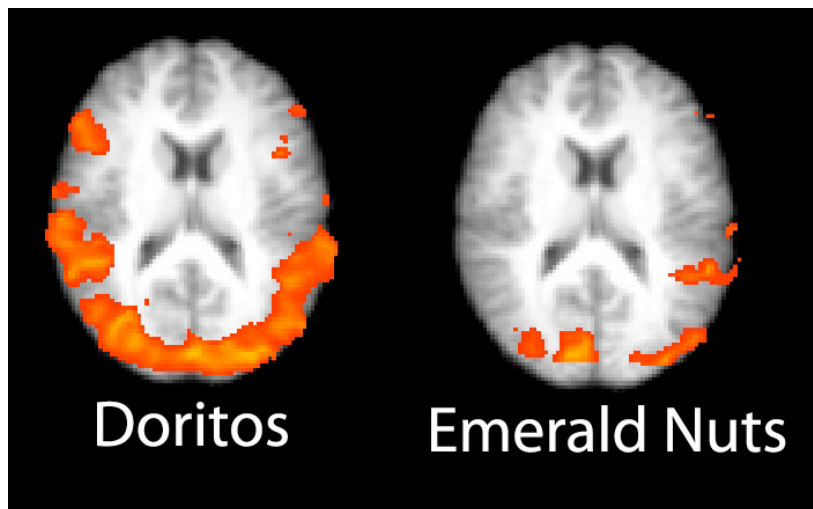


Biopsychology of consumer behaviour

Final year undergraduate elective course handbook, Winter Term 2009



Course Overview

Official Course Title: Biopsychology of consumer behaviour

Official Course Code: C8016

Course Organiser

This course is organised by Dr. Hans Crombag, a member of the Department of Psychology in the Behavioural and Clinical Neuroscience Research Group. The remainder of this document was prepared by Dr. Crombag and you are welcome to direct queries concerning the course to him during his office hours (Tuesday & Thursday 16:00 to 17:00) in JMS room 5D9, by phone (x8059) or by email (h.crombag@sussex.ac.uk).

Type of Course

Biopsychology of Consumer behavior is an elective 3rd year course for students interested in the intersection of Psychology and neurobiology. The course is open to students from disciplines other than psychology as well (e.g., neuroscience, human sciences and cognitive sciences) but assumes comprehensive understanding of brain-behaviour relations as taught in the Psychobiology and Brain & Behaviour courses in the 1st and 2nd year. It is available to Visiting and Exchange students from any School providing that they have an appropriate academic background.

Syllabus

The entry for Biopsychology of Consumer behaviour in the BSc Syllabus reads as follows:

Psychologists and behavioural neuroscientists have long been studying the behavioural and neurobiological processes involved in motivated and emotional behavior. Understandably, most of these efforts have been aimed at gaining better insights into pathological conditions such as eating disorders and addiction in the hope of developing therapeutic treatment strategies. In the process, we have learned a great deal about how organisms make decisions under 'normal' circumstances about what to pursue and consume, how learning and memory processes contribute to these decisions and what brain systems are involved. The broad intent of this course is to explore and integrate findings from human and non-human experiments that inform us about human consumer behavior and the psychological and neurobiological mechanisms involved. Using mostly primary research literature, we will discuss a range of topics relevant including behavioural economics, conditioned cues, choice determination, impulsivity, risk-taking behavior, scarcity, addiction, etc. Additionally, practical and ethical implications of applying psychological and neuroscience findings to understanding consumer behavior and marketing exploits (so-called neuromarketing) will be discussed.

Course Aims and Objectives

The aim of this course is to demonstrate how broad understanding of psychological and neurobiological bases of behaviour can be applied to economic (consumer) situations. In doing so, the course introduces you to a variety of different concepts in psychology and economics (e.g., decision making, conditioning, incentive learning, trust, impulsivity) and then explores the neurobiological bases of these. The course places a strong emphasis on using primary research findings (i.e., scientific articles) from basic and applied biopsychological research using human and non-human subjects.

Learning outcomes

The broad aim of the course is to explore how our understanding of the biological basis of behavior can be applied to understanding behaviours in economic (consumer) situations. After completing the course you should have obtained the following objectives:

- knowledge of key behavioural and psychological phenomena and concepts and their relevance to understanding consumer decisions in economic settings;
- knowledge of what neurobiological mechanisms are thought to underlie these behaviours and psychological processes;
- an understanding of the types of experimental approaches, methodologies, and findings that support this knowledge;
- An ability to critically read, discuss and present (both in oral and written form) primary research findings in the area of psychology and the neurobiological basis of behavior.

Core reading materials

There is no textbook for this course as no single book exists relevant to the course contents. Therefore, the readings (individual scientific articles) will be provided to you through the Study Direct website for the course. **Additionally, students are encouraged to conduct independent literature searches and reviews for relevant articles to supplement their readings for the seminar presentation.**

Web-based support

Copies of all course documentation, lecture slides and seminar readings will be available for download from the Study Direct course website.

Please check these pages regularly for updates, useful links and additional course information!

Seminars

There will be one 2 hr seminar each week that will take place in the Brighton & Sussex Medical School (BSMS) Building, Seminar room-3.07B on Wednesdays from 11:00-13:00. Of course, all this information will also be available on your Sussex Direct page. The seminars will involve reading and critical evaluation of scientific research reports (short reviews, theory papers and/or research articles). The articles will be made available in advance of the seminars via Study Direct for downloading. The table below summarises course organisation and the topics of the seminars. Please note that changes may occur in the content.

Week	Topic
1	Introduction and overview

Week	Topic
2	Consumer behavior and neuroeconomics
3	Decision making and risk taking
4	Classical conditioning and incentive motivation
5	Pleasure: hedonism
6	Emotion
7	Trust and Reciprocity
8	Impulsivity
9	Habit, value and addiction
10	Ethics: Neuromarketing and Neuropolicy

Course Requirements.

As with other Sussex courses, all seminars are compulsory and assessments will include materials from all teaching sessions.

Course Assessment

1. Open book examination (60%). Sixty percent of your final grade will be determined by how well you do on a 2 hr open-book exam during the summer term (specific date and time to be determined). This exam will consist of essay questions based on the seminar readings.

2. Coursework (40%): The remaining 40% of your final grade will come from coursework performance which, in turn, consists of two parts:

- **Oral reports** (10% each): The first part consists of a set (2) of seminar presentations on one of the seminar readings that will be assessed for understanding, presentation style and skills (quality of slides, ability to simplify and communicate). The criteria for assessment of oral presentation is included at the end of this handbook. Thus, each of you will be required to do 2 separate short oral presentations during the seminars, summarizing and discussing one of the scientific readings for the week. Each oral

presentation should be between 10-15 minutes each and you should make use of slide presentation software (e.g., Powerpoint or Keynote). Whilst there is no maximum number of slides that you are able to present, a general rule of thumb is that you should not have more slides than you have minutes. Thus, for a 10 min presentation, the number of slide should not exceed 10 (of course, this is merely a guideline). The slides from each presentation will be posted on the Study Direct website for others to access in preparation for the final exam. The oral presentations will follow the same structure as the written assignments (see below)

- **Written reports** (5% each). The second part consists is 4 short summaries/commentaries, of between 400-500 words each, on 4 seminar readings of your choosing. The summaries can be handed in at the beginning of each seminar and should contain your candidate number (no names, please). The structure and content of the written report follow. As part of the summary, you are expected to formulate 3 questions/critiques about the research presented in the article that you can pose to the presenter and/or the group. These questions can pertain to any aspect of the research/article. For instance, they can relate to the methodology and procedures, meaning and interpretation of the findings, relevance of the findings etc. The intent of the questions is to aid the conversation following each presentation and to help the group better understand the articles.

It is important that you realize that all students are require to read ALL the seminar readings in preparation for each seminar as the final exam materials is based on the ALL seminar readings. This way you are able to partake in the discussions during the seminars and activity engage with the exam materials and fully understand the critical findings and issues.

Coursework Assessment Deadlines

We will determine the dates of the 2 oral seminar presentations during our first seminar meeting. The deadlines for the submission of the 4 article summaries/commentaries are of your own choosing but it is critical that you spread these over the term so you will not be forced to do most of the coursework at the end of term. The open book examination will be based on essay questions covering the full range of course content (lectures and seminar readings). **Past papers are not available.**

Basic structure of oral and written reports

Each of you will be required to submit 4 written summaries (1/seminar), each between 400-500 words in length, describing and critically analyzing the contents of 1 of the papers read for the seminars. Additionally, you will give 2 separate oral presentations of 2 of the seminar readings. Both the written and oral summaries should address the following questions.

a. What questions does the paper address?

What are these questions? In a well-written paper, the Introduction generally goes from the general to the specific, eventually framing a question or set of questions. This is a good starting place. In addition, the results of experiments usually raise additional

questions, which the authors may attempt to answer. These questions usually become evident only in the Results section.

b. What are the main conclusions of the paper?

This question can often be answered in a preliminary way by studying the abstract of the paper. Here the authors highlight what they think are the key points. This is not enough, because abstracts often have severe space constraints, but it can serve as a starting point. Still, you need to read the paper with this question in mind.

c. What evidence supports those conclusions?

Generally, you can get a pretty good idea about this from the Results section. The description of the findings point to the relevant tables and figures. This is easiest when there is one primary experiment to support a point. However, it is often the case that several different experiments or approaches combine to support a particular conclusion. For example, the first experiment might have several possible interpretations, and the later ones are designed to distinguish among these.

In the ideal case, the Discussion begins with a section of the form "Three lines of evidence provide support for the conclusion that... First, ...Second,... etc." However, this may not always be the case, simply because the authors chose a different style/structure or because the paper is poorly written. In that case, you are left to formulate the critical evidence in support of their conclusions yourself. Either way, you need to be sure that you understand the relationship between the data and the conclusions.

d. Do the data actually support the conclusions?

One major advantage of doing this is that it helps you to evaluate whether the conclusion is sound. If we assume for the moment that the data are believable (see next section), it still might be the case that the data do not actually support the conclusion the authors wish to reach. There are at least two different ways this can happen:

- i. The logical connection between the data and the interpretation is not sound
- ii. There might be other interpretations that might be consistent with the data.

One important aspect to look for is whether the authors take multiple approaches to answering a question. Do they have multiple lines of evidence, from different directions, supporting their conclusions? If there is only one line of evidence, it is more likely that it could be interpreted in a different way; multiple approaches make the argument more persuasive.

Another thing to look for is implicit or hidden assumptions used by the authors in interpreting their data. This can be hard to do, unless you understand the field thoroughly.

e. What is the quality of that evidence?

This is the hardest question to answer, for novices and experts alike. At the same time, it is one of the most important skills to learn as a young scientist. It involves a major reorientation from being a relatively passive consumer of information and ideas to an

active producer and critical evaluator of them. This is not easy and takes years to master. Beginning scientists often wonder, "Who am I to question these authorities? After all the paper was published in a top journal, so the authors must have a high standing, and the work must have received a critical review by experts." Unfortunately, that's not always the case. In any case, developing your ability to evaluate evidence is one of the hardest and most important aspects of learning to be a critical scientist and reader.

f. Why are the conclusions important?

Do the conclusions make a significant advance in our knowledge? Do they lead to new insights, or even new research directions?