

Abstract

- Diagnostic errors could be linked to cognitive biases (eg confirmation, overconfidence).
- Past work shows a gap between confidence and competence during diagnosis (Meyer et al, 2013).
- Overconfidence linked to insufficient patient management (Kovacs, Lagarde & Cairns, 2020).

This PhD project aims to understand the psychological mechanisms of the diagnostic process and how information seeking until the point that a clinician is ready to treat a patient could impact decision confidence.

Introduction

1. What are the properties of the diagnostic process with regards to information seeking and confidence?
2. Are differences in information seeking patterns different for high vs low ability clinicians?
3. How do clinicians vary in their reasoning process when generating differentials/hypotheses?

Methods

This study used 6 patient vignettes adapted from real patient cases (Friedman, 2004). UK Medical Students (N = 85) gathered information in three stages: Patient History, Physical Examination and Testing. At each stage, they updated the possible diagnoses/differentials under consideration for that patient case, as well as their confidence in treating the patient. For each differential, students report how severe the condition would be for the patient (Low, Medium, High or Emergency) and how likely that differential is (on a scale of 1-10).

Results

- Accuracy and confidence were fairly well calibrated across the information stages.
- Medical students did not narrow their differentials but rather broadened their considered differentials with more information.
- Higher accuracy participants sought more relevant information and more similar information per case.
- Accuracy is not associated with the amount of information seeking, but confidence is.

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Table 1: Table caption.

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width
5.1	3.5	1.4	0.2

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width
4.9	3.0	1.4	0.2
4.7	3.2	1.3	0.2
4.6	3.1	1.5	0.2
5.0	3.6	1.4	0.2
5.4	3.9	1.7	0.4
4.6	3.4	1.4	0.3
5.0	3.4	1.5	0.2
4.4	2.9	1.4	0.2
4.9	3.1	1.5	0.1

Or with figures: Figure [??](#), or Figure [1](#).

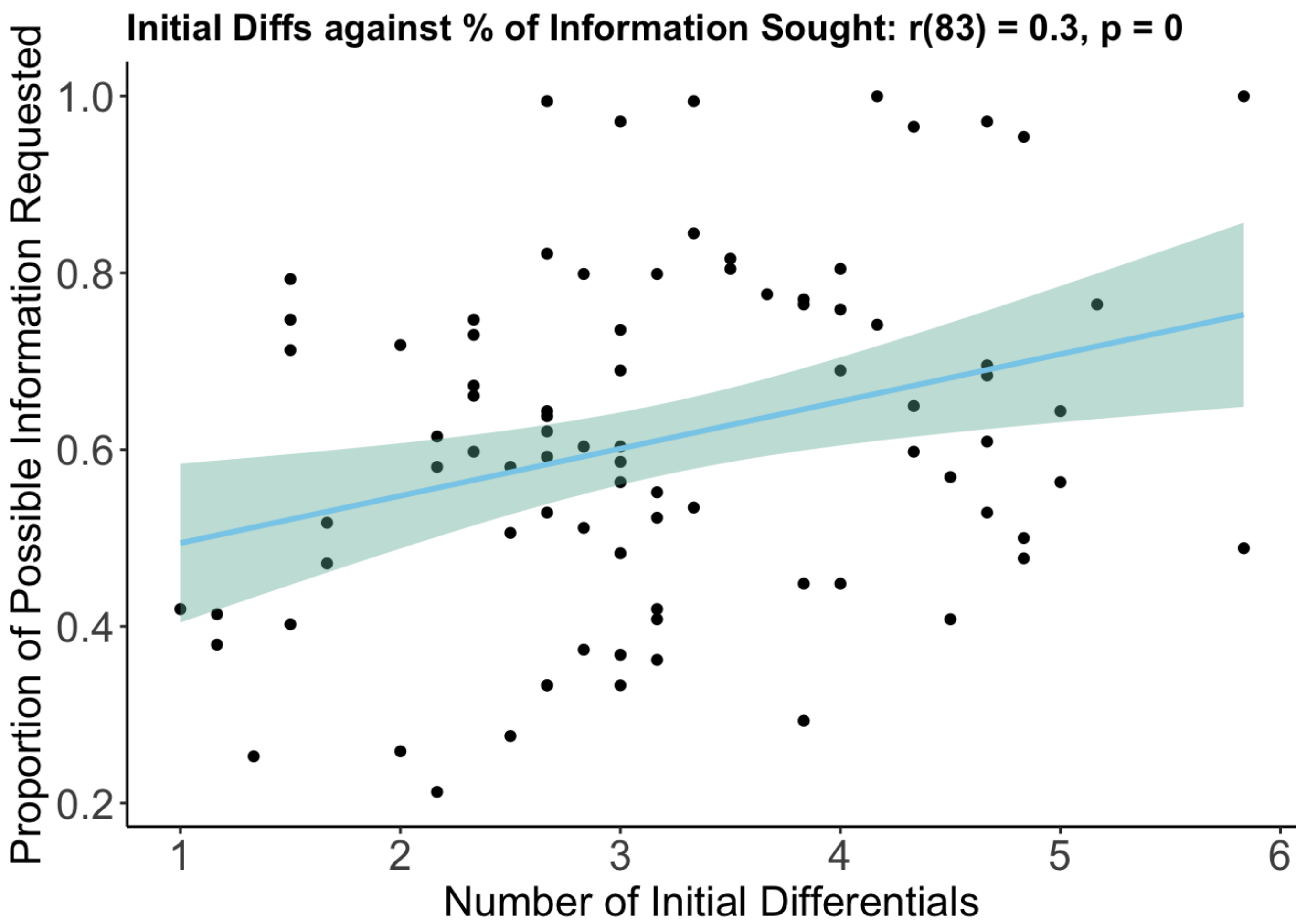


Figure 1: Amazing, right?!

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