

CRELLA: its Socio-Cognitive Approach to Validating Tests

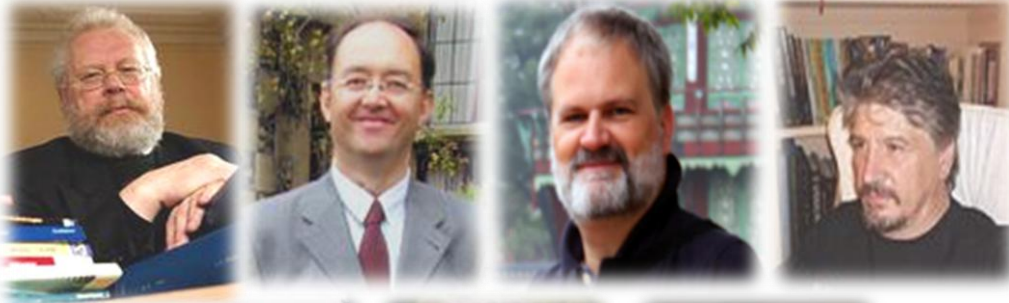
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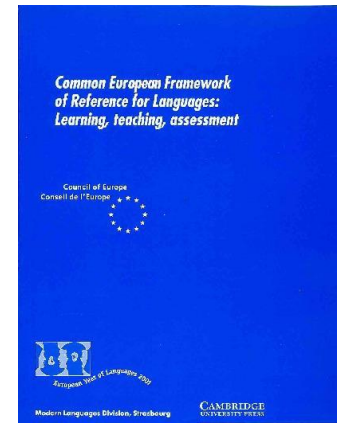
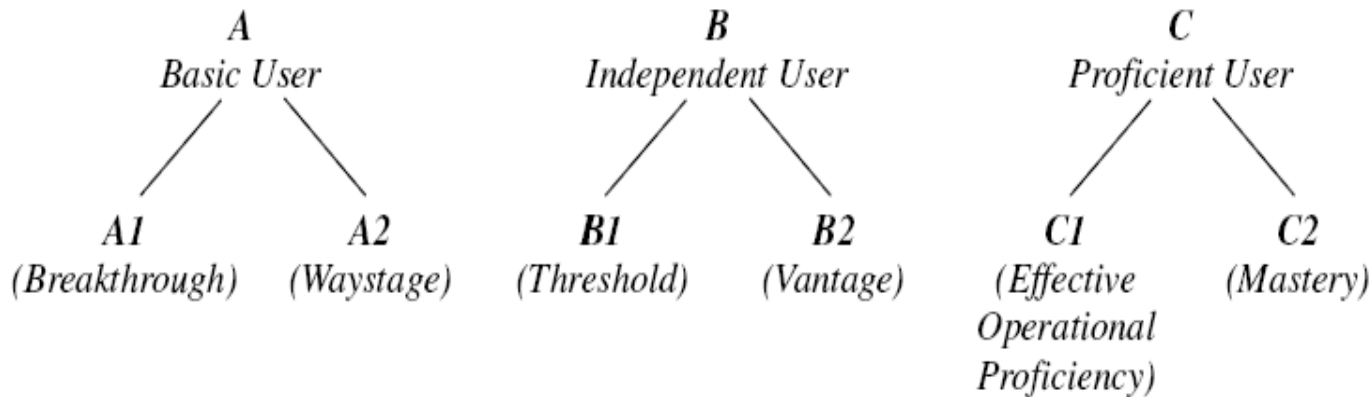
Overview

1. Background
2. Weir's (2005) Socio-cognitive framework for test validation
3. Example validation studies drawing upon the Socio-cognitive framework
4. Conclusion

1. Background

CEFR: usefulness and limitations

Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR; Council of Europe, 2001)



- Useful for learners' needs analysis, syllabus/curriculum designs, provision of feedback to learners, comparison between different tests
- The CEFR is **deliberately underspecified** → should be seen as a heuristic device.
- NOT all tests linked to the CEFR are satisfactory from a quality perspective.

(Alderson, 2004; Fulcher, 2004, Green 2012; Milanovic & Weir, 2010; North, 2000; O'Sullivan & Weir, 2011; Weir, 2005b)

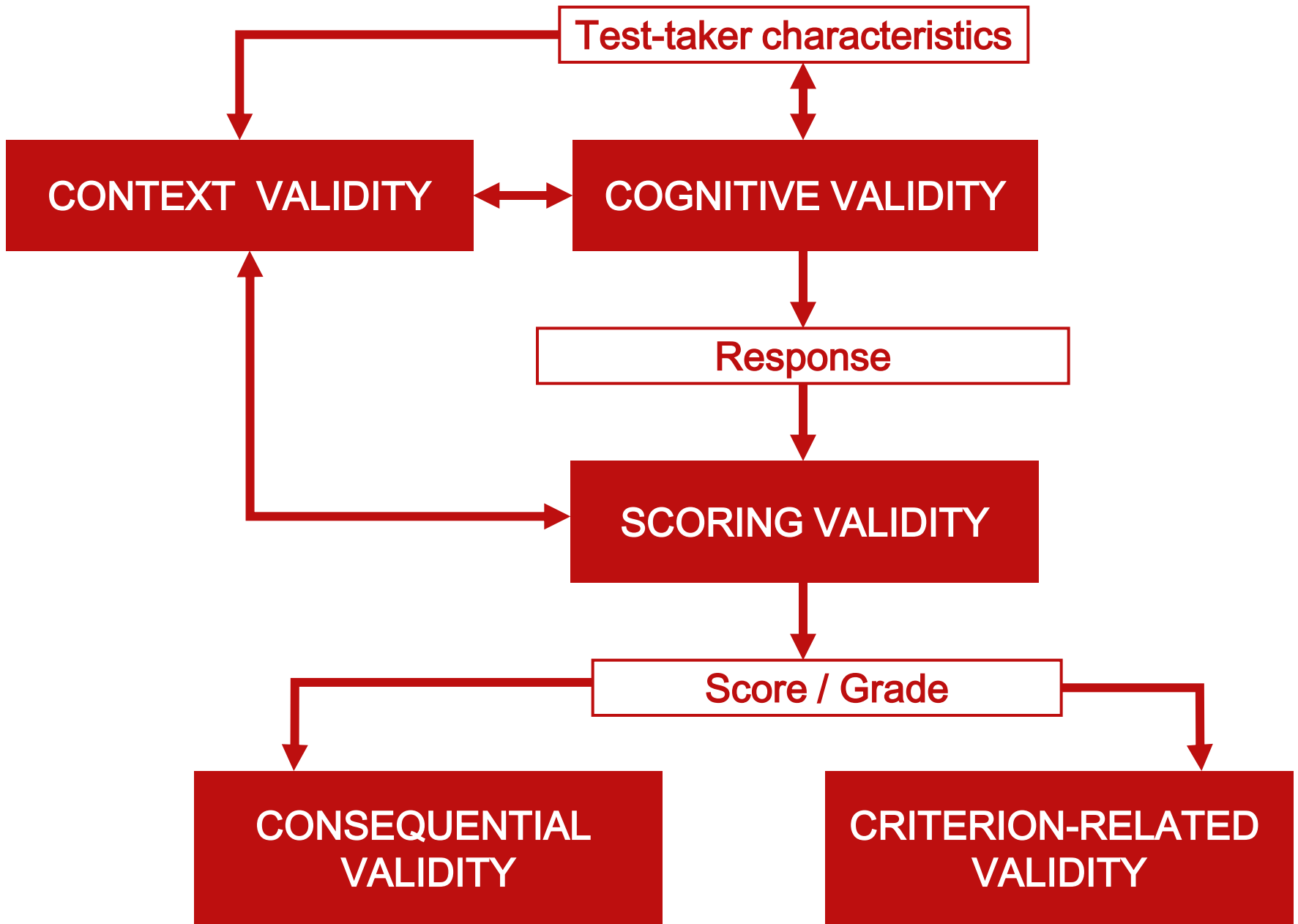
- **Language testers' responsibility:** To provide test stakeholders with information about what the test construct is and how they are operationalised.

Need for a validation framework

- to consider and incorporate criterial contextual, cognitive and evaluative (scoring) parameters at the test development stage
- to guide us in generating evidence of the successful operationalisation of these features at the test implementation stage

2. Weir's (2005) socio-cognitive framework for test validation





Socio-cognitive framework

- The framework represents a **unified approach** to gathering validation evidence for a test, and shows how the various validity components fit together both **temporally** and **conceptually**.

- The timeline runs from top to bottom, offering test developers a plan of validation studies.

- Now used by test providers including:
 - The British Council (IELTS, ILA, Aptis)
 - Cambridge English Language Assessment (KET, PET, FCE, CAE, CPE)
 - Eiken Foundation of Japan (EIKEN, TEAP)
 - The Language Training and Testing Center, Taiwan (GEPT)
 - Trinity College London (ISE, GESE)

Critical questions to be addressed

1. [Test taker characteristics] How are the physical/physiological, psychological and experiential characteristics of candidates catered for by the test?
2. [Cognitive validity] Are the cognitive processes required to complete the test tasks appropriate?
3. [Context validity] Are the characteristics of the test tasks and their administration appropriate?
4. [Scoring validity] How far can we depend on the scores, which result from the test?
5. [Consequential validity] What effects do the test and test scores have on various stakeholders?
6. [Criterion-related validity] What external evidence is there that the test is measuring the construct of interest?

3. Example validation studies drawing upon the Socio-cognitive framework

Cognitive validity

Research on onscreen reading tests with eye tracking technology

Bax and Weir (2012); Bax (in press)

(Funded by the British Council, Cambridge English Language Assessment)

Levels of cognitive processing in reading tests (Bax, in press, adapted from Khalifa & Weir, 2009)

Cognitive Processes	Size of typical reading unit
Word recognition: Word matching	Word
Lexical access: Synonym and word class matching	Word
Grammatical parsing	Clause/Sentence
Establishing propositional meaning	Sentence
Inferencing	Sentence/Paragraph/Text
Building a mental model	Text
Understanding text function	Text

For each question (13-19), click on the correct answer (A, B, C or D).

How I found my true voice

As an interpreter, Suzanne Glass could speak only for others - but the work provided terrific material for her first novel.

"I don't know if you've ever had that moment where you're interpreting and you're not sure if you're losing it or not. I was at an international conference and I was interpreting for a speaker who was talking about the standardisation of the length of cucumbers and the size of tomatoes. You can't afford to have your own thoughts when you're interpreting simultaneously, so, of course, I missed the speaker's next sentence and lost his train of thought. Sitting in a darkened booth at the back of a huge conference hall, I was thrown. Fortunately, my colleague grabbed my microphone and took over.

This high-pressure, high-output work was not quite the dream profession I had hoped for. Although I had fun with it in the beginning - occasionally being among the first to hear of medical and political breakthroughs would be exciting for any 25-year-old - I realised that this was a job in which I would never be able to find my own voice. I had always known that words would be my life in one form or another. My mother thought she'd given birth to an alien when I began to talk at the age of

13

In the first paragraph, the writer says she discovered that

- A there were some subjects she had no interest in dealing with.
- B the standard of her work as an interpreter was getting lower.
- C her mind was wandering when she should have been doing her job.
- D she could no longer understand subjects she had previously covered.

READING Part 1: 1 2 3 4 5 6 Part 2: 7-12 not in this test Part 3: 13 14 15 16 17 18 19

Part 4 is not in this test

END

For each question (13-19), click on the correct answer (A, B, C or D).

How ... 4 ...

No ...

over ... had alw ...

My ... thought she ... on brin to an ac ... an I ...

13

In the ... topic, the w ...

... subjects she h ... interest in

B ... standard of ... work as ... interpret ...

C ... was ... during wh ... she ... have

D ... she ... no longer understand subjects she had ...

Read the extract below which is concerned in some way with communication.
 For each question (1-6), click on the correct answer (A, B, C or D)

Extract Three

...with me
 who... know, you really
 should be very careful when you email.
 The internet is not a secure place. One
 can be careless on the keyboard, and you
 know what I

that the human mind is the only
 had sent to my friend in London
 had somehow included an earlier
 message from me to friend in USA
 that was slightly mocking of friend
 here.

...marked out what had gone wrong
 before I was able to speak through the
 thick layer of egg accumulated on my
 face. A mutual friend of ours in the
 USA notorious for his tenacious grasp of
 to... had... visited the great,
 or... for...
 ...ing back
 ... email
 ... you're now sending out. The dis-
 ... moment I was now enduring was a
 direct consequence of this. A message

Actually, such a human slip-up as
 this doesn't have to be accidental.
 Some of the clumsier e-mail utilities
 automatically repeat the received email
 in every reply, although how friend in
 USA managed to include my
 somewhat sarcastic sentiments about
 a third party in a message to that third
 party still baffles me a little. Anyhow,
 the damage, such as it was, was done
 and I apologise. Not much else you
 can do, really, to get out of
 jam I'd inadvertently set

- 5
- 10
 20
 11
 17
 13
- to
- B** anger at his friend in the USA.
- C** realisation that he had made an error.
- D** inability to understand his friend's reaction.

For each question (13-19), click on the correct answer (A, B, C or D).

14 counts

How I found my true voice

As an interpreter, Suzanne Glass could speak only for others - but the work provided terrific material for her first novel.

'No, no, no! You've got to get away from this or you're going to lose it.' The voice reminding me to breathe was the one I was at an international conference. My

colleague was speaking and I was supposed to be interpreting. I was so nervous

that I almost forgot to breathe. Fortunately, my colleague grabbed my microphone and took over.

This high-pressure, high-output work was not quite the dream profession I had

hoped for. Although I had fun with it in the beginning - occasionally being among

the first to hear of medical and political breakthroughs would be exciting for any

25-year-old - I realised that this was a job in which I would never be able to find my

own voice. I had always known that words would be my life in one form or another.

My mother thought she'd given birth to an alien when I began to talk at the age of

two. I was a talker from the start. I was always the one who would talk for hours

and never get tired. I was always the one who would talk for hours and never get

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13

In the first paragraph, the writer says she discovered

A that she had no interest in

B the standard of her work as an interpreter was

C the time she was spending when she should have

D the subjects she had to

READING Part 1: 1 2 3 4 5 6 Part 2: 7-12 not in this test Part 3: 13 14 15 16 17 18 19

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BD

Context validity

A study of examiner interventions in relation to the listening demands they make on candidates in oral interview tests

Nakatsuhara & Field (2012)
(Funded by Trinity College London)

Socio-cognitive framework: Contextual parameters for Speaking Tests (Weir, 2005a; Taylor ed. 2011)

SETTING: TASK

- Response format
- Purpose
- Weighting
- Knowledge of criteria
- Order of items/tasks
- Time constraints

SETTING: ADMINISTRATION

- Physical conditions
- Uniformity of administration
- Security

DEMANDS: TASK

Linguistic (Input and Output)

- Channel
- Discourse mode
- Length
- Nature of information
- Topic familiarity / content knowledge
- Lexical resources
- Structural resources
- Functional resources

Interlocutor

- Speech rate
- Variety of accent
- Acquaintanceship
- Number
- Gender

The role of listening in interactive speaking tests

- Oral interview tests are to some extent tapping into the construct of listening-into-speaking, i.e. interactive listening skills (e.g. Nakatsuhara, 2012)
- **Trinity's GESE (Graded Examinations in Spoken English) exams:** assessing both speaking and interactive listening skills through communicative interaction.

Research Question

What types of examiner intervention are employed in the GESE examinations in terms of their linguistic and discourse features?

Methods

Stage 1: Transcribe audio-recorded test sessions obtained by Trinity

Stage 2: Select **contextual parameters** in the spoken input and analyse the examiner interventions for:

- 1) **Lexical complexity**
- 2) **Syntactic complexity**
- 3) **Informational density**
- 4) **Number and mean length of interventions**
- 5) **Speech rate**
- 6) **Purpose for interventions**

5. Conclusion

- The Socio-cognitive framework identifies the evidence required to develop a transparent and coherent validity argument.
- The framework is theoretically sound yet operationally useful when we develop and validate tests.



For more information:

- Geranpayeh, A. & Taylor, L. (eds.) (2013). Examining Listening, Cambridge: CUP.
- Khalifa, H. & Weir, C.J. (2009) Examining Reading, Cambridge: CUP.
- Shaw, S.D. & Weir, C. J. (2007) Examining Writing, Cambridge: CUP.
- Taylor, L. (ed.) (2011) Examining Speaking, Cambridge: CUP.
- Weir, C. J. (2005) Language Testing and Validation: an Evidence-Based Approach, Basingstoke: Palgrave Macmillan.

Thank you!

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