26, 279-316(38).
- Levy, J., Hoover, E., Waters, G., Kiran, S., Caplan, D., Berardino, A., & Sandberg, C. (2012). Effects of Syntactic Complexity, Semantic Reversibility, and Explicitness on Discourse Comprehension in Persons With Aphasia and in Healthy Controls. **American Journal of Speech Language Pathology**, 21(2), S154-165. PMC3371337.
- Evans, W.S., Waters, G.S., & Caplan, D. (2011). Effects of concurrent arithmetical and syntactic complexity on self-paced reaction times and eye fixations. **Psychological Bulletin and Review**, 18(6), 1203-1211.
- Caplan, D., DeDe, G., Waters, G., Michaud, J., Tripodis, Y. (2011). Effects of Age, Speed of Processing and Working Memory on Comprehension of Sentences with Relative Clauses, **Psychology and Aging**, 26(2), 439-450.
- Caplan, D., DeDe, G., Waters, G., Michaud, J., Tripodis, Y. (2011). Effects of Age, Speed of Processing and Working Memory on Comprehension of Sentences with Relative Clauses, **Psychology and Aging**, 26(2), 439-450.
- McAllister, T., Bachrach, A., Waters, G., Michaud, J. & Caplan, D. (2009). Production and comprehension of unaccusatives in aphasia. **Aphasiology**, 23(7-8), 989-1004.
- Caplan, D., Chen, E. & Waters, G. (2008). Task-dependent and task-independent neurovascular responses to syntactic processing. **Cortex**, 44(3), 257-275.
- Caplan, D., Stanczak, L., Waters, G. (2008). Syntactic and thematic constraint effects on blood oxygenation level dependent signal correlates of comprehension of relative clauses. **J Cogn Neurosci**. 20(4), 643-56.
- Caplan, D., Waters, G., Dede, G., Michaud, J. & Reddy, A. (2007). A study of syntactic processing in aphasia I: behavioral (psycholinguistic) aspects. **Brain Lang**. 101(2), 103-150.
- Caplan, D., Waters, G., Kennedy, D., Alpert, N., Makris, N., Dede, G., Michaud, J. & Reddy, A. (2007). A study of syntactic processing in aphasia II: neurological aspects. **Brain Lang**. 101(2), 151-177.
- Caplan, D., Stanczak, L., Waters, G. (2007). Syntactic and thematic constraint effects on BOLD signal correlates of comprehension of relative clauses. **Brain and Language**, 103(1-2), 8-9.

- Chen, E., Caplan, D., West, W.C. & Waters, G.S. (2006). Determinants of BOLD Signal Correlates of Processing Object-Extracted Relative Clauses, **Cortex**, **42**, 591-604.
- Stanczak, L., Waters, G. & Caplan, D. (2006). Typicality-based learning and generalization in aphasia: two case studies of anomia. **Aphasiology**, **20**, 374-383.
- Caplan, D., Chen, E., Waters, G. & Robakis, D. (2005). Syntactic and semantic influences on BOLD signal responses to comprehension of relative clauses. **Brain and Language**, **95**, 72-73.
- Waters, G.S. & Caplan, D. (2005). The relationship between age, processing speed, working memory capacity and language comprehension. **Memory**, **13**, 403-413.
- Caplan, D., Waters, G., DeDe, G., Michaud, J. & Reddy, A. (2004). A Study of Syntactic Processing in Aphasia I: Behavioral (Psycholinguistic) Aspects, **Brain and Language**, **91**, 64-65.
- Caplan, D., Waters, G., Kennedy, D., Alpert, N., Makris, N., DeDe, G., Michaud, J. & Reddy, A. (2004). A Study of Syntactic Processing in Aphasia II: Neurological Aspects, **Brain and Language**, **91**, 66-67.
- DeDe, G., Caplan, D., Kemtes, K. & Waters, G.S. (2004). The relationship between age, verbal working memory, and language comprehension. **Psychology & Aging**, **19**, 601-616.
- Waters, G.S. & Caplan, D. (2004) The reliability and stability of verbal working memory measures. **Behavior Research Methods, Instruments, and Computers**, **35**, 550-564.
- Waters, G.S., & Caplan, D. (2004) Individual differences in working memory capacity and on-line syntactic processing: Evidence from self-paced listening. **Quarterly Journal of Experimental Psychology A**, **57**, 129-163.
- Waters, G.S., Caplan, D., & Yampolsky, S. (2003). On-line syntactic processing under a concurrent memory load. **Psychonomic Bulletin and Review**, **10**, 89-95.
- Waters, G.S., Caplan, D., Alpert, N. & Stanczak, L. (2003) Individual differences in rCBF correlates of syntactic processing in sentence comprehension: Effects of working memory and speed of processing. **Neuroimage**, **19**, 101-112.
- DeDe, G., Parris, D. & Waters, G.S. (2003). Teaching Self-Cues: A treatment approach for verbal naming. **Aphasiology**, **17**, 465-480.
- Caplan, D., Waters, G.S., & Alpert, N. (2003). Effects of age and speed of processing on rCBF correlates of syntactic processing in sentence comprehension. **Human Brain Mapping**, **19**, 112-131.
- Caplan, D. & Waters, G. (2003). On-line syntactic processing in aphasia: Studies with auditory moving window presentation. **Brain & Language**, **84**, 222-249.

- Waters, G.S., & Caplan, D. (2002). Verbal working memory and language comprehension. **Encyclopedia of Cognitive Science**. Nature Publishing Group, Macmillan Publishers, Basingstoke, England.
- Waters, G.S. & Caplan, D. (2002). Working memory and on-line syntactic processing in Alzheimer's disease: Studies with auditory moving windows presentation. **Journal of Gerontology: Psychological Sciences**, **57B**, 298-311.
- Caplan, D. & Waters, G.S., (2002). Working memory and connectionist models of parsing: A response to MacDonald and Christiansen. **Psychological Review**, **109**, 66-74.
- Caplan, D., Vijayan, S., Kuperberg, G., West, C., Waters, G., Greve, D., Dale, A.M. (2002). Vascular response to syntactic processing: an event-related fMRI study of relative clauses. **Human Brain Mapping**, **15**, 26-38
- Yampolsky, S. & Waters, G. (2002). Treatment of single word oral reading in an individual with deep dyslexia. **Aphasiology**, **16**, 455-471.
- Yampolsky, S., Waters, G., Caplan, D., Matthies, M., & Chiu, P. (2002). Effects of acoustic degradation on syntactic processing: Implications for the nature of the resource system used in language processing. **Brain and Cognition**, **48**, 617-625.
- Titone, D., Wingfield, A., Caplan, D., Waters, G., & Prentice, K. (2001). Memory and encoding of spoken discourse following right hemisphere damage: Evidence from the auditory moving window (AMW) technique. **Brain and Language**, **77**, 10-24.
- Waters, G.S. & Caplan, D. (2001). Age, working memory and on-line syntactic processing in sentence comprehension. **Psychology and Aging**, **16**, 128-144.
- Caplan, D. & Waters, G.S. (2001) Working memory and syntactic processing in sentence comprehension. **Bulletin of the Japanese Cognitive Science Society**, **8**, 10-42.
- Rochon, E., Waters, G.S., & Caplan, D. (2000). The relationship between measures of working memory and sentence comprehension in patients with Alzheimer's disease. **Journal of Speech, Language and Hearing Research**, **43(2)**, 395-413.
- Caplan, D., Alpert, N., Waters, G.S. & Oliveri, A. (2000) Activation of Broca's area by Syntactic Processing under conditions of concurrent articulation **Human Brain Mapping**, **9**, 65-71.
- Waters, G.S., Caplan, D. & Dufault, C. (2000). The relationship between working memory capacity and online sentence processing efficiency in patients with DAT. **Brain and Language**, **74(3)**, 332-334.
- Caplan, D., Vijayan, S., Kuperberg, G., et al. (2000). Localization of syntactic processing in sentence comprehension by event-related fMRI. **Brain and Language**, **74(3)**, 400-402.
- Kuperberg, G., Dale, A., Greve, D., et al. (2000). Neural activity during pragmatic and syntactic processing of sentences: Evidence from event-related fMRI and brain potentials. **Journal of Cognitive Neuroscience**, 46-47, Suppl. Meeting Abstract: 21B.

- Caplan, D. & Waters, G.S. (1999). Issues regarding general and domain-specific resources. **Behavioral and Brain Sciences**, **22**, 114-126.
- Caplan, D. & Waters, G.S. (1999) Verbal working memory and sentence comprehension. **Behavioral and Brain Sciences**. **22**, 77-126.
- Caplan, D., N., Alpert, N., & Waters, G.S. (1999). PET studies of sentence processing with auditory sentence presentation. **Neuroimage**, **9**, 343-351.
- Caplan, D., Alpert, N. & Waters, G. (1999). Brain organization for syntactic processing studied with positron emission tomography. **Journal of Cognitive Neuroscience**, **9**, Suppl.
- Caplan, D. & Waters, G. (1999). Online syntactic processing in aphasia: Studies with auditory moving window presentation. **Brain and Language**, **69**(3), 330-333.
- Caplan, D. Alpert, N. & Waters, G.S. (1998). Effects of syntactic structure and propositional number on patterns of regional cerebral blood flow. **Journal of Cognitive Neuroscience**, **10**, 541-552.
- Waters, G.S., Rochon, E., & Caplan, D. (1998). Task demands and sentence comprehension in patients with Dementia of the Alzheimer's Type. **Brain and Language**, **62**, 361-397.
- Caplan, D., Waters, G.S., & Hildebrandt, N. (1997). Determinants of sentence comprehension in aphasic patients in sentence-picture matching tests. **Journal of Speech Language and Hearing Research**, **40**, 542-555.
- Waters, G.S. & Caplan, D. (1997). Working memory and on-line sentence comprehension in patients with Alzheimer's disease. **Journal of Psycholinguistic Research**, **26**, 377-400.
- Leonard, C., Waters, G.S. & Caplan, D. (1997). The influence of contextual information on the resolution of ambiguous pronouns by younger and older adults. **Applied Psycholinguistics** **18**, 293-317.
- Leonard, C., Waters, G.S., & Caplan, D. (1997). The use of contextual information related to general world knowledge by right brain-damaged individuals in pronoun resolution. **Brain and Language**, **57**, 343-359.
- Leonard, C., Waters, G.S., & Caplan, D. (1997). The use of contextual information by right brain-damaged individuals in the resolution of ambiguous pronouns. **Brain and Language**, **57**, 309-342.
- Waters, G.S. & Caplan, D. (1997). The role of working memory in sentence processing: Evidence from Parkinson's disease. **Brain and Language**, **60**(1), 64-66.
- Caplan, D., Alpert, N. & Waters, G. (1997). Effects of syntactic structure and number of propositions on patterns of regional cerebral blood flow. **Brain and Language**, **60**(1), 66-69.

- Titone, D., Wingfield, A., Caplan, D., et al. (1997). Discourse encoding strategies of right hemisphere damaged patients. **Brain and Language**, **60**(1), 183-185.
- Waters, G.S. & Caplan, D. (1996). The capacity theory of sentence comprehension: Critique of Just and Carpenter (1992). **Psychological Review**, **103**, 761-772.
- Caplan, D. & Waters, G.S. (1996). Syntactic processing in sentence comprehension under dual-task conditions in aphasic patients. **Language and Cognitive Processes**, **11**, 525-551.
- Waters, G.S. & Caplan, D. (1996). Processing resource capacity and the comprehension of garden path sentences. **Memory and Cognition**, **24**, 342-355.
- Waters, G.S. & Caplan, D. (1996). The measurement of verbal working memory capacity and its relation to reading comprehension. **Quarterly Journal of Experimental Psychology A**, **49**, 51-79.
- Waters, G.S., Caplan, D. & Rochon, E. (1995). Processing capacity and sentence comprehension in patients with Alzheimer's Disease. **Cognitive Neuropsychology**, **12**, 1-30.
- Caplan, D. & Waters, G.S. (1995). Aphasic disorders of syntactic comprehension and working memory capacity. **Cognitive Neuropsychology**, **12**, 637-649.
- Caplan, D. & Waters, G.S. (1995). On the nature of the phonological output planning processes involved in verbal rehearsal: Evidence from aphasia. **Brain and Language**, **48**, 191-220.
- Caplan, D. & Waters, G.S. (1994). Articulatory length and phonological similarity in span tasks: A reply to Baddeley and Andrade. **Quarterly Journal of Experimental Psychology A**, **47**, 1055-1062.
- Caplan, D., Hildebrandt, N., & Waters, G.S. (1994). Interaction of verb selectional restrictions, noun animacy and syntactic form in sentence processing. **Language and Cognitive Processes**, **9**, 549-585.
- Caplan, D. & Waters, G.S. (1994). Syntactic processing in sentence comprehension by aphasic patients under dual-task conditions. **Brain and Language**, **47**(3), 397-399.
- Waters, G.S. & Caplan, D. (1994). Syntactic processing in sentence comprehension under dual-task conditions. **Brain and Language**, **47**(3), 515-518.
- Rochon, E., Waters, G.S. & Caplan, D. (1994). Sentence comprehension in patients with Alzheimer's disease. **Brain and Language**, **46**, 329-349.
- Chertkow, H.M., Bub, D., Waters, G., et al. (1993). Separate effects of instructions and stimuli on cerebral blood-flow - A O-15 positron emission tomographic study. **Neurology**, **43**(4), A189, Suppl. 2.
- Waters, G., Rochon, E., & Caplan, D. (1992). The role of high-level speech planning in rehearsal: Evidence from patients with apraxia of speech. **Journal of Memory and**

**Language, 31, 54-73.**

- Caplan, D., Rochon, E., & Waters, G.S. (1992). Articulatory and phonological determinants of word-length effects in span tasks. **Quarterly Journal of Experimental Psychology A, 45, 177-192.**
- Waters, G.S., Caplan, D., & Leonard, C. (1992). The role of phonology in reading comprehension: Implications of the effects of homophones on processing sentences with referentially dependent categories. **Quarterly Journal of Experimental Psychology A, 44, 343-372.**
- Chertkow, H., Hamel, E., Bub, D., et al. (1992). Increased anterior cingulate activation during cognitive processing in Alzheimer's disease patients. **Annals of Neurology, 32(2), 241.**
- Waters, G.S. (1992) Basic processes in reading visual word recognition - Besner, D., Humphreys, G.W. **Canadian Journal of Psychology-Revue Canadienne De Psychologie, 46(1), 138-141.**
- Waters, G.S., Caplan, D., & Hildebrandt, N. ( 1991) . On the structure of verbal short-term memory and its functional role in sentence comprehension: Evidence from neuropsychology. **Cognitive Neuropsychology, 8, 81-126.**
- Waters, G.S., Ahmad, M., Katsarkas, A., Stanimir, G., & McKay, J. (1991) Oxtocity due to Cis-diamminedichloroplatinum (II) in the treatment of ovarian cancer: influence of dosage and schedule of administration. **Ear and Hearing, 12, 91-102.**
- Bruck, M. & Waters, G.S. (1990). Effects of reading skills on component spelling skills. **Applied Psycholinguistics, 11, 425-437.**
- Rochon, E., Caplan, D., & Waters, G.S. (1990). Short-term memory in patients with apraxia of speech: Implications for the nature and structure of the auditory verbal short-term memory system. **Journal of Neurolinguistics, 5, 237-264.**
- Butler-Hinz, S., Caplan, D., & Waters, G.S. (1990 ). Characteristics of syntacticcomprehension deficits following closed head injury versus left cerebrovascular accident. **Journal of Speech and Hearing Research, 33(2), 269-280.**
- Waters, G.S., & Meaney, M.J. (1989). Peer commentary on "Exercises in Behavioral Explanation" by Gerald M. Siegel. **Journal of Speech Language Pathology and Audiology, 13, 10-11.**
- Seidenberg, M.S. & Waters, G.S. (1989). Reading eords sloud - A mega study. **Bulletin of the Psychonomic Society, 27(6), 489.**
- Waters, G.S., & Bruck, M. & Malus-Abramowitz, M. (1988). The role of linguistic and visual processes in spelling: A developmental study. **Journal of Experimental Child Psychology, 45, 400-421.**
- Bruck, M. & Waters, G.S. (1988). An analysis of the spelling errors of children who differ in their reading and spelling skills. **Applied Psycholinguistics, 9, 77-92.**

- Waters, G.S., Caplan, D., & Hildebrandt, N. (1987). Working memory and written sentence comprehension. **Attention and Performance XII**, 531-555.
- Hobbs, C., Crago, M. & Waters, G.S. (1987). The accuracy of parents and teachers judgment of Inuit children's hearing loss. **Human Communication Canada**, **11**, 13-16.
- Waters, G.S. (1987). Cognitive development in atypical children: A review. **Canadian Journal of Psychology**, **28**, 77-78.
- Waters, G.S., Komoda, M.K. & Arbuckle, T.Y. (1985). The effects of concurrent tasks on reading: Implications for phonological recoding. **Journal of Memory and Language**, **24**, 27-45.
- Waters, G.S., & Seidenberg, M.S. (1985). Spelling-sound effects in reading: Time course and decision criteria. **Memory and Cognition**, **13**, 557-572.
- Waters, G.S., Bruck, M. & Seidenberg, M. S. (1985). Do children use similar processes to read and spell words? **Journal of Experimental Child Psychology**, **39**, 511-530.
- Seidenberg, M.S., Waters, G.S., Barnes, M., & Tanenhaus, M.K.(1984). When does irregular spelling or pronunciation influence word recognition? **Journal of Verbal Learning and Verbal Behavior**, **23**, 383-404.
- Seidenberg, M.S., Waters, G.S., Sanders, M., & Langer, P. (1984). Pre- and post-lexical loci of contextual effects on word recognition. **Memory and Cognition**, 1984, **12(4)**, 315-328.
- Waters, G.S., Seidenberg, M.S., & Bruck, M. (1984). Children's and adults' use of spelling-sound information in three reading tasks. **Memory and Cognition**, **12(3)**, 293-305.
- Doehring, D.G., Backman, J., & Waters, G.S. (1983). Theoretical models of reading disabilities: Past, Present, and Future. **Topics in Learning and Learning Disabilities**, **3(1)**, 84-94.

### **Book Chapters**

- Traxler, M.J., Caplan, D., Long, D.L., & Waters, G.S. (in press). Working memory in sentence comprehension and production. In F. Columbus (Ed.), *Working Memory: Capacity, Developments, and Improvement Techniques*. Hauppauge, NY: Nova Science Publishers.
- Caplan, D. & Waters, G. (2006). Disorders of Aphasic Comprehension, in M. Traxler (Ed.), **Handbook of Psycholinguistics**.
- Caplan, D. & Waters, G.S., & DeDe, G. (2006). Specialized verbal working memory for language comprehension. To appear in A. Conway, C. Jarrold, M. Kane, A.Miyake, & J. Towse, (Eds.) **Variations in working memory**. Oxford University Press.
- Caplan, D. & Waters, G.S. (2006). Language disorders in aging. To appear in E. Bialystok & G. Craik (Eds.) **Lifespan Cognition: Mechanisms of Change**. Oxford University Press.

- Caplan, D., Alpert, N. & Waters, G.S. (2002). Brain organization for syntactic processing studied with Positron Emission Tomography. In A. Galaburda & S. Kosslyn (eds.) **The Languages of the Brain**, pp.57-68. Paris, Springer Verlag.
- Caplan, D. & Waters, G.S. (2000). Sentence comprehension in Alzheimer's disease. In L. Connor & L.K. Menn (Eds). **Neurobehavior of language and cognition: Studies of Normal Aging and Brain Damage**, pp. 61-76. Kluwer Academic Publishers, Boston, MA.
- Waters, G.S. & Caplan, D. (1999). Verbal working memory capacity and on-line sentence processing efficiency in the elderly. In S. Kemper & R. Kliegl (Eds.) **Constraints on language: Aging, Grammar, and Memory**, pp. 107-136. Kluwer Academic Publications; Boston/Dordrecht/London.
- Caplan, D. & Waters, G.S. (1999). Age effects on the functional neuroanatomy of syntactic processing in sentence comprehension. In S. Kemper & R. Kliegl (Eds.) **Constraints on language: Aging, Grammar, and Memory**, pp. 283-298. Kluwer Academic Publications; Boston/Dordrecht/London.
- Wingfield, A., Waters, G.S., & Tun, P. (1997). Does working memory work in language comprehension? Evidence from Cognitive Neuroscience. In N. Raz (ed.) **The Other Side of the Error Term: Aging and Development as Model Systems in Cognitive Neuroscience**, North-Holland, pp. 319-394.
- Waters, G.S. & Caplan, D. (1995). What the study of patients with speech disorders and of normal speakers tells us about the nature of verbal rehearsal. In R. Campbell and M. Conway (eds.), **Broken Memories**, Blackwell Publications, pp. 302-330.
- Caplan, D. & Waters, G.S.(1992) Issues arising regarding the nature and consequences of reproduction conduction aphasia. In S.E. Kohn (ed.) **Conduction Aphasia**, Lawrence Erlbaum, 117-149.
- Mayberry, R. & Waters, G.S. (1991). Children's memory for sign and fingerspelling in relation to production rate and sign language input. In P. Siple (ed.), **Theoretical Issues in Sign Language Research Vol. 2**. University of Chicago Press, pp. 211-229.
- Caplan, D. & Waters, G.S. (1990). The role of short-term memory in language comprehension: A critique of the neuropsychological literature. In T. Shallice & G. Vallar (eds.) **Neuropsychological impairments of short-term memory**. Cambridge University Press, pp. 337-389.
- Waters, G.S. & Doehring, D. (1990). Reading Acquisition in Congenitally Deaf Children who Communicate Orally: Insights from an Analysis of Component Reading, Language, and Memory Skills. In T. Carr & B.A. Levy (eds.) **Reading and Its Development: Component Skills Approaches**, Academic Press, pp. 323-373.
- Bruck, M. & Waters, G.S. (1990). An analysis of the reading skills of good readers-good spellers, good readers-poor spellers, and poor readers-poor spellers. In T. Carr & B.A. Levy (eds.) **Reading and Its Development: Component Skills Approaches**, Academic Press, pp. 161-202.

## Invited Presentations

Assessment of Reading and Language Skills in Middle and High School Students, **National Research Council**, Washington, D.C., September 2009.

The roles of general cognitive capacities and domain-specific skills in language comprehension, **Fondation Maison des Sciences de l'homme**, Paris, France, 2008.

Effects of Age, Working Memory and Speed of Processing on Language Comprehension, **Aging and Speech Communication Conference**, Bloomington, IN, 2007.

Sentence comprehension in normal aging and after neuropathology. Invited symposium paper to be presented at the **American Speech and Hearing Association**, Philadelphia, PA., November, 2004.

A Study of Syntactic Processing in Aphasia I: Behavioral (Psycholinguistic) Aspects, **Academy of Aphasia**, Chicago, October 2004.

A Study of Syntactic Processing in Aphasia II: Neurological Aspects, **Academy of Aphasia**, Chicago, October 2004.

Specialized verbal working memory for language comprehension. Invited presentation at the conference on **Variation in Working Memory**, University of Illinois at Chicago, August, 2003.

The Role of Broca's Area in Language Processing. Invited symposium paper presented at the **Academy of Aphasia**, Santa Fe, AZ., October, 1998.

How specialized is Working Memory? Evidence from Normals, Brain-damaged patients and Neuroimaging. Colloquium presented at the **Five Colleges Cognitive Science Series**, Amherst, MA., October, 1998

Fractionation of working memory. Colloquium presented in the Psychology Department, **Concordia University**, Montreal, October, 1998.

Working memory and sentence comprehension: Evidence from individual differences. Invited presentation at the Sedona conference on **Constraints on Language: Grammar, Memory and Aging** organized by the Virginia and Fred Merrill Advanced Studies Center, March, 1998, Sedona, Az.

Working Memory and Language Processing. Colloquium presented in the Psychology Department, **Bowdoin College**, Brunswick, ME, March, 1997.

Evidence for Multiple Working Memory Capacities in Language Comprehension. Invited Symposium paper presented at the **European Workshop on Cognitive Neuropsychology**, Bressanone, Italy, January, 1996.

Single or Multiple Working Memory Capacities? Evidence from patients and dual-task studies. Symposium paper presented at the **Psychonomics Society**, Los Angeles, CA., November,

1995.

Language Processing after Stroke and Dementia. Department of Speech Language Pathology, **Emerson College**, Boston, MA., January, 1994.

The Nature of the Processing Resource System used in Language Comprehension. Department of Psychology, **Brandeis University**, Waltham, MA., March, 1994.

What the study of patients tells us about the nature of the processing resource system used in language comprehension. Department of Speech Language Pathology and Audiology, **Northeastern University**, Boston, MA., March, 1994.

Language and memory in aging and dementia. Istituto di Gerontologia e Geriatria e Clinica Urologica, **Universita di Firenze**, Florence, Italy, May, 1993.

Short-term memory, processing capacity and language comprehension. Cognitive Science Group, **University of Arizona**, Tucson, Arizona, March, 1993.

Processing resources and language comprehension. Psychology Department, **University of Lancaster**, Lancaster, U.K., December, 1992.

The role of short-term memory in language comprehension. Psychology Department, **University College London**, London, U.K., November, 1992.

Short-term memory, processing capacity and sentence comprehension. Psycholinguistics Lab, **Birkbeck College**, London, U.K., November, 1992.

Language comprehension in Alzheimer's Disease. **MRC Applied Psychology Unit**, Cambridge, U.K., November, 1992.

The acquisition of literacy skills in congenitally deaf children. Behavioral Science Research Group, **The Hospital for Sick Children**, Toronto, Ontario, April, 1991.

The structure and role of auditory verbal short-term memory. Psychology Department, **Concordia University**, Montreal, April, 1991.

Processing resources and stages of sentence comprehension in patients with Alzheimer's disease. Psychology Department, **Concordia University**, Montreal, December, 1991.

Reading acquisition in congenitally deaf children who communicate orally: Insights from an analysis of component reading, language and memory skills. Psychology Department, **McMaster University**, Hamilton, Ontario, April, 1989.

On the nature and functional role of auditory verbal short-term memory in language comprehension. **Centre Hospitalier Cote des Neiges**, Laboratoire, Th. Alajouanine, Montreal, Quebec, April, 1989.

A review of the Neuropsychological case studies on the role of short-term memory in language comprehension. Paper presented as part of an invited symposium at the **Sixth**

**International Congress on Cognitive Neuropsychology**, Bressanone, Italy, January, 1988.

Component processes in reading and spelling. Neurolinguistics Laboratory, **Massachusetts General Hospital**, Boston, MA, March, 1988.

Factors influencing the acquisition of reading and spelling skills. Keynote speaker at Parents and Teachers Conference, **Landmark School for Learning Disabled Children**, Beverley, MA., March, 1988.

Short-term memory, language comprehension and apraxia of speech. Neuropsychology Interest Group, **University of Toronto**, Toronto, Ontario, November, 1988.

The role of short-term memory in automatic and controlled language processing. Paper presented with D. Caplan at a conference on **Neuropsychological Impairments of Short-term Memory**, Como, Italy, September, 1987.

Component processes in reading and spelling. Psychology Department, **Montreal Neurological Institute**, Montreal, November, 1987.

The role of the articulatory loop in reading. Psychology Department, **Montreal Neurological Institute**, Montreal, May, 1986.

Working memory and sentence comprehension. **Haskins Research Laboratories**, New Haven, Conn., June, 1986.

Working memory and written sentence comprehension. Paper presented at the meeting of **Attention and Performance XII**, London, England, August, 1986.

### **Papers Presented at Conferences**

Waters, G.S., Caplan, D., Michaud, J., and Bertram, J. Assessment of reading and listening comprehension in middle and high school students. **Society for the Scientific Study of Reading**, 2012, Montreal, Canada.

Waters, G.S. and Caplan, D. Factors predicting reading comprehension in middle and high school students. **Institute for Educational Sciences**, 2012, Washington, DC.

Hoover, E., Waters, G., Caplan, D., Carney, A. An Intensive Interdisciplinary Treatment Program for Individuals with Aphasia. Platform presentation at **American Speech-Language and Hearing Association**, 2012, Atlanta, GA.

Evans, WS, Caplan, D, and Waters, G. Effects of Age, Speed of Processing, and Working Memory on Processing of Pronominal Co--Reference and Attachment Ambiguity in Sentences. Poster presentation, annual **Cognitive Aging Conference**, 2012, Atlanta, Georgia.

Kiran, S, Caplan, D, Villard, S, Ascenso, E, & Waters, G. Effects of training sentence to picture matching and object manipulation to improve sentence comprehension in aphasia: acquisition and generalization. **Academy of Aphasia**, 2012, San Francisco, USA

- Hoover, E., Waters, G., Levy, J., Caplan, D., Kiran, S., Berardino, A., & Sandberg, C., Effects of Syntactic Complexity in Discourse Comprehension. **Clinical Aphasiology Conference**, 2011, Fort Lauderdale, FL.
- Evans, W.S., Waters, G., & Caplan, D. Obligatory Deep Processing: Task Effects in Sentence Reading During Eye Tracking. Abstract for poster presentation, annual **American Speech-Language-Hearing Association Conference**, 2011, San Diego, California.
- Evans, W.S., Waters, G., & Caplan, D. On-line Interaction of Mathematical and Syntactic Demand: Failure to Replicate. Abstract for poster presentation, 23rd annual **CUNY Conference on Human Sentence Processing**, 2010, New York, New York.
- Waters, G.S., Caplan, D., Michaud, J., and Bertram, J. Assessment of reading and listening comprehension in middle and high school students. **Society for the Scientific Study of Reading**, 2010, Berlin, Germany.
- Waters, G.S. and Caplan, D. Factors predicting reading comprehension in middle and high school students. **Institute for Educational Sciences**, 2010, National Harbor, MD
- Caplan, D., Waters, G., DeDe, G. & Michaud, J. Influence of Age, SOP, WM, and vocabulary on syntactic processing. **Cognitive Aging Conference**, 2010, Atlanta, GA.
- Evans, W. S., Waters, G.S., and Caplan, D. On-line interaction of mathematical and syntactic demand: Failure to replicate. **CUNY Sentence Processing Conference**, 2010, New York, NY.
- Waters, G.S. and Caplan, D. Determinants of discourse comprehension in middle and high school students. **Institute for Educational Sciences**, 2009, Washington, DC.
- Waters, G.S., Caplan, D., & Michaud, J. Factor analysis of reading skills in middle and high school students. **Psychonomic Society**, 2009, Boston, MA.
- Caplan, D., DeDe, G., Waters, G.S., & Michaud, J. Age-related changes in comprehension of sentences with relative clauses. **CUNY Sentence Processing Conference**, 2009, Davis, CA
- Caplan, D. and Waters, G.S. Assessment of middle school literacy. Presentation to the **Strategic Education Research Partnership**, 2008, Boston, MA
- Caplan, D., DeDe, G., Waters, G.S., Michaud, J., Gutman, R., & Liu, J. Rasch Models of Aphasic Syntactic Comprehension. **Psychonomic Society**, 2008, Chicago, IL.
- Caplan, D., Waters, G., & DeDe, G. Effects of Age, Working Memory, and Speed of Processing on Complex Syntactic Processing. **Cognitive Aging Conference**, 2008, Atlanta, GA.
- Caplan, D., Waters, G., & DeDe, G. Effects of Age, Working Memory, and Speed of Processing on Satisfied Goal Effects. **Cognitive Aging Conference**, 2008, Atlanta, GA.

- Caplan, D., Waters, G., & DeDe, G. Effects of Age, Working Memory, and Speed of Processing on Change of Co-Indexation of a Pronoun to an Unenforced Referent in Discourse Processing. **Cognitive Aging Conference**, 2008, Atlanta, GA.
- Caplan, D., Waters, G.S., Michaud, J., & Lee, J.M. BOLD Signal Response to Syntactic and Semantic Variables in Font Change Detection. **CUNY Sentence Processing Conference**, 2008, Chapel Hill, NC.
- DeDe, G., Caplan, D., & Waters, G. Effects of Age, Working Memory, and Speed of Processing on Recovery from Garden Path Effects in Early Closure Sentences. **Cognitive Aging Conference**, 2008, Atlanta, GA.
- Gould, J., Caplan, D., & Waters, G. The Formation of Elaborative and Bridging Inferences. **Psychonomic Society**, 2008, Chicago, IL.
- McAllister, T., Caplan, D. & Waters, G. Production and Comprehension of Unaccusatives in Aphasia. **Clinical Aphasiology Conference**, 2008, Jackson Hole, WY.
- Stanczak, L., Caplan, D., Peraltmutter, N., & Waters, G. Mechanisms Underlying Lexical and Syntactic Ambiguities. **CUNY Sentence Processing Conference**, 2008, Chapel Hill, NC.
- Waters, G.S., Caplan, D., & DeDe, G. Effects of Age, Working Memory and Speed of Processing on Syntactic Processing. **Psychonomic Society**, 2008, Chicago, IL.
- Waters, G.S. and Caplan, D. A Linguistic Computer-based Reading Battery. **Institute for Educational Sciences**, 2008, Washington, D.C.
- Waters, G.S., Caplan, D., & DeDe, G. Effects of Age, Working Memory, and Speed of Processing on the Repeated Name Penalty. **Cognitive Aging Conference**, 2008, Atlanta, GA.
- Waters, G.S., Caplan, D., & DeDe, G. Effects of Age, Working Memory, and Speed of Processing on Syntactic Processing Costs with Relative Clauses. **Cognitive Aging Conference**, 2008, Atlanta, GA.
- Waters, G.S. and Caplan, D. Computerized Psycholinguistic Assessment of Written and Spoken Language Skills in Middle School Students. **Institute for Educational Sciences**, 2007, Washington, D.C.
- Caplan, D., and Waters, G. Task and Strategy Effects in fMRI Studies of Syntactic Processing. **European Cognitive Neuroscience Society**, 2007, Bressanone, Italy.
- Caplan, D., and Waters, G. BOLD Signal Response to Implicit Syntactic Processing. **Cognitive Neuroscience Society**, 2007, New York, NY.
- Stanczak, L., Caplan, D., Waters, Babbett, L., Lee, J., Kuperberg, G., & Pearlmuter, N. BOLD Signal Correlates of Semantic Plausibility as a Function of Working Memory and Task Demand. **Cognitive Neuroscience Society**, 2007, New York, NY.

- Caplan, D., Stanczak, L., & Waters, G.S. Syntactic and Thematic Constraint Effects on BOLD Signal Correlates of Comprehension of Relative Clauses. **Academy of Aphasia**, 2007, Washington, D.C.
- Caplan, D., and Waters, G. BOLD Signal Response to Implicit Syntactic Processing. **Psychonomic Society**, 2007, Long Beach, CA.
- Stanczak, L., Waters, G., Pearlmutter, N., & Caplan, D. Frequency and Context Cues in Ambiguity Resolution as a Function of Working Memory Capacity. **Psychonomic Society**, 2007, Long Beach, CA.
- Waters, G.S., Caplan, D., & DeDe, G. Age, Working Memory, Speed of Processing and Sentence Processing Proficiency. **Cognitive Aging Conference**, 2006, Atlanta, GA.
- Waters, G.S. and Caplan, D. The Effect of Age on the Establishment of Pronominal Co-reference in Discourse Processing. **Cognitive Aging Conference**, 2006, Atlanta, GA.
- Caplan, D., Waters, G., Stanczak, L. Effects of Plausibility and Syntactic Structure on BOLD Signal. **Cognitive Neuroscience Society**, 2006, San Francisco, CA.
- Stanczak, L., Caplan, D., Waters. Differential Costs and Activations During Sentence Comprehension. **Cognitive Neuroscience Society**, 2006, San Francisco, CA.
- Waters, G.S. Language comprehension in Alzheimer's Disease, **Clinical Aphasiology Conference**, May, 2005, Sanibel, FL.
- Caplan, D., and Waters, G.S. Sentence Comprehension in Aphasia: Stability of Performance, **Clinical Aphasiology Conference**, May, 2005, Sanibel, FL.
- Caplan, D., Waters, G., Chen, E., Robakis, D. The Effect of Task on the BOLD Signal Localization of Syntactic Processing. **Cognitive Neuroscience Society**, March, 2005, New York, NY.
- Caplan, D., Waters, G., DeDe, G., Michaud, J., Reddy, A. Syntactic Processing in Aphasia. **Cognitive Neuroscience Society**, March, 2005, New York, NY.
- Caplan, D., Waters, G., DeDe, G., Michaud, J., Reddy, A. Syntactic Deficits in Aphasic Comprehension. **CUNY Sentence Processing Conference**, April, 2005, Tucson, AZ.
- Chen, E., West, C., Waters, G.S., & Caplan, D. Event-related Examination of Animacy Effects on the Localization of Syntactic Processing. **Cognitive Neuroscience Society**, March 2005, New York, NY.
- Stanczak, L., Caplan, D., Waters, G., Pearlmutter, N. Working Memory and Semantic Plausibility: An fMRI Study. **Boston University Science and Engineering Fair**, 2005, Boston, MA.
- Stanczak, L., Caplan, D., Waters, G. Inhibition of LIFG in Complex Syntactic Processing in Fast Sentence Processors. **Cognitive Neuroscience Society**, 2005, New York, NY.

- Chen, E., Caplan, D., West, W.C. Event-related examination of animacy effects on the localization of syntactic processing. **Cognitive Neuroscience-Society**, April, 2005, New York, NY.
- Caplan, D., Chen, E., West, W.C. The effect of task on the bold signal localization of syntactic processing. **Cognitive Neuroscience-Society**, April, 2005, New York, NY.
- Stanczak, L., Caplan, D. & Waters, G. Similar and different patterns of activation in fast and slow sentence processors: An fMRI study. **Cognitive Neuroscience-Society**, April, 2005, New York, NY.
- DeDe, G., Waters, G., Alpert, N. A study of syntactic processing in aphasia. **Cognitive Neuroscience-Society**, April, 2005, New York, NY.
- Pearlmutter, N., Stanczak, L., Caplan, D. Neural correlates of semantic plausibility in sentence comprehension with high and low working memory groups. **Cognitive Neuroscience-Society**, April, 2005, New York, NY.
- Stanczak, L., Waters, G., & Caplan, D. Effects of Typicality in single-Word Production, **Clinical Aphasiology Conference**, May, 2005, Sanibel, FL.
- Waters, G.S., Caplan, D., Gould, J. & Stanczak, L. The repeated name penalty in whole sentence presentation and self-paced reading. Presented at the **Psychonomic Society**, November, 2004, Minneapolis.
- Caplan, D., Waters, G.S., & DeDe, G. Syntactic Processing in Aphasia, Presented at the **Psychonomic Society**, November, 2004, Minneapolis.
- Chen, E., West, C., Waters, G.S., & Caplan, D. BOLD signal correlates of reduced and unreduced relative clauses. Poster to be presented at the **Cognitive Neuroscience Society**, April, 2004, San Francisco, CA.
- Waters, G.S., Caplan, D., Dufault, C., Michaud, J., & Reddy, A. Sentence processing in DAT: Evidence from on-line and off-line tasks. Poster to be presented at the **Cognitive Aging Conference**, April, 2004, Atlanta, GA.
- Parris, D., DeDe, G., & Waters, G.S. Written naming treatment to facilitate verbal naming in chronic aphasia. **American Speech-language Hearing Association**, November, 2003, Chicago, Illinois.
- Chen, E., Caplan, D., Waters, G.S., & West, C. An event-related fMRI examination of syntactic memory demands in the SO/OS contrast. **Cognitive Neuroscience**, March, 2003, New York, NY.
- DeDe, G., Caplan, D., & Waters, G.S., On-line sentence comprehension in aphasia during sentence-picture matching. **Clinical Aphasiology Conference**, May, 2003, Orcas Islands, WA.

- Waters, G.S. & Caplan, D., Specialization in working memory for aspects of sentence comprehension. Paper presented at the **International Conference on Short-term Memory**, July, 2002, Quebec, Canada.
- Waters, G.S. & Caplan, D. Working memory and on-line syntactic processing in Alzheimer's disease. Presented at the **World Federation of Neurology**, May 2002, Villefranche sur Mer, France.
- DeDe, G., Parris, D., & Waters, G.S. Teaching Self-Cues: A treatment approach for verbal naming. Paper presented at **Clinical Aphasiology Conference**, May 2002, Ridgedale, MO..
- Waters, G.S., DeDe, G., & Caplan, D. The structure of verbal working memory in young-young, young-old, and old-old individuals. Poster presented at the **Cognitive Aging Conference**, March, 2002, Atlanta, GA.
- Waters, G.S., & Caplan, D. Working memory capacity and sentence comprehension in young and old individuals and in patients with Alzheimer's disease. Poster presented at the **Cognitive Aging Conference**, March, 2002, Atlanta, GA.
- Caplan, D. & Waters, G.S. The functional neuroanatomy of syntactic processing in sentence comprehension in young and elderly individuals. **Cognitive Aging Conference**, March, 2002, Atlanta, GA.
- Caplan, D., Waters, G.S., & Stanczak, L. Individual differences in rCBF responses to syntactic processing. Paper presented at the **CUNY Sentence Processing Conference**, 2002.
- Waters, G.S., Caplan, D., & Yampolsky, S. Working memory and on-line syntactic processing. Paper presented at the annual meeting of the **Psychonomics Society**, November, 2001, Orlando, FL.
- Caplan, D., Waters, G.S., & Stanczak, L. Working memory effects on the functional neuroanatomy of syntactic processing. Paper presented at the annual meeting of the **Psychonomics Society**, November, 2001, Orlando, FL.
- Yampolsky, S. & Waters, G.S. Treatment of oral reading in a patient with Acquired Dyslexia. Poster presented at the **American Speech and Hearing Association**, November, 2000, Washington, D.C.
- Mayberry, R. Waters, G.S., and Chamberlain, C. Word recognition in deaf readers. Paper presented at the **Psychonomics Society**, November, 2000, New Orleans, LA.
- Caplan, D., Waters, G.S., & Alpert, N. Localization of syntactic processing in sentence comprehension. Paper presented at the **Psychonomics Society**, November, 2000, New Orleans, LA.
- Waters, G.S., Caplan, D., & Dufault, C. The relationship between working memory capacity and on-line sentence processing efficiency in patents with DAT. Poster presented at the **Academy of Aphasia**, November, 2000, Montreal, Quebec.

- Caplan, D., Vijayan, S., Kuperberg, G., West, C., Waters, G., Greve, D., Dale, A. Localization of syntactic processing in sentence comprehension by event-related fMRI. Poster presented at the **Academy of Aphasia**, November, 2000, Montreal, Quebec.
- Waters, G.S., Caplan, D., DeDe, G., & Kemtes, K. The relationship between processing speed, working memory capacity, and language processing in young and elderly subjects. Poster presented at **Cognitive Aging**, March, 2000, Atlanta, GA.
- Waters, G.S., & DeDe, G. The reliability and validity of operation span measures. Poster presented at **Cognitive Aging**, March, 2000, Atlanta, GA.
- Kuperberg, G., Dale, A., Greve, D., Eischl, B., Vijayan, S., Waters, G., Desikan, R., Rauch, S., West, C., Holcomb, P., & Caplan, D. Event-related fMRI reveals distinct patterns of neural modulation during semantic and syntactic processing of sentences. Paper presented at **Human Brain Mapping**, March, 2000.
- Caplan, D. & Waters, G.S. Functional neuroimaging studies of syntactic comprehension. Paper presented at the **CUNY Conference on Sentence Processing**, April, 2000, LaJolla, CA.
- Waters, G.S., Caplan, D., DeDe, G., & Kemtes, K. Operation span and language processing in young and elderly subjects. Paper presented at the **Psychonomics Society**, November, 1999, Los Angeles, CA.
- Caplan, D. & Waters, G.S. Brain organization for syntactic processing studied with Positron Emission Tomography, Invited Symposium Paper, **Cognitive Neuroscience Society**, March, 1999, Washington, D.C.
- Caplan, D., & Waters, G.S. On-line syntactic processing in Aphasia: Studies with Auditory Moving Windows Presentation. Paper presented at the **Academy of Aphasia**, October, 1999, Venice, Italy.
- Caplan, D., Alpert, N., Waters, G.S., & Oliveri, A. Activation of Broca's area by syntactic processing under conditions of concurrent articulation. **CUNY Conference on Sentence Processing**, March, 1999, New York, NY.
- Caplan, D., Alpert, N.M. & Waters, G.S. Localization of syntactic comprehension by Positron Emission Tomography. Poster presented at the **4th International Conference on Human Brain Mapping**, June, 1998, Montreal, Quebec.
- Waters, G.S., Caplan, D. & Pollock, S. The role of articulatory-phonological and lexical semantic factors in short-term memory span. Poster presented at the **International Conference on Short-term Memory**, June, 1998, Quebec, Quebec.
- Caplan, D. & Waters, G.S. Working memory and on-line sentence comprehension. Poster presented at the **International Conference on Short-term Memory**, June, 1998, Quebec, Quebec.
- Waters, G.S. & Caplan, D. Working memory capacity and language processing in aging. Paper presented at the **Cognitive Aging Conference**, April, 1998, Atlanta, GA.

- Caplan, D. & Waters, G.S. Working memory capacity and on-line sentence processing in Parkinson's disease. Poster presented at the **Cognitive Aging Conference**, April, 1998 Atlanta, GA.
- Caplan, D., Waters, G.S., & Alpert, N. Localization of syntactic processing in sentence comprehension in aging. Poster presented at the **Cognitive Aging Conference**, April, 1998 Atlanta, GA.
- Caplan, D., Alpert, N., & Waters, G. Brain organization for syntactic processing. **Conference on the Languages of the Brain**, March, 1998, Paris, France.
- Waters, G.S. & Caplan, D. Working memory capacity and on-line syntactic processing. Paper presented at the annual meeting of the **Psychonomics Society**, November, 1997, Philadelphia, PA.
- Caplan, D. & Waters, G.S. On-line measures of syntactic processing in aphasic patients. Paper presented at the annual meeting of the **Psychonomics Society**, November, 1997, Philadelphia, PA.
- Waters, G.S. & Caplan, D. The role of working memory in sentence processing: Evidence from Parkinson's disease. Paper presented at the annual meeting of the **Academy of Aphasia**, October, 1997, Philadelphia, PA.
- Caplan, D., Alpert, N., & Waters, G.S. Effects of syntactic structure and number of propositions on patterns of regional cerebral blood flow. Paper presented at the annual meeting of the **Academy of Aphasia**, October, 1997, Philadelphia, PA.
- Titone, D., Wingfield, A., Caplan, D., Waters, G.S., & Prentice, K. Discourse encoding strategies of right hemisphere damaged patients. Poster presented at the annual meeting of the **Academy of Aphasia**, October, 1997, Philadelphia, PA.
- Waters, G.S. & Caplan, D. Working memory capacity and sentence comprehension in Parkinson's Disease. Poster presented at the annual meeting of the **Psychonomics Society**, Chicago, IL., November, 1996.
- Waters, G.S. & Caplan, D. Syntactic processing in subjects with high and low working memory span. Paper presented at the annual meeting of the **Psychonomics Society**, Los Angeles, CA., November, 1995.
- Caplan, D. & Waters, G.S. Syntactic processing in sentence comprehension under dual-task conditions in aphasic patients. Paper presented at the annual meeting of the **Psychonomics Society**, Los Angeles, CA., November, 1995.
- Caplan, D., Waters, G.S., & Hildebrandt, N. Syntactic determinants of sentence comprehension in aphasic patients in sentence-picture matching tests. Paper presented at the annual meeting of the **Academy of Aphasia**, San Diego, CA, November, 1995.
- Waters, G.S., & Caplan, D. The Psycholinguistic Assessment of Language Battery: Preliminary Data. Paper presented at the **British Aphasiological Society**, York, England, September, 1995.

- Murtha, S., Chertkow, H., Waters, G.S., & Bergman, H. Working memory impairment in Dementia of the Alzheimer's type (DAT): Evidence against a single central executive. Paper presented at the 23rd annual meeting of the **International Neuropsychological Society**, Seattle, Washington, February, 1995.
- Murtha, S., Chertkow, H., Laurent, C. The nonunitary nature of the central executive (CE): Evidence from patients with dementia of the Alzheimer's type (DAT). **Theoretical and Experimental Neuropsychology Conference**, May, 1995, Montreal, Canada.
- Waters, G.S., & Caplan, D. The relationship between different measures of working memory capacity and reading comprehension abilities. Poster presented at the **Psychonomic Society** meeting, St. Louis, MI., November, 1994
- Waters, G.S. & Caplan, D. A separate processing resource system for syntactic processing: evidence from sentence comprehension under dual-task conditions in patients with Dementia of the Alzheimer type. Paper presented at the **International Conference on Working Memory**, Magdalene College, Cambridge, U.K., July, 1994.
- Waters, G.S. & Caplan, D. Syntactic processing in sentence comprehension under dual-task conditions. Poster presented at the **Academy of Aphasia**, Boston, Massachusetts, October, 1994.
- Caplan, D. & Waters, G.S. Syntactic processing in sentence comprehension by aphasic patients under dual-task conditions. Paper presented at the **Academy of Aphasia**, Boston, Massachusetts, October, 1994.
- Waters, G.S. & Caplan, D. Working memory and the comprehension of garden path sentences. Poster presented at the **Academy of Aphasia**, Tucson, Arizona, October, 1993.
- Rochon, E., Waters, G.S. & Caplan, D. Working memory and sentence comprehension deficits in patients with DAT. Poster presented at Memory in Normal Aging and Dementia, **The Rotman Research Institute of Baycrest Centre**, March, 1993.
- Leonard, C., Orchard, D., Waters, G.S., & Caplan, D. The role of phonology in reading: The case of deep and surface anaphora. Poster presented at the **CUNY Sentence Processing Conference**, March, 1993. Amherst, MA.
- Rochon, E., Waters, G.S. & Caplan, D. Sentence comprehension and dual-task performance as possible indicators of early DAT. Presented at **Canadian Psychological Association**, May, 1993, Montreal, Canada.
- Waters, G.S., Caplan, D., Rochon, E., & Waters, G. Two stages of sentence comprehension and their impairment in patients with Dementia of the Alzheimer's Type. Paper presented at the **Academy of Aphasia**, October 1992, Toronto, Canada.
- Waters, G.S., Caplan, D., Rochon, E., & Waters, G. Processing resources and stages of sentence comprehension in patients with Alzheimer's disease. Poster presented at **Attention: Theoretical and Clinical Perspectives**, March, 1992, Toronto, Canada.

- Caplan, D., Hildebrandt, N., & Waters, G.S. Effects of verb selectional restrictions on the construction of syntactic form. Paper presented at the **CUNY Sentence Processing Conference**, March, 1992.
- Chertkow, H., Hamel, E., Bub, D., Waters, G.S., Meyer, E., Evans, A., & Whitehead, V. Increased anterior cingulate activation during cognitive processing in Alzheimer's disease patients. **American Neurological Association**, 1992.
- Waters, G.S., Caplan, D., Rochon, E., & Waters, G. Processing resources and stages of sentence comprehension in patients with Alzheimer's disease. Poster presented at **Attention: Theoretical and Clinical Perspectives**, March, 1992, Toronto, Canada.
- Waters, G.S., Caplan, D., & Rochon, E. Processing resources and sentence comprehension in patients with dementia of the Alzheimer's type. **Academy of Aphasia**, October, 1991, Rome, Italy.
- Orchard, D., & Waters, G.S. The role of phonology in the comprehension of deep and surface anaphora. **Canadian Association of Speech Language Pathologists and Audiologists**, April, 1991, Montreal, Canada.
- Waters, G.S., & Rochon, E. The relationship between short-term memory and syntactic comprehension in the normal elderly. Paper presented at the meeting of the **Canadian Association of Speech Language Pathologists and Audiologists**, May, 1990, Vancouver, Canada.
- Rochon, E., & Waters, G.S. Short-term memory and language comprehension in early Alzheimer-type dementia. Paper presented at the meeting of the **Canadian Association of Speech Language Pathologists and Audiologists**, May, 1990, Vancouver, Canada.
- Rochon, E., Waters, G. & Caplan, D. The nature and structure of the auditory verbal Short-term memory system: Insights from patients with apraxia of speech. Paper presented at the **Seventh International Congress on Cognitive Neuropsychology**, January, 1989, Bressanone, Italy.
- Waters, G.S., Leonard, C., & Caplan, D. The role of phonology in reading: Implications for the presence of a homophone effect in processing sentences with gaps. Paper presented at the annual meeting of the **Eastern Psychological Association**, April, 1989, Boston, MA.
- Waters, G.S. Reading acquisition in the congenitally deaf: Insights from an analysis of component reading, language, and memory skills. Paper presented at the annual meeting of the **Canadian Association of Speech Language Pathologists and Audiologists**, May, 1989, Toronto, Canada.
- Butler-Hinz, S., & Waters, G.S. The role of visual and linguistic information in spelling in a case of acquired dysgraphia. Poster presented at the annual meeting of the **Canadian Association of Speech Language Pathologists and Audiologists**, May, 1989, Toronto, Canada.
- Waters, G.S., Rochon, E., and Caplan, D. Short-term memory processes in patients with apraxia of speech: Implications for the nature and structure of the auditory verbal short-term

- memory system. **International Conference on Cognitive Neuropsychology, British Psychological Society**, Harrogate, England, July, 1989.
- Seidenberg, M.S., and Waters, G.S. A mega-study of single word reading. Paper presented at the meeting of the **Psychonomics Society**, Atlanta, Georgia, November, 1989.
- Waters, G.S. A review of Neuropsychological case studies on the role of short-term memory in language comprehension. Paper presented at the **Sixth International Congress on Cognitive Neuropsychology**, Bressanone, Italy, January, 1988.
- Waters, G.S. & Caplan, D. The role of short-term memory in language comprehension: A Neuropsychological Case Study. Paper presented at the annual meeting of the **Canadian Association of Speech Language Pathologists and Audiologists**, Banff, Alberta, May, 1988.
- Rochon, E. & Waters, G.S. The role of speech-based information in short-term memory: Implications for patients with motor speech disorders. Paper presented at the annual meeting of the **Canadian Association of Speech Language Pathologists and Audiologists**, Banff, Alberta, May, 1988.
- Waters, G.S., Caplan, D., & Hildebrandt, N. On the nature and functional role of verbal short-term memory in sentence comprehension. Paper presented at the annual meeting of the **Academy of Aphasia**, Montreal, October, 1988.
- Butler, S., Caplan, D., & Waters, G.S. Characteristics of syntactic comprehension deficits following closed-head injury. Poster presented at the annual meeting of the **Academy of Aphasia**, Montreal, October, 1988.
- Bruck, M. & Waters, G.S. How to explain developmental spelling disabilities. Paper presented at the **Canadian Psychological Association**, Toronto, June, 1987.
- Caplan, D., Hildebrandt, N., and Waters, G.S. The role of the articulatory loop in sentence comprehension. Paper presented at the **Fifth European Workshop on Cognitive Neuropsychology**, Bressanone, Italy, January, 1987.
- Waters, G.S., & Bruck, M. Good and poor spellers use of phonological, orthographic, morphologic, and visual information in spelling. Paper presented at the **Society for Research in Child Development**, Baltimore, April, 1987.
- Mayberry, R. & Waters, G.S. Deaf children's recognition of written words: Is fingerspelling the basis? Paper presented at the **Society for Research in Child Development**, Baltimore, April, 1987.
- Waters, G.S. , & Bruck, M. An analysis of the reading and spelling skills of children with significant discrepancies in their reading and spelling abilities. Paper presented at the **Third World Congress on Dyslexia**, Crete, Greece, July, 1987.
- Caplan, D., & Waters, G.S. The role of short-term memory in automatic and controlled language processing. Paper presented at the conference on **Neuropsychological Impairments of Short-term Memory**, Como, Italy, 1987.

- Mayberry, R. & Waters, G.S. Children's memory for sign and fingerspelling. Paper presented at a conference on **Theoretical Issues in Sign Language Research**, Rochester, N.Y., June, 1986.
- Bruck, M., & Waters, G.S. Subtypes of poor spellers: A psychometric study. Paper presented at the **International Neuropsychological Society**, San Diego, February, 1985.
- Waters, G.S., Bruck, M., & Seidenberg, M.S. Do children use similar processes to read and spell words? Paper presented at the **Society for Research in Child Development**, Toronto, April, 1985.
- Waters, G.S., & Doehring, D.G. Factors related to the reading achievement of orally-trained deaf children. Paper presented at the **International Congress on the Education of the Deaf**, Manchester, England, August, 1985.
- Waters, G.S., & Seidenberg, M.S. Spelling-sound effects in reading: Time course and decision criteria. Paper presented at the **Canadian Psychological Association**, Ottawa, June, 1984.
- Seidenberg, M.S., & Waters, G.S. Pre- and post-lexical loci of context effects in word recognition. Paper presented at the **Canadian Psychological Association**, Ottawa, June 1984.
- Waters, G.S., Bruck, M., & Seidenberg, M.S. Children's use of spelling-sound information in reading and spelling. Paper presented at the **American Psychological Association**, Toronto, August, 1984.
- Waters, G.S., & Doehring, D.G. Reading skills of orally-trained hearing-impaired children. Paper presented at the **Boston Child Language Conference**, Boston, October, 1984.
- Waters, G.S., Morse, C., & Doehring, D.G. An analysis of the beginning reading skills of hearing and orally-trained hearing-impaired children. Paper presented at the **American Speech and Hearing Association**, San Francisco, November, 1984.
- Waters, G.S., & Seidenberg, M.S. Role of irregular spelling and pronunciation in two reading tasks. Paper presented at the **Eastern Psychological Association**, Philadelphia, March, 1983.
- Waters, G.S., & Seidenberg, M.S. Orthographic and phonological code activation in auditory and visual word recognition in good and poor readers. Paper presented at the **American Educational Research Association**, Montreal, April, 1983.
- Waters, G.S., & Seidenberg, M.S. Children's and adults' use of spelling-sound correspondences in three reading tasks. Paper presented at the **Society for Research in Child Development**, Detroit, April, 1983.
- Waters, G.S., Bruck, M., & Seidenberg, M.S. Cognitive processes in reading and spelling. Paper presented at the **Second World Congress on Dyslexia**, Halkidiki, Greece, June, 1983.

- Waters, G.S., Komoda, M.K., & Arbuckle, T.Y. Interference effects on reading: Implications for phonological recoding. Paper presented at the **Canadian Psychological Association**, Montreal, June, 1982.
- Seidenberg, M.S., Waters, G.S., Barnes, M., & Tanenhaus, M.K. Influence of irregular spelling and pronunciation on word recognition. Paper presented at the **Psychonomic Society**, November, 1982.
- Doehring, D.G., Backman, J., & Waters, G.S. Theoretical models of different types of reading disability. Paper presented at the **International Society for the Study of Behavioral Development**, Toronto, August, 1981.
- Waters, G.S., Komoda, M.K., & Arbuckle, T.Y. Phonological recoding in reading. Paper presented at the **Eastern Psychological Association**, Hartford, Conn., April, 1980.
- Waters, G.S., & Arbuckle, T.Y. Phonological recoding in reading Chinese. Paper presented at the **American Psychological Association**, Montreal, Quebec, September, 1980.
- Waters, G.S., & Komoda, M.K. The Word Superiority Effect in fluent and less fluent readers. Paper presented at the **Eastern Psychological Association**, Washington, D.C., March, 1978.