Chapter 10

Motivation and emotion

Motivational theories and concepts

- Motives-needs,wants,desires leading to goal - directed behaviour
- Drive theories- seeking homeostasis
    - Drive theories hold that motivation is based in an internal state of tension that motivates an organism to engage in activities that should reduce this tension; organisms seek to maintain homeostasis, or a state of equilibrium or stability.
- incentive theories- regulation by external stimuli (money)
- Evolutionary theories- maximizing reproductive success (aggressive to protect survive & mate)

Examples of Biological Motives in Humans	Examples of Social Motives in Humans
Hunger motive	Achievement motive (need to excel)
Thirst motive	Affiliation motive (need for social bonds)
Sex motive	Autonomy motive (need for independence)
Temperature motive (need for appropriate body temperature)	Nurturance motive (need to nourish and protect others)
Excretory motive (need to eliminate bodily wastes)	Dominance motive (need to influence or control others)
Sleep and rest motive	Exhibition motive (need to make an impression on others)
Activity motive (need for optimal level of stimulation and arousal)	Order motive (need for orderliness, tidiness, organization)
Aggression motive	Play motive (need for fun, relaxation, amusement)

Variables involved in hunger

Biological factors

- Brain regulation
    - Lateral and ventromedial hypothalamus
        - The hypothalamus, particularly two areas called the lateral hypothalamus (LH) and the ventromedial nucleus of the hypothalamus (VMH), are important in hunger. The LH was thought to be the hunger centre, while the VMH was thought to be the satiety centre.
    - Paraventricular nucleus
        - The paraventricular nucleus of the hypothalamus has recently been implicated as another influential part of the hunger circuit.
    - Arcuate nucleus
    - Neuropeptide Y, serotonin, and ghrelin
- Glucose and digestive regulation
    - Glucostatic theory

        - when blood sugar goes down, hunger goes up. Glucostatic theory proposed that fluctuations in blood glucose level are monitored in the brain by glucostats—neurons sensitive to glucose in the surrounding fluid. It appears likely that hunger is regulated, in part, through glucostatic mechanisms.
- Hormonal regulation
    - Hormones circulating in the blood also appear to be related to hunger. Insulin, secreted by the pancreas, must be present for cells to use blood glucose. Increases in insulin increase hunger, and the mere sight and smell of food has been shown to increase insulin.
    - Insulin(more insulin more hungers) and leptin (increase --> less hunger)
- Recently, a new hormone, leptin, has been discovered to be released from fat cells into the bloodstream. Leptin is believed to signal the hypothalamus about fat stores in the body, causing decreases in hunger when fat stores are high.

Imbalance in neurotransmitters can cause eating disorders

Environmental factors

- Learned preferences and habits
    - Exposure
        - Clearly, hunger is related to biology; however, it is also regulated by environmental factors like learned preferences. Studies show that people like foods that are familiar to them; dog meat is a delicacy in some parts of the world. Exposure and observational learning appear to play a part in what we like to eat. Learning also appears to influence when and how much people eat
    - When, as well as what
- Food-related cues
    - Appearance, odour, effort required
        - Food-related cues are environmental cues that have been associated with eating, such as the appearance or odour of food, the effort required to eat a particular food, etc. Research shows that these external cues influence eating behaviour to some extent, beyond biological hunger.
- Stress
    - Link between heightened arousal/negative emotion and overeating
        - Finally, stress has been shown to be related to increased eating, with some research indicating that chronic dieters are more likely to respond to stress with eating. It is unclear whether stress-induced eating is caused by physiological arousal or negative emotion. It is also unclear whether the effects of stress on hunger are direct or indirect.

Eating and weight: The roots of obesity

- Evolutionary explanations

- Genetics predisposition
    - body Mass index (caused by genetics) and adoption study
- The concept of set point/settling point
- dietary restraint
- eating disorders
-

- Obesity is the condition of being overweight. Criteria differ, but one definition assumes that people are overweight if their weight exceeds their ideal body weight by 20%.

- Obesity is a significant health problem, elevating mortality risk.

- Evolutionary explanations for increases in the prevalence of obesity are based in food supply changes. Whereas most animals evolved in environments where competition for food was fierce and food supplies were unreliable, the vast majority of humans now live in environments where food is abundant and reliable.

- Research suggests that some people can eat more than others without gaining weight and that this may have a genetic basis. When adults raised by foster parents are compared to biological and foster parents in regard to BMI (weight in kilograms divided by height in metres squared), adoptees resemble biological parents, not adoptive. Twin studies suggest that genetic factors account for 61% of the variation in body weight among men and 73% among women.

- Lose weight on a diet, gain it back. The reverse is also true. Intentionally put on weight and have a hard time keeping it on. Richard Keesy (1995) suggests that our bodies have a set point, or natural point of stability in body weight. This appears to be related to fat cell levels; when fat stores slip below a crucial level, hunger increases and metabolism decreases. Settling-point theory (Pinel et al., 2000) alternatively proposes that weight hovers near the level at which the constellation of factors that determine food consumption and energy expenditure achieve an equilibrium. Thus, according to this theory, weight remains stable as long as there are no durable changes in any of the factors that influence it.

- Researchers have also shown that dietary restraint may contribute to obesity. Chronic dieters restrain themselves from eating and go hungry much of the time, but they are constantly thinking about food. When they give in, they become disinhibited and eat to excess: the “I’ve already blown it” problem.7

Sexual Motivation & Behaviour

Hormonal regulation

Estrogens

Androgens

Testosterone

Evolutionary factors

Parental investment theory

Gender differences in mate preferences

Pornography

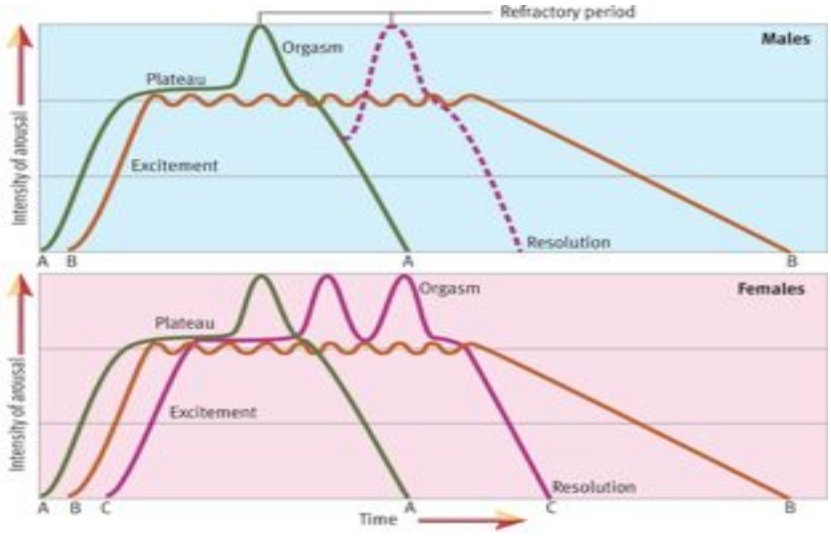
The human sexual response

Masters and Johnson

- William Masters and Virginia Johnson conducted groundbreaking research, using physiological recording devices to monitor the bodily changes of volunteers engaging in sexual activity. They outlined four stages in the sexual response cycle.

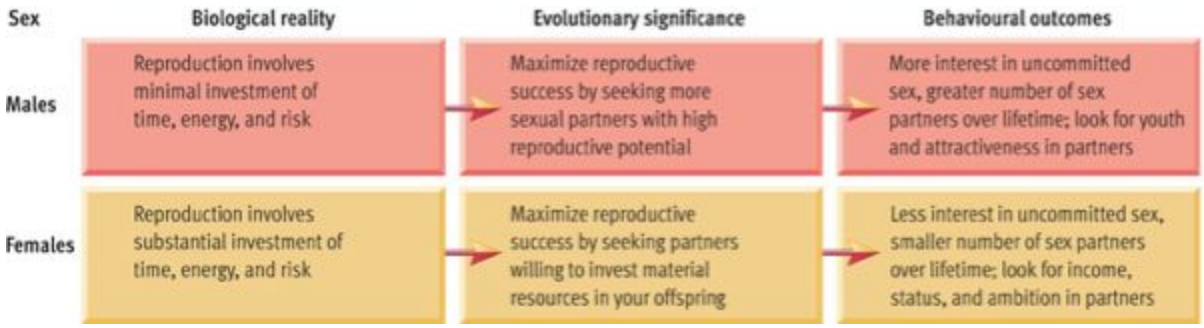
Stages

- Excitement: is the initial arousal, which escalates quickly. Muscle tension, respiration rate, heart rate and blood pressure increase. Vasocongestion—engorgement of blood vessels occurs in the genitals.
- Plateau: occurs when physiological arousal continues to build, but at a slower pace.
- Orgasm: occurs when sexual arousal reaches its peak intensity and is discharged in a series of muscular contractions that pulsate through the pelvic area. The subjective experience of orgasm is very similar for men and women, although women can be multiorgasmic. On the other hand, they are more likely to engage in intercourse without experiencing an orgasm.
- Resolution: is characterized by subsiding physiological arousal. Men experience a refractory period after orgasm, when they are largely unresponsive to further stimulation. This may last from a few minutes to a few hours and increases with age



There are similarities and differences between men and women in patterns of sexual arousal. Pattern A, which culminates in orgasm and resolution, is the ideal sequence for both sexes but not something one can count on. Pattern B, which involves sexual arousal without orgasm followed by a slow resolution, is seen in both sexes but is more common among women. Pattern C, which involves multiple orgasms, is seen almost exclusively in women, as men go through a refractory period before they are capable of another orgasm.

A higher percentage of women have revealed that they fake orgasms whereas that percentage drastically decreases in men



The Mystery of sexual orientation

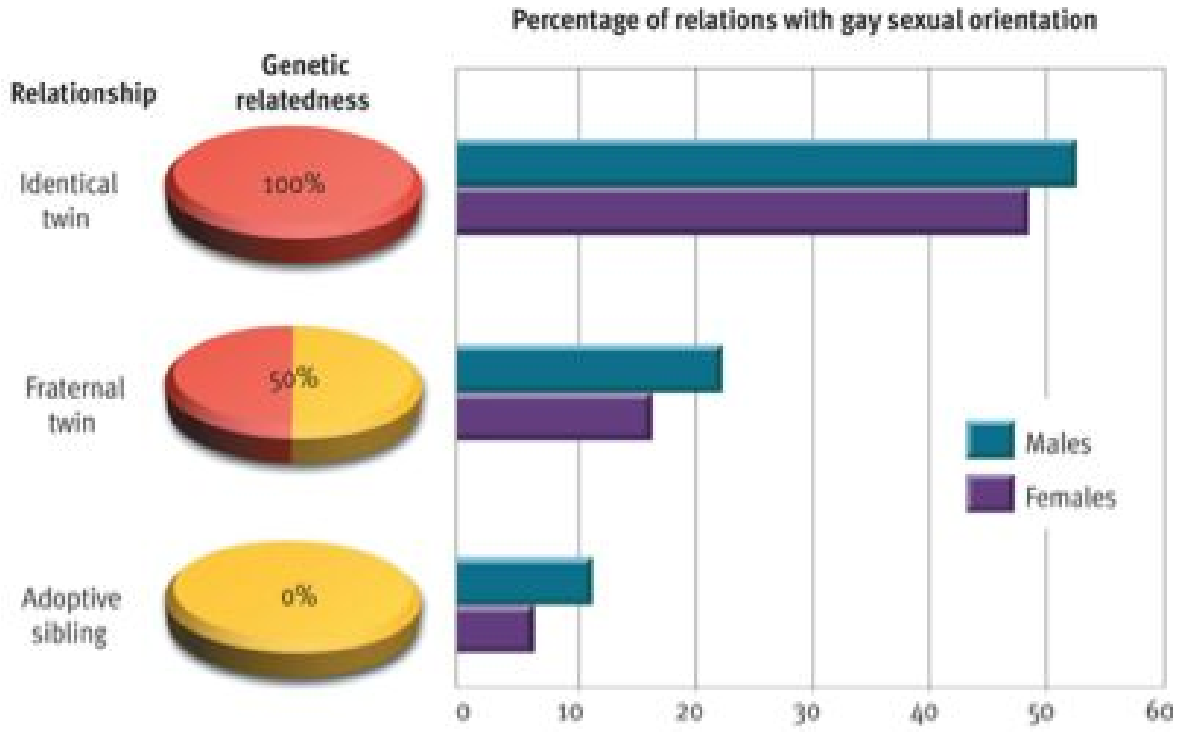
- Heterosexual – Bisexual – Homosexual
  - A continuum
- Theories explaining homosexuality
  - Biological

***Higher androgen causes males to be homosexual ***

Data on the prevalence of homosexuality suggests that 5–8% of the population may have a homosexual orientation.

- Sexual orientation refers to a person's preference for emotional and sexual relationships with individuals of the same sex (homosexuality), the other sex (heterosexuality), or either sex (bisexuality).

- Many environmental theories explaining homosexuality have been put forth historically. Freud held that a person must identify with the same-sexed parent, or homosexuality results. Behaviourists assert that homosexuality is learned through conditioning. Research has failed to support either theory. What has been found is that most men and women with homosexual orientations can trace their leanings back to early childhood, suggesting a biological basis.
- Biological research suggests that there is a genetic predisposition to homosexuality, possibly based on the X chromosome.



If relatives who share more genetic relatedness show greater similarity on a trait than relatives who share less genetic overlap, this evidence suggests a genetic predisposition to the characteristic. Studies of both gay men and lesbian women have found a higher prevalence of homosexuality among their identical twins than among their fraternal twins, who, in turn, are more likely to be homosexual than their adoptive siblings. These findings suggest that genetic factors influence sexual orientation.

The need to belong:

- Affiliation
  - The need to be connected/ connect to people/ the need to belong)
  - Affiliation motive is the need to associate with others and maintain social bonds.
- Ostracism
  - The fear of being excluded from a group drives our behaviours and changes our thinking
  - Ostracism involves being ignored and excluded by others in your social environment.
  -
- Fear of rejection

Achievement Motivation

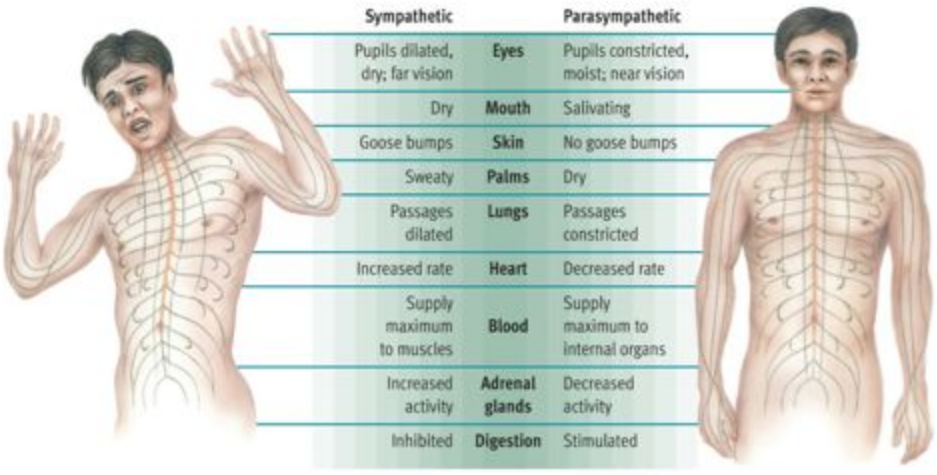
- Affiliation motivation is the need to associate with others and to maintain social bonds. People who are relatively high in affiliation motivation tend to devote more time to interpersonal activities and to worry more about acceptance than others do.
    - Achievement motivation involves the need to excel, especially in competition with others.
    - People who are relatively high in the need for achievement work harder and more persistently, they tend to delay gratification well, and to pursue competitive careers.
    - Both affiliation and achievement motivation are generally measured using the TAT, a projective test which requires a subject to write or tell stories about what is happening in pictures of people in ambiguous scenes.
    - Situational factors have been shown to influence achievement motivation, causing it to increase when the probability of success and the incentive value of success are high. Additionally, the pursuit of achievement can be influenced by a fear of failure, so that the motive to avoid failure stimulates achievement.

Key words:

- Delay gratification - Sacrifice now but have more reward later on
- Persistence - Continue doing at something at certain pace (persistent)

Components of Emotion

- Cognitive component:
    - involves subjective feelings that have an evaluative aspect. A cognitive appraisal of an event is an important element in emotional experience. Researchers have, in the past, focused primarily on negative emotions, consistent with the bias in the field of psychology toward studying pathology, weakness, and suffering. In recent years, however, a group of psychologists have advocated for positive psychology: increasing research on contentment, well-being, human strength, and positive emotion.
    - Subjective conscious experience
    - Positive psychology
- Physiological component
    - (sweating, heavy breathing, stuttering,)
    - Bodily (autonomic) arousal
        - The physiological arousal associated with emotion occurs through the actions of the autonomic nervous system. The autonomic nervous system is responsible for the highly emotional fight-or-flight response. The galvanic skin response (GSR) measures autonomic activation—the device that measures autonomic fluctuations while a person is questioned is called a polygraph or lie detector (really an emotion detector). Polygraph tests measure emotion, which may or may not be due to deceit; they are inaccurate often enough that they are deemed not reliable enough to be submitted as evidence in most types of courtrooms.
    - Affective neuroscience (The effects on brain activity)
- Behavioural component
    - Characteristic overt expressions



THEORIES OF EMOTION:

- James-Lange
  - Feel afraid because pulse is racing
  - physiological response first then appraisal – your body dictates the conscious appraisal)
    - The James-Lange theory of emotion holds that you see a snake, your pulse races, and you feel afraid because your pulse is racing.
- Cannon-Bard
  - Thalamus sends signals simultaneously to the cortex and the autonomic nervous system
  - (physiological and appraisal happen simultaneous)
    - The Cannon-Bard theory holds that you see a snake, the information is sent to the thalamus, which relays the signals simultaneously to the cortex and to the autonomic nervous system.
- Schacter's Two-Factor Theory
  - Look to external cues to decide what to feel
  - (look to environment to decide whether to be afraid or scale of being afraid)
    - Schacter's Two-Factor theory holds that you feel autonomic arousal and look around to see why: if there's a snake you feel fear.
- Evolutionary Theories
  - Innate reactions with little cognitive interpretation
    - Evolutionary theories of emotion assume that emotions are innate reactions that require little cognitive interpretation. Robert Plutchik

has devised a model of how primary emotions blend together to form secondary emotions.

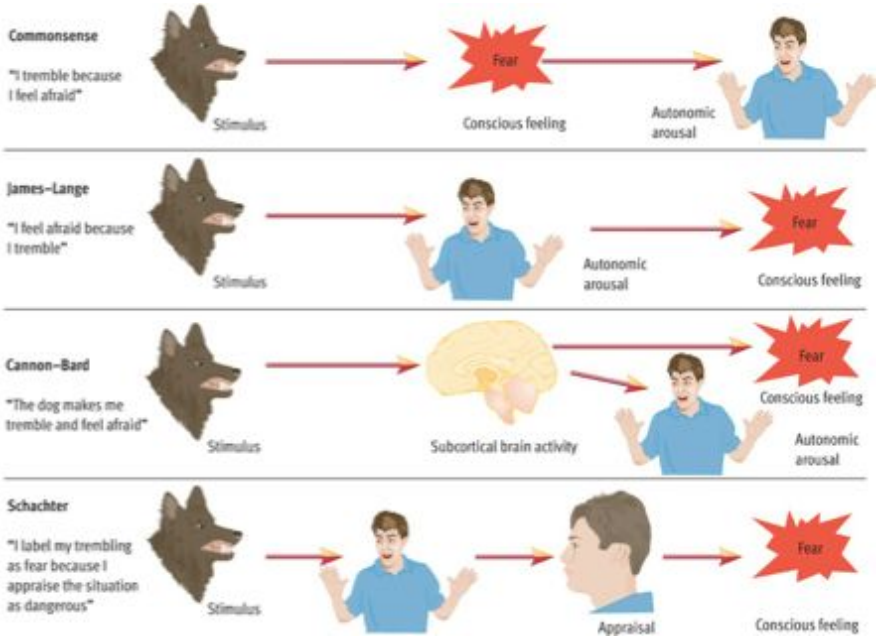
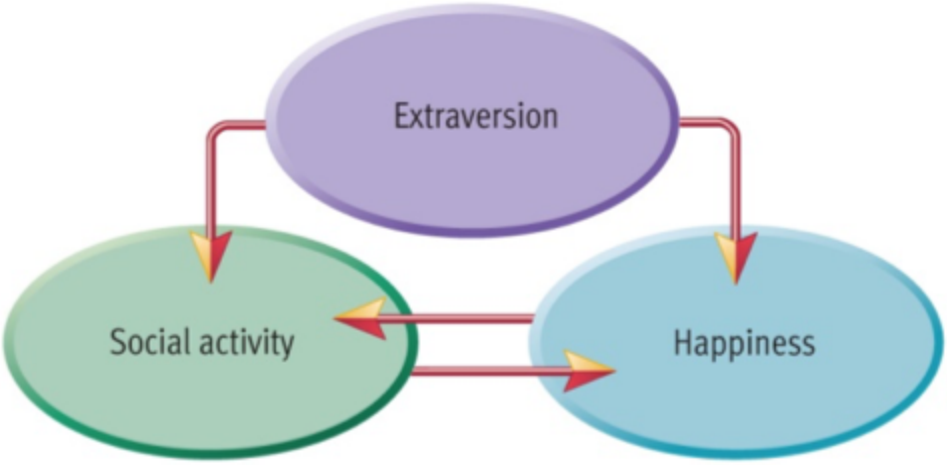


TABLE 10.1 Primary emotions.

Evolutionary theories of emotion attempt to identify primary emotions. Three leading theorists—Silvan Tomkins, Carroll Izard, and Robert Plutchik—have compiled different lists of primary emotions, but this chart shows great overlap among the basic emotions identified by these theorists.

Silvan Tomkins	Carroll Izard	Robert Plutchik
Fear	Fear	Fear
Anger	Anger	Anger
Enjoyment	Joy	Joy
Disgust	Disgust	Disgust
Interest	Interest	Anticipation
Surprise	Surprise	Surprise
Contempt	Contempt	
Shame	Shame	
	Sadness	Sadness
Distress		
	Guilt	
		Acceptance

Source: Based on Mandler, 1984.



Although we have considerable data on the correlates of happiness, it is difficult to untangle the possible causal relationships. For example, we know that a moderate positive correlation exists between social activity and happiness, but we can't say for sure whether high social activity causes happiness or whether happiness causes people to be more socially active. Moreover, in light of the research showing that a third variable—extraversion—correlates with both variables, we have to consider the possibility that extraversion causes both greater social activity and greater happiness.

Third variable that influences – extraversion engaging in more social activities that link to happiness not necessarily not happiness causing extraversion.

Happiness

Common sense notions incorrect: Research on happiness indicates that common sense notions about what makes people happy are largely **incorrect**

- Income, age, parenthood, intelligence, and attractiveness largely **uncorrelated**
- Physical health, good social relationships, religious faith, and culture modestly **correlated**
- Love, marriage, work satisfaction, and personality strongly **correlated**

Subjective rather than objective reality is what is important in deciding happiness.