Do you know if your assessments are biased?

- Fast thinking
- Accurate decisions (even with uncertain or minimal data)
- Pattern recognition
- Expertise

... Flawed ...
Accurate until the moment we are wrong

Fast thinking and judgements are often under-pinned by cognitive biases.
Cognitive biases

**Order effects**
Primacy or recency where decisions are influenced by the order that information is received
Crosskerry (2003)

**Framing**
where decisions are influenced by language that depicts a ‘fear of negative/loss’ outcome or ‘hope of positive/gain’
Tversky & Kahneman (1981)

**Availability**
where decisions are influenced by how easily we can recall frequency or probability
Tversky & Kahneman (1974)

**Anchoring**
where decisions are influenced by an initial numerical value
Tversky & Kahneman (1974)

**Affect**
where emotion influences perception and decision-making
Pachur, Hertwig, Steinmann (2012)
Methods & Results

Records identified through database searching (n = 332)

Additional records identified through other sources (n = 259)

Records after duplicates and non-English articles removed (n = 454)

Records screened (n = 454)

Non MSK Records excluded (n = 398)

Full-text articles assessed for eligibility (n = 56)

Studies included in qualitative synthesis (n = 1)

Studied a cognitive bias but not related to musculoskeletal assessment;
A cognitive bias may have been elicited but this was not recognised in the study (n = 55)

Studies included in quantitative synthesis (n = 0)

Exclusions
Commented but did not investigate a cognitive bias; Studied a cognitive bias but not related to musculoskeletal assessment;
Discussion & Conclusion
Mission: questions we need to investigate in physiotherapy

Do I know whether the order in which information is presented influences assessment and decisions?
*Order effects bias*

Is it possible that emotions affect my perception and clinical decision-making?
*Affect bias*

Do I recall some prevalence figures for musculoskeletal problems more than I remember other figures?
*Availability bias*

How sure am I that my measurement decisions are not influenced by an initial figure?
*Anchoring bias*

Do I understand how fear of negative/loss language or hope of positive/gain language may affect decision-making?
*Framing bias*