

## Week 2: Methodology

### Week overview

Research questions, choose methods, measure variables, protect participants & make appropriate conclusions.

**Main key concepts:** quantitative vs qualitative methods, descriptive/correlational/experimental research, hypothesis, reliability, validity, sampling, ethics, open science, causal language, IVs/DVs, internal validity & external validity.

### Definition

| Term                          | Meaning                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------|
| <b>Research question</b>      | What the researcher wants to know; can build knowledge / solve an applied problem.       |
| <b>Theory</b>                 | Organised set of principles used to explain observed phenomena.                          |
| <b>Hypothesis</b>             | Testable prediction with a clear rationale from theory, previous findings / observation. |
| <b>Quantitative method</b>    | Numeric data, eg ratings/coding/measurements; analysed with statistics.                  |
| <b>Qualitative method</b>     | Non-numeric data, eg interviews/yarning; focuses on lived exp, meaning & patterns.       |
| <b>Descriptive research</b>   | Estimates/describes something of interest.                                               |
| <b>Correlational research</b> | Measures variables & examines relationships between them; cant infer causality.          |
| <b>Experimental research</b>  | Manipulates IV(s), randomly assigns ppl to conditions, measures effect on DV(s).         |
| <b>IV</b>                     | Variable manipulated by researcher; has 2+ levels/conditions.                            |
| <b>DV</b>                     | Outcome measured after the IV.                                                           |
| <b>Random assignment</b>      | Each participant has equal chance of being assigned to any condition.                    |
| <b>Reliability</b>            | Consistency of a measure, eg items/raters give consistent scores.                        |
| <b>Validity</b>               | Whether the measure actually assesses the construct of interest.                         |
| <b>Population</b>             | Entire group of interest.                                                                |
| <b>Sample</b>                 | Ppl who actually participate in the study.                                               |
| <b>Convenience sample</b>     | Participants recruited through easy channels, eg Sona/online ads/flyers.                 |
| <b>Random selection</b>       | Everyone in the population has equal chance of being selected; difficult/rare.           |

|                          |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|
| <b>Internal validity</b> | Confidence that IV caused the DV effect.                                          |
| <b>External validity</b> | Confidence that findings generalise to other ppl/situations.                      |
| <b>Preregistration</b>   | Publicly committing to hypotheses/plans before data collection.                   |
| <b>Debriefing</b>        | Full explanation after participation, esp when deception/limited disclosure used. |

### Research designs: use & limits mentioned in slides

| Design                  | Strength                                                                   | Limit                                                                                                   |
|-------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Descriptive research    | Estimates/describes something of interest.                                 | Doesnt test relationships / causal claims.                                                              |
| Correlational research  | Measures relationships between variables.                                  | No causal language; variables are not manipulated.                                                      |
| Experimental research   | Can test causal relationships through IV manipulation & random assignment. | Lab experiments may have low mundane realism / convenience samples, so generalisability may be limited. |
| Convenience sampling    | Easy & common way to recruit.                                              | Be careful generalising results to the whole population.                                                |
| Random selection        | Better represents the population if done properly.                         | Difficult & rare in practice.                                                                           |
| Within-subjects design  | Fewer participants needed.                                                 | Taking part in one condition can affect responses in the next condition.                                |
| Between-subjects design | Participants are less aware of what is being tested.                       | More participants needed.                                                                               |

### Research process

- **Research question:** ask what is already known, what we would learn & why it matters.
- **Build a hypothesis:** make a testable prediction based on theory / previous findings.
- **Choose measures:** use self-report, behavioural / physiological measures; established validated measures are preferred where possible.

- **Protect participants:** weigh risks vs benefits, use informed consent, justify deception & debrief when needed.
- **Use open science:** preregistration, sharing materials/data & clear planned analyses help reduce hindsight bias & “changing the story” after seeing results.

### Correlational vs experimental language

- **Correlation:** say “associated with”, “related to”, “people with more X had lower Y”. Don't say X caused Y.
- **Experiment:** causal language is okay when IV is manipulated, participants are randomly assigned & internal validity is strong.
- **Ostracism eg:** correlational: ostracism is negatively associated with self-esteem.  
Experimental: participants in ostracism condition had lower self-esteem than inclusion condition.

### Experimental design concepts

- **One-way design:** one IV with 2+ levels, eg inclusion vs ostracism.
- **Factorial design:** more than one IV with every combination, eg ostracism (inclusion/ostracism) x group size (small/large).
- **Between-subjects:** each participant is in one condition; needs more ppl but less obvious what study tests.
- **Within-subjects:** each participant experiences all conditions; fewer ppl needed but order effects possible, so counterbalance.
- **Measured predictor variables:** pre-existing differences like gender/culture/personality can be measured, but they are not true IVs cuz cant randomly assign.

### Examples

- **Badminton experiment eg:** IV = type of warm-up; DV = smash speed; random assignment helps test whether warm-up causes speed change.
- **Badminton correlation eg:** hours training may be related to match wins, but it doesn't prove training causes wins because motivation/experience may also matter.
- **Student eg:** survey study can test whether assignment stress is associated with self-esteem, but cannot prove stress causes low self-esteem.

### Quick memory summary

- Correlation = association, not causation.

- Experiment = manipulate IV + random assignment + measure DV.
- Internal validity = did IV cause DV or other factors?
- External validity = does it generalise?
- Ethics = informed consent, risk/benefit, debriefing, participant protection.

## Week 3: Social Cognition & Social Perception

### Week overview

How ppl think about themselves & others.

**Main key concepts:** automatic vs controlled thinking, schemas, accessibility, priming, primacy effect, self-fulfilling prophecy, heuristics, attribution, covariation model, fundamental attribution error, culture, self-serving attribution, belief in a just world & bias blind spot.

### Definition

| Term                                | Meaning                                                                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Social cognition</b>             | How ppl think about themselves & the social world; includes selecting, interpreting, remembering & using social info.              |
| <b>Automatic thinking</b>           | Nonconscious, unintentional, involuntary & effortless thinking.                                                                    |
| <b>Controlled thinking</b>          | Conscious, intentional, voluntary & effortful thinking.                                                                            |
| <b>Schema</b>                       | Mental structure that organises knowledge & guides processing of relevant info.                                                    |
| <b>Accessibility</b>                | How much a schema/concept is on a person's mind.                                                                                   |
| <b>Priming</b>                      | Recent exp temporarily increases accessibility of a schema, trait, concept / goal.                                                 |
| <b>Primacy effect</b>               | Earlier info has a bigger impact on impressions than later info.                                                                   |
| <b>Self-fulfilling prophecy</b>     | A perceiver's expectation changes their behaviour toward a target, causing the target to act in ways that confirm the expectation. |
| <b>Heuristic</b>                    | Mental shortcut/rule of thumb used to judge quickly & efficiently.                                                                 |
| <b>Availability heuristic</b>       | Judging likelihood/frequency by how easily examples come to mind.                                                                  |
| <b>Representativeness heuristic</b> | Judging based on how much something seems like a typical example/category.                                                         |
| <b>Attribution</b>                  | Explanation for why someone behaved a certain way.                                                                                 |
| <b>Internal attribution</b>         | Explaining behaviour through the person's traits, personality, ability / effort.                                                   |
| <b>External attribution</b>         | Explaining behaviour through situation, context / environment.                                                                     |
| <b>Consensus</b>                    | Whether other ppl behave the same way toward the stimulus.                                                                         |
| <b>Distinctiveness</b>              | Whether the person behaves differently toward different stimuli.                                                                   |
| <b>Consistency</b>                  | Whether the person behaves the same way toward the stimulus across time.                                                           |

|                                      |                                                                                |
|--------------------------------------|--------------------------------------------------------------------------------|
| <b>Fundamental attribution error</b> | Tendency to overuse internal explanations & underuse situational explanations. |
| <b>Self-serving attribution</b>      | Taking credit for success but blaming external factors for failure.            |
| <b>Belief in a just world</b>        | Belief that ppl get what they deserve; can lead to victim blaming.             |
| <b>Bias blind spot</b>               | Seeing others as biased while thinking we are less biased ourselves.           |

### Schemas: pros & cons from slides

| Pros                                        | Cons                                     |
|---------------------------------------------|------------------------------------------|
| Apply existing knowledge to new situations. | Can bias perceptions & memory of events. |
| Help interpret ambiguous info quickly.      | Can lead to self-fulfilling prophecies.  |

### Schemas & social thinking

- **Schemas help:** apply existing knowledge to new situations & interpret ambiguous info.
- **Schemas can bias:** shape perception, memory & expectations, sometimes leading to self-fulfilling prophecies.
- **Accessibility:** schemas can be chronically accessible from past exp / temporarily accessible due to current goals, recent exp & priming.
- **Primacy effect:** Asch (1946) showed the same traits in different order produce different impressions; early info can frame later info.
- **Rosenthal & Jacobson (1968):** teachers were told some children were “bloomers” even though randomly chosen; these children later showed greater IQ gains, likely cuz teachers gave warmer climate, more attention, harder material & more feedback.

### Heuristics

- **Availability heuristic:** if a vivid event comes to mind easily, ppl may think it is common.
- **Representativeness heuristic:** ppl judge by similarity to a prototype, sometimes ignoring base rates.
- **Badminton eg:** after seeing two left-handed players win, you may overestimate how common left-handed dominance is (availability heuristic).

### Attribution & covariation model

- **Internal vs external:** we explain behaviour either through the person / the situation.

- **Covariation model:** uses consensus, distinctiveness & consistency to decide whether behaviour is due to person, stimulus / situation.
- **High consensus:** many ppl behave same way toward the stimulus.
- **High distinctiveness:** person behaves differently in different situations/stimuli.
- **High consistency:** person behaves same way across time.
- **Culture:** fundamental attribution error is often less prevalent in Eastern cultures when situational constraints are salient.

### Examples

- **FAE eg:** someone cuts you off in traffic; you think “they are rude” instead of considering they may be rushing to hospital.
- **Badminton attribution eg:** if you lose a rally, self-serving attribution may be “lighting was bad” for failure but “I played smart” for success.
- **Just world eg:** thinking a victim “must have done something wrong” protects belief that the world is fair, but can blame victims unfairly.

### Quick memory summary

- Social cognition = thinking about ppl & social info.
- Schemas make thinking fast but can bias perception/memory.
- Attribution = why did they do that?
- FAE = overblame person, undersee situation.
- Remember covariation: consensus, distinctiveness, consistency.

## Week 4: The Social Self

### Week overview

Social context shapes thoughts & feelings about the self.

**Main key concepts:** self-concept, self-esteem, culture & self, SEWB, self-perception theory, over-justification, self-awareness theory, social comparison, self-evaluation maintenance, self-affirmation, self-compassion, narcissism, impression management & self-handicapping.

### Definition

| Term                             | Meaning                                                                                                                                 |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Self-concept</b>              | Sum total of beliefs ppl have about themselves; collection of self-schemas.                                                             |
| <b>Self-schema</b>               | Belief about oneself that guides processing of self-relevant info.                                                                      |
| <b>Self-esteem</b>               | Evaluation of the self; can be state / trait; ppl are motivated to protect it.                                                          |
| <b>Independent self</b>          | Defining self through own thoughts, feelings & behaviours; values independence; typical in Western cultures.                            |
| <b>Interdependent self</b>       | Defining self through relationships to others; values connectedness; typical in many non-Western cultures.                              |
| <b>SEWB</b>                      | Social & emotional well-being framework led by Aboriginal & Torres Strait Islander peoples; includes ppl, culture, land & spirituality. |
| <b>Self-perception theory</b>    | When internal cues are weak, ppl infer their attitudes/feelings from their own behaviour & situation.                                   |
| <b>Over-justification effect</b> | Rewards introduced for intrinsically motivated behaviour can reduce intrinsic motivation.                                               |
| <b>Intrinsic motivation</b>      | Doing something from interest, enjoyment / challenge.                                                                                   |
| <b>Extrinsic motivation</b>      | Doing something for money, marks, recognition, obligation / punishment.                                                                 |
| <b>Self-awareness theory</b>     | Self-focused attention makes ppl compare themselves with internal standards/values.                                                     |
| <b>Social comparison theory</b>  | When uncertain, ppl evaluate themselves by comparing with similar others.                                                               |
| <b>Upward comparison</b>         | Comparing self to someone better on a dimension.                                                                                        |
| <b>Downward comparison</b>       | Comparing self to someone worse on a dimension.                                                                                         |
| <b>BIRG</b>                      | Basking in reflected glory; feeling good when close others succeed in irrelevant domains.                                               |

|                              |                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Self-affirmation</b>      | Reducing self-threat by affirming important values / strengths in other areas.                        |
| <b>Self-compassion</b>       | Responding to negative events with self-kindness, common humanity & mindful acceptance.               |
| <b>Narcissism</b>            | Grandiose self-view with entitlement, exhibitionism & leadership; linked with some negative outcomes. |
| <b>Impression management</b> | Attempts to influence others to see us how we want to be seen.                                        |
| <b>Self-promotion</b>        | Trying to be seen as competent.                                                                       |
| <b>Ingratiation</b>          | Trying to be seen as likeable, eg flattery/praise.                                                    |
| <b>Self-handicapping</b>     | Creating obstacles that can later be blamed for poor performance.                                     |

### Culture & the self

- **Independent cultures:** self often described through traits, uniqueness & personal goals.
- **Interdependent cultures:** self often described through relationships, roles & connection.
- **SEWB:** broader interdependence includes other ppl, culture, land & spirituality.
- **Cultural findings:** Chinese students listed more group affiliations; American students listed more trait descriptions. American participants were more likely to choose a unique colour pen; East Asian participants more likely to pick majority colour pen.

### Self-perception & motivation

- **Self-perception:** we ask “what does my behaviour say about me?” esp when internal cues are weak.
- **Lepper et al. (1973):** expected reward for using markers reduced later intrinsic motivation compared with no reward/unexpected reward.
- **Reward caution:** rewards aren't always bad; verbal praise / rewards that signal competence can enhance intrinsic motivation.
- **Badminton eg:** if you only train cuz of prizes/ranking, you may enjoy training less; but coach praise for effort/skill can strengthen motivation.

### Self-awareness, comparison & self-threat

- **Self-awareness:** mirrors, videos / being watched can make ppl compare themselves to standards; not meeting standards causes discomfort.

- **Avoiding discomfort:** ppl may reduce self-awareness through alcohol / TV, but self-focus can also help stay out of trouble & complete goals.
- **Social comparison:** upward comparison can hurt self-esteem if the domain is important & the other person feels similar/close.
- **Social media findings:** upward comparisons were linked with lower body image, self-esteem, mental health & subjective well-being.
- **Self-evaluation maintenance:** close others outperforming us in relevant domains can feel bad; in irrelevant domains it can feel good.

### Coping & managing impressions

- **Self-affirmation:** can reduce defensiveness, increase acceptance of threatening health info/critical feedback, & increase self-esteem.
- **Self-compassion:** can reduce negative affect & increase perceived similarity to others after negative events.
- **Impression management:** self-promotion works more in job interviews; ingratiation can work more in job performance settings.
- **Dual promotion:** bragging better by combining self + other promotion can increase warmth & competence.
- **Self-handicapping:** protects self-esteem but reduces chance of success, eg “I didnt study” as excuse for poor result.

### Quick memory summary

- Self = self-concept + self-esteem.
- Culture shapes whether self is more independent / interdependent.
- Rewards can affect motivation through self-perception.
- Upward comparison can hurt when domain matters.
- Self-affirmation & self-compassion help manage self-threat.