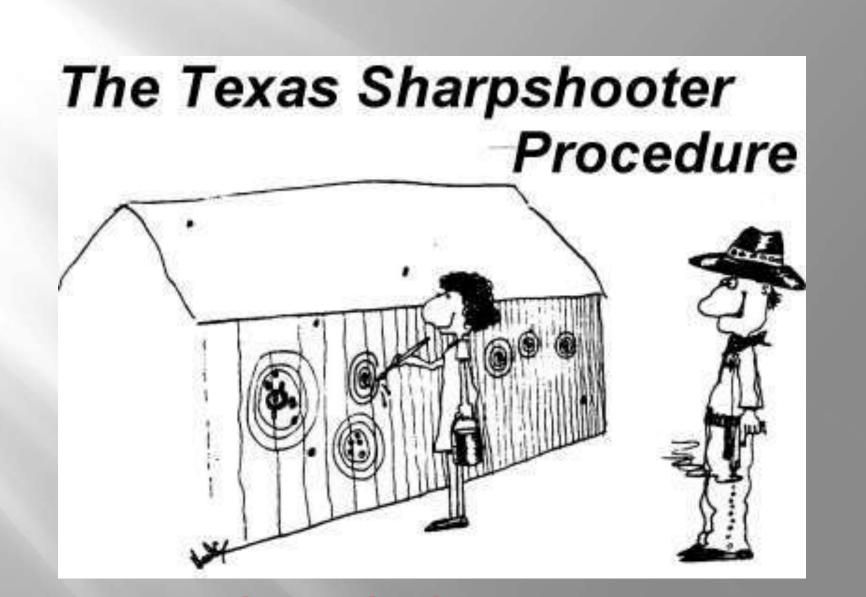


Decomposing bias in our beliefs



But do we do this on purpose?

Fischhoff, B. (1975). Hindsight ≠ foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, *1*, 288–299.

Ratings of probability of ending: Historical event (war)

GROUP:	Probab. of Ending 1	Probab. of Ending 2	Probab. of Ending 3	Probab. of Ending 4
Ending not stated	33.8	21.3	32.3	13.4
Ending 1	57.2	14.3	15.3	10.5
Ending 2	30.3	38.4	20.4	10.5
Ending 3	25.7	17.0	48.0	9.9
Ending 4	33.0	15.8	24.3	27.0

Fischhoff, B. (1975). Hindsight ≠ foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, *1*, 288–299.

Ratings of probability of ending: Historical event (riot)

GROUP:	Probab. of Ending 1	Probab. of Ending 2	Probab. of Ending 3	Probab. of Ending 4
Ending not stated	11.2	30.8	43.8	14.2
Ending 1	30.6	25.8	23.3	20.3
Ending 2	5.5	51.8	24.3	18.5
Ending 3	3.9	23.9	50.8	21.4
Ending 4	16.7	31.9	23.4	27.9

Fischhoff, B. (1975). Hindsight ≠ foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, *1*, 288–299.

Ratings of probability of ending: Therapy outcome 1

GROUP:	Probab. of Ending 1	Probab. of Ending 2	Probab. of Ending 3	Probab. of Ending 4
Ending not stated	26.6	15.8	23.4	34.4
Ending 1	43.1	13.9	17.3	25.8
Ending 2	26.5	23.3	13.4	36.9
Ending 3	30.6	14.1	34.1	21.3
Ending 4	21.2	10.2	22.6	46.1

Fischhoff, B. (1975). Hindsight ≠ foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, *1*, 288–299.

Ratings of probability of ending: *Therapy outcome 2*

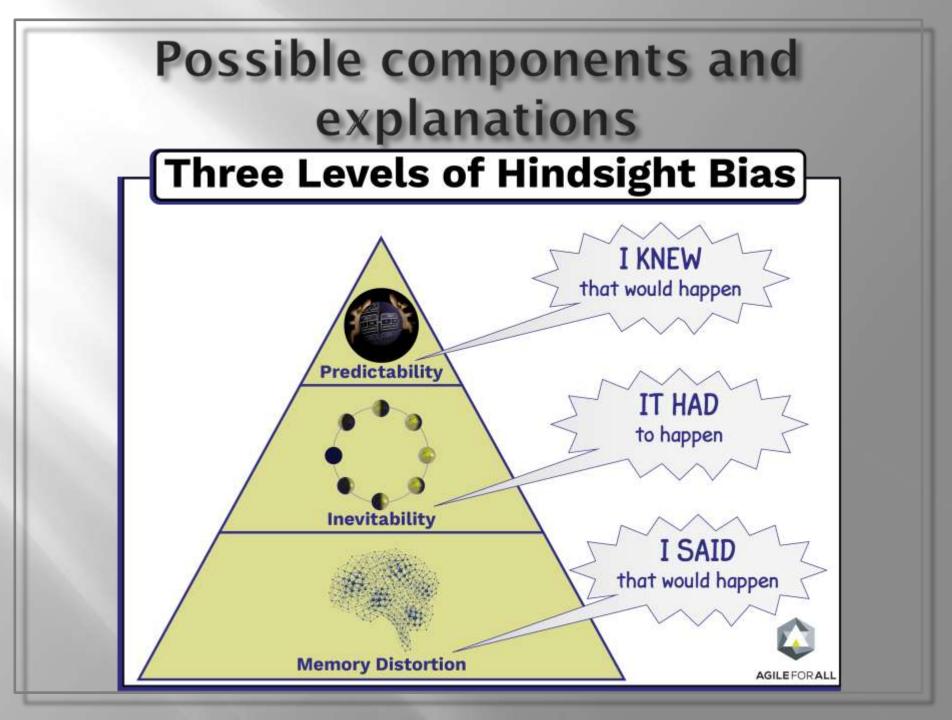
GROUP:	Probab. of Ending 1	Probab. of Ending 2	Probab. of Ending 3	Probab. of Ending 4
Ending not stated	27.4	26.9	39.4	6.3
Ending 1	33.6	20.8	37.8	8.0
Ending 2	22.4	41.8	28.9	7.1
Ending 3	20.5	22.3	50.0	7.3
Ending 4	30.6	19.5	37.7	12.3



Fischhoff also found that:

- The bias persisted when participants were told to ignore the actual ending or guess the estimate of a person who did not know the actual ending
- HINDSIGHT BIAS = tendency to perceive the already-known outcomes of an event as much more predictable than they really were + feeling that we have actually known it all along (or at least "had a hunch")

What are the psychological mechanisms behind hindsight bias?

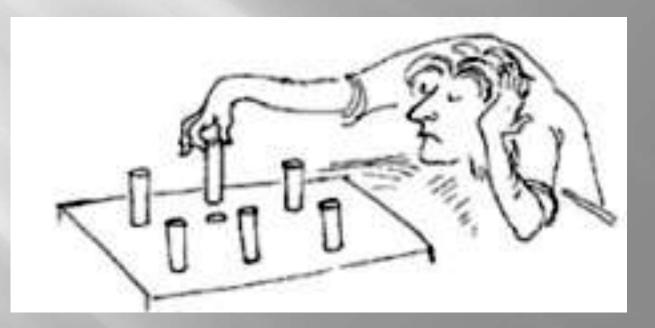


What are the positive and negative consequences of hindsight bias?

What do we know about ourselves and others?

What do we know about ourselves? Are you sure about your beliefs, feelings, reasons why you do X or Y?

Festinger & Carlsmith, 1959



Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *The Journal of Abnormal and Social Psychology*, *58*(2), 203-210.

Group A:

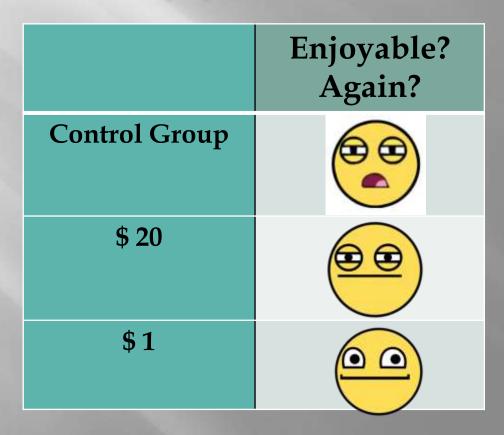
- Asked to do a tedious task for more than 1 h
- Asked to do a "favour" for the experimenter:
- Persuade next participant that the task was interesting
- Paid \$ 20

Group B:

- Asked to do a tedious task for more than 1 h
- Asked to do a "favour" for the experiementer:
- Persuade next participant that the task was interesting
- Paid \$ 1

Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *The Journal of Abnormal and Social Psychology*, *58*(2), 203-210.

Ratings of task after payment:









"Was it worth it ...?"

Aronson, E., & Mills, J. (1959). The effect of severity of initiation on liking for a group. *The Journal of Abnormal and Social Psychology*, *59*(2), 177-181.

Group A:

- Ready to join a discussion group
- Initiation: Reading educational sex-related text
- Asked to rate conversation of the group they joined

Group B:

- Ready to join a discussion group
- Initiation: Reading embarrassing pornographic text
- Asked to rate conversation of the group they joined

"Was it worth it ...?"

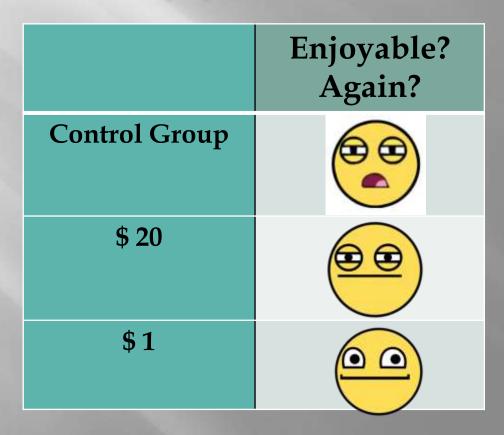
Aronson, E., & Mills, J. (1959). The effect of severity of initiation on liking for a group. *The Journal of Abnormal and Social Psychology*, *59*(2), 177-181.

Ratings of recorded (boring) conversation:

	Interesting discussion?
Control Group	
Low embarrassment	
High embarrassment	

Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *The Journal of Abnormal and Social Psychology*, *58*(2), 203-210.

Ratings of task after payment:



Cognitive dissonance

- When our actions are in conflict (dissonance) with our beliefs, values, or primary motives we are inclined to change either the belief or the behaviour
- Which of these changes depends on which one is easier to change (e.g. we cannot change our past actions → we tend to change our belief)
- Which other behaviours are difficult to change?

Cognitive dissonance

- When our actions are in conflict (dissonance) with our beliefs, values, or primary motives we are inclined to change either the belief or the behaviour
- Which of these changes depends on which one is easier to change (e.g. we cannot change our past actions → we tend to change our belief)
- Other behaviours are difficult to change: bad habits, impulsive behaviour, conforming to group behaviour...

What do we know about ourselves? Do we know who we are?

IS THIS YOU?

- You have a great need for other people to like and admire you.
- You have a tendency to be critical of yourself.
- You have a great deal of unused capacity which you have not turned to your advantage.
- While you have some personality weaknesses, you are generally able to compensate for them.
- Your sexual adjustment has presented problems for you.
- Disciplined and self-controlled outside, you tend to be worrisome and insecure inside.
- At times you have serious doubts as to whether you have made the right decision or done the right thing.

"They know all about me!"

Forer, B. R. (1949). The fallacy of personal validation: A classroom demonstration of gullibility. *The Journal of Abnormal and Social Psychology*, 44(1), 118-123.

Rating of profile accuracy	0	1	2	3	4	5
No. of subjects	-	-	1	4	18	16

The Forer effect / Barnum effect / personal validation fallacy = tendency to see highly universal statements that are true of most people as highly accurate and personalized descriptions of one's own personality



The Forer / Barnum Effect HOW DOES IT WORK?

- Generality of interpretation true of almost all people but allow "projection" of many different experiences that are unique
- Interpretation presented as personalized people fail to think about the generality of statements when these are presented as personal descriptions of their personality

Favourability – statements suggesting positive characteristics (care for others, sensitivity, "rich" and strong personality...) are more likely to be seen as accurate descriptions (generally accepted attributes of a good person)

"Revelations" – may point to issues that are common to all people but are considered very private

Is using the Barnum effect always wrong?

What do we know about others? Are we always fair judges of other people? What are some of the common mistakes we make?

What do we know about others? Do we know what motivates their actions?

Why do others do what they do?

Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology*, 3(1), 1-24.

Ratings of to what extent the author of the essay was himself a "pro-Castro":

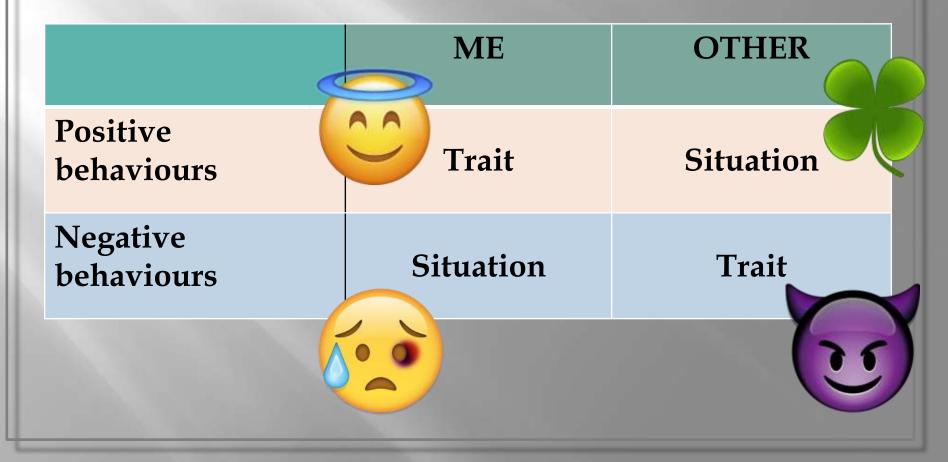
	Pro-Castro essay	Anti-Castro essay
Author could choose viewpoint	59.62	17.38
Author could not choose viewpoint	44.10	22.87

Fundamental attribution error

- We tend to overestimate the causal impact of stable characteristics when evaluating other people's behaviour
- WHY?
- Is this always the case?

Attribution error revisited

Later research and meta-analyses revealed a more compelx pattern:





Self-serving bias

Self-serving bias = tendency to interpret situations in ways that protect or enhance one's self-esteem



Other things that bias our perception of others...

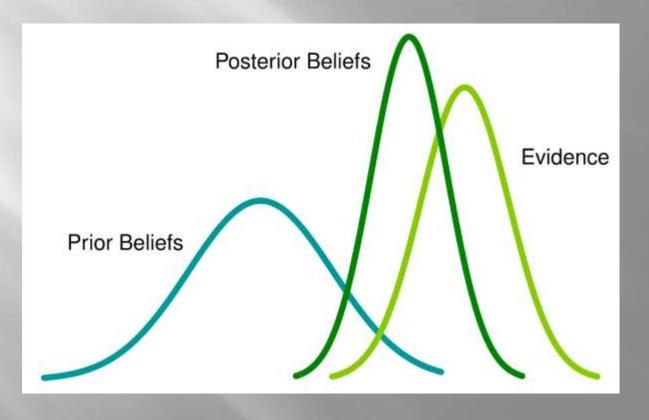
Is first impression important?



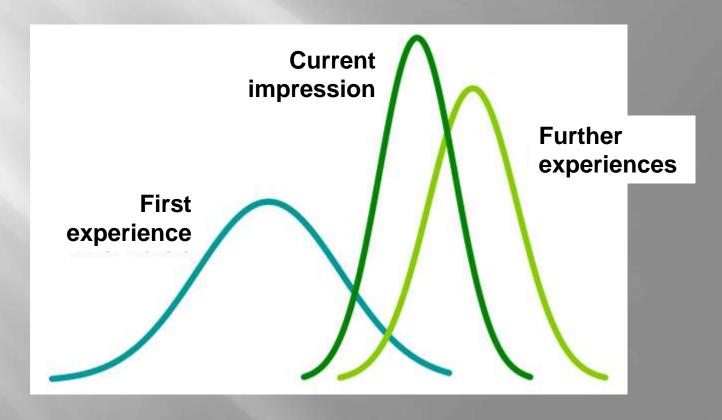
= a tendency of our first impression of a person to "frame" our global impression of him/her in the future



= a tendency of our first impression of a person to "frame" our global impression of him/her in the future



= a tendency of our first impression of a person to "frame" our global impression of him/her in the future



Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, 35(4), 250-256.

Students asked to evaluate a new psychology instructor with French accent

	Physical attractiveness	Mannerisms likeable	Accent likeable
Teacher presented as likeable	70%	60%	50%
Teacher presented as cold	30%	40%	30%

Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, 35(4), 250-256.

"Did the teacher's behaviour influence your ratings of his physical attractiveness?"

	Physical attractiveness	Mannerisms	Accent
Teacher presented as likeable	No	No	No
Teacher presented as cold	No	No	No

Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, 35(4), 250-256.

"Did the teacher's attractiveness/mannerisms/accent influence your ratings of his behaviour?"

	Physical attractiveness	Mannerisms	Accent
Teacher presented as likeable	Not too much	Maybe a little, in a positive way	Might have
Teacher presented as cold	Yes, negatively	Yes, negatively	Yes, negatively

= people usually associate with physical attractiveness but it can also be the other way round!!! (first impression of behaviour influences perceptions of physical attractiveness)



What do we know about others? Do we know what other people think / prefer?

Do students prefer to go to sleep before or after midnight?

False consensus effect

Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13(3), 279-301.

% of people choosing Option 1 vs. Option 2

	Option 1	Option 2	Option 1	Option 2
Situation 1 – Self	66			34
Others – estimate	75.6	24.4	57.3	42.7
Situation 2 – Self	80			20
Others – estimate	67.4	32.6	45.9	54.1
Situation 3 – Self	46			54
Others – estimate	71.8	28.2	51.7	48.3
Situation 4 – Self	40			60
Others – estimate	47.9	52.1	39.0	61.0

False consensus effect

Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13(3), 279-301.

- Participants tended to overestimate the extent to which other people share their opitions, decisions, habits, preferences, hobbies, fears, chracteristics, etc. (systematic differences in subjects choosing option A vs. option B by ca. 10% on average)
- The estimate of how much others will share their opinion was in most cases larger than the actual distribution in the group
- Is this a problem? When?

Conclusions

- Our social perception and self-beliefs are influenced by specific universal biases
- $\square Influenced \neq determined!$
- These biases may serve as heuristics "just in case" judgments if information processing is limited
- Knowledge of biases helps us be more honest with ourselves, grow as people and treat others more fairly BUT it is much more difficult and can be stressful – requires high self-esteem, good self-regulatory mechanisms and general perception of control ("I can make up for my mistakes" / "I can do this better" / "I can change my behaviour" / "It's OK that others are better at this" etc.) – biases in social perception and self-perception may compensate for a lack of these in individuals who are mentally healthy

Conclusions

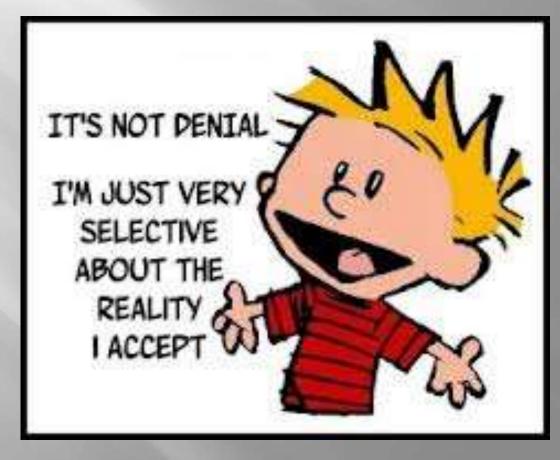
 Knowledge of biases helps us be more honest with ourselves, grow as people and treat others more fairly BUT

> Before you decide you have anger management issues, make sure that you are not surrounded by assholes.

somee cards

Mild optimistic and self-serving biases are normal in mentally healthy people.

That doesn't mean they're virtues.



Conclusions

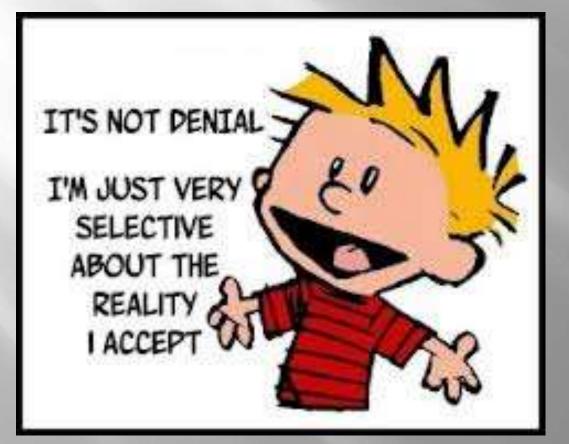
Which one...?

Before you decide you have anger management issues, make sure that you are not surrounded by assholes.



When you think everything is someone else's fault, you will suffer a lot. Dalai Lama

What we think we know of ourselves and others



Thank you!