

## 1 ☐ Distorted data

- ✓ Selective perception
  - seeing what we EXPECT to see
  - seeing what we WANT to see
- ✓ Distorted memories
  - we don't really REMEMBER what we saw.
- ✓ Context
  - we were affected by the PRESENTATION of the data

## 2 ☐ Selective perception – seeing what we EXPECT to see

- ✓ People have a strong tendency to see what they expect to see
  - We are less responsive to contradictory data than we should be
  - But, the issue is complicated
    - Constant re-evaluation?
    - Contradictory data vs. lifetime of support.
    - SKEPTICISM vs. CLOSE-MINDEDNESS.
      - Whether we are smart or ignorant depends on where we draw the line!

## 3 ☐ Expectations vs. Chemistry

- ✓ Their effect on the outcome of experiments
  - Demand characteristics
  - Wilson & Abrams (1977) study on the effects of alcohol on heart rate
    - *Vodka & tonic vs. tonic, half lied to.*
  - Placebo effect
  - Research design issue
    - Use of placebos
    - Use of deception

## 4 ☐ Strongest when evaluating truly ambiguous information

- ✓ Assessing penalties/fouls in sports
- ✓ Who is the better presidential candidate?
- ✓ Is the defendant guilty?
- ✓ Diagnosing mental disorders (problem of comorbidity)
- ✓ Will I be happy that I majored in psychology, etc., five years from now?

## 5 ☐ People's negative perceptions of the color black

- ✓ It's seen as more aggressive, evil, mean.
  - Frank & Gilovich (1988)
    - Trained referees viewed one of two videotapes showing the same aggressive play in a football scrimmage.
    - *One team was wearing white and the other black.*

## 6 ☐ Does this occur in Real Life?

- ✓ Football teams that wear black have been penalized much more than other teams
  - Average penalty yards (z-scores) of NFL teams that wear black (1970 - 1986)

- 1.19 Oakland Raiders (rank 1)
- 0.48 Pittsburgh Steelers (rank 3)
- 0.29 Chicago Bears
- 0.27 Cincinnati Bengals
- 0.10 New Orleans Saints

## 7 ☐ What about hockey?

- ✓ Hockey teams that wear black have been penalized much more than other teams
  - Average number of penalty minutes (z-scores) of NHL teams that wear black (1970 - 1986)
    - 2.01 Philadelphia Flyers (rank 1)
    - 0.99 Pittsburgh Penguins (rank 2)
    - 0.64 Vancouver Canucks (rank 3)
    - 0.42 Boston Bruins
    - -.02 Chicago Blackhawks

## 8 ☐ Expectations and the perception of *unambiguous* information

- ✓ We tend to carefully massage the data to make it consistent with our expectations
- ✓ This is one example of a *confirmation bias* (aka *confirmatory bias*)
  - Definition: A preference for information that is consistent with prior expectations.
- ✓ Examples...

## 9 ☐ Capital punishment study

### Lord, Ross, and Lepper (1979)

- ✓ Proponents and opponents of the death penalty
- ✓ Evidence in the form of two studies
  - one providing evidence of deterrence,
  - the other evidence against.
- ✓ *Importantly*, when their views were reassessed after the study, participants (on the average) were even MORE certain of their original views.

## 10 ☐ Kierkegaard

- ✓ “No one is so terribly deceived as he who does not himself suspect it...”

## 11 ☐ Gamblers’ evaluation of wins and losses (Gilovich, 1983)

- ✓ Examined gamblers’ assessments of the outcomes of their bets on professional football games.
- ✓ They spent more time discussing their losses than their wins.
  - WINS: fully expected outcomes
  - LOSSES: near wins - some fluke is cited as influencing the outcome

## 12 ☐ Biased evaluation of scientific findings

- ✓ When expectations are met, the scientific findings are less likely to be scrutinized than if our expectations don’t hold
  - Confirmation bias again.
  - Broca’s study of the relation between brain size and intelligence (from Gould, 1981)
  - The “file drawer” effect

### 13 ☐ So, are scientific findings to be trusted?

- ✓ Scientists use safeguards (you don't!)
  - Independent review
  - Published methods allow replication
  - Statistical methods quantify chance results
  - Research design uses control groups
- ✓ BUT, confirmation bias still can occur.

### 14 ☐ Test results are what you think they are...

- ✓ Projective psychology tests
  - Draw-A-Person and Rorschach inkblot tests
  - “Projective tests” intended to capture the projections of a client’s personality or views
    - Also capture the *projected expectations* of the psychologist.
    - *Chapman & Chapman (1971)*
- ✓ Biasing test interpretation with a suggestion alters expert clinicians’ judgments.
  - Rorschach, TAT, DAP, Bender-Gestalt, Wechsler
  - Biased towards Borderline or Paranoid Personality Disorder
  - Interpretation almost entirely due to suggestion and not test outcomes! *Ben-Shakhar et al. (1998)*

### 15 ☐ “Presentism”

- ✓ “The tendency for current experience to influence one’s views of the *past* and the *future*” (Gilbert, 2005, p. 121).
  - The past will be considered in the section on distorted memory.
  - Here, I’ll consider the issue of the future: expectations about future events/states are distorted by the present.

### 16 ☐ Decisions today that affect tomorrow

- ✓ In many cases, we have to make decisions about how our “future selves” will feel.
- ✓ So, how do we guess how we’ll feel in the future (job, mate, eating that pie, sleeping in)?
  - It’s rooted in how we feel right now about those things - the present drives expectations.
  - We have a hard time understanding our future self.
    - Loewenstein et al. 1998 call this the *intrapersonal empathy gap*.

### 17 ☐ Examples of presentism

- ✓ An individual’s present appetite has a significant influence on choices about the future (Read & van Leeuwen, 1998).
  - Advance choices of healthy vs. unhealthy snacks were strongly influenced by present hunger.
  - Participants chose far more unhealthy snacks for immediate choice than for advance choice.
- ✓ Experiencing an earthquake increases accurate judgments about mortality (Burger & Palmer, 1989), but only for a while before people return to optimism.
- ✓ “It must be awful to be disabled” - we underestimate the happiness of people who are blind, deaf, etc. (Menzela, 2002).
- ✓ Predictions about future technologies are extrapolations from current technology (smaller CDs, flying cars...).

### 18 ☐ Attempts to unbias participants

- ✓ What if you tell someone that the information was completely bogus?
- ✓ Ross, Lepper, and Hubbard (1975)
  - Task: judge authentic suicide notes from fake ones.
  - Given false feedback on their performance

- Told feedback was bogus.
- People still thought that their performance was reasonably good.

## 19 ☐ Seeing what we WANT to see

- ✓ In other words, Francis Bacon was right:
  - “Man <sic> prefers to believe what he prefers to be true.”
- ✓ The effect of motivations on our perceptions
  - See Kunda (1990) *Psychological Bulletin*.

## 20 ☐ We possess a bunch of socially desirable characteristics

- ✓ A large majority of people think that they are
  - more intelligent (Wylie, 1979)
  - more fair-minded (Liebrand, Messick & Wolters, 1986)
  - less prejudiced (Fields & Schuman, 1976)
  - more skilled behind the wheel of an automobile (Svenson, 1981)

## 21 ☐ A survey of one million high-school seniors...

- ✓ Are you above average, top 10%, or top 1% in...
  - Leadership ability?
    - 70% say above average, 2% below.
  - Getting along with others?
    - 100% say above average, 60% say in top 10%, 25% in top 1%!!!

## 22 ☐ College professors aren't immune

- ✓ Even 94% of college professors thought that they were better at their jobs than their “average” colleague!!! (Cross, 1977)
- ✓ “Lake Wobegon Effect”
  - “...where the women are strong, the men are good-looking, and all of the children are above average.”

## 23 ☐ Reverse Lake Wobegon effect

- ✓ We don't always think more highly of ourselves than we should.
- ✓ Sometimes we think *less* highly of ourselves than we should.

## 24 ☐ When people compare themselves with others...

- They focus on their own level of ability and insufficiently take into account the skills of the comparison group (Kruger, 1999).
  - Where absolute skills tend to be *high* (such as driving a car), this egocentrism leads to an *above-average effect*.
  - Where absolute skills tend to be *low* (such as programming a computer), a reliable *below-average effect* emerges.

## 25 ☐ Who won?

- ✓ Sears and Whitney (1973)
  - Analyzed presidential debates between Nixon and Kennedy.
  - They asked groups of voters who they thought had “won” the debate.
- ✓ So, who won? Who they wanted to win, of course!

- This effect occurs when “winning” is a judgment and thus open to ambiguity.

## 26 ☐ Motivated judgments - ubiquitous!

- ✓ People led to believe that caffeine is bad for their health reported less caffeine consumption - and vice versa (Sherman & Kunda, 1989).
- ✓ People rate the probability of contracting an STD as lower when they are sexually motivated (Blanton & Gerrard, 1997).
- ✓ Good outcomes are more likely for you than for someone else and vice versa for bad outcomes (Smits & Hoorens, 2005).
- ✓ When the governor is from your party, he/she is less to blame (and vice versa, Rudolph, 2006).

## 27 ☐ Motivated to see...

- ✓ Balcetis and Dunning (2006) asked participants to quickly identify whether a particular visual figure was a:
  - Letter or a number (400 ms).

- Farm animal or a sea creature (1 s).

## 28 ☐ Balcetis & Dunning, cont

- ✓ Figure was ambiguous with two interpretations.
- ✓ One of the interpretations resulted in the participant being assigned to either:
  - a good group (taste testing orange juice), or
  - a bad group (taste testing veggie drink).
- ✓ Participants were 2-3 times more likely to pick the positive interpretation.
  - Alternative explanations eliminated - they really did *see* the better one and didn't just *report* it.

## 29 ☐ Seeing what you expect/want to see... Bottom line

- ✓ Are you an objective observer?
  - NO.
- ✓ Your motivations influence your beliefs
  - We subtly choose a “comforting pattern” from the evidence.
    - Introversion/extroversion study of Kunda
  - See Kunda (1990) *Psychological Bulletin* for review.
- ✓ Our motivations affect what we read, who we consult, and the amount of information we seek.
  - This produces a *biased sampling* of the data.
  - Unfortunately, people don't understand the importance of representative samples and sample size.
- ✓ So, why does this belief persist? Isn't a distorted picture of self and of the data bad?

## 30 ☐ Some tentative answers...

- ✓ An inflated sense of self can be reinforcing.
  - It causes you to try to do things at the limit of your ability.
  - Inflating your abilities raises your esteem in others' eyes (but be careful...).
- ✓ Only seeking data that support your beliefs can help you win arguments.
  - This is also reinforcing.

## 31 ☐ So, how to discourage motivationally-driven judgments?

- ✓ Change motivations
  - Require the observer (perhaps yourself) to take the other position and argue for it.
- ✓ Change the reinforcers

- Accurate (rather than inflated) self-assessment of ability could be reinforced.
- Accurate judgment is reinforced (rather than winning an argument or seeming competent).
  - Difficult when “accuracy” is ambiguous.

✓ *Keep good records of your and others’ performance!!!*

- Base judgments on data where available.

### 32 ☐ Distorted memories

- ✓ Reconstructive nature of memory
  - Logical stories, presentism, motivations
- ✓ Suggestibility
  - People confuse personal recollection with outside sources of information.
- ✓ Leading questions

### 33 ☐ Elizabeth Loftus and co.

- ✓ Loftus & Palmer (1974)
  - Subjects watched films of a traffic accident
  - Later answered series of questions, including speed of vehicles.
  - Memory of speed affected by wording of question.
- ✓ How questions asked can alter responses.

### 34 ☐ Loftus (1979)

- ✓ Deliberately misinformed observers.
  - Mentioned non-existent barn in questions
- ✓ One week later
  - Series of questions including “Did you see a barn?”
- ✓ 19% of subjects who were given the misleading question said “yes”
- ✓ 5% not given this information said “yes”

### 35 ☐ Loftus, Miller, & Burns (1978)

- ✓ Stop sign vs. Yield sign in photos
- ✓ Half of each group received a question that mentioned a stop sign, half a yield sign.
- ✓ A few minutes later, forced choice test
  - Consistent question: 70% correct
  - Inconsistent question: 40% correct
- ✓ Our memories are reconstructions not videotapes or photographs

### 36 ☐ Stephen Ceci - child memory

- ✓ Childrens’ memories are even more susceptible to suggestion.
  - See *Annual Review of Psych - Bruck & Ceci (1999)*
  - Major factors:
    - Age - Young children (ESPECIALLY preschoolers) are disproportionately more vulnerable.
    - Repeated suggestive questions or misleading information.
      - A single question like “He took off your clothes, didn’t he?” may produce few, if any, positive responses.
    - Interviewer bias
    - Closed-ended vs. open-ended questions.
    - Anatomically detailed dolls.
    - Imagining or pretend play as part of interview.

### 37 ☐ Suggestive techniques

- ✓ The use of a particular suggestive interviewing technique by itself may not necessarily result in tainted testimony
  - Especially if it is used by unbiased or mildly biased interviewers who may test alternative hypotheses and challenge children's reports.
- ✓ However, the risk of taint increases with the increase of interviewer bias

### 38 ☐ Example:

#### Bruck, Ceci, & Francoeur (2000)

- ✓ Use of anatomically detailed dolls to report genital touching in a medical examination
- ✓ During the exam, half the children (3-4 years of age) received a genital examination and half the children did not.
  - After exam, handed the dolls to the children
- ✓ Dolls should not be used in interviews with children below the age of 5 years.

### 39 ☐ Eyewitness testimony

- ✓ How good are we at simply reporting whether we saw someone commit a crime?
  - Not very good....
- ✓ Problems
  - Failure to bind face to a situation.
  - Choice affected by choice alternatives.
  - Biasing by encouraging feedback (suggestibility again...).

### 40 ☐ Failure to bind face to situation

- ✓ Aka source amnesia or source confusion
- ✓ Commonly observed that face will look familiar but not accurately remember when/where saw the person.
  - McVeigh's accomplice
  - Psychologist Donald Thomson
  - Numerous DNA cases

### 41 ☐ Choice affected by alternatives

- ✓ Wells and colleagues
  - Have shown that people tend to pick the person in the lineup that most looks like the culprit.
  - Standard lineup: often only one of the suspects matched the rough description given by the witness.

### 42 ☐

### 43 ☐ Evaluating lineup bias: The mock witness strategy

- ✓ Doob & Kirshenbaum (1973)
  - ✓ Ask "mock witnesses" to read the description of the culprit (provided by the eyewitness) and choose the police suspect from the lineup.

- ✓ The logic: If mock witnesses can identify the suspect, he/she stands out.
- ✓ If you can pick him/her out of a lineup without ever having seen him, then the lineup is not a fair test of the eyewitness's memory.


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- ✓ Acknowledgement: Thanks to Dawn McQuiston of UTEP for the following slides.

45  Case #1

- ✓ Two eyewitnesses (one Black, one White) provided this description of the perpetrator.
  - African-American male
  - Late teens
  - Small build
  - Between 5'2" and 5'5" in height
  - Long hair in some kind of braids.

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47  Case #1: Results

- ✓ McQuiston et al. asked 21 Whites and 20 Blacks on the UTEP campus to make the same judgment you just made.


White mock witnesses			Black mock witnesses		
21	0	0	18	0	0
0	0	0	0	2	0

- ✓ The defendant in this case is in Position 1. The lineup is biased.

48  Case #2

- ✓ One Hispanic eyewitness provided this description of the culprit
  - Hispanic man
  - Thin
  - Mustache
  - Collar-length hair


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50  Case #2: Results

- ✓ McQuiston et al asked 32 Hispanics on the UTEP campus to examine the lineup and pick the suspect:

2	0	4
25	0	1

- ✓ The defendant in this case is in Position 4. This lineup is also biased.

51  Case #3: Choice of photo  
(Corey, Malpass, & McQuiston, 1999)

✓ The eyewitness provided this description of the perpetrator:

- Black male
- Medium build
- 6" to 6'6" tall
- About 250 pounds
- Short dirty, black hair
- Round face
- Small, squinted eyes
- Medium color skin

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### 53 Case #3: Results

✓ They asked 101 UTEP students to examine the lineup and pick the suspect.

12	1	2
77	6	3

✓ Proportion of suspect IDs ("bias") = .76

✓ [expected = .167]

### 54 Case #3: Revised

✓ Let's choose a less squinty-eyed picture of Suspect 4....

55 

### 56 Case #3: Revised results

✓ 101 Mock eyewitnesses were asked to pick the suspect from the new set of photos.

34 7 3

20 33 4

✓ Proportion of suspect IDs ("bias") = .198 [expected = .167]

### 57 Encouraging feedback

✓ Wells and Bradfield (1998)

- Volunteers showed a security video of a man entering a Target store.
- Later told that the man murdered a guard
- Shown a line-up of photos to identify suspect
  - none of them were
- Some of the volunteers were told that they had picked the right one ("encouraging feedback")
  - Did the feedback help or hurt them?

- 58 ☐ Wells and Bradfield (1999)
- ✓ Added critical conditions
    - Prior to the (encouraging) feedback, some eyewitnesses were given instructions to privately think about their confidence, their view, and other matters.
  - ✓ Prior thought served to mitigate (but not eliminate) the effects of feedback.
- 59 ☐ Recommended changes to improve eyewitness judgments
- ✓ Include lineups without the accused.
    - Requires eyewitness to first indicate whether culprit is present.
  - ✓ Lineups should only involve people who fit the rough description of accused.
  - ✓ Show each picture one at a time and require eyewitness to say “yes” or “no” each time.
  - ✓ These techniques are now used in most precincts.
- 60 ☐ Hindsight bias (rooted in presentism)
- ✓ The “I-knew-it-all-along” effect
    - The tendency to view what has already happened as inevitable, obvious, and fully expected (at least by you!)
  - ✓ It’s based in poor memory of the past
    - You “reconstruct” your memory of your past expectations so that your memory is consistent with the actual outcome
  - ✓ It’s universal
- 61 ☐ Hindsight bias - when?  
(Louie et al. 2007)
- ✓ Common in judging others’ behavior, both for favorable outcomes (“they did what I would have”) and unfavorable (“I would have made a different decision”).
  - ✓ Common in judging own behavior for favorable outcomes (“I knew I would succeed”) but not for unfavorable (“My idea should have worked”).
- 62 ☐ Consequences of hindsight bias
- ✓ Reduced rational thinking
    - Placing blame in hindsight (Enron, Katrina, Iraq, 9/11).
  - ✓ Reduced sympathy for victims
    - “She *should have known* that the breast enhancement surgery might have side effects” (Kula, 2004).
    - “New Orleans residents should have left...” (of course, we know this *now*...).
  - ✓ Increased confidence and motivation
    - This is both a positive and a negative consequence.
- 63 ☐ The curse of knowledge  
(Birch, 2005)
- ✓ The issue is the inability to remember what it was like not to know something (another example of presentism).
    - Current knowledge affects judgments about prior knowledge.
    - This affects judgments about your own prior state and the state of those without that

knowledge.

## 64 ☐ Examples

### ✓Fischhoff (1975)

- Adults provided with description of events.
  - Some told outcomes, some not.
- Told descriptions given to naïve adults who were asked to predict outcome..
- When told outcome, overestimated naïve adults' predictions of the outcome.

### ✓Perner et al. (1987)

- Children shown box of candy asked what's inside
- Box opened to show pencils and then closed.
- Children then asked what they *thought* was in box before it was opened..
  - Children < 4 - pencils, > 4 candy.

## 65 ☐ Visual hindsight bias

### Bernstein et al. (2002) Psyc Sci

- ✓ Task: image gradually appeared on screen.
  - Subjects asked to predict when a naïve subject (Ernie from Sesame Street) would be able identify the object.
  - Key manipulation: Half of the time, observers did not know the object's id, half the time they did.
- ✓ Three-, four-, and five-year olds, and UG students.
- ✓ All groups showed hindsight bias
  - Strongest in children who indicated that Ernie could identify the object at *two to three times* the level of degradation that control subjects could actually do so.
  - Much weaker in adults (only about 10-40% off).
- ✓ Note: A similar result was found by Harley et al (2004) in the identification of degraded familiar faces.

## 66 ☐ Other sources of memory bias

- ✓ Biased reporting of news
- ✓ Biased sampling of the world
- ✓ Distinctive memories
- ✓ Failure to recognize how limited one's experience is

## 67 ☐ Biased reporting of news

- ✓ What percentage of crimes are committed by mental patients? By African-Americans? By illegal immigrants?
- ✓ News reports are more likely to mention the mental status or race of perpetrators when it's a mental patient or a non-white.
  - Presumably, this occurs because these are less frequent values of a dimension.

## 68 ☐ We also tend to classify ourselves

- ✓ When? When we perceive *ourselves* as in the minority.
- ✓ Handedness
- ✓ Academic major....

## 69 ☐ This “biased sampling” of the world colors our memories

- ✓ Very rare crimes are over-reported
  - E.g., Child abduction is extremely rare

– E.g., Trick-or-treating is rarely harmful

## 70 ☐ Child abduction

- ✓ Early 80s: 1.5 and 2.5 million children were abducted from their homes every year.
  - “Labeling” kids?
- ✓ About 95% of those missing children were runaways, home within 48 hours, or abducted by a parent in a custody dispute.
- ✓ There are no more than 50 to 150 stranger child abductions a year in the United States (Kappeler, Blumberg, and Potter, 1996).

## 71 ☐ School murder?

- ✓ In 1999, approximately 2,000 school-age children were murder victims
- ✓ Only 26 of those were in school settings
  - 14 in Columbine alone

## 72 ☐ Trick-or-treating

- ✓ Mid-1970s - media reported that several children had been murdered as the result of the poisoning of their Halloween candy.
- ✓ Only two such incidents had occurred, neither of which involved a stranger.
  - One child died not from poisoned candy, but from heroin he found in his uncle's house.
  - The other child was poisoned when his father put cyanide in his candy

## 73 ☐ Gambling success?

- ✓ Gamblers tell us when they won, but they are often silent when they lose (Frank, 1990).
- ✓ This biased recall is less likely with older gamblers (Wood, Busemeyer, et al., 2005).
  - Unfortunately, older gamblers show generally poorer memory for both wins and losses.

## 74 ☐ Distinctive memories

- ✓ Distinctive memories are more readily recalled, thus biasing your “data” when you must make a decision
  - Example: Phone call while thinking abt. friend
  - Example: Memory of plane crashes
  - Example: Memory for getting the flu with and without a flu shot.
  - Example: The magical time “11:11”

## 75 ☐ Overestimation of frequency of distinctive events

- ✓ We tend to overestimate the frequency of memorable events
- ✓ See later discussion of the availability heuristic

## 76 ☐ Overgeneralization from a small sample

- ✓ “I had my haircut at that salon once and I received a great cut!”
- ✓ “George Burns smoked cigars and he’s still alive in his 90s.”
- ✓ “I visited U of I and had a terrible time - I certainly won’t enroll there.”

- ✓“I know a *person who* went to that restaurant and had a terrible meal.”
- 77 ☐ Failure to recognize how limited one’s experience is (Bar-Hillel, 1984)
  - ✓ Biased sample
    - Clinical psychologists and psychiatrists - low self-esteem and negative behaviors...
      - People with negative social behaviors and high self-esteem don’t seek out therapy!!!
    - Students who come to office hours do better on tests, so I must be helpful...
  - ✓ The “sample size of one” problem
    - Very limited experience - one event
    - Person-who statistics....
- 78 ☐ Overgeneralization
  - ✓ Small sample sizes may be very biased
  - ✓ Biased samples are unrepresentative of the whole
  - ✓ So, don’t conclude anything definite from a small sample
    - Small samples come from limited experience
    - You should rely on big surveys like Consumer Reports, not personal testimony of a few friends, a single visit, a single date, etc.
- 79 ☐ Stereotypes produce memory biases
  - ✓ Racial and gender stereotyping affects the memory retrieval process
  - ✓ Walsh, Banaji, & Greenwald (1995)
    - College students asked to circle names on a list that correspond to known criminals (none did)
    - Students “remembered” twice as many African-American names (e.g., “Tyrone Washington”) as criminals than names of other ethnicities (“Adam McCarthy, Wayne Chan”).
- 80 ☐ Banaji & Bhaskar (2000)
  - ✓ Replication, but warned participants that...
    - “People who are racist identify more Black than White names: Please do not use the race of the name in making your judgment.”
  - ✓ Effect still occurred!
- 81 ☐ Where do these racial biases originate (Arkes & Teltlock, 2002)?
  - ✓ Possible sources include:
    - Racism
      - A belief in the superiority of one race over another.
    - Widely known, but not endorsed, cultural stereotypes
      - “White men can’t jump, lack rhythm”, “Blacks like chicken”, “Indians own a lot of Kwiki Marts”, “Irish are drunkards and have short tempers.”
    - Biased reporting of news or other media
      - TV shows/movies play on stereotypes (*Simpsons, Will and Grace, White Men Can’t Jump*)
    - True base rates
      - Fewer Caucasians in basketball, more African Americans incarcerated.
- 82 ☐ Why does memory bias occur?
  - ✓ Anderson and Schooler (1991)
    - Too expensive to maintain access to a huge number of memories.

- Forgetting may be necessary to manage the memory retrieval process.

- ✓ **Egocentric motivations**

- Motivated to interpret data in a way that is favorable to us (it's rewarded).

## 83 ☐ **Distorted data - recap**

- ✓ **GIGO - garbage in, garbage out**

- If the data you base your judgments/decisions on are biased (non-representative), then you will make bad judgments and decisions.

- ✓ **Be on the watch for bias**

- Are you expecting a particular outcome?

- Are you motivated to reach a particular conclusion?

- Are you accurately remembering the events or data in question?