Cognitive Testing Groups (CTGs) – friend or foe?

74th annual AAPOR conference

Toronto, Canada

May 2019

A subsidiary of:

Australian National University

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Acknowledgements

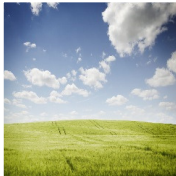**Paul** J. **Lavrakas**, PhD

Research participants

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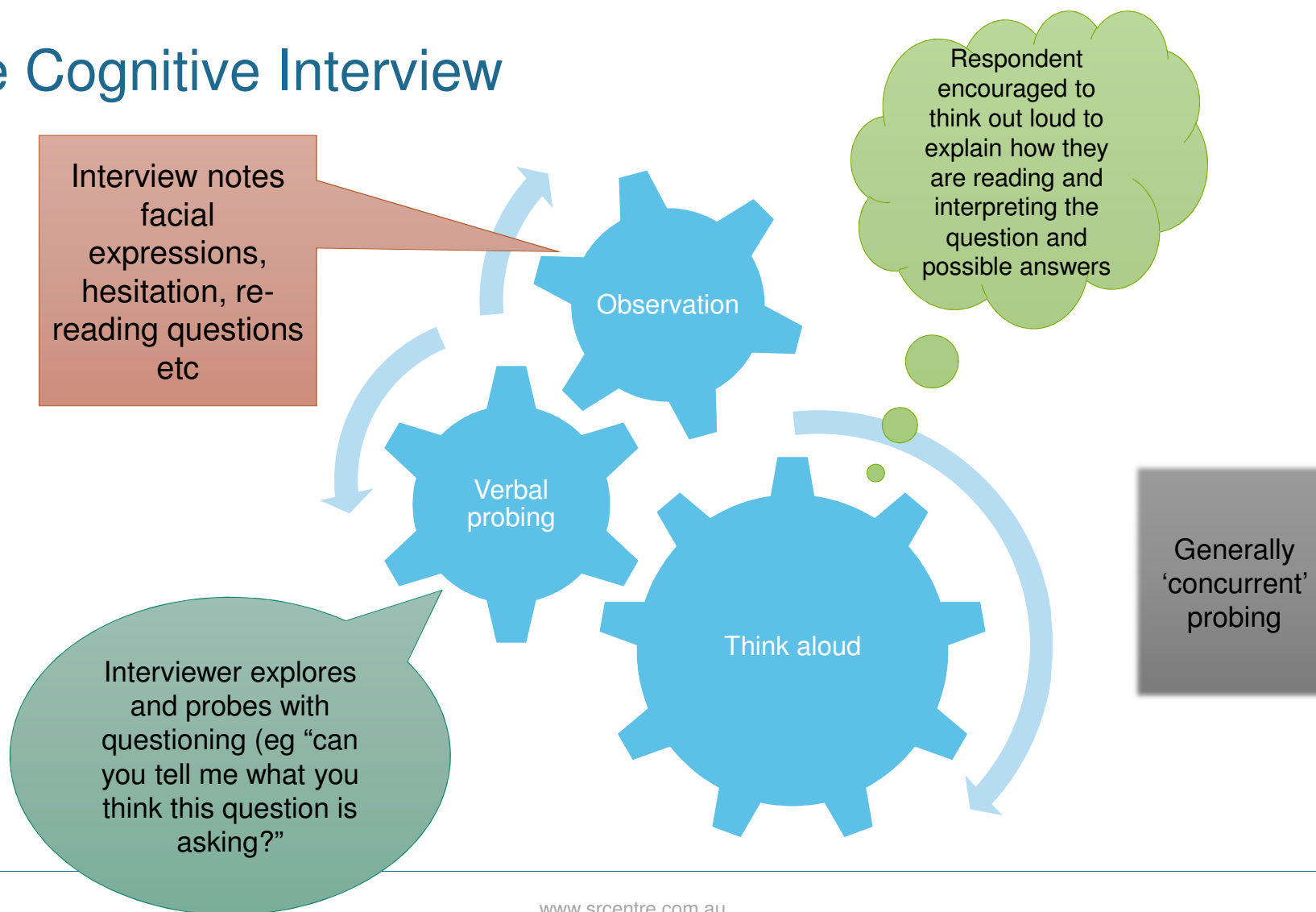Cognitive testing at the SRC

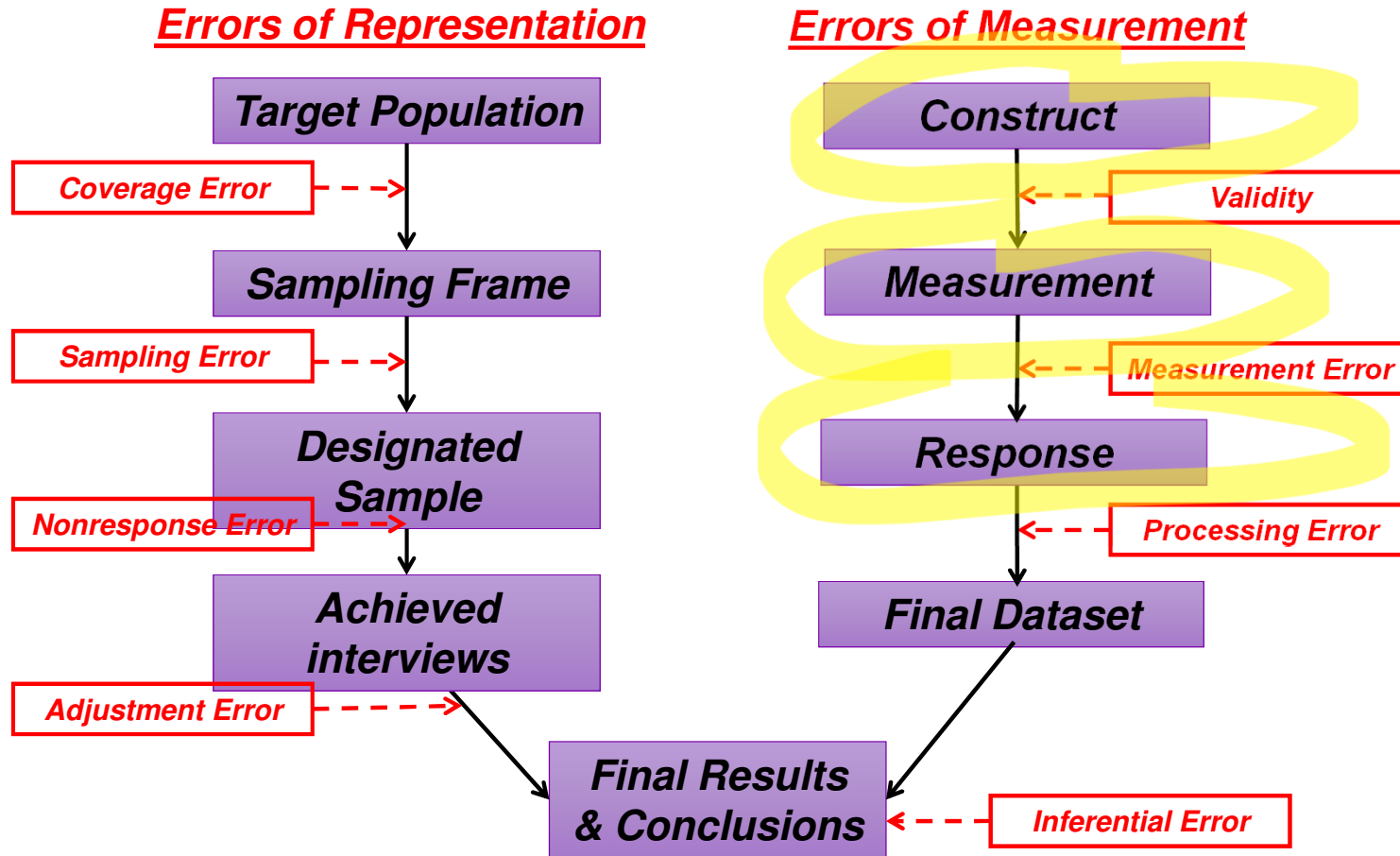Why CTGs?

Findings so far

Implications?

Cognitive Testing at the Social Research Centre

➤ Conduct social and public policy research on behalf of government, academia and not-for-profit sector

- o Specialist Qualitative Research Unit

➤ Cognitive interviewing typically done as face-to-face individual interviews, in our offices, with a trained qualitative researcher

- o Highly skilled at conducting research with vulnerable or disadvantaged people and on sensitive or emotive topics
- o Trained in cognitive testing methods
- o *Some* understanding of questionnaire design, and CATI interviewing

➤ Typically follow Roger Tourangeau's approach (comprehension, retrieval, decision/judgement, response)

➤ Always use the 'think aloud' technique and concurrent probing

➤ Focus groups traditionally used at the formative stage

The Cognitive Interview

Interview notes facial expressions, hesitation, re-reading questions etc

Respondent encouraged to think out loud to explain how they are reading and interpreting the question and possible answers

Observation

Verbal probing

Think aloud

Generally 'concurrent' probing

Interviewer explores and probes with questioning (eg "can you tell me what you think this question is asking?"

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Total Survey Error (TSE) Framework

Errors of Representation

Errors of Measurement

Target Population	**Construct**
Coverage Error →	→ *Validity*
Sampling Frame	**Measurement**
Sampling Error →	→ *Measurement Error*
Designated Sample	**Response**
Nonresponse Error →	← *Processing Error*
Achieved interviews	**Final Dataset**
Adjustment Error →	

**Final Results & Conclusions** ← *Inferential Error*

Our observations of using Cognitive Interviews (CIs)

➤ For some individuals we observed that the process of being in this 'test' environment could seem uncomfortable:

  o Demonstrable anxiety or nervousness

  o Concerns that they were giving 'wrong' answers, or weren't being 'helpful'

  o Difficulty in grasping the testing process, despite a thorough and repeated explanation

➤ Some individuals in particular also appeared to find the process difficult, eg:

  o Unemployed young people testing a job seeker classification instrument

  o Lone mothers in a parenting pre-employment support program

➤ The resource demands of cognitive testing:

  o Often required at short notice, when there are few available resources

  o Could be required in a different state to our offices, presenting some logistical and timing issues

➤ Some questions identified for testing were far less onerous/complex than others

➤ Some cognitive testing also included communications testing (eg text message, primary approach letter/email, email headers, incentive scheme etc)

The accidental 'test' – the Student Outcomes Survey

➢ Testing of a few amended/new questions for a regular student outcomes survey of students in vocational education or training

➢ Was required to be interstate, and at very short notice

➢ Testing of the survey communications was also required

➢ Ran two focus groups on one day

    o Recruited by a recruitment agency from a client supplied list

    o Hosted at a professional focus group venue

    o Both groups on the same afternoon/evening

    o Immediate feedback to client

➢ *Highly consistent findings between the two groups*

➢ *Evident enjoyment of the participants in the process!*

Can we develop this approach into Cognitive Testing Groups?
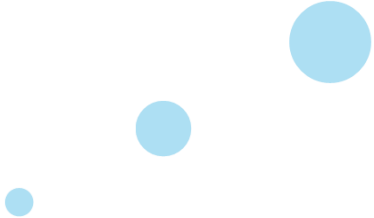
Researchers who conduct focus groups and those who conduct cognitive interviews do not greatly overlap, and it seems relatively few individuals do both (Willis, 1999)

'Focus groups are not the best place to test specific question wording' (Cosenza and Fowler, 2000)

The focus group is beneficial for the identification of major themes but not so much for the micro-analysis of subtle differences (Krueger, 1994)

[in focus groups] comprehension, or individual's difficulties with the response task, or having the knowledge required to be able to answer may not be detected. In the group setting individuals may not feel willing, comfortable or have the opportunity to voice their interpretations of the question (d'Ardenne and Collins, 2019)
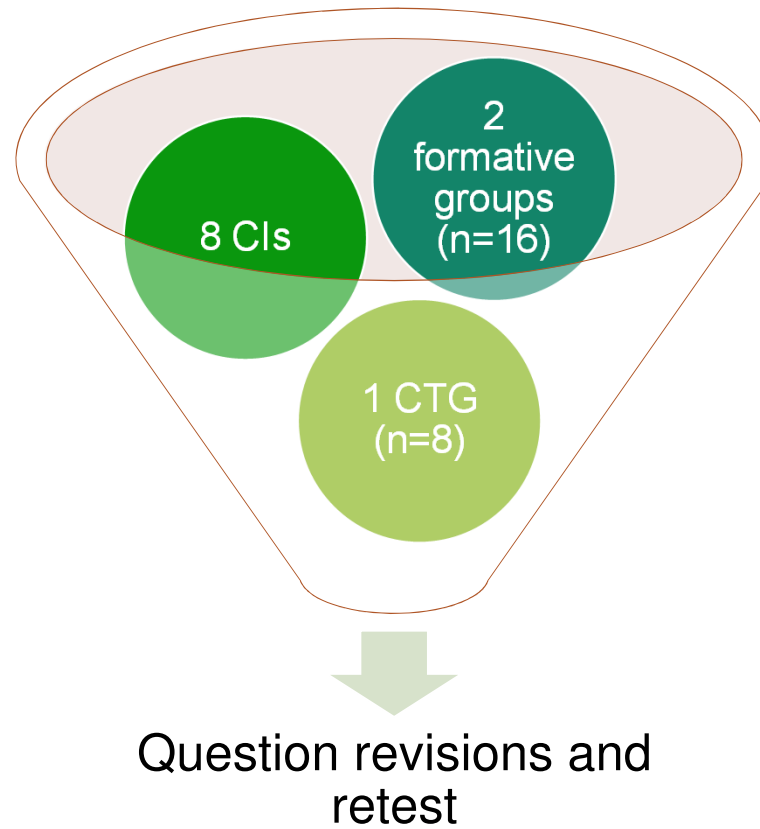
Along came *The Consumer Debt Stress Index* (DSI)

➢ Developed by Paul Lavrakas in the US

➢ Systematically tracks psychological stress caused by consumer debt

➢ 4 debt stress items, plus additional question about what debt people have

➢ Is being trialled and tested in Australia for our online probability panel Life in Australia™

I'd like you to think about your overall debt, including any that is on credit cards, store credit, a mortgage or home equity loan, a car loan, or any other outstanding loan you [and your spouse/partner] may have.

Debt Stress Index Questions

Question	Response frame		
D1 Overall, how often do you worry about the total amount you owe in overall debt? Would you say you worry…?	1. 2. 3. 4. 5.	All of the time Most of the time Some of the time Hardly ever Not at all	
D2 How much stress does the total debt you are carrying cause to you? Is it…?	1. 2. 3. 4. 5.	A great deal Quite a bit Some stress Not very much No stress at all	
D3 Now, thinking ahead over the next five years, how much of a problem, if any, will the total debt you have taken on be for you? Will it be…?	1. 2. 3. 4. 5.	An extreme problem A large problem A medium problem A small problem No problem at all	
D4 How concerned are you that you never will be able to pay off these debts? Are you…?	1. 2. 3. 4. 5.	Extremely concerned Quite concerned Somewhat concerned Not very concerned Not at all concerned	

DSI CT process

8 CIs

2 formative groups (n=16)

1 CTG (n=8)

Question revisions and retest

The results so far… the introductory statement

	Issue	CTIs	CTG
I'd like you to think about your overall debt, including any that is on credit cards, store credit, a mortgage or home equity loan, a car loan, or any other outstanding loan you [and your spouse/partner] may have	• Would need to mentally calculate 'overall debt'?	✓	✓
	• 'store credit' unclear	✓	✓
	• 'home equity loan' unclear	✓	✓
	• Suggestion/preference for 'total' rather than overall	✓	✓
	• Debt is a negative term, means 'money you owe'	✓	X
	• Questions about inclusion of student loan	✓	✓

The results so far… Question 1

	Issue	CTIs	CTG
Overall, how often do you worry about the total amount you owe in overall debt? Would you say you worry…? 1. All of the time 2. Most of the time 3. Some of the time 4. Hardly ever 5. Not at all	• Too many 'overalls'	✓	✓
	• 'how often' – possible retrieval issue	✓	✓
	• Response option – some find difficult to make distinction between 2 and 3	✓	✓
	• specificity – preference for daily/most days, few times a month etc	✓	✓

The results so far… Question 2

	Issue	CTIs	CTG
How much stress does the total debt you are carrying cause to you? Is it….? 1. A great deal 2. Quite a bit 3. Some stress 4. Not very much 5. No stress at all	• The word 'stress' is too emotive/negative/anxiety-inducing	✓	✓
	• Comprehension – term 'you are carrying' is difficult and visually emotive	✓	✓
	• Response – difficult to chose between 1 and 2	✓	✓
	• Preference for the previous response frame	✓	✓

The results so far… Question 3

	Issue	CTIs	CTG
Now, thinking ahead over the next five years, how much of a problem, if any, will the total debt you have taken on be for you? Will it be…? 1. An extreme problem 2. A large problem 3. A medium problem 4. A small problem 5. No problem at all	• Comprehension – many examples of re-reading, and evident confusion	✓	✓
	• Judgement – agreement with 5 years	✓	X
	• Response – hesitation in answering	✓	✓
	• Response – 'extreme' not common parlance	X	✓
	• Confusion about question intent	X	✓
	• Concerns about impact on respondent	✓	✓

The results so far… Question 4

	Issue	CTIs	CTG
How concerned are you that you will never be able to pay off these debts? Are you….? 1. Extremely concerned 2. Quite concerned 3. Somewhat concerned 4. Not very concerned 5. Not at all concerned	• Judgement – negative framing (repeated use of 'concerned')	✓	✓

Use of Cognitive Testing Focus Groups

Strengths?

➤ More efficient use of time and resources

➤ Allows individual reflection and retrospection

➤ Participants share comprehension issues with each other

➤ Participants 'learn' the testing process

➤ Works well combining comms testing

➤ Participants have fun!

Weaknesses?

➤ Can't observe latency as an indicator of a problem

➤ Puts participants in the role of question evaluator (*is this a bad thing?*)

➤ Challenging to implement '*think aloud*' techniques

➤ Over-identification of issues?

➤ Easier to hide comprehension issues?

What next – do CTGs have a place in the QT world?

➢ How will this approach work for more complex questions/response frames?

➢ How will this approach work with more marginalised/disadvantaged or vulnerable groups?

➢ How can we compare experiences?

➢ Do CTGs over-identify problems through sharing?

➢ Will the results be conflicting (a problem) or complementary (a good thing)?

➢ *Larger comparison study needed*

➢ *Part of a toolbox*

➢ *Mono-method and multi-method approach will always be best?*

Features of pre-testing methods (Willis/Campanelli, 1997)

Pre-testing method	Range of problems covered	Reliability	Cost
Expert review	++	++	+++
Cognitive interviewing (CI)	++	++	++
Field test and interviewer debrief	++	+	+
Behaviour coding	+	+++	+
Cognitive Testing Groups (CTGs)	??	??	+

any other studies?

Thank you

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