



Misattribution, distortions and mistakes

Health Psychology (CMED2006)

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Learning Objectives

At the end of the lecture, student should be able to

- Describe the common errors of attribution
- Describe how cognitive distortions affect behaviour
- Suggest ways to help people avoid misattribution and cognitive distortions





Parti Attribution & Attribution Errors





Attribution

Attribution is the act of explaining the cause of an event

Mostly, events are attributed to one of three categories of cause:

Internal cause (due to the actor), External cause

(due to the environment), or Chance/Fate

Of course, most events do not have one single cause, but we are prone to want to identify one cause as the most important



Scenario 1

A group of students just received the results from their last exam. All of them received a D grade, and all of them vowed that they will get a higher grade next time. Some of them study harder as a result, others look for resources online, yet others did not change their behaviour.

Why the difference?





Behaviour driven by Attribution

If the poor exam result is attributed to lack of studying

→ study harder

If the poor exam result is attributed to poor teaching

→ other resources

If the poor exam result is attributed to bad luck -> ???



Tool 14: (Making) Attribution(s)

People's decisions and behaviours are often influenced by
what they perceive as the cause of an event

This act of attribution often involves mistakes
(i.e., making attribution errors)

Tool 15: Fundamental Attribution Error

Fundamental attribution error refers to our tendency to attribute events to internal causes (e.g. characteristics of the person) rather than external causes (e.g. environment)

If a person breaks fast at Starbucks everyday,
we tend to attribute it to her fondness of Starbucks
(rather than convenience of the location)



Tool 16: Actor—Observer Bias

Actor—Observer Bias refers to our tendency to attribute events to external causes when we are the actor; and internal causes when we are the observer

If a person failed an exam, they are more likely to attribute it to the difficulty of the exam or the weakness of the teaching; observers are more likely to attribute it to a lack of revision



Tool 17: Self-Serving Bias

Self-Serving Bias refers to the fact that individuals are more likely to attribute the cause of their success to internal factors (self-enhancing bias); where failures are more likely to be attributed to external factors (self-protecting bias)

If students got good grade in a course, the lecturer is likely to attribute it to her own good teaching; the students are likely to attribute it to their own hardwork



Tool 18: Just World Hypothesis

Just-world hypothesis refers to the belief that the world is just,
where good things happen to good people and bad things
happen to bad people

In other words, attributing an event to cosmic force of justice

Might lead to self-blaming / blaming the victim



Tool 19: Magical Thinking

Magical thinking refers to the belief that one event
(usually a personal thought or personal behaviour)
causes another when that is highly implausible

For example, some supporters of sports-teams might
believe that their team is more likely to win
if they do not watch the live coverage of their matches



Part 2

Cognitive Distortions



Scenario 2

Idy is very unhappy with her boyfriend. Although he is generally very nice and spends a lot of time with her, he sometimes rather play video games with his friends than watch TV dramas with her. She therefore thinks he does not care about her.





Cognitive Distortions

Aaron Beck, the founder of Cognitive Therapy, proposed a number of exaggerated or irrational thought patterns that cause individuals to perceive reality inaccurately

These distortions of reality can, in turn cause the individuals to behave negatively; and are major cognitive causes for depression and anxiety



A List of Cognitive Distortions

- All-or-nothing thinking
- Overgeneralization
- Mental filter
- Discounting the positives
- Jumping to conclusions (Mind reading & Fortune-telling)
- Magnification or minimization
- Emotional reasoning
- “Should statements”
- Labeling
- Personalization and blame

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CHECKLIST OF COGNITIVE DISTORTIONS*

1. All-or-nothing thinking: You look at things in absolute, black-and-white categories.
2. Overgeneralization: You view a negative event as a never-ending pattern of defeat.
3. Mental filter: You dwell on the negatives and ignore the positives.
4. Discounting the positives: You insist that your accomplishments or positive qualities "don't count."
5. Jumping to conclusions: (A) Mind reading—you assume that people are reacting negatively to you when there's no definite evidence for this; (B) Fortune-telling—you arbitrarily predict that things will turn out badly.
6. Magnification or minimization: You blow things way up out of proportion or you shrink their importance inappropriately.
7. Emotional reasoning: You reason from how you feel: "I *feel* like an idiot, so I really must be one." Or "I don't *feel* like doing this, so I'll put it off."
8. "Should statements": You criticize yourself or other people with "shoulds" or "shouldn'ts." "Musts," "oughts," and "have tos" are similar offenders.
9. Labeling: You identify with your shortcomings. Instead of saying "I made a mistake," you tell yourself, "I'm a jerk," or "a fool," or "a loser."
10. Personalization and blame: You blame yourself for something you weren't entirely responsible for, or you blame other people and overlook ways that your own attitudes and behavior might contribute to a problem.

*Copyright © 1980 by David D. Burns, M.D. Adapted from *Feeling Good: The New Mood Therapy* (New York: William Morrow & Company, 1980; Signet, 1981)

From Burns DD (1999) *The Feeling Good Handbook*

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Tool 20a: All -or-nothing Thinking

All-or-nothing (polarized) thinking means seeing things in black-and-white categories; e.g.,

Your own performance is either perfect, or a total failure

A politician is either all good or all bad

A sports team is either the best, or complete trash

Someone is either with us, or against us



Tool 20b: Overgeneralization

Overgeneralization means interpreting a single event as representative of the whole picture; e.g.,

I failed once, which means I'll always fail

She lied to me once, so I'll never trust her again

He didn't enjoy the movie I like - we have nothing in common





Tool 20c: Mental Filtering

Mental filtering means filtering out (i.e., ignoring) the positive aspects of the situation and only focus on the negatives; e.g.,

I made two mistakes during my performance... it does not matter what else I did for the rest of it - the performance is ruined



Tool 2od: Discounting the Positives

Discounting the positives means devaluating the positive aspects of something and therefore does not take them into account when evaluating the situation; e.g.,

I know I always provide emotional and financial support to my children - but not being able to read to them during bedtime means I'm a bad parent



Tool 2oe: Jumping to Conclusion

Jumping to conclusion means reaching preliminary conclusion
with little or no evidence - two subtypes being
mind-reading and fortune-telling; e.g.,

When she looks at me, I know she's laughing at me inside

The plane I'm on is going to crash - I just know it



Tool 2 of: Magnification or Minimization

Magnification means vastly overvaluing the importance of something; minimization means vastly undervaluing it; e.g.,

Failing this one quiz means I'm going to fail the whole course

It's just one quiz - it does not really matter if I fail





Tool 2og: Emotional Reasoning

Emotional reasoning means letting one's feelings determine how one analyze the situation; e.g.,

I feel like a terrible parent, so I really must be one

I feel suspicious about this person...

they must be hiding something





Tool 2oh: “Should Statements”

Should statements means having compulsion that a person (maybe oneself) must/mustn't/should/shouldn't do something

I should study - but I am not... I am such a bad student

Lovers should never argue. We just had an argument...

that's terrible...





Tool 2oi: Labeling

Labeling means attaching a label to a person who displayed a shortcoming and let that label dominates one's perception

I was fired from my job... I'm such a loser. (And therefore treats oneself as a loser from then on)

Ignore what Canice says - he failed his exam... He is just an idiot.



Tool 2oj: Personalization and Blame

Personalization and blame means attributing totally to someone (maybe oneself) for something that they were not entirely responsible for; e.g.,

My parents are upset... it must be because of me

I failed this course... but it's totally because the teacher was bad



Tool 20: Cognitive Distortions

People sometimes have exaggerated or irrational thought patterns that cause them to perceive reality inaccurately

These distortions (or misinterpretation) can lead to frustrations, negative emotions and regrettable behaviours





Part 3

Defence Mechanism

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Tool 21: Defence Mechanism

Some psychologists proposed that our mind sometimes try to protect ourselves against feelings of anxiety (or other unpleasant emotions and feelings) by redirecting our thoughts*; e.g.,

Projection (e.g., thinks that others are angry when in fact yourself is angry) and Wishful Thinking

* Defence mechanism can also be delivered, unconsciously, through behaviours, emotions, facial expressions, and other psychological/physiological operations



Part 4

What's Happening Here?



Scenario 3

Anna is an actress who is famous for her portrayal of evil roles on TV and in movies. Although it is clear that what she does and says on screen are based on the scripts she is given, some people believe she is sympathetic towards these deeds and views, and therefore dislike her for that.

Why would some people think that?





Scenario 4

Barry has many diabetic patients. Although he teaches all of them the importance of diabetic control in the same way, only about half of his patients managed to control their diabetes. He therefore concludes that he did a great job helping the good half; and the bad half all had poor self-control.

What is a possible fault in Barry's thinking?





Scenario 5

Mr Chan is a chronic smoker. Many of his friends died from lung cancer, and his wife tried to get him to quit smoking. However, Mr Chan is not interested in quitting. “Whatever happens happens,” he says. “And we are all going to die someday, so why not enjoy ourselves?”

What are the possible thought processes behind Mr Chan’s statement? Anything wrong with that? Would you challenge it?^{^^J}



Scenario 6. Excerpt from SCMP 2018-09-02

“Hong Kong’s North District Hospital will set up an expert panel to probe the death of a 64-year-old diabetic with pancreatic cancer and a heart condition who died in May after a nurse forgot to hand over his medicine.

The hospital in Sheung Shui on Saturday said the male patient had been admitted to its emergency ward on April 23 for abdominal pain, vomiting and weaknesses in the lower limbs. He was diagnosed with diabetes and cardiovascular disease and the next day confirmed to also have pancreatic cancer, which had spread to the liver.





Scenario 6. Excerpt from SCMP 2018-09-02

After receiving treatment under observation, he was discharged on May 4 with medicine for diabetes, his heart condition and high blood pressure.

'While the patient was waiting to be discharged, the ward nurse put the drugs in a drawer... and did not hand them to the patient before he left,' a hospital spokesman said. The man was let go that afternoon without the medication, and staff did not realise their mistake for two weeks.'

Who, if anyone, caused the patient's death?



Scenario 7

Danny was suffering from fever and running nose. He went to see his family doctor, was diagnosed with seasonal influenza. However, after taking his medicine for 1 day, he did not observe any improvement to his symptoms. He therefore concluded that his family doctor is useless, and decided to visit any doctor.

Anything wrong with Danny's thought process and decision?



Scenario 8

Emily has always been a good patient. She takes her medication on time, never missed her medical consultation, and always tried to follow her doctor's suggestions. However, she missed her most recent follow up and did not answer when the nurse tried to phone her. As a result, she is now considered a bad patient.

Why did the nurse consider Emily a bad patient? Is that fair?



Scenario 9

Felix has just been diagnosed with lung cancer. Although his doctor told him that his lung cancer is most likely due to his smoking habits, he is not convinced. In his mind, he is only a light smoker, and many of his friends smoke much more heavily than him yet did not have lung cancer. He asks you, ‘Why me? I did not do anything evil. Why do I get this terrible disease?’

How would you answer Felix’s (slightly rhetorical) question?



Scenario 10

Gerrard is a professional football player. He recently sustained an injury and his doctor told him he might not be able to play football professionally again. His agent also suggests that he might want to start working on a coaching license if he wants to continue to be involved in professional football.

However, Gerrard is extremely confident that he can quickly recover and get back to his old team. He points to many prior examples of athletes making full recovery - and also to the fact that Jesus appeared in a dream of his and told him he will recover



Part 5

Behavioural Change

Case 3

Canice, 40, is a banker with diabetes mellitus. According to him, the main reason for his diagnosis is fate... and the fact that both his parents have diabetes. As a result, he have not improved his diet nor his exercise regime since his diagnosis

He thinks that he is extremely healthy because he is physical quite fit, and his medication always keep his HbAic level low - and he sees himself as a very good patient because he never missed any medication, follow up, or even HBGM.

He is also not very confident that he can change his lifestyle even if he wants to. He regards himself as a workaholic - in fact, he tried to abstain from all unhealthy foods and exercise for 150 minutes per week once when he was younger, but found that impossible given his busy work - so he decided not to even try anymore.



Case 3 - Explain

Explain Canice's decision to not change his lifestyle (in response to having DM) - focusing on his thought processes and his interpretation of the situation

Given his belief systems and the scientific facts about diabetes, diet, and physical activities, can you identify any biases, errors, distortions... and rational thoughts?





Case 3 -Maybe Intervene

What are the facts that you can give him (that you think might help him)?

What are the aspects of his situation that you might want to make him understand/interpret correctly?

Are there aspects of his situation/beliefs that you might not want to challenge (even if you think they are incorrect)?



Conclusion

Our behaviours are largely affected by
how we interpret the situation around us

If we misunderstand or misinterpret the situation (e.g.,
by making attribution errors or having cognitive distortions) ,
our behaviours and decisions are likely to be far from ideal



Reading / References

- Cacioppo, JT, Freberg, LA & Cacioppo, S (2022). Discovering Psychology: Science of Mind (4th ed.). Chapter 13: Social Psychology. Cengage Learning.
- Burns, DD (1999) The Feeling Good Handbook. Plume.
- How to recognize and tame your cognitive distortions.

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