Course Outline, Spring 2019 Instructor: James Danckert

Instructor: James Danckert

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Office hours: by appointment

Time: Wednesdays, 11:30 – 2:20 pm

Place: HH 138

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:

1. a specific classic case (taken from a chapter selected from the book <u>Classic Cases in Neuropsychology</u>, Code, C., Wallesch, C-W., Joanette, Y., & Roch Lecours, A.

Course Outline, Spring 2019 Instructor: James Danckert

(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 final grade. Finally, 40% of the total grade will come from a written assignment (details below). The due date for the written assignment is Wednesday July 3rd.

Course Outline, Spring 2019 Instructor: James Danckert

Grade Breakdown

In-class presentations	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	- memory
-	free will	- attention
-	creativity	- language
-	motivation	- perception
-	altruism	- 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

Course Outline, Spring 2019

Instructor: James Danckert

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 May 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 May 15th 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 May 22nd

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

Week 4 May 29th

Charcot's case of impaired imagery (CH 3)

Bodamer on Prosopagnosia (CH 6)

Week 5 June 5th

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

Week 6 June 12th

Balint-Holmes' Syndrome (CH 10)

Week 7 June 19th

Monrad Krohn's Foreign Accent Syndrome Case (CH 12)

Week 8 June 26th

Liepmann (1900 and 1905): A Definition of Apraxia and a Model of Praxis (CH 9)

Week 9 July 3rd ESSAY DUE

Akelaitis' Investigation of the First Split-Brain Patients (CH 21)

Course Outline, Spring 2019 Instructor: James Danckert

Week 10 July 10th

H.M.: The Medial Temporal Lobes and Memory (CH 23)

Week 11 July 17th

Phineas Gage: A Case for all Reasons (CH 18)

Week 12 July 24th

A psychosurgical chapter in the history of cerebral localization: The six

cases of Gottlieb Burkhardt (1891) (CH 20)

Course Outline, Spring 2019 Instructor: James Danckert

Mental Health Support

On Campus

- Counselling Services: counselling.services@uwaterloo.ca / 519-888-4567 xt 32655
- <u>MATES</u>: one-to-one peer support program offered by Federation of Students (FEDS) and

Counselling Services

• Health Services Emergency service: located across the creek form Student Life Centre

Off campus, 24/7

- <u>Good2Talk</u>: Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-433 ext. 6880
- Here 24/7: Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- OK2BME: set of support services for lesbian, gay, bisexual, transgender or questioning teens in

Waterloo. Phone: 519-884-0000 extension 213

For more information on mental health and wellness at UW consult the <u>website</u>. Download the <u>WatSafe app</u> to your phone to quickly access mental health support information.

University Regulations

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. See the <u>UWaterloo Academic Integrity webpage</u> and the <u>Arts Academic Integrity webpage</u> for more information.

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. For typical penalties check Guidelines for the Assessment of Penalties.

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 <u>Policy 70-Student Petitions and Grievances</u>, Section 4. When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72-Student Appeals.

Course Outline, Spring 2019 Instructor: James Danckert

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.