KING'S College LONDON

INSTITUTE OF PSYCHIATRY, PSYCHOLOGY & NEUROSCIENCE

Module:
Psychological Foundations of Mental Health

Week 4:
Beyond basic cognition and emotion

Dr Wijnand van Tilburg

Dr Victoria Pile

Topic 2:
Evaluation: interpretation and appraisal
Part 3 of 3

Interpretation and appraisal in mental health

Victoria Pile

Three examples of the role interpretations and appraisals play in mental health

Studying interpretation biases in the lab	Understanding what contributes to vulnerability	Cognitive models to develop person-specific understanding to guide treatment
Social anxiety: negative interpretation biases *(Miers et al., 2008).*	***Depression:*** life events and appraisals *(e.g. Krackow & Rudolph, 2008).*	***Psychosis:*** faulty appraisal of anomalous experiences *(e.g. Morrison et al., 2001).*

Miers, Blöte, Bögels & Westenberg (2008)

Interpretation and appraisal in Mental Health

Interpretation or appraisal (Impacts our behaviour and the way we feel)

A man leaves his house

Locks his door

Steps in dog poo

"This is awful"	**"This was on purpose"**	**"Oh no germs"**	**"Oh well these things happen"**
Emotional experience: **Sad** Actions: **Go home to bed**	Emotional experience = **Angry** Actions = **Shout at the next person they see with a dog**	Emotional experience = **Anxious** Actions = **Scrub shoes and hands for an hour**	Emotional experience = **Feel fine** Actions = **Wipe shoe on grass and carry on as normal**

Studying interpretation biases in the lab (1)

Using questionnaires to assess interpretation biases

Click on example questionnaire 1

Example questionnaire 01

Example questionnaire 02

Miers, Blöte, Bögels & Westenberg (2008)

Example questionnaire 01

You've invited a group of classmates to your birthday party but a few have not yet said if they are coming.
Why haven't they said something yet?

"They don't know yet if they can come or not."

Doesn't pop up in my mind		Might pop up in my mind		Definitely pops up in my mind
1	**2**	**3**	**4**	**5**

"They don't want to come because they don't like me."

Doesn't pop up in my mind		Might pop up in my mind		Definitely pops up in my mind
1	**2**	**3**	**4**	**5**

"They're definitely coming; they don't need to tell me that."

Doesn't pop up in my mind		Might pop up in my mind		Definitely pops up in my mind
1	**2**	**3**	**4**	**5**

Click **Next** to continue

Studying interpretation biases in the lab (2)

Using questionnaires to assess interpretation biases

Click on example questionnaire 2

Example questionnaire 01

Example questionnaire 02

Example questionnaire 02

You've locked your bike up somewhere and when you go back for it later on, you cannot find it.

Why can you not find your bike?

"It's been stolen."

Doesn't pop up in my mind		Might pop up in my mind		Definitely pops up in my mind
1	2	3	4	5

"I'm looking in the wrong place, it's around here somewhere."

Doesn't pop up in my mind		Might pop up in my mind		Definitely pops up in my mind
1	2	3	4	5

"There are so many bikes here that it is difficult to find it."

Doesn't pop up in my mind		Might pop up in my mind		Definitely pops up in my mind
1	2	3	4	5

Click **Next** to continue

Studying interpretation biases in the lab (3)

Using questionnaires to assess interpretation biases

Miers et al. showed that negative interpretations of social situations were more common in adolescents with higher anxiety than controls

High anxious adolescents only showed more negative interpretations for social situations, but not for non social situations

This demonstrates that this interpretation bias is specific to social contexts.

Miers, Blöte, Bögels & Westenberg (2008)

Measuring interpretation biases experimentally

Interpretation biases can be measured experimentally.

The recognition test	
Read	The recognition test
Rate	How similar four statements are to the stories

Each statement has...

Positive or Negative valence

Two of the statements are...

Interpretations of the story (Targets)

Two of the statements are...

Related to the story but are not interpretations (Foils)

Example
The basketball game

You join your school's basketball team and are asked to play in a game. You try very hard but your team loses.

Afterwards your new teammates want to discuss how you...

Pl-ay-d

Participants have to complete the fragmented word, after which they are asked to answer a comprehension question, such as:

Did you play in the game? Y/N

They are then shown the targets and foils:

Positive target: Your teammates want to discuss how brilliantly you played.
Negative target: Your teammates want to discuss how terribly you played.

Positive foil: Your teammates want to discuss whether you want to play in the next game as well.
Negative foil: Your teammates want to discuss whether you should sit out in the next game.

Click Next to continue

Interpretation biases

There is evidence linking anxiety and negative interpretation biases

Can we use computer training tools to target these biases?

Cognitive Bias Modification (CBM)

Directly target the processes that give rise to dysfunctional thoughts.	Through the presentation of quick and repeated low level information processing tasks.	Reinforce a more adaptive processing style.

Miers, Blöte, Bögels & Westenberg (2008)

Depression: Inaccurate or realistic perceptions of experiences

Two key risk facts for depression:

Environmental adversity

Negative cognitive appraisals

- Self
- World
- Others

But do people with depression:

Appraise situations negatively? **or** View themselves and the world in a more realistic way?

Beck (1970), Beck & Steer (1987)

Krackow & Rudolph (2008) (1)

TABLE 1
Mean Scores and Planned Comparisons on Episodic Stress by Diagnostic Group

	Nonsymtomatic[a] *1*	*Subsyndromal Depression*[b] *2*	*Clinical Depression*[c] *3*	*Planned Group Comparisons*	*Effect Size (d)*	*p*
Independent Episodic Stress						
Interpersonal	3.85	7.19	9.67	1 vs. 2	.77	.005
	(3.13)	(5.32)	(6.37)	1 vs. 3	1.16	.001
				2 vs. 3	.42	*ns*
Noninterpersonal	3.57	3.84	3.63	1 vs. 2	.09	*ns*
	(2.59)	(3.15)	(3.17)	1 vs. 3	.02	*ns*
				2 vs. 3	−.07	*ns*
Dependent Episodic Stress						
Interpersonal	1.33	5.17	4.15	1 vs. 2	.87	.002
	(2.13)	(5.84)	(4.90)	1 vs. 3	.75	.013
				2 vs. 3	−.19	*ns*
Noninterpersonal	1.83	3.69	1.92	1 vs. 2	.65	.010
	(2.50)	(3.17)	(2.90)	1 vs. 3	.03	*ns*
				2 vs. 3	−.58	.026

Note: Standard deviations are shown in parentheses. The *p* values are based on two-tailed significance tests.
[a]$n = 36$. [b]$n = 29$. [c]$n = 24$.

Krackow & Rudolph (2008)

Krackow & Rudolph (2008) (2)

Mean Scores and Planned Comparisons on Cognitive Appraisals by Diagnostic Group

	Nonsymptomatic[a] *1*	*Subsyndromal Depression*[b] *2*	*Clinical Depression*[c] *3*	*Planned Group Comparisons*	*Effect Size (d)*	*p*
Stress Estimation						
Interpersonal	−.41	−.10	.23	1 vs. 2	.43	*ns*
	(.65)	(.80)	(.66)	1 vs. 3	.98	.002
				2 vs. 3	.45	*ns*
Noninterpersonal	−.25	.30	.37	1 vs. 2	.69	.014
	(.84)	(.74)	(.78)	1 vs. 3	.76	.010
				2 vs. 3	.09	*ns*
Dependence Estimation						
Interpersonal	−.23	.00	.33	1 vs. 2	.30	*ns*
	(.81)	(.74)	(.65)	1 vs. 3	.76	.011
				2 vs. 3	.47	*ns*
Noninterpersonal	−.09	.10	.06	1 vs. 2	.21	*ns*
	(.71)	(1.08)	(.76)	1 vs. 3	.20	*ns*
				2 vs. 3	−.04	*ns*

Note: Standard deviations are shown in parentheses. The *p* values are based on two-tailed significance tests. Total sample sizes vary slightly across analyses.
[a]$n = 29$. [b]$n = 26$. [c]$n = 22$.

Krackow & Rudolph (2008)

Krackow & Rudolph (2008) (3)

Those with depression:

- Overestimated the stressfulness of events
- Overestimated their contribution to events
- Experienced more environmental adversity, ***however*** they appraise events differently

It is important to consider:

- Realistic interpersonal difficulties

And

- Biased appraisals of experiences

Click **Next** to continue

What about the future?

Cognitive models in the context of psychosis

Cognitive models place interpretations and appraisals as central to understanding the distress experienced by the person.

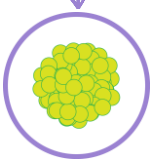
This basic model is applicable to range of disorders.

Intrusion → **Interpretation** → **Emotion**

Cognitive models to develop person-specific understanding to guide treatment

Misinterpretation of the same situation → Different concerns → Associated with different disorders

Morrison examples:

Racing thoughts or palpitations		A benign lump in one's skin		An unacceptable blasphemous thought	
					
Alien control	*Heart attack*	*Sign of cancer*	*Transmitter device*	*Something bad will happen*	*Demonic possession*
Delusional	**Panic disorder**	**Health anxiety**	**Psychotic**	**OCD**	**Psychosis**

Morrison (2001)

Morrison (2001) (1)

Growing acceptance

Voices are a normal psychological phenomenon

Hallucinations common in older adults following bereavement

10-25%

Had had experiences at least one

Morrison (2001)

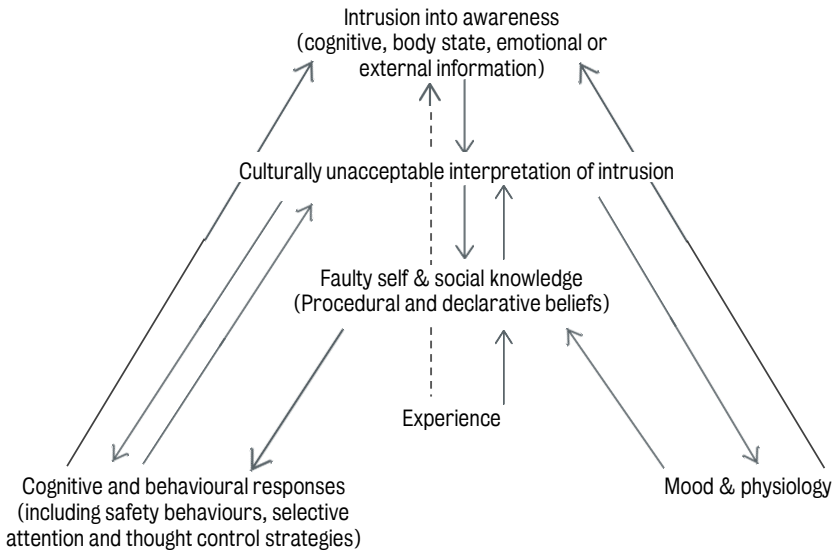
Morrison (2001) (2)

Case Study – Key Points

A young mother physically abused by her father

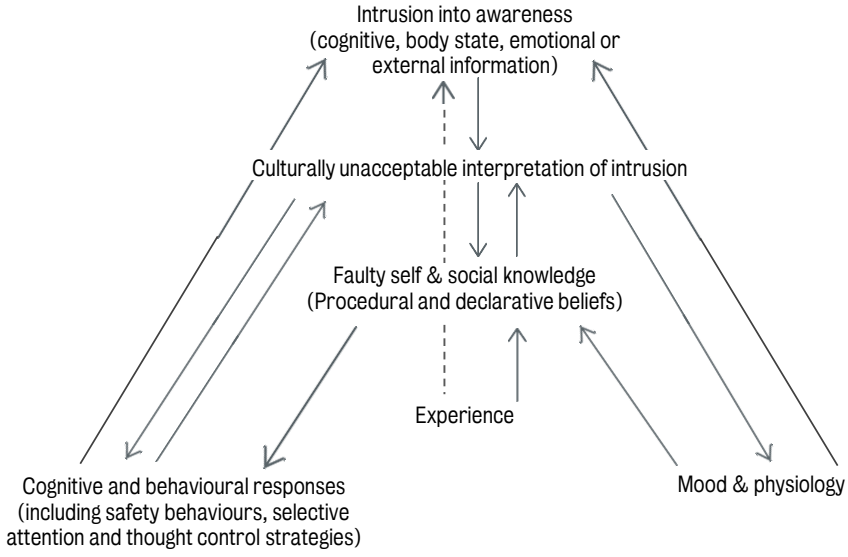
People didn't help her
"Don't be silly your daddy loves you very much."

She has a baby
- Stays at home more
- Starts to feel isolated and lonely



Morrison (2001)

Morrison (2001) (3)



Morrison (2001)

Summary

Interpretations in mental health:

- How they are assessed
- How they inform our understanding of what contributes to vulnerability
- How cognitive models help us generate person specific formulation to guide treatment

References

Beck, A. T. (1970). The core problem in depression: The cognitive triad. *Science and Psychoanalysis, 17*, 47–55.

Beck, A. T., & Steer, R. A. (1987). *Manual for the revised Beck depression inventory.* San Antonio, TX: Psychological Corporation.

Cannon, W.B. (1927). The James-Lange theory of emotions: A critical examination and an alternative theory. *The American Journal of Psychology, 39*, 106–124. doi: 10.2307/1415404.

Cannon, W.B. (1931). Again the James-Lange and the thalamic theories of emotion. *Psychological Review 38*, 281–195. doi: 10.1037/h0072957

Dutton, D. G., & Aron, A. P. (1974). Some evidence for heightened sexual attraction under conditions of high anxiety. *Journal of Personality and Social Psychology, 30*: 510-517.

James, W. (1890) *The Principles of Psychology* (Vol. 1). New York: Holt

Krackow, E., & Rudolph, K. D. (2008). Life stress and the accuracy of cognitive appraisals in depressed youth. *Journal of Clinical Child & Adolescent Psychology, 37*, 376-385. doi: 10.1080/15374410801955797

Lazarus, R S, (1966). *Psychological Stress and the Coping Process*. New York: McGraw-Hill.

Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, *81*, 146-159. doi: 10.1037/0022-3514.81.1.146

Miers, A. C., Blöte, A. W., Bögels, S. M., & Westenberg, P. M. (2008). Interpretation bias and social anxiety in adolescents. *Journal of Anxiety Disorders, 22*, 1462-1471. doi: 10.1016/j.janxdis.2008.02.010

Morrison, A. P. (2001). The interpretation of intrusions in psychosis: an integrative cognitive approach to hallucinations and delusions. *Behavioural and Cognitive Psychotherapy, 29*, 257-276. doi: 10.1017/S1352465801003010

References

Schachter, S. (1964). The interaction of cognitive and physiological determinants of emotional state. *Advances in Experimental Social Psychology, 1*, 49-80.

Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology, 48*, 813-838. doi: 10.1037/0022-3514.48.4.813

Strack F., Martin, L. L., & Stepper, S. (1988). Inhibiting and facilitating conditions of the human smile: a nonobtrusive test of the facial feedback hypothesis. *Journal of personality and social psychology, 54*, 768-777. doi: 10.1037/0022-3514.54.5.768