psyc3122 lecture 5

Dissonance
Attitude formation
Nature, Nurture, TV ...

next week: Easter break
In two weeks: Cool UQ research

Today

- Discussion of book ch. 4-5
- Review of last week
- Processes of behaviour -> attitude change
  - “Free will” decision to engage in behaviour with foreseeable, negative consequences leads to more positive attitudes (dissonance)
- Attitude formation
  - Learned cognitions
    - Evaluated with respect to goals
  - Categorisation of novel objects
    - Perceived prototypicality
    - Mere exposure
  - Inferences from Behaviour
  - Inferences from Emotion
    - Classical, evaluative, and operant conditioning
  - Nurture & nature
Last week:

- Spontaneous behaviour
  - The direct expression of attitudes varying in accessibility, strength, and stability
  - Temporarily salient because of priming, rumination, self-awareness
  - Chronically salient because of involvement, direct experience, commitment, repeated expression
  - The MODE model – two modes of decision-making

- Processes of behaviour -> attitude change
  - Learning – can change properties of attitude (strength, stability, accessibility) or attitude content (positive/negative)
  - Forced inaction -> increased positivity (reactance, white bear, scarcity heuristic)
  - Over-justified action -> less positive attitudes (self-perception)
  - Behaviour leads to more positive attitudes (Commitment: self-perception, learning, direct experience)

Today

behaviour -> attitude change

dissonance

- Learning perspective: reward increases positivity, facilitates action
- BUT: pos. consequences can erode motivation; commitment can facilitate action in absence of rewards
- And heap of research showing insufficient justification & negative consequences can increase motivation
Mrs. Keech & Seekers of Truth

- Spiritual messages from the “Guardians”
- “automatic writing” = belief system
- Great impending disaster!
  - A flood would engulf the world
  - But, all who believed…
    - Spacemen would arrive
- Remove all metal, memorize passwords:
  - “I left my hat at home”; “I am my own porter”
- Rid personal belongings, quit jobs

When Prophecy Fails

- Real-world doomsday cult study (Festinger, Schachter, & Back, 1956)
- No flying saucer = 2 choices:
  - Quit cult
  - Stay with cult
- Result: “Message from God”
  - Our devotion saved the world
  - Publicity seeking, more devotion
Why?

- **Theory of cognitive dissonance** (Festinger, 1957)
  - “Cognitions” (thoughts, attitudes, beliefs) can be consonant, dissonant, or irrelevant
  - Dissonant cognitions create unpleasant arousal (dissonance) which indivs want to reduce
  - We do this by adding, subtracting, or substituting cognitions
- E.g., banned from smoking at work, not smoking, yet like to smoke:
  - Add cognition “If I smoked I would lose my job” – creates sufficient justification to reduce arousal
  - Delete cognition “I am not smoking at work” (denial)
  - **Change attitudes** to smoking so become less positive
- Festinger & Carlsmith (1959) $1 vs $20 vs 0

Internalizing Conscience Through Dissonance

- Aronson & Carlsmith, 1963
- How do kids become moral actors?
  - Learning theory account
  - Dissonance theory account?
- IV: severe vs. mild threat not to play with target toy (pre-measured to be 2nd favourite)
- DV: number of Ps who change or don’t change their pre- and post-manipulation ratings of target toy
Aronson & Carlsmith Results

Is it about inconsistency & arousal or self-perception?

- Bem’s self-perception theory was a challenge to dissonance work
- Self-perception theory can explain some dissonance study findings + some findings that DT can’t account for
  - e.g., erosion of intrinsic motivation when you DO something that you LIKE with REWARD
- Self-perception processes do operate
- BUT …self-perception can’t explain key role of arousal
Arousal drives attitude change?

- Steele: we engage in dissonance reduction because of physiological arousal
- Tuition hike exp’t
- 2 IVs
  - essay written under forced compliance vs. free choice vs. no essay control
  - alcohol vs. no alcohol
- DV: attitude re. tuition hike
- Sedating effects of alcohol eliminate dissonance

Is it arousal or **attribution for arousal**?

- Dissonance leads to arousal
  - Ps given phenobarbitol show no dissonance after counter-attitudinal essay
  - versus Ps given amphetamines – increased D

- Attributing arousal to dissonance leads to attitude change
  - placebo study – misinformation re sugar pill’s ‘side effects’ of tension or relaxation led to reduced or enhanced dissonance
Post-decision dissonance

- Post-decision dissonance:
  - dissonance that occurs after making an important decision
  - We enhance the chosen item and derogate the non-chosen item to justify our decision
  - Rating household products (Brehm, 1956)

<table>
<thead>
<tr>
<th>Original</th>
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<tbody>
<tr>
<td>1 = radio</td>
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<td>2 = ---</td>
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<td>3 = ---</td>
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<td>4 = toaster</td>
<td>4 = ---</td>
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<tr>
<td>7 = ---</td>
<td>7 = hair dryer</td>
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<td>8 = ---</td>
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Cultural differences in self-affirmation effects?

- **Cover story:** personality and music preference (Heine & Lehman, 1997)
  1. Fill our personality survey
  2. Rate 10 CDs
  3. Choose between CDs rated 5 and 6
  4. IV: positive, negative, or no feedback on personality survey
  5. Re-rate the 10 CDs
- **DV:** changes in preference for CDs previously rated 5 and 6

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**Results**

![Graph showing changes in preference for CDs in different feedback conditions]

**Positive Feedback**
- U.S.: 5
- Japan: 0

**Control**
- U.S.: 10
- Japan: 5

**Negative Feedback**
- U.S.: 15
- Japan: 20
Current state of the field:

- **Four steps to dissonance and its reduction:**
  - Attitude-discrepant behavior must produce *unwanted consequences*
  - Subjects must feel *personal responsibility* for the unwanted consequences
    - Free choice
    - Belief that unwanted consequences were *foreseeable*
  - Physiological *arousal*
  - *Attribution* of physiological arousal to the attitude-discrepant behavior

- Self-perception processes are more likely to lead to attitude formation in novel contexts; motivate attitude change when attitude and behavior are similar
- When attitude and behavior are very different, dissonance processes drive attitude change.
- Cultural differences observed but reasons not well understood

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Thinking this through …

- **Implications for teaching your kids / significant others**
  - Can you create positivity to boring/aversive behaviours?
    - Insufficiently justified actions (dissonance)
    - Aversive foreseeable consequences (dissonance)

- **Implications for resisting salespeople**
  - Beware of (mis)attributed arousal – when choices go badly, consider negativity. 😊
  - Be aware of people trying to increase your adrenaline
One step back - Attitude formation

1. Cognitively mediated learning
   – As seen in TPB – when learn about costs and benefits develop negative or positive attitude
   – Attitudes formed based on beliefs
   – Instrumental or utilitarian function

NB impact of beliefs depends on what goals you have at the time
How much would you pay for a lottery ticket to win ....

Chart Title

- Tuition waiver
- Same amount of cash

See Fig 5.3 in the book

Attitude formation

- Belief about consequences’ probability and value
- Evaluation of the importance depends on goals
Attitude formation

2. Categorisation of novel objects
   - From prototype compatibility previously:
     - the way you categorize an object leads to different activated beliefs
   - Object can “plug into” an existing network in several ways

Revisiting network models

Memory = system of semantic (‘meaning’) nodes
- Connected w associative links of varying strength
- Activation spreads along the links between nodes increasing how accessible they are
- When activation exceeds a threshold, info comes to mind (attention)
- Over time activation decays
- Inherent salience, frequency of activation, connectedness all increase chronic accessibility
- Recency of activation from situational cues -> temporary accessibility
E.g. of a network

Point for our purposes is that a “new” attitude depends on how the attitude object is categorized:
- Attitude to “going to store with partner tonight”
- Which way you categorise depends on chronic and temporary accessibility

Revisiting rumination

- Wilson et al. (1993) poster preferences:
  - 95% spontaneously picked impressionist painting as the one they liked best (vs. 5% ‘funny’ poster)
  - After analysing why they liked the posters, 64% picked impressionist painting
- Remember how for inexperienced ppl, pondering the costs & benefits produces worse decisions than “gut”
  - through concentrated attention can explore multiple subtle links in net
  - but some links are not usually active – because not chronically important to you or consistently linked to attitude object
A third point about novel objects: Mere Exposure

Mere exposure (Zajonc, 1968)

- The more we see it, the more we like it (up to a point)
- Complex stimuli have a stronger effect
- Brief stimulus exposure (1 sec.) has a stronger effect than longer stimulus exposure (5 sec.).
- The longer the favorability measurement is delayed after seeing the stimuli, the stronger the effect (sleeper effect).
- Not demand characteristics b/c effect is bigger when stimuli presented subliminally
- Not really clear why we have ME yet
Attitude formation

- Cognitively mediated learning
  - Beliefs and goals
- Categorisation of novel objects
  - Prototypicality
  - Mere Exposure
- 4. Behaviour
  - Very often infer our novel attitudes from behaviour ("I am doing this so I must like this") - self-perception
  - Esp where attitude is weak or ambiguous
5. Attitudes through nurture

- Insko (1965) phones students & enquires re views on “the Aloha springtime festival”
  - Interviewer says “good” every time say + (50%) or – (50%)
  - 1 week later can still see effects of conditioning
- Insko & Butzine (1967) experimenter flatters or offends Ps, then reinforces attitude
  - Effect bigger with flattery but present with offense
- Referent informational influence perspective from decision-making lecture
  - Salient identities and norms shape attitudes in a context

Bennington College Study
(Newcomb, 1943, 1991)

- Over the course of a four-year degree at a liberal arts college, students became increasingly progressive / liberal
- E.g., support for conservative Alf Langdon: 62% incoming students; 43% sophomores; 15% juniors & seniors
- Education is correlated with lefty views (because lots of righty views are based on ignorance)
- But at the same time, degree of shift was correlated with popularity and prestige (!)
Why?

- **Operant / instrumental conditioning** – approval of group feels good so adopt behaviours (social identity function of attitude – “normative influence”)
- Approval of group is **heuristic** that identifies the appropriate attitude to achieve goals (“informational influence” – instrumental attitudes) – short-cut to cost-benefit analyses
- **Self-stereotyping** – salient group identities and norms activate attitudes – need not be deliberative processing at all
- **Observational learning** – learn to categorize objects and what costs/benefits are through observation of sig. others in ingroups
- More on this in “persuasion” lectures
Attitude formation through nature

Genetic attitudes?
- Attitudes are supposed to guide approach & avoidance (earliest formulations) – so obviously good to have some ‘built-ins’
- Babies 1 hr old prefer to look at specific face-like configurations (Tesser & Martin, 1996)

Evolutionary argument
- Humans prefer sweet and fatty food (b/c calorie-rich – ancestors with this motivation had more & healthier babies, etc.) and lush vegetation with trees to deserts & grasses (b/c ‘ancestral’ resources)
- Some say this approach reifies modern Western preferences (what is, must be biology!)

Is beauty / mate selection genetically conditioned?
- Most prefer same species
- Most cultures define beauty in re health (e.g., facial symmetry) & wealth (‘tans’ vs paleness in the West) – b/c good for babies?
- Men like hour-glass shaped women (Singh, 1993) – but not the Matsigenka (Yu & Shepard, 1998)
- Men like casual sex > women
  - Clark & Hatfield (1978, 1989) approached by an opp sex stranger who says “I have been noticing you around campus. I find you very attractive.”
    - Invite to go out
    - Come over to flat
    - Go to bed
1970s propositioning

10 years on (after AIDS)...

<table>
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<th>1978</th>
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<td></td>
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<tr>
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<tr>
<td><strong>Men</strong></td>
<td></td>
</tr>
<tr>
<td>Go out</td>
<td>60</td>
</tr>
<tr>
<td>Apartment</td>
<td>70</td>
</tr>
<tr>
<td>Bed</td>
<td>70</td>
</tr>
</tbody>
</table>
Is beauty / mate selection genetically conditioned?

- Men: evolutionarily predisposed to be promiscuous so as to scatter sperm like the wind?
  - Evolutionary context for humans = heaps of parental investment by both sexes
  - Compare cane toads
- Also frequent marriage break-ups and cheating though
  - Compare gibbons
- Gender differences in mate selection decrease with gender equality in society (Eagly & Wood, 1999)
- Divorce > likelihood in modern Western cultures
  - Probably a genetic component to gender differences in mate selection
  - Probably also a cultural component to modern evolutionary theories!

Attitudes from nature

- Twin studies show up to .5 (50%) heritability on liking jazz, attitudes to capital punishment, white supremacy and patriotism …. What???
- Genetic underpinnings of attitudes are likely for key mediators (Tesser, 1993)
  - Abilities (e.g., intelligence) – we like what’s easy
  - Temperament / activity level (e.g., risk aversion, extraversion)
  - Preferences (sensory structures for taste, hearing)
  - Responsiveness to conditioning (ability to learn should mean you’re more culturally informed in your attitudes…)
A note about nature and nurture

- Re attitudes, almost all biological aspects would be culturally mediated
  - Risk aversion originally = avoiding wild animals; in one culture = 30% debt load; in 2010 Australian culture, 300% debt load; in 2020...?
- Biological predisposition may be elicited/triggered in some circs & suppressed/corrected in others
  - E.g., fear of snakes, taste aversion with nausea
- Culture is biologically mediated as well (requires neuronal/hormonal learning & changes)

Summary: Attitude formation

- Learned cognitions
  - Evaluated with respect to goals
- Categorisation of novel objects
  - Perceived prototypicality (can be unstable)
  - Mere exposure
- Inferences from Behaviour
- Nurture & nature
  - Definitely not a dichotomy
Next week: Attitude formation by inferences from emotion (conditioning)

Cool research on attitudes and social cognition at UQ
  – Reading: none
  – Optional meetings w/ Dr. Louis

In the tutes this week:
  – No tutes – Easter break