

The Experimental Psychology Bulletin

Division 3 of the American Psychological Association

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Division 3's mission is to promote scientific inquiry concerning perception, learning, memory, and cognition through research and teaching, and to support experimental psychology through advocacy and educational programs. We work closely with APA's Science and Education Directorates. Our membership consists of people who do basic and applied research concerning both human and non-human animal cognitive psychology. We also welcome members who do experimental work in developmental, social, and other areas. Many of our members are primarily teachers of psychology. Division 3 provides strong leadership in APA Council, representing members' views on training and federal funding, and on APA journal and publication policy.

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President's Column

Mark McDaniel is Professor of Psychology at Washington University in St. Louis. Professor McDaniel conducts research in the general area of human learning and memory. His most significant lines of work encompass several areas: prospective memory, encoding processes in enhancing memory, retrieval processes and mnemonic effects of retrieval, functional and intervening concept learning, and aging and memory. One unifying theme in this research is the investigation of factors and processes that lead to memory and learning failures. In much of this work, he has extended his theories and investigations to educationally relevant paradigms.



To begin, I would like to thank Karen Hollis for her wonderful service as Division 3 President in 2011-2012. One of her outstanding accomplishments was to secure funds for our mentoring program expenses for the 2012 Annual Convention in Orlando, Florida. We, in conjunction with Divisions 6 and 28, received a generous grant from the Committee on Division/APA Relations (CODAPAR), as well as supplemental funds from APA's Science Directorate, the National Institute on Drug Abuse, and from Mount Holyoke College (Karen's home institution), for an interdivisional program, "Increasing Diversity in Psychological Science through Mentoring." With these funds, we were able to make 12 awards to junior scientists (advanced graduate and postdoctoral students) representing Divisions 3, 6, and 28. In addition to attending several scheduled mentoring events during the convention, these scientists presented posters during a very well attended and highly spirited social hour involving the three divisions. It was a great success.

Much of the work that we have been engaged in since Orlando has focused on next year's meeting in Honolulu, Hawaii. In Orlando I met with Victor Benassi, President of Division 2 (Teaching of Psychology) and Dan Morrow, President of Division 21 (Human Factors) to discuss joint programming to coalesce around an overarching theme of the science of learning. This theme acknowledges one of our venerable foci in Experimental Psychology and articulates with exciting new research directions and applications which experimental psychologists are successfully pursuing with important outcomes. As part of this programming effort, we have developed three symposia on related themes. One is a science of learning and education symposium entitled, "Test-enhanced Learning: From Lab to Classroom," with Roddy Roediger as one of the participants. Another is "Gaming and Life-long Learning;" Art Kramer and Shawn Green are among the participants in this symposium.

The third is "Technological Innovations in Education," in which we plan to feature talks on computerized teachable agents (Betty's Brain), computer tutors, computerized "study buddies," and virtual reality simulations. As an innovative and fun companion to this last symposium, our co-program chairs, Gabe Cook and Paul Merritt, are scheduling a "demonstration hour" in which attendees can interact with these systems to gain first-hand experience with their capabilities. To link to these themes, my Division 3 presidential address will focus on translating memory and learning principles to their application in the classroom. Our intention is to provide a more extensive and future-oriented programming effort that will appeal to existing Division 3 members, will attract younger researchers who may become interested in Division 3, and will interest participation from many other divisions. In addition, Gabe and Paul are working assiduously to put together other sessions and symposia that will contribute to a broad Division 3 program for Honolulu, including **CONTINUED ON NEXT PAGE**

President's Column

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including symposia on prospective memory and metamemory. Along these lines, I will mention that Akira Miyake is the Division 3 invited speaker for the 2013 Spielberg EMPathy symposium at the Honolulu convention. The EMPathy symposium focuses on the interplay of emotion, motivation, and personality with other basic psychological processes. Akira's talk will be "Interactions between working memory and emotion, motivation, and personality: An individual differences perspective."

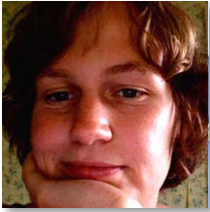
In other exciting news, at the Division 3 Executive Committee Meeting in Orlando we initiated a Division 3 life-time service award. Our new Awards Chair, Gil Einstein, put out a call for nominations for this award earlier in the fall. He has received a number of outstanding nominations. The awards committee will have a tough time deciding on the inaugural award winner, who will receive the award at the 2013 Conference and present an address. I would also like to thank Jason Hicks for serving as the Fellows Chair this year. Thanks to his efforts, I expect that Division 3 will have approval for several new Fellows at the upcoming convention. I would be remiss not to also express my deep appreciation to Veronica Dark for her years of service as Secretary/Treasurer of Division 3. This is Veronica's last year serving in this position, and she has done a stellar job.

That's it for now. I hope to see you at the Annual Convention in Hawaii next summer, and I wish you all a productive new year. Ψ

2012 New Investigator Awards

Thanks to Morton Ann Gernsbacher, Awards Chair

Journal of Experimental Psychology: Animal Behavior Processes



Elske van der Vaart – University of Groningen (elskevadv@ai.rui.nl)
van der Vaart, E., Verbrugge, R. & Hemelrijk, C. K. (2011). Corvid caching:
Insights from a cognitive model. *Journal of Experimental Psychology:
Animal Behavior and Processes*, 37, 330-340.


Journal of Experimental Psychology: Applied



David Cades – George Mason University; currently at Exponent
(dcades@exponent.com)

Cades, D. M., Boehm-Davis, D. A., Trafton, J. G., & Monk, C. A. (2011).
Mitigating disruptive effects of interruptions through training: What
needs to be practiced? *Journal of Experimental Psychology: Applied*,
17, 97–109.

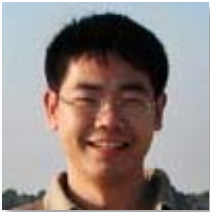
Journal of Experimental Psychology: General



Karl Healey – University of Toronto; currently at University of
Pennsylvania (healeym@sas.upenn.edu)

Healey, M. K., Hasher, L., & Danilova, E. (2011). The stability of working
memory: Do previous tasks influence complex span? *Journal of
Experimental Psychology: General*, 140, 573–585.

Journal of Experimental Psychology: Human Perception and Performance



Tao Gao – Zhejiang University; currently at MIT (taogao@mit.edu)

Gao, T., Gao, Z., Li, J., Sun, Z., & Shen, M. (2011) The perceptual root of
object-based storage. *Journal of Experimental Psychology: Human
Perception and Performance*, 37, 1803-1823.

Journal of Experimental Psychology: Learning, Memory, & Cognition Two awardees; split award



Daryl Fougny – Vanderbilt University; currently at Harvard University
(darylfougny@gmail.com)

Fougny, D., & Marois, R. (2011). What limits working memory capacity?
Evidence for modality-specific sources to the simultaneous storage of
visual and auditory arrays. *Journal of Experimental Psychology:
Learning, Memory, and Cognition*, 37, 1329-1341.



Adam Harris – University of Cardiff; currently at University College
London (adam.harris@ucl.ac.uk)

Harris, A J. L., & Corner, A. (2011). Communicating environmental risks:
Clarifying the severity effect in interpretations of verbal probability
expressions. *Journal of Experimental Psychology: Learning, Memory,
and Cognition*, 37, 1571-1578.

Congratulations to all!

Council Report

Thanks to Tom Zentall and Randy Engle, Division 3 Representatives, and Michael Domjan, Division 6 Representative

Some interesting facts about Council and APA: Council is made up of 175 members, representing 55 APA divisions and the psychological associations of each state, the US territories, and the Canadian provinces. Council approved the APA budget for 2012 which was over \$105 million. Of that only \$11.5 million comes from member dues. \$54.6 million of anticipated income in 2012 will come from licensing fees. APA charges a licensing fee for the use of various electronic products such as PsycInfo, PsycArticles, PsycBooks, PsycCritiques, PsycTests, PsycExtra, and PsycTherapy. Journal subscriptions provide \$12.2 million. Other sources of income are the sale of books (\$16 million), advertising (\$2.6 million), and the annual convention (\$2.9 million). One other source of income (\$3.5 million) is real estate holdings. APA owns two office buildings in Washington, D.C. One of them is purely an investment property and is fully leased. The other is the APA headquarters building, 50% of which APA occupies, with the rest leased to other entities. Thus, only a small proportion of the APA budget comes from dues. Among the various activities of APA the Science Directorate devotes considerable resources to the promotion and support of research in psychology.

In addition to approval of the budget there were two proposals made:

1. A proposal for members of the Canadian Psychological Association, who currently pay a dues rate of 50% of that paid by members who live in the United States, to either pay the full rate paid for by members who live in the United States or to become International Associates and thereby pay a lower rate. The rationale for the proposal was that no other group of psychologists qualifies for a such a discount. The rationale against it was that the Canadian Psychological Association has had an ongoing relationship with the American Psychological Association and they already pay for membership in a national organization and should not have to pay the full rate to belong to a second national organization. The motion did not pass. Thus, Canadian members of APA who belong to the Canadian Psychological Association will continue to pay dues at a rate lower than US members.

2. A proposal was made to limit the elected president of the APA to one term in a 10-year period. The rationale for this proposal was that young blood is needed in the organization and incumbents have an undue advantage when they run. The argument against the proposal was that limiting the options of the membership was not a good practice. Only two presidents have served more than one term: G. Stanly Hall and William James. Furthermore, until last year no president has been nominated to serve more than one term. The motion to limit service to one term passed and was sent in early November to the membership for a vote. A motion was made to not include a pro-con statement with the proposal sent to the membership. It was defeated.

Council met again at the annual meeting in Orlando in August. We will send you a report of that meeting soon. Ψ

Graduate Student Representative Column

Andrew Marshall is a third-year graduate student at Kansas State University. His research involves studying timing and probabilistic choice behavior.



Hello experimental psychologists in training! I hope the year is treating you well and that you are finding significant results in the direction that you predicted! Last time, I informed all of you that there would be a Division 3 Facebook page which could serve as a good source of information. It is up and running and I am hoping that you have had a chance to go on Facebook and click the thumbs-up “Like” button.

Most of the posts so far have been on behalf of APA Division 3, but it can also serve as a site on which you can post questions and comments. It would be wonderful to hear from you – what would make a graduate student affiliation most beneficial to you? How can such an affiliation be the best resource possible? Feel free to email me at atmarsh@k-state.edu or post on the Facebook wall at <https://www.facebook.com/apadiv3>. I’m looking forward to seeing what you have to suggest!

For those of you who attended the APA convention in Orlando, it was hopefully a wonderful conference for you. With the joinder of the Division 3 and Division 6 programs, this conference shaped out to be very fulfilling. And there were a bunch of student-specific events as well!

For those of you who have conferences and conventions approaching, it is always good to think about how you're going to make the most of the conference - what talks and posters you are going to go to, and what individuals you want to meet. For anyone’s first big convention, don’t be afraid to go to talks about topics you may not have found interesting, and don’t be afraid to talk to the big names in the field. At my first conference, I was star-struck by all the renowned psychologists walking around, those who have published several articles and have been cited hundreds and hundreds of times. It took some effort, but once you start talking to them, you will be surprised by how nervous you were (even though I still get a little star-struck). One of the best parts about attending conventions and conferences is the ability to meet these people whose work you frequently read about. From what I’ve learned from others and from experience, there is a quick three-step guide that will aid in such successful meetings – (1) introduce yourself, (2) tell them your history, such as who you work with now and where, and who you worked with before and where, and (3) ask them a question about their poster or talk that you just saw, or a question in general about their work. It is a great way to network and to develop potential relationships that may one day become collaborations. Good luck! Ψ



Report from the Secretary-Treasurer

Veronica Dark is Professor of Psychology at Iowa State University. Her research addresses a variety of questions concerning attention and working memory, including perception, selection, memory, and decision making as they relate to the current task and current state of awareness.

Minutes of Division 3 Business Meeting (August 5, 2012, Orlando, FL)

I. Call to order and approval of minutes

- A. President Karen Hollis called the meeting to order at 9:10. The meeting was held in Celebration Room 10 rather than Room 11 as originally scheduled.
- B. The minutes of the August 6, 2012 meeting in Washington, DC, were distributed. They were approved as distributed.

II. Announcements

A. Election Results

149 ballots were cast in the elections. The results were:

- Nancy Dess is President-elect for 2012-13
- Jonathan Crystal and Frank Farley become At-Large Members for 2012-15
- Karen Hollis is Council Rep (Jan 2013-Dec 2014)

B. Summary of Discussion/Action from Exec Committee (EC)

- The terms of office for the Early Career Representative and Newsletter Editor have been clarified. The former is a 1 year term with reappointment possible up to 3 years. The latter is a 3 year term subject to annual review at the APA convention and approval by the incoming Division 3 president. May be reappointed to a second 3 year term.
- A fall Newsletter should be out soon
- Dues remain at \$20

III. Report

A. Secretary-Treasurer Report (Veronica Dark)

Secretary-Treasurer Dark distributed the written report and gave a quick summary: General dues paying membership has declined but dues-exempt life status membership has increased. For the first time, we have more dues exempt than dues paying members. There is a net decrease of 36 members from 2011. Because of the scaled-back Division 3 activities at the 2011 convention, expenses were well under income. That is not likely to happen this year because of lower income and increased expenses. The discrepancy between dues income and expenses will be a discussion item at the meeting of the EC at Psychonomics.

B. New Investigator Award Winners for 2012

President Hollis announced six awards (see p. 5 of this issue)

C. Program Chair Report (Nancy Dess)

A program specifically for Division 3 was electronically distributed and was available at our sessions. We worked very closely with Division 6 and had many co-sponsored events with Divisions 1, 6, 28, and 40. Attendance varied but was acceptable in all cases. Attendance at the combined Division 3, 6, & 28 social hour, in which participants in the mentor program presented posters, was very well attended. A science social hour the night before the start of the convention also was well attended.

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Report from the Secretary-Treasurer

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The general poster session was Saturday 12-1:50. A raffle was set up during the poster session, but the way the venue was set up may have discouraged participation. All student first authored posters were evaluated by three judges. The winners were:

- 1st place went to Nathan A. Holtz, U of Minnesota Medical School, for the poster *Role of Sweet Preference and Orexin in Drug Addiction*
- 2nd place went to Anne S. Berry, U of Michigan, for the poster *Shifts from Endogenous to Exogenous Attention are Associated with Modulation of the P3C*

The judges recognized two additional posters with the designation of "Honorable Mention"

- Andrea H. Taylor & Sae Schatz, for the poster *DSCI-Mesh Solutions, An Empirical Study Comparing Stress Induction Methods in the Laboratory*
- Natalie E. Zlebnik, University of Minnesota, for the poster *Combined Exercise and Progesterone Treatments Decrease Cocaine Seeking in Female Rats*

IV. Business items

A. Bylaws change

A proposal, requested by APA, to allow either electronic voting or voting by mail for division elections was announced in an email to everyone on January 27, 2012. The changes have been posted on the website since that time. The Executive Committee did not receive any comments. There were no comments from the floor. The bylaws changes were approved without dissent.

B. Proposal to establish a Division 3 Lifetime Achievement Award

President Hollis presented the proposal submitted by Tom Zentall and amended by the Executive Committee. She noted that the Executive Committee recommended approving the proposal.

Division 3 Lifetime Achievement Award

Proposal Submitted by Tom Zentall; amended by EC

Rationale: Senior members of the division often stop coming to meetings. The Division and APA lose access to their continued contributions and to their wisdom. Their contributions should be honored.

Qualifications: The award is given to an individual who has made a continued and long-lasting contribution to the field of Experimental Psychology. It would honor a psychologist who has made distinguished theoretical or empirical contributions to basic research in psychology.

Award: The award would come with a plaque or a certificate but would not have a monetary value. It would come with an invitation to present the Life-Time Achievement Award Address as part of the Division program at the APA meeting. The plaque or certificate would be awarded at the Division Social Hour.

Mechanism:

September: The Secretary-Treasurer would solicit from the membership by email nominations for this award.

November: Nominators will submit to the Chair of the Awards Committee a letter of nomination together with a vita.

December: The Awards Committee will decide who the award winner will be.

January: Awardee will be announced and invited to the August APA meeting to give an address and receive the award (plaque or certificate).

Report from the Secretary-Treasurer

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David Washburn noted that the rationale indicated that the recipient should be a member, but membership was not part of the qualifications. There was some discussion about whether the qualifications should state that the recipient should be a member or fellow of Division 3. After discussion, it was decided to leave the qualifications as written, but to indicate in the call for nominations that preference will be given to nominees who are members or fellows of Division 3.

C. Business from the floor

President Hollis asked if there were any other business. There was none.

V. Change of leadership

- President Hollis turned the meeting over to new President Mark McDaniel.
- President McDaniel presented now past-President Hollis with plaque recognizing her service to the Division. He also recognized her leadership and constant presence at APA.
- There was a round of applause.

VI. Good of the order and adjournment

- Nancy Dess suggested that we need to start thinking of diversification in the division: 30 years from now, it cannot be mostly white male. She noted that there were several women in the mentoring program, but there was very little racial diversity.
- President McDaniel adjourned the meeting at 10:00am. **Ψ**

Changes to the Bylaws

Proposed by the Executive Board in November, 2012

Note: The changes below are proposed for a vote at the August 2013 business meeting. Any comments should be sent to Veronica Dark (vidark@iastate.edu) for distribution to the Executive Board.

Article II. Division Membership

Rationale for proposed changes to Article II: *The new wording clarifies the order in which approval is obtained and it deletes a vote of the fellows at the Business Meeting. This step has not been used for at many years. It also clarifies that the Council of Representatives has final approval.*

2. Fellows of the Division shall be persons who have been elected Fellows by the American Psychological Association, and who, in addition, satisfy the following requirements: (a) at least five years of experience in experimental psychology subsequent to the doctoral degree, (b) publication of significant contributions in the field of experimental psychology in addition to research carried out for the doctoral degree, (c) active engagement in research, and (d) at least one year of membership in the Division. The election of Fellows into the Division shall be upon recommendation by three Fellows of the Division, ~~nomination approval~~ by the Executive Committee, and approval by ~~a majority vote of the Fellows in attendance at the Business Meeting the Council of Representatives.~~

Article VII. Committees

Rationale for proposed changes to Article VII: *The new wording clarifies the procedure that is currently used. It was established by three years ago in order to have appointed members serve as chair along with the person who appointed them.*

2. The Fellowship Committee shall consist of three Fellows of the Division, serving staggered terms of three years. Each ~~incoming~~ President-Elect of the Division shall appoint one member ~~and designate who will serve as~~ the chairperson of the Committee when the President-Elect becomes President. It shall be the duty of this Committee to examine the qualifications of Members to become Fellows of the Division and shall recommend to the Division Executive Committee those Members who met the Fellowship requirements, as provided for in Article II, Section 2, of these Bylaws and in Article II, Section 3, of the Bylaws of the Association.

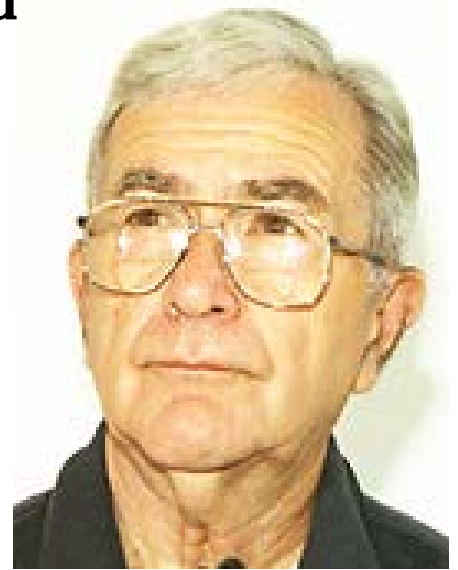
3. The Program Committee shall consist of three Members or Fellows of the Division, serving staggered terms of three years. Each ~~incoming~~ President-Elect of the Division shall appoint one member ~~and designate who will serve as~~ the chairperson of the Committee when the President-Elect becomes President. It shall be the duty of the Program Committee to make arrangements for the program of the annual meeting and any other meetings of the Division voted in accordance with the provision of Article VI of these Bylaws. Ψ

In Memory of David G. McDonald

1933-2012

Thanks to Steve Hackley and Nelson Cowan

Bringing the cognitive revolution to consummation was hastened by the construction of bridges that allowed many of the Behaviorists to cross over. David G. McDonald helped build one such bridge. His research on the orienting reflex formed a link between animal studies of habituation, classical conditioning, and overt orienting behavior, on the one side, and the emerging cognitive literature regarding covert attention, on the other. Using electrodermal, cardiovascular and EEG-desynchronization measures, he examined orienting responses within a variety of information processing contexts. Dave McDonald and his collaborators showed, for example, that reflexive attention to one's own name can occur during sleep (McDonald, Schicht, Frazier, Shallenberger & Edwards, 1975), that pre-habituation to task-irrelevant stimuli contributes to the subsequent ability to resist distraction (Waters, McDonald & Koresko, 1977), and that stimulus exposure after the point of habituation apparently fails to generate additional learning (Waters & McDonald, 1974). His clinically oriented research included experiments on the effects of daytime stress on the quality of sleep, systematic desensitization as a treatment for phobia, animal models of electroconvulsive therapy, and the psychological benefits of aerobic fitness training.



Dave shifted from research toward university service with a four-year term as chair of the Psychology Department, for which he was recruited from the School of Medicine (Psychiatry, 1963-1969). Notable achievements in this post include the hiring of Doug Anger (animal learning, from B.F. Skinner's lab) and Don Kausler (cognitive aging) and enhancement of the clinical training program. For the next 12 years, Dave held the position of Associate Dean of Arts and Science. His responsibilities included budgetary and personnel matters, space allocation, and implementing the college's new policy of assigning desktop computers to faculty. Dean Mike O'Brien lauded Dave's success in establishing an enduring atmosphere of trust and respect that made the work of his successors easier. Colleagues from the College of Arts and Sciences and the School of Medicine emphasized that Dave took the time to talk to people and find out what they needed to do their jobs. In recognition of his administrative skills, Dave also received interim appointments as Arts and Science Dean and Associate Vice President for Academic Affairs.

Dave returned to the Psychology Department in 1985 to devote more time to an enduring love, undergraduate education. Dave's passion for teaching was apparent to all who knew him, and was evident in the fact that he continued to teach large-enrollment classes even during the most demanding phases of his administrative career.

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In Memory of David G. McDonald 1933-2012

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By one estimate, Dave McDonald taught over 35,000 undergraduate students during his 46 years at MU (1963-2009). Students were encouraged to greet Professor McDonald outside of class with the refrain "Science of Behavior!" He encountered these happy reminders of a message well learned in diverse settings including, on one occasion, the Atlanta International airport.

Before coming to the University of Missouri-Columbia (1963), Dave was employed for three years at the institution where he earned his Ph.D. in Clinical Psychology, Washington University in St. Louis (1959). He also worked briefly at the U.S. Naval Health Research Center in San Diego in the early 1960s and mid-1980s, where he carried out sleep psychophysiology and aerobic fitness studies.

Dave's formidable energy and administrative talents were brought to bear in service to a number of professional organizations. He was one of the founders of the Society for Psychophysiological Research (1958), served as its 5th secretary-treasurer (1968-72), and was a consulting editor of its journal, *Psychophysiology* (1968-77). Dave was a member of Divisions 2, 3, 6, and 12 of the American Psychological Association. He joined the Sleep Research Society (then named the Association for the Psychophysiological Study of Sleep) during its first year of existence, 1962. He also held several official posts within the Missouri Psychological Association, including that of President (1969-70).

In addition to being an influential researcher, teacher, mentor, and administrator, Dave was a gifted photographer. His evocative landscapes are displayed throughout various buildings that comprise the Department of Psychological Sciences.

David George McDonald was born in 1933 in St. Louis, Missouri, to Merle (Lovelady) McDonald and George McDonald. His three marriages were to Barbara L. Eppard, Cindi McDonald, and Merete Woldseth. He had seven children and four grandchildren. He will be missed by many.

References

McDonald, D.G., Schicht, W.W., Frazier, R.E., Shallenberger, H.D., & Edwards, D.J. (1975). Studies of information processing in sleep. *Psychophysiology*, *12*, 624-629.

Waters, W.F., McDonald, D.G., & Koresko, R.L. (1977). Habituation of the orienting response: A gating mechanism subserving selective attention. *Psychophysiology*, *14*, 228-236.

Waters, W.F. & McDonald, D.G. (1974). Effects of "below-zero" habituation on spontaneous recovery and dishabituation of the orienting response. *Psychophysiology*, *11*, 548-558. Ψ