

**Instructor:** James Danckert  
Office: PAS 4040  
Ext. 37014  
Email : [jdanker@uwaterloo.ca](mailto:jdanker@uwaterloo.ca)  
Office hours : by appointment

**Time:** Fridays, 9:30 – 12:30 pm  
**Place:** PAS 4032

## Description:

Much of what we know about human behaviour has come from more than a century of single case studies – studies of individuals with unique or unusual pathologies. This honours level seminar will first examine the basic methodological approach used in single case studies and the limitations of those approaches before moving on to a more detailed examination of particular classic cases. The explicit intent of studying these cases will be to examine how the case informed our models of human behaviour with a view to exploring what advances have been made since that time.

*Key things to learn include:*

What makes a classic case, classic?

What is critical in single case methodology? What are the limitations of single case methodology?

How can classic cases enhance our understanding of the “normal” brain?

*Key skills to develop include:*

Presentation skills

Critical thinking

Guiding and participating in discussion

## Assessment:

After the first two weeks in which lectures on “How to give a good presentation”, “Single case methodology” and the first classic case “Paterson and Zangwill’s case of neglect” will be presented by the instructor, the class will consist primarily of student presentations and group discussions. Students will be required to make a number of presentations to the class (the number will depend on the final enrollment size). Presentations are based on the following sources:

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1. a specific classic case (taken from a chapter selected from the book Classic Cases in Neuropsychology, Code, C., Wallesch, C-W., Joannette, Y., & Roch Lecours, A. (Eds.) published in 1996 – photocopies of the chapters to be used will be available for students to make their own copies).
2. A more recent research case (must be a single case) relevant to the classic case.

In other words, one presentation involves exposition of a particular classic case whereas the other type of presentation explores how our models of the particular behaviour addressed by that classic case have advanced since by referring to more recent cases. For example, patient HM who underwent bilateral temporal lobectomy surgery as a treatment for medication resistant epilepsy was first studied in the 1950's. His case showed that memory can be fractionated into distinct systems some of which (implicit memory) do not rely so heavily on the medial temporal lobes. In this instance, the student presenting the classic case of HM would outline the original findings and the student presenting the modern case would explore how our models of memory functions have progressed or changed since the initial presentation of HM by reference to a more recent single case.

***Students should arrange to meet with the instructor shortly after they make their presentation to receive constructive feedback.***

Each class will involve two further components.

1. **Think-pair-share:** After presentation of the two cases students will spend 10 minutes (think time) considering specific questions related to the case. *It will be the responsibility of the presenter to raise specific questions for the rest of the group to consider.* Students will then work in pairs (or triplets depending on class size) to discuss their answers to the questions (this is the “pair” portion). Finally, one member of each pair will share their discussions with the rest of the group (a different person will do the “sharing” component each week).
2. **Minute papers:** At the end of each class I will give you one minute to answer a specific question regarding that day's class. The goal here is for you to focus on what you have just learned. I will provide small note cards for this exercise specifically intended to limit the amount of what you write and will give specific questions each week.

*Examples of questions for this component include: “What was today's take home message?” “What was the most confusing thing about today's topic” “What is your most pressing question, relevant to today's topic?” I will choose a specific question each week.*

Presentations will be worth 30% of the final grade. Class participation (determined by engagement with the Think-Pair-Share component and discussion with the main group) will be worth 25% of the total grade. The minute papers will count for a further 5% of the

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final grade. Finally, 40% of the total grade will come from a written assignment (details below). **The due date for the written assignment is Friday March 11<sup>th</sup>.**

### Grade Breakdown

In-class presentation	30%
In-class participation	25%
Minute papers	5%
Written Assignment	40%

### Bonus Marks

You can earn four percent (4%) in **bonus marks** from participation in experiments through the Research Experiences Group (see details below under **Research Experiences Group (REG) Participation in Psychology Research**). In this instance .5% can be earned by participating in one half hour experiment, so to get the full 4% you will need to complete 4 full hours of experiments (see details below).

### Written Assignment.

Students can choose one of the following two options for their written assignment:

#### *Option 1:*

Critique a modern (within the last five years) single case study. Try to include the following components:

- summarize the case and its major findings
- explore its historical antecedents
- what has this case added to the field?
- should it be considered a 'classic case'? why or why not?

#### *Option 2:*

Create your own (fictional) classic case. Your case should be one that provides key insights into the neuropsychological bases of a specific domain of functioning. Examples include (but are not restricted to):

- consciousness
- free will
- creativity
- motivation
- altruism
- memory
- attention
- language
- perception
- reasoning

Be sure to include the following in your (fictional) account:

- description of the illness and associated brain damage
- description of the tests used to highlight what was unique about your case
- impact of the findings on the field – i.e., why should your case be considered a ‘classic’?

For this option (admittedly the harder – but in my opinion more interesting – option) you must be careful to ground your fictional case study in reality. For instance, it will not be acceptable to talk about a patient with a frontal lesion who is now blind in one region of space (we know this to be extremely unlikely). So you have to create something that is surprising, yet informative and plausible.

I am happy to discuss plans for the assignment before it is due.

## Lecture and Presentation Schedule

### **Week 1      January 8th    Outline and Organisation**

I will also be giving a presentation here on how to make a good presentation – this is a must see if you want to get hints at how to impress later in the course.

### **Week 2      January 15<sup>th</sup>    Single Case History and Methodology**

**Paterson & Zangwill’s (1944) case of unilateral neglect. (CH 13)**

*I will present this case and the more recent work on neglect as an example of what I am expecting from student presentations.*

### **Week 3      January 22<sup>nd</sup>**

Broca’s first two cases: From bumps on the head to cortical convolutions.  
(CH 17)

### **Week 4      January 29<sup>th</sup>**

Charcot’s case of impaired imagery (CH 3)  
Bodamer on Prosopagnosia (CH 6)

### **Week 5      February 5<sup>th</sup>**

Poppelreuter’s case of Merk: The analysis of visual disturbances following a gunshot wound to the brain (CH 7)

### **Week 6      February 12<sup>th</sup>**

Balint-Holmes’ Syndrome (CH 10)

**Reading Week – February 15<sup>th</sup> – 19<sup>th</sup>**

- Week 7**      **February 26<sup>th</sup>**  
Monrad Krohn's Foreign Accent Syndrome Case (CH 12)
- Week 8**      **March 4<sup>th</sup>**  
Liepmann (1900 and 1905): A Definition of Apraxia and a Model of Praxis (CH 9)
- Week 9**      **March 11<sup>th</sup>    ESSAY DUE**  
Akelaitis' Investigation of the First Split-Brain Patients (CH 21)
- Week 10**     **March 18<sup>th</sup>**  
H.M.: The Medial Temporal Lobes and Memory (CH 23)
- March 25<sup>th</sup> – Good Friday Holiday**
- Week 11**     **April 1<sup>st</sup>**  
Phineas Gage: A Case for all Reasons (CH 18)
- Week 12**     **MONDAY April 4<sup>th</sup> (same time and room) – Note: this is a makeup class for missing Good Friday.**  
A psychosurgical chapter in the history of cerebral localization: The six cases of Gottlieb Burkhardt (1891) (CH 20)

## Academic Integrity

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#).

**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4.

**Appeals:** A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read [Policy 72 - Student Appeals](#).

**Other sources of information for students:**

[Academic Integrity website \(Arts\)](#)

[Academic Integrity Office \(UWaterloo\)](#)

## Accommodation for Students with Disabilities

**Note for students with disabilities:** The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

**If you are using Turnitin in your course<sup>1</sup>**

***Turnitin.com:*** Plagiarism detection software (Turnitin®) will be used to screen assignments in this course. This is being done to verify that use of all material and sources in assignments is documented. In the first week of the term, details will be provided about the arrangements for the use of Turnitin® in this course.

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<sup>1</sup> Note to instructors: students must be given a reasonable option if they do not want to have their assignment screened by Turnitin. See [Turnitin at Waterloo](#) for more information.

**Concerns About the Course or Instructor (Informal Stage)**

We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Studies (Richard Eibach from July 1, 2015 through June 30, 2016) is available for consultation and to mediate a resolution between the student and instructor. Contact information:

Richard Eibach Email: [reibach@uwaterloo.ca](mailto:reibach@uwaterloo.ca); Ph 519-888-4567 ext. 38790

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See [Policy 70](#) and [71](#) below for further details.

**Students requesting accommodation for course requirements (assignments, midterm tests, final exams, etc.) due to illness should do the following:**

- seek medical treatment as soon as possible and obtain a completed uWaterloo [Verification of Illness Form](#)
- submit that form to the instructor within 48 hours.
- (is possible) inform the instructor by the due date for the course requirement that you will be unable to meet the deadline and that documentation will be forthcoming.

In the case of a missed final exam, the instructor and student will negotiate an extension for the final exam which will typically be written as soon as possible, but no later than the next offering of the course.

In the case of a missed assignment deadline, midterm test, or quiz, the instructor will either:

1. waive the course component and re-weight remaining term work as he/she deems fit according to circumstances and the goals of the course, or
2. provide an extension.

**In the case of bereavement**, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.

Students who are experiencing extenuating circumstances should also inform their academic advisors regarding their personal difficulties.

**Official version of the course outline**

If there is a discrepancy between the hard copy outline (i.e., if students were provided with a hard copy at the first class) and the outline posted on LEARN, the outline on LEARN will be deemed the official version. Outlines on LEARN may change as instructors develop a course, but they become final as of the first class meeting for the term.

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**Cross-listed course (Note: only need to include this if your course is cross-listed)**

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSYCH cross-list will count in the Philosophy major average, even if the course was taken under the Psychology rubric.