



Faculty of Business, Law and Social Sciences

Proposed Title:

Examining the time course and neural events of sentences which convey implicit meaning

School:

School of Social Sciences

Proposed Supervisory Team:

Jeffrey Wood (supervisor)
 Paraic Scanlon (supervisor)
 Emma Bridger (supervisor)
 Craig Jackson (advisor)

Abstract:

Conditional statements of the form *if p, then q* can be used to convey information on how the world could have been, how it is and how it could be. These statements, therefore, lead the reader to consider hypothetical situations about the world. For example, the statement *if you take part in my study, then I will pay you five pounds* invites the reader to entertain a hypothetical world where the addressee took part in the study, in order to evaluate the probability the addressee would be given five pounds. Traditionally, research on conditionals has been studied using offline tasks with abstract materials where participants are asked to draw conclusions from simple context independent conditional rules (e.g. *if there is an A, then there is a 2*; there is an A, what can you conclude?). This project will build on recent work studying contextualised conditionals which utilise wider pragmatic information, such as implicit meaning (e.g. *if you call me at home again, then you'll get the sack*). It is likely to involve a series of empirical investigations designed to provide key theoretical insights into how readers make sense of meaning in these conditionals, using a combination of electroencephalography (EEG), eye-tracking and behavioural experiments. Work of this kind is critical if we are to develop a complete picture of how people process conditionals in everyday contexts, rather than in offline forced choice situations. This is especially important given that conditionals are used in many applied fields, such as health (e.g. *if you don't lose weight, then you'll get diabetes*), legal (e.g. *if you don't turn up for court on your due date, then you'll be sent to jail*) and everyday situations (e.g. *if you do your homework, then you can play out later*).

Research Environment:

The research will use a variety of lab based testing methods including EEG and eye-tracking to look at the time course of reading for sentences which convey implicit meaning. This will use existing equipment within the department and will be conducted alongside other researchers working on projects requiring similar levels of technical expertise. There are also two dedicated technicians within the department who have expertise in the equipment, which will be used in this project and will be on hand to assist with any technical issues with the eye-tracker or EEG equipment. This will enable students to feel fully supported in using these pieces of equipment for the projects on this PhD.

Applicant Requirements:**Essential:**

BSc Psychology (Hons) Degree (2:1)
Computer proficiency (Microsoft office, SPSS)
Good communication skills
Good writing ability
PG Cert or willingness to gain
Undergraduate level quantitative statistical analysis
Effective oral and written communication skills
Ability to work as a member of a team with shared goals
Interpersonal skills: ability to relate to others with tact and diplomacy

Desirable:

First Class BSc Psychology (Hons) degree
MSc in Health Psychology, Psychological Research Methods, Public Health (or similar)
Programming experience with Experimental Psychological Software (E-Prime, MATLAB, Inquisit, R, etc.)
Experience with EEG and eye tracking equipment
Experience conducting psychological experiments
Postgraduate/advanced level quantitative statistical analysis

Contact: Name, e-mail and telephone number:

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