

### Do you know your ABCs from your RFTs? An Introductory Workshop on Relational Frame Theory

Dr Denis O'Hora, NUI Galway



### Outline

- \* 00:15 00:30 Language as behaviour?
- \* 00:30 00:45 Exercise 1 Language as behaviour
- \* 00:45 01:15 Languaging as Relational framing
- \* 01:15 01:45 Exercise 2 ME, CE and ToF
- \* 01:45 02:15 Empirical Research
- \* 02:15 02:30 Exercise 3 Deictic Framing
- **\*** 02:30 02:50 Application
- ★ 02:50 03:00 Q & A

- \* Coordination ("same
  as")
- \* same relations mutually and combinatorially entailed
- \* same functions "transfer"









- \* Distinction ("different
  from")
- \* same relations mutually entailed
- combinatorially entailed relations unspecified
- \* transformations unspecified



- \* Comparison ("more
  than")
- # different relations mutually entailed
- combinatorially entailed relations specified if relations are the same, not if different
- \* transformations graded



### **Empirical Research**

### # 15 normal subjects

\* Establish this relational network in half of them using arbitrary stimuli:

### **\*** A < B < C

- Give B a CS shock function and then present a single ½ strength shock in the presence of A
- \* Test the C stimulus . . .



Dougher, Hamilton, Fink, & Harrington (2007)

### Applied Example

### Panic attack in one's own living room

Results in increased arousal and avoidance of corner store and university class.



- \* Temporal ("before")
- # different relations mutually entailed
- combinatorially entailed
   relations specified if relations
   are the same, not if different
- \* transformations graded (in
  time)



Temporal

\* Hyland et al (2012)

 Mutually entailed after relations take longer than before relations



Hyland, J., O'Hora, D., Smyth, S. & Leslie, J. C. (2012). Sequential responding in accordance with temporal relational cues: A comparison of 'Before' and 'After'. *The Psychological Record*, 62, 463-484. Temporal

\* O'Hora et al (2004)

 Participants learned to choose 4-key sequences in accordance with Same/ Different and Before/After relations

_	SAME	SAME	SAME	SAME	SAME	SAME	SAM
<b>A</b> 1	A2	A3	A.4	B1	B2	B3	Β4
B1	B2	B3	B4	C1	C2	C3	C4
			С	4			
			BEF	ORE			
			-	-			
			C	3			
			C BEF	3 ORE			
			C BEF C BEF	3 ORE 2 ORE			

O'Hora, D., Barnes-Holmes, D., Roche, B. & Smeets, P. (2004). Derived relational networks as novel instructions: A possible model of generative verbal control. The Psychological Record, 54, 437-460.

## More Complex Frames

- # Hierarchical ("includes")
- # different relations mutually entailed
- combinatorially entailed relations specified if relations are the same, not if different
- \* transformations accumulate in one direction (members acquire class characteristics)



## Hierarchical

\* Slattery et al (2011)

 demonstrated unidirectional transformation of function using RFT model



Slattery, B., Stewart, I. & O'Hora, D. (2011). Testing for transitive class containment as a feature of hierarchical classification. Journal of the Experimental Analysis of Behavior, 96(2), 242-260.

## More Complex Frames

### \* Conditional ("logical if")

- \* no specified relation mutually entailed (uni-directional dependence; known unknown)
- \* combinatorially entailed relations specified if relations are "if", not if mutually entailed
- \* transformations in line with
  "if"



### More Complex Frames

\* Deictic

**\* | - You** 

# Here - there

\* Now - then

### **NON-ARBITRARY**



"I am here now. Can you see what I can see?"

ARBITRARY

I have a white brick You have a red brick Which brick do you have?

### Deictic frames



Blakemore, S.-J. (2010). The Developing Social Brain: Implications for Education. Neuron, 65(6), 744–747.

\*

## McHugh et al (02)

 McHugh et al (2002) investigated reversing
 I-You statements **I** have a white brick and **you** have a red brick Which brick do **you** have?



### Which brick do **I** have?



# McHugh et al (02)

### # Here-there reversal

I am sitting **here** on the blue chair and **you** are sitting **there** on the black chair





#### If HERE was THERE and THERE was HERE

Where would **I** be sitting?



Where would **you** be sitting?

### Double reversal

Yesterday I was sitting **there** on the black chair, today I am sitting **here** on the blue chair





If HERE was THERE and THERE was HERE and If NOW was THEN and

**THEN was NOW** 

Where would **I** be sitting?



Where would **you** be sitting?



### More Deictic Research

\* McHugh, et al., (2004) - Developmental Profile – appears at same age as ToM

Villatte, et al. (2010) – patients with schizophrenia less proficient

Rehfeldt, et al, 2006 – those diagnosed with ASD less proficient

Villatte et al (2008) – link between deictics and social anhedonia

Weil et al (in press) – training in deictics with children with ASD produces gains on Theory of Mind tests

Vilardaga et al (2009) - Link between deictic relational responding and empathy

Exercise 3

#### **\*** Deictic Frames

\* We will do an short experiential exercise now on deictic frames