

# PSY1022 Week 1

## Social Cognition & Influence

- Social psych – the study of how people's thoughts, feelings and behaviour influence and are influenced by the behaviour of others (actual, imagined or implied presence)
- Social cog – mental processes associated with people's perceptions of and reactions to other people
- Social influence – the process whereby one person's behaviour is affected by the words or actions of others
- Triplett found that others doing the same task increased task perf (co-action effect). Task perf could also be influenced by the mere presence of others (audience effect).
- Perf with spectators improved for some tasks but was hindered for others. In addition to social facilitation or inhibition, social psychs may study attribution, persuasion, prejudice, conformity or interpersonal attraction, and they may use controlled experiments, correlational methods, and/or observational methods.

### **Need to belong**

- Baumeister and Leary
- Need to belong – humans have a bio need for interpersonal bonds
- Consequences of social exclusion:
  - Mood and anxiety problems
  - Increased aggression
  - Engagement in unhealthy behaviours e.g. smoking
- Belonging and being socially accepted are fundamental for human beings.

### **Social psychology and other disciplines**

- Biology: nature vs nurture
- Health psych: health campaigns which target an audience
- Sociology: sociologists focus on society, whereas social psychs focus on the individual in society
- Social neurosci: relationships between bio, psych and social processes in the brain

### Social Influences On The Self

- Self-concept – the way one thinks of oneself
- Self-esteem – the evaluations one makes about how worthy one is

### **Social comparison**

- Festinger pointed out that self-evaluation involves two types of questions:
  - Those that can be answered by taking objective measurements
  - Those that cannot
- In the second case, we make one of two types of comparisons:
  - Temporal (in relation to the past)
  - Social (in relation to others)
- People can compare themselves to those who are superior (upward social comparison) or inferior to them (downward social comparison). Highly motivated people are more likely to engage in upward social comparison.

- Downward social comparison can be either active (demeaning others, causing harm) or passive (comparing with someone worse off).
- People usually look to others who are similar to themselves (i.e. reference groups).

## Social norms

- Social norms – socially based rules that prescribe what people should or should not do; how people conform
- These guide behaviour, facilitate acceptance into a group, and reduce the risk of embarrassment or behaving inappropriately in front of others.
- These are transmitted by parents, teachers, peers and other agents of culture. They may be communicated formally by a leader or implicitly defined.
- Norms are so powerful that people usually follow them automatically. Social norms make social situations less uncertain and more comfortable.
- Reciprocity
- Deindividuation – a psych state occurring in group members that results in loss of individuality and a tendency to do things not normally done when alone; people become 'submerged in a group' and lose their sense of individuality

## Social identity theory

- Social identity – the beliefs we hold about the groups we belong to. Our social identity is thus part of our self-concept.
- Personal vs social identity
- Our social identity permits us to feel part of a larger whole. However, defining ourselves in terms of a group identity can create an 'us vs them' mentality that sets the stage for prejudice, discrim, and intergroup conflict.
- Categorising others as similar or different (e.g. in group or out group) is a mentally efficient way for us to make sense of the world around us, but as a result we may make incorrect assumptions.

## Social perception

- Social perception – the processes through which people interpret info, draw inferences, and develop mental reps of others

## Attribution

- Attribution – the process of explaining the causes of people's behaviour, including our own
- Which alternative you choose to attribute behaviour is important because it will help you understand the behaviour, predict what will happen if this person repeats similar behaviour, and decide how to control the situation should it arise again.
- People tend to attribute behaviour in a particular situation to either internal causes (dispositional i.e. personal characteristics) or external causes (situational).
- Kelley proposed a theory of how people (observers) make attributions about the actions of others (actors).
  - Consensus – the degree to which other people's behaviour is similar to that of the actor
    - Internal (low consensus): no one else got a bad grade, so it must be their fault
    - External (high consensus): everyone else got bad marks as well, so maybe the test was hard

- Consistency – the degree to which the behaviour is the same across time or situations. This is difficult to answer without info about distinctiveness.
  - Internal (high consistency): this person gets bad grades in most subjects, so it must be their fault
  - External (low consistency): this person usually gets good grades, so maybe they were experiencing problems at home
- Distinctiveness – the extent to which the actor's response to one situation stands out from responses to similar situations
  - Internal (low distinctiveness): this person gets always gets bad grades, so it must be their fault
  - External (high distinctiveness): this person always gets good grades, so it must be some uncontrollable factor making them get a bad mark
- People are most likely to make internal attributions about an actor's behaviour when there is low consensus, high consistency and low distinctiveness.
- Fundamental attribution error (correspondence bias) – the tendency to explain others' behaviour in terms of internal factors and underestimate the impact of situational factors
- This may happen because we focus on the person more than the situation, of which we have little to no knowledge.
- Ultimate attribution error – when members of a social or ethnic out-group do something positive, we attribute their behaviour to some external cause; however, we attribute their negative behaviour to internal causes. When members of an in-group do good deeds, we attribute the behaviour to internal factors; if they do something bad, we attribute it to external factors
- Actor-observer effect – the tendency to attribute other people's behaviour to internal causes while attributing our own behaviour (especially errors and failures) to external causes
- When you observe someone else, the most noticeable stimulus in the situation is that person. You do not know what happened to them last night or this morning, so you are likely to attribute whatever they do to enduring internal characteristics.

### Self-serving bias

- Self-serving bias – the tendency to attribute our successes to internal characteristics while blaming our failures on external causes
- This occurs partly because people are motivated to maintain their self-esteem, and ignoring negative info is one way of doing so.

### Attitudes

- Attitude – a predisposition toward a particular cog, emotional or behavioural reaction to objects; the tendency to think, feel or act positively or negatively toward objects
- These include characteristics e.g. importance, certainty, accessibility, and associated knowledge.
- Attitudes influence the amount of attention and type of judgement an individual may give to a specific subject.

## The structure of attitudes

- 3 components of attitudes:
  - Cog – a set of beliefs and knowledge about the attitude object, person or idea
  - Affective – the way people feel about the attitude object, person or idea
  - Behavioural – the way people act toward the attitude object; the effect of the attitude on behaviours or interactions with people and the environment
- If these components were always in harmony, we would be able to predict people's behaviour on the basis of the thoughts or feelings they express. This is often not the case however, as many thoughts and emotions are never translated into actions.
- Attitudes that are well remembered and central to our self-concept are more likely to lead to certain behaviours.

## Forming attitudes

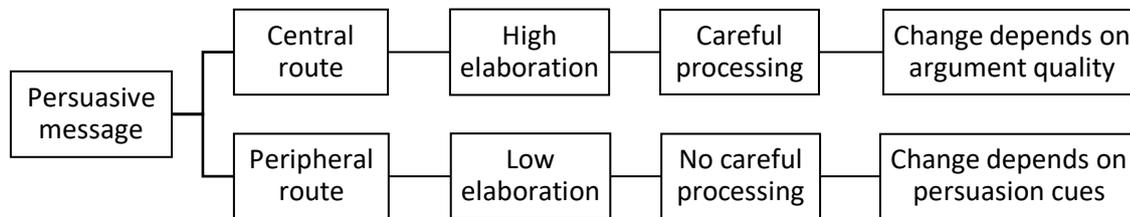
- Attitudes can be either explicit (deliberately formed attitudes that an individual is aware of having) or implicit (unconsciously formed). People may not be aware of their implicit attitudes, so they must be measured using sophisticated methods that can access unconscious thoughts and feelings (e.g. response times to stimuli). Explicit attitudes can be measured by self-report and questionnaires.
- Some of the variation in people's attitudes may reflect genetic influences, but what they learn appears to play the major role in attitude formation.
- Classical conditioning can also produce positive or negative attitudes. People are more likely to form a positive attitude toward a product when it is repeatedly paired with stimuli that elicit good feelings.
- Attitudes are also influenced by operant conditioning through rewards.
- Mere-exposure effect – all else being equal, attitudes toward an object tend to become more positive the more frequently people are exposed to that object

## Changing attitudes

- Persuasion – the process of changing our attitude toward something based on communication
- Yale attitude change approach – describes the conditions under which people tend to change their attitudes
- Apart from persuasive messages, ads also tempt people to act in ways that are inconsistent with their current attitudes in the hope that they will adjust their attitudes to match their behaviour.

## Two routes to attitude change

- According to Holvand, whether a persuasive message succeeds in changing attitudes depends on:
  - The person communicating the message (source) (persuasion cues)
  - The content of the message
  - The audience who receives it (characteristics of the audience)
- Elaboration likelihood model – attitude change can be driven by evaluation of the content of a persuasive message (central route) or by irrelevant persuasion cues (peripheral route)



### Festinger's cognitive dissonance theory

- Cog dissonance theory – attitude change is driven by efforts to reduce tension caused by inconsistencies between attitudes and behaviours
- As it is often difficult to change behaviour, people usually reduce cog dissonance by changing inconsistent attitudes.

### Bem's self-perception theory

- Self-perception theory – attitudes can change as people consider their behaviour in certain situations and then infer what their attitude must be
- When people are not sure about their attitudes, they look at their own behaviour and then infer what their attitude must be. This makes their attitudes consistent with their behaviour.

### Prejudice And Stereotypes

- Stereotype – a false assumption that all members of a group share the same characteristics; the perceptions, beliefs and expectations (schemas) a person has about members of some group.
- Stereotyping often leads to prejudice.
- Prejudice – a positive or negative attitude toward an individual or group of people based on their perceived characteristics
- Stereotyped thinking is the cog component of prejudicial attitudes. The feelings people have about stereotyped groups make up the affective component. The behavioural component of prejudice involves social discrim.
- Social discrim – differential treatment of various groups

### Motivational theories

- For some people, prejudice may enhance their sense of security and help them meet certain personal needs.
- Adorno and Altemeyer
- Prejudice may be especially likely among people who display authoritarianism.
  - An acceptance of conventional or traditional values
  - A willingness to unquestioningly follow the orders of authority figures
  - An inclination to act aggressively toward individuals or groups identified by these authority figures as threatening the values held by one's in-group

### Cognitive theories

- Stereotyping and prejudice may result from the social-cog processes people use in dealing with the world.
- We use schemas and other cog shortcuts to organise and make sense out of our social world. These cog processes allow us to draw accurate and useful concs about others, but sometimes they lead to inaccurate stereotypes.

## Learning theories

- Some learned prejudice is based on conflicts between members of different groups, but children can also pick up prejudices just by watching and listening to others.

## Reducing prejudice

- Contact hypothesis – the idea that stereotypes and prejudice toward a group will diminish as contact with the group increases
- Integration reduces prejudice only when certain social conditions are created.
  - Members of the two groups have to be of roughly equal social and economic status.
  - Authorities have to promote coop and interdependence by having the groups work together on projects that require relying on one another for success.
  - The contact has to occur on a one-on-one basis.

## Interpersonal Attraction

- Attraction – the act of being drawn to something or someone; it can pull others toward us or create interest in something or someone
- Attraction can also describe our interest for certain places, objects, or even ideas.

## Keys to attraction

- Whether you like someone or not depends partly on situational factors and partly on personal characteristics. These elements often form the foundation of whether the interaction between two or more people will lead into a new platonic or romantic relationship.

## The environment

- One of the most important determinants of attraction is simple phys proximity. As long as you do not initially dislike a person, your liking for that person will increase with additional contact (mere exposure effect).

## Similarity

- People also tend to like those they perceive as similar to themselves in age, religion, habits etc. Similarity in attitudes is especially important.

## Physical attractiveness

- Phys attractiveness is particularly important during the initial stage of a relationship.
- Matching hypothesis – people are most likely to form relationships with those who are similar to themselves in phys attractiveness

## Intimate relationships and love

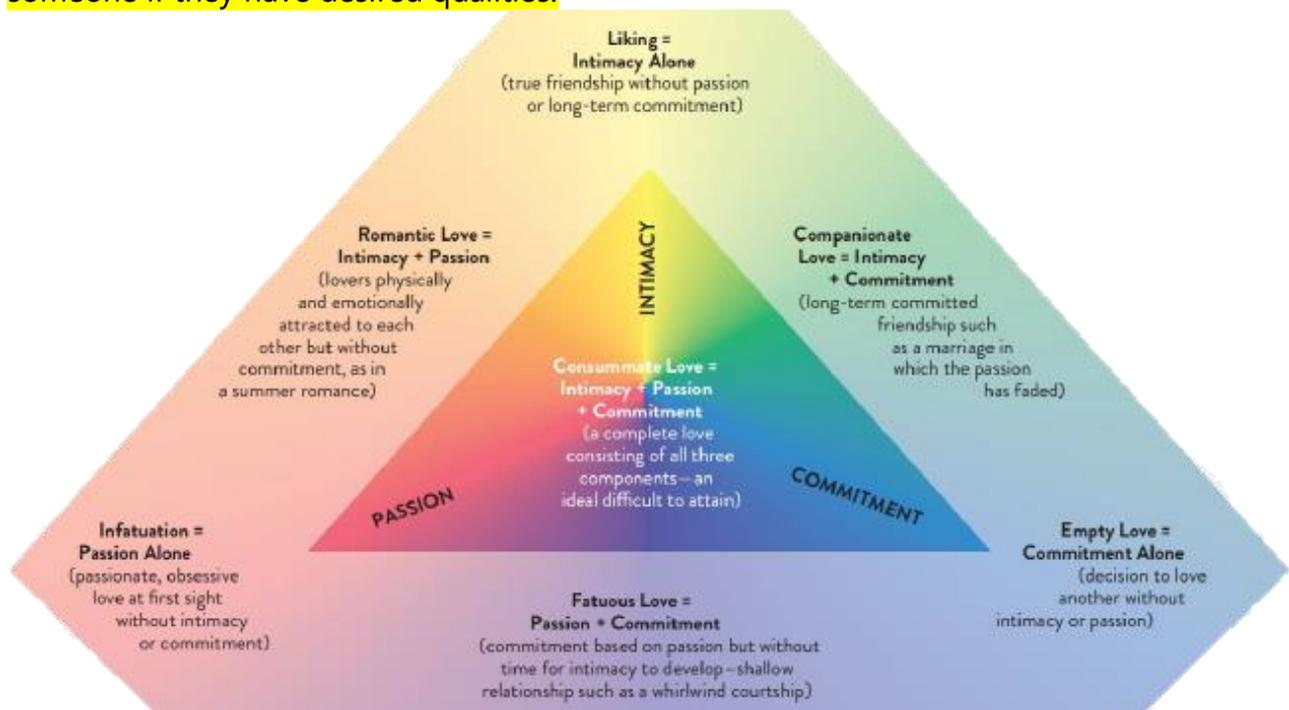
### Intimate relationships

- Interdependence – the thoughts, emotions and behaviours of one person affect those of the other
- Commitment – the extent to which each party is psych attached to the relationship and wants to remain in it
- People feel committed to a relationship when:
  - They are satisfied with the rewards they receive from it
  - They have invested signif tangible and intangible resources in it

- There are few attractive alternative relationships avail to them

## Analysing love

- Romantic love and liking are quite separate emotions, in that they are associated with differing patterns of brain chemistry and activity.
- Sternberg and Barnes' triangular theory: the 3 basic components of love are passion, intimacy and commitment. Various combinations of these components result in different types of love.
- Impact of culture: cultural factors have a strong influence on the value people place on love. Some countries believe in loving the person they marry, whereas others believe in marrying someone if they have desired qualities.



## Social Influence

- Social influence – the process through which individuals and groups directly and indirectly influence a person's thoughts, feelings and behaviour
- Conformity – changing one's behaviour or beliefs to match those of others, generally as a result of real or imagined, though unspoken, group pressure
- Compliance – adjusting one's behaviour because of an explicit or implicit request

## Role of social norms

- An individual can have multiple social roles, and with each are real or imagine pressures to conform.
- Conformity and compliance are usually generated by spoken or unspoken social norms.
- Asch examined how people would respond when they faced a social norm that already existed but was obviously wrong.
- In some of the trials, the assistants gave a clearly incorrect response. In these trials, the ppant was confronted with a 'social reality' created by a group norm that conflicted with the phys reality. About 70% of ppants conformed to the group norm.

## Why do people conform?

- Public conformity – giving an answer one does not believe because it is the socially desirable thing to do
- Private acceptance – when ppants use other people's responses as ev about reality and become convinced that their own perceptions were wrong, changing their minds
- Conformity decreases when people respond anonymously, but it doesn't disappear.
- 3 influential factors that make group norms so powerful:
  - People want to be correct, and social norms provide info about what is right and wrong.
  - People want others to like and accept them, so they may seek favour by conforming to the social norms that those others have established.
  - Conforming to group norms may increase a person's sense of self-worth, especially if the group is valued or prestigious. The process may occur without our awareness.
- Social norms influence the distribution of social rewards and punishment. Breaking a social norm may bring punishments.
- Particular areas of the brain demonstrate greater activity when ppants are conforming, and these areas are also associated with our reward centres (e.g. ventral striatum). Other regions of the brain activate when we deviate from social expectations (e.g. lateral orbitofrontal cortex, right dorsolateral prefrontal cortex).

## When do people conform?

### Ambiguity of the situation

- As the phys reality of a situation becomes less certain, people rely more and more on others' opinions, and conformity to a group norm becomes increasingly likely.

### Unanimity and size of the majority

- People exp great pressure to conform as long as the majority is unanimous.
- Conformity also depends on the size of the majority. Conformity increases as the number of people increases, but only to a point, after which further additions have little effect.
- Latane sought to explain this with his social impact theory. This holds that a group's impact on an individual depends not only on group size but also on how important and close the group is to be the person.
- According to Latane, the impact of increasing the size of a majority depends on how big the majority was originally.

### Minority influence

- Minority influence – when a minority in a group influences the behaviour or beliefs of a majority
- Minorities can be influential in producing private acceptance of new ideas, especially when members of the minority agree with one another and persist in their views.

### Gender

- Gender differences in public conformity are based not on a genuine difference in reactions to social pressure, but rather on men's desire to be seen as strong and independent, and women's desire to be seen as cooperative.

## Status

- People are more likely to conform to members of the group with higher social status.

## Personal characteristics

- Need for approval: individuals with a high need for approval may be driven to conform to increase the probability of being liked by others
- Level of self-esteem: those with higher self esteem are less likely to conform
- Culture: conformity is more likely in collectivist cultures

## Creating compliance

### Foot-in-the-door technique

- This works by getting a person to agree to a small request and gradually presenting larger ones. By granting one small favour, a person becomes much more likely to do a somewhat larger favour next time.
- This is because:
  - People are usually far more likely to comply with a request that costs little in time, money, effort or inconvenience.
  - Complying with a small request makes people think of themselves as being committed to the cause or issue involved. This change occurs through the processes of self-perception and cog dissonance.

### Door-in-the-face technique

- This begins with a request for a favour that is likely to be denied. The person concedes that the initial favour was excessive and substitutes a lesser alternative, which was what they really wanted in the first place.
- This second request is more likely to be granted than if it had been made at the outset.
- Compliance appears to be due partly to activation of the reciprocity norm: this person is making a concession, so I should make a concession in return.

### Low-ball technique

- The first step is to obtain a person's oral commitment to do something. Once this commitment is made, the cost of fulfilling it is increased, often because of an 'error' in the initial calc (i.e. hidden costs).
- Once people say they will do something, they feel obligated to follow through, especially when the commitment was made in public.

### That's-not-all technique

- The first step is to make a request, increasing its apparent size with an additional offer before the consumer can respond. The offer then appears more attractive, in perceptual contrast to its former apparent size.

## Obedience

- Obedience – changing behaviour in response to demand from an authority figure
- Milgram experiment: only 12.5% stopped before 300 volts ('extreme-intensity shock'). 65% went all the way to the 450-volt level (the top notch).

## Factors affecting obedience

- Experimenter status and prestige: the experimenter's status and prestige created two kinds of social power (expert and legit power) that affected the participants.
- The behaviour of others: the presence of others who disobey appears to be a very most powerful factor in reducing obedience.
- The behaviour of the learner: perceiving a victim's pain did not reduce obedience to authority, but being reminded of a victim's right to be released from the experiment did.
- Personality characteristics: people high in authoritarianism are more likely than others to comply with an experimenter's request to shock the learner. The participants who were less likely to obey orders to harm the learner were also the ones who were concerned about others and predisposed to have empathy (understanding or expecting another person's emotional state).

## Evaluating Milgram's studies

- Although the 'learners' in Milgram's experiment suffered no discomfort, the participants did.
- Milgram argued that his debriefing of the participants after the experiment prevented any lasting harm.

## Aggression

- Aggression – an act intended to cause harm to another person
- Hostile aggression – driven by anger and an intent to cause pain
- Instrumental aggression – goal directed aggression; the aggressor is not motivated by anger, nor has an intent to necessarily cause pain

## Why are people aggressive?

- Freud proposed that aggression is an instinctive bio urge that builds up and must be released.
- Aggression is thought to have helped prehistoric people compete for mates. Through natural selection, aggressive tendencies were passed on through successive generations.
- Enviro factors also play a large role in determining when and why people are aggressive.

## Genetic mechanisms

- Research on twins suggests that there is a genetic component to aggression. People may inherit certain temperaments that make aggression more likely.
- Several parts of the brain influence aggression. One is the limbic system, which includes the amygdala, the hypothalamus and related areas. Damage to these structures may produce defensive aggression, which includes heightening aggressiveness to stimuli that are not usually threatening or a decrease in the response that normally inhibit aggression.
- The cerebral cortex may also be involved in aggression.

## Biological mechanisms

- Neurotransmitters e.g. lower levels of serotonin may correlate to higher levels of aggression.
- High levels of testosterone tends to result in more aggressive behaviour.
- Effects of drugs
  - Drugs that alter CNS functioning can also affect the likelihood that a person will act aggressively.
  - Alcohol can substantially increase some people's aggressiveness.

## Learning and cultural mechanisms

- Aggressive behaviour is much more common in individualist than collectivist cultures. Cultural differences in the expression of aggression appear to stem in part from differing cultural values.
- People become more aggressive when rewarded and less aggressive when punished for aggression. People also learn many aggressive responses by watching others.
- A person's accumulated exps, including culturally transmitted teachings, combine with daily rewards and punishments to influence whether, when and how aggressive acts occur.

## When are people aggressive?

- Aggressive behaviour can emerge in any context, regardless of whether it feels like a more 'stressful' enviro or not.
- In general, people are more likely to be aggressive when they are both physio aroused and exping angry or hostile thoughts and feelings. They tend either to lash out at those who make them angry or to displace their anger.
- However, aggression can also be made more likely by other forms of emotional arousal. One such emotion is frustration, which occurs when we are prevented from reaching some goal.
- Frustration-aggression hypothesis – a proposition that frustration always leads to some form of aggressive behaviour
- Generalised arousal: arousal from one exp may carry over to an independent situation, producing excitation transfer.
- The links between stress, arousal and aggressive behaviour point to the possibility that stressful enviro conditions can make aggressive behaviour more likely.

## Altruism And Helping Behaviour

- Helping (prosocial) behaviour – any act that is intended to benefit another person
- Altruism – an unselfish concern for another person's welfare

## Why do people help?

- The tendency to help others begins early. Young children generally help others only when asked to do so, or when offered a reward.
- Children use helping behaviour to gain social approval, and their efforts become more elaborate. Their helping behaviours are shaped by the social norms established through the examples set by their families and culture.
- Children are praised and given other rewards for helpfulness but are scolded for selfishness. They come to believe that helping is good, and that they are good when they help.
- By the late teens, people often help others even when no one is watching and no one will know that they did so.

## Arousal: cost-reward theory

- Arousal: cost-reward theory – attributes people's helping behaviour to their efforts to reduce the unpleasant arousal they feel in the face of someone's need or suffering
- The more physio aroused bystanders are, the more likely they are to help someone in an emergency. Before rushing to a victim's aid however, the bystander will first evaluate:
  - The costs associated with helping

- The costs (to the bystander and the other person) of not helping
- If the costs of helping are low and the costs of not helping are high, the bystander will almost certainly help. However, if the costs of helping are high and the costs of not helping are low, the bystander is unlikely to offer help.
- **Helping and the presence of others**
  - The presence of others tends to make helping behaviour less likely.
  - **Bystander effect – the chances that someone will help decrease as the number of people increases**
  - Each person thinks someone else will help. Seeing other bystanders allows each to expect a diffusion of resp, which lowers the costs of not helping.
  - **When these people are strangers, poor comm may inhibit helping. People often have difficulty speaking to strangers, particularly in an emergency, and thus have difficulty knowing what the others intend to do.**
  - **Bystanders' tendency to help increases when they know one another.**
- **Personality of the helper: people with more empathy, concern for others, resp for their actions, and self-efficacy are more likely to help**

### **Empathy-altruism theory**

- **Empathy-altruism theory – people help others because of empathy with their needs**
- **People who hear empathy-inducing info prior to being asked to help may be more likely to help than those who do not hear this info.**

### **Evolutionary theory**

- **Inclusive fitness – the survival of one's genes in future generations**
- **Because we share our genes with our relatives, helping or even dying for a sibling/child increases the likelihood that at least some of our genetic characteristics will be passed on through the beneficiary's future reproduction.**
- **Kin selection (helping a relative survive) may produce genetic benefits even if it provides no personal benefits for the helper.**

## **PSY1022 Week 2**

### **Emotion**

- **The ability to accurately perceive, understand and regulate your own and others' emotions is linked with:**
  - **Better decision making and social skills**
  - **Better stress management**
  - **Success in the workplace**
  - **Better overall life outcomes**

### **The Nature Of Emotion**

- **Emotions – psych and physio reactions to changes in our enviro, both subjective (what you exp) and objective (something tangible and measurable)**
- **Emotions – transitory positive or negative exps that are felt as happening to the self, are generated in part by cog appraisal of a situation, and are accompanied by both learned and innate phys responses**

- The subjective exp of emotion has several characteristics:
  - Emotion is usually temporary. Moods tend to last longer comparatively.
  - Emotional exp can be positive or negative. It can also be a mixture of both.
  - Emotional exp alters thought processes, often directing action toward some things and away from others. Negative emotions tend to narrow attention. Positive emotions tend to widen our attention.
  - Emotional exps trigger an action tendency (the motivation to behave in certain ways).
  - You can exert at least some control over emotions in the sense that they depend partly on how you interpret situations. Still, such control is limited.
- The objective aspects of emotion include expressive displays (e.g. a smile) and physio responses (e.g. changes in heart rate).

## The biology of emotion

### Brain mechanisms

- Response in the limbic system
  - Activity in the limbic system, especially the amygdala (core function is processing emotional info, particularly fear), is central to emotion.
  - Normal functioning in the amygdala appears critical to learning emotional associations, recognising emotional expressions, and perceiving emotionally charged words.
  - The hippocampus is integral for the relationship between emotional exps and cog, e.g. learning and memory.
- Facial expressions
  - Voluntary facial movements are controlled by the pyramidal motor system, which includes the motor cortex.
  - Involuntary facial movements associated with emotions are controlled by the extrapyramidal motor system, which depends on areas beneath the cortex.
- The cerebral cortex: positive emotions are correlated with higher left HS activity, whilst negative emotions and perceiving emotions is linked with higher right HS activity.

### Mechanisms of the autonomic nervous system

- The ANS carries info between the brain and most organs. The ANS coordinates the functioning of organs to meet the body's needs and prep it for change.
- Sympathetic NS – prepares the organism for vigorous activity (activated by the hypothalamus)
- Parasympathetic NS – activity related to the protection, nourishment and growth of the body
- Emotions can activate either of these divisions, both of which send axon fibres to each organ. Axons from the parasymp system release acetylcholine onto target organs, whilst axons from the symp system release noradrenaline.
- Fight-flight syndrome (reaction) – a phys reaction triggered by the SNS that prepares the body to fight or run from a threatening situation
  - Increased heart rate and blood pressure
  - Rapid or irregular breathing
  - Dilated pupils (tunnel vision)
  - Perspiration
  - Dry mouth
  - Increased blood sugar
  - Piloerection (goosebumps)
  - Other changes that prep the body to combat or run

## Theories Of Emotion

### Darwin's theory of the evolution of emotion

- Emotional expressions evolved over time e.g. dilated pupils increased field of view, but also communicates the situation to others.

### James-Lange peripheral theory

- Without physio responses, you would feel no fear, because recog of physio responses is fear. Activity in the PNS is the cause of emotional exp.
- Once you strip away all physio responses, nothing remains of the exp of an emotion. Emotion must therefore be the result of exping a particular set of physio responses.

### Observing peripheral responses

- The brain interprets a situation and auto directs a particular set of peripheral physio changes. We are not conscious of the process until we become aware of these bodily changes; at that point, we exp an emotion.
- Each particular emotion is created by a particular pattern of physio responses.
- Emotional exp is not generated by activity in the brain alone. There is no special 'emotion centre' in the brain where the firing of neurons creates a direct exp of emotion.

### Evaluating James' theory

- Certain emotional states are associated with certain patterns of autonomic activity. However, some physio responses are associated with multiple emotions e.g. heart rate increase could be linked to fear, anger, excitement etc.
- Autonomic activity and facial expressions (facial-feedback hypothesis)
  - Different patterns of autonomic activity are closely tied to specific emotional facial expressions.
  - When ppants were asked to make certain facial movements, autonomic changes occurred that resembled those normally accompanying emotion. Almost all ppants reported feeling the emotion associated with the expression they had created, even though they could not see their own expressions and did not realise they had portrayed a specific emotion.
- Physiology and emotion
  - Spinal cord injuries that reduce feedback from peripheral responses should reduce the intensity of emotional exps. However, when people with spinal cord injuries report that their emotional exps are just as intense as before their injuries, even though they notice less intense physio changes associated with their emotions.
  - Pure autonomic failure: some with this condition exp less symptoms of emotions, but report that the emotion feels the same

### Cannon-Bard central theory

- The emotional exp starts in the CNS. When the thalamus receives sensory info about emotional events and situations, it sends signals to the ANS and cerebral cortex, where the emotion becomes conscious. Emotions appear in the brain without peripheral info from the ANS.
- The brain receives sensory info about the stimulus, perceives it, and creates the emotional exp while sending messages to the body to do what it takes.

## Updating Cannon's theory

- The thalamus is actually not the 'seat' of emotion, but through its connections to the amygdala, it does participate in some aspects of emotional processing e.g. fear is generated by connections from the thalamus to the amygdala.
- Strong emotions can sometimes bypass the cortex without requiring conscious thought to activate them.
- Activity in specific brain areas is experienced as either enjoyable or aversive and produces the feelings of pleasure or discomfort associated with emotion. These areas have extensive connections throughout the brain. As a result, the rep of emotions in the brain probably involves activity in widely distributed neural circuits, not just in narrowly localised emotion 'centre'.
- Emotion occurs through the activation of specific circuits in the CNS. Different parts of the CNS may be activated for different emotions and different aspects of the total emotional exp.

## Schachter-Singer two-factor theory

- Emotions emerge from a combination of feedback from peripheral responses and our cog interpretation of those responses.
- Cog interpretation first comes into play when you perceive the stimulus that leads to the response. Interpretation occurs again when you identify those responses as a particular emotion. The same physio responses might be given many different labels, depending on how you interpret those responses.
- Two psych events are needed to produce emotions:
  - Undifferentiated autonomic arousal after exping an emotion-provoking event
  - Attribution of this arousal to your current exp (e.g. internal or external enviro)
- Attribution – the process of explaining the causes of an event

## Excitation transfer theory

- Excitation transfer theory – physio arousal stemming from one situation is carried over to and enhances emotional exp in an independent situation. This occurs more so when the second situation quickly follows the first.
- There is a period of time where, after a person becomes aroused physio, the person will exp a state of residual arousal. They may then enter a new situation and mistakenly ascribe their previous physio arousal to the new situation.
- Participating in high phys activity is linked to increased aggression after participation, which may be explained by this excitation transfer effect.

## Lazarus' cognitive appraisal theory

- Differing reactions can be best explained by how we think events will affect our personal wellbeing.
- The process of cog appraisal begins when we decide whether or not an event is relevant to our wellbeing. If we don't care about it, we are unlikely to have an emotional exp.
- That reaction will be positive or negative, depending on whether we see the event as advancing our personal goals or obstructing them. The specific emotion we exp depends on our individual goals, needs, standards, expectations and past exps.