Exercise walk-through

7.1

Historical perspectives and psychometric interpretation: evidence and transfer

GRE · GRE Subject Test · GRE Psychology

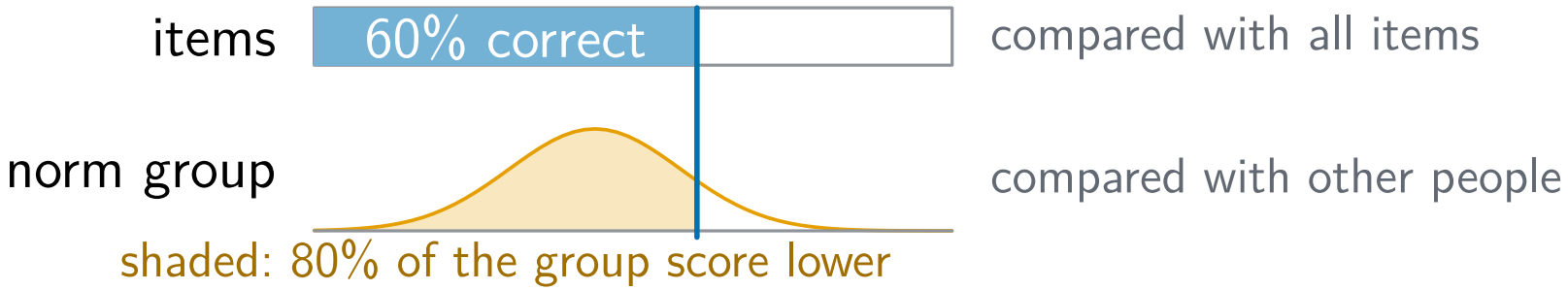
Historical perspectives and psychometric interpretation

- Compare the explanations offered by the main perspectives in psychology.
- Separate **reliability** from **validity** .
- Tell a **percentile** from a percentage correct, and norm-referenced from criterion-referenced scores.
- Find the **positive predictive value** of a screening test from base rates.

Norms and standards

- Standardisation means the same instructions, timing and scoring for everyone, and a reference (norm) group.
- A norm-referenced score compares a person with the norm group. A criterion-referenced score compares performance with a fixed standard, such as "can solve linear equations".
- A percentile is the percentage of the norm group scoring lower. A percentage correct is the share of items answered correctly. They can differ widely.
- The norm group must fit the people tested: norms from one country or age group may mislead for another.

Figure: Norms and standards



- Percent correct compares with items; percentile compares with people.
- Match each part of the diagram to the text.

Exercises 2.1–2.2

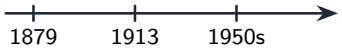
2.1 A test gives consistent scores but measures a different construct. It may have: [1]

A. high reliability but poor validity B. perfect validity by definition C. no measurement error ever



2.2 Organised wholes in perception are especially associated with: [1]

A. Gestalt psychology B. classical conditioning alone C. trait scoring alone



Exercises 2.1·2.2

2.1 A test gives consistent scores but measures a different construct. It may have: [1]

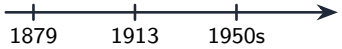
A. high reliability but poor validity B. perfect validity by definition C. no measurement error ever



2.1 Answer: A. Consistency and construct evidence are different. The other options do not satisfy the stated defining conditions.

2.2 Organised wholes in perception are especially associated with: [1]

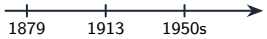
A. Gestalt psychology B. classical conditioning alone C. trait scoring alone



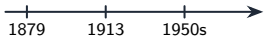
2.2 Answer: A. Gestalt accounts emphasise the structure of perception. Compare the exact process, design or evidence, rather than an associated keyword.

Exercises 2.3·3.1

2.3 Revisit the worked case. State one conclusion its evidence supports and one stronger conclusion it does not support. Explain the difference. [2]

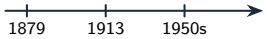


3.1 In 2,000 fictional cases, 20 meet a target definition. A screen flags 18 of these and 198 of the others. Compute the fraction of positive screens that meet the definition. Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]



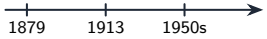
Exercises 2.3·3.1

2.3 Revisit the worked case. State one conclusion its evidence supports and one stronger conclusion it does not support. Explain the difference. [2]



2.3 Use the worked case evidence to support a bounded claim and explain why a causal, universal or stronger claim needs additional evidence. The claim must fit the specific design and observed process.

3.1 In 2,000 fictional cases, 20 meet a target definition. A screen flags 18 of these and 198 of the others. Compute the fraction of positive screens that meet the definition. Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]



3.1 True positives=18; false positives=198; all positives=216. Positive predictive value=tru positives/all positives=18/216=0.0833, or 8.3%. Sensitivity=18/20=90%, which answers a different conditional question. Low base rate explains the contrast. This arithmetic is not a diagnostic recommendation. Award B1 each (authored) for the interpretation, its reasoning, a relevant limitation/alternative and an appropriate check, up to four points. Accept a different justified answer satisfying these demands.

exercises.lol exercises.com.cn