The IRAP as Frankenstein’s Monster!

Oh no, what have I become?

A mainstream, implicit cognition researcher, you complete and utter plonker. . .

Was the name of the doctor, not the monster.
Numerous methods for assessing so-called implicit cognition have been developed that aimed to assess implicit attitudes, such as the IAT, the Go/No-Go Association Task (GNAT), evaluative priming and the Extrinsic Affective Simon Task (EAST).

Critically, however, each of these methods may be considered a relatively indirect measure because they target associations (in memory) rather than verbal relations.

**Indirect Evidence for the Belief that White is Better than Black**

**Attitudes and Beliefs Seem to Involve Verbal Relations**

- White is better than Black
- Black is worse than White
- If not a Christian, White is Bad
The IRAP

- In contrast to the IAT, and other associative measures, each trial of the IRAP typically asks participants to confirm or deny a specific verbal relation (or set of relations) between a label stimulus and a target item.
The IRAP

Pre-Faking Instruction

Post-Faking Instruction

Mean D-IRAP Score

Positive Bias

Negative Bias
So, the IRAP was developed as a method for assessing (the strength of) natural verbal relations rather than as a test of so-called implicit cognition.

However, the descriptor “implicit” was added because:

1. The IAT was a source of inspiration for the IRAP
2. There appeared to be some potential for the IRAP to function as a test of so-called implicit cognition...
3. And the name “I-rap” was quite catchy and reflected what the test required -- rapid verbal responding...
The IRAP did not start out as a measure of implicit cognition but it seems to have been relatively successful in becoming one...
• So, what’s the problem?

• If you combine an ill-defined domain (i.e., implicit cognition) with a “measure” that is not understood reasonably well, in a functional-analytic abstractive manner, you are heading down an intellectual blind alley!

• Well, that’s how I now feel.
• So, forgive me, for I have sinned. . .

• In my defense (and here is where I share the blame), I was not the only one on this path.

• The newly formed ACBS was very quickly awash in ill-defined concepts. . .

• The hexaflex, with terms such acceptance, values, defusion, self-as-context, etc. were offered as middle-level terms and are typically measured using psychometric instruments (e.g., the AAQ)
• Traditional psychometric instruments are constructed based on individual differences.

• Many problems with such tools, which even ACBS leaders now recognize – e.g., see recent articles and chapters by Hayes, Hoffman et al. . .

• The new mantra – CBS needs to be more process-focused, more ideographic and oriented towards functional analysis.
Okay, but we had that 20-30 years ago – it was called (clinical) behavior analysis (and we had Sidman 60 years ago!)

So, what went wrong?

Increasing sense of intellectual stagnation within ABAI

Clinical behavior analysis only tiny part of ABAI
Academic/professional contingencies:

- Adopt mainstream codes of conduct
  - Publish in high-impact journals
  - Group designs
  - RCTs
  - Big data
  - Obsession with statistical replication over psychological/societal relevance
  - Little interest in behavioural principles over cognitive/mental processes
IRAP as a measure of implicit cognition very much part of this “mainstream” focus

Danger was recognized many years ago when the sensitivity of the IRAP to verbal relations was highlighted (Barnes-Holmes, et al., 2010)

are presented. On balance, procedural variables specific to the IRAP may be involved here. For example, the stereotyping effect for the Dangerous–Black trial type required responding “True” more quickly than “False,” but the opposite was required for the Safe–Black trial type. It is possible, therefore, that a bias toward responding “True” over “False,” per se, interacted with the socially loaded stimulus relations presented in the IRAP. If such a response bias does play a role, however, the source of that bias needs to be explained.

As suggested previously, the impact of common verbal practices, which tend to confirm negative rather than deny positive stereotypes, is a possibly important variable.
IRAP as a measure of implicit cognition very much part of this mainstream focus

In my defense, I continued to launch warning flares!

ACBS (2014):

Why the IRAP is Not a Measure of Implicit Cognition

Dermot Barnes-Holmes
• IRAP as a measure of implicit cognition very much part of this mainstream focus
• In my defence, I continued to launch warning flares!
• ACBS (2017) multiple papers with similar message. . .

The IRAP as Frankenstein’s Monster!

Oh no, what have I become?

A mainstream, implicit cognition researcher, you complete and utter plonker. . .
• And we began publishing empirical papers that warned of a “melt-down” in the IRAP **as a measure of implicit cognition:**
  - Finn, et al. (2016) – the impact of instructions and order effects
  - Finn, et al. (2018) – the impact of experimental experience with latency-based measures and the talk-aloud procedure
  - Kavanagh et al. (2018) – the impact of the talk-aloud procedure on a deictic IRAP
• And we began publishing empirical papers that warned of a “melt-down” in the IRAP as a measure of implicit cognition:
• Leech et al. (2018, 2020) – using the IRAP as training and testing context for AARRing reveals potentially important boundary conditions and thus the need for thoroughgoing experimental functional analyses.
• We also began publishing empirical and conceptual papers that highlighted how IRAP research could contribute towards the on-going development of RFT:
  • The MDML
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- The MDML
- The DAARRE Model
- The HDML
- The ROE
- The ROE-M

- Crel and Cfunc properties may be analysed independently (experimentally) but conceptually they are inseparable.

Psychological Events for Verbal Humans Involve a Constant Behavioral Stream of Relating, Orienting, and Evoking (ROE-ing)

The “Holy Trinity” of Human Psychological Events

- Relating (Crel-ing)
- Orienting (Cfunc-ing)
- Evoking (Cfunc-ing)
We also began publishing empirical and conceptual papers that highlighted how IRAP research could contribute towards the ongoing development of RFT:

- The MDML
- The DAARRE Model
- The HDML
- The ROE-M
- The STTDE and the DTTTE
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- The MDML
- The DAARRE Model
- The HDML
- The ROE-M
- The STTDE and the DTTTE

Ongoing development of RFT:

- Relational Field Theory,
- Entailed Orienting
- Mutually Entailed Orienting
- Building bridges between RFT VBDT, and Naming Theories...
Conclusion

The IRAP as Measure of Implicit Cognition

The IRAP as a Tool for Analyzing Relational Fields