Chapter 4: Similarities and Differences in Our Sexual Responses

- The primary tools of behavioral scientists are observation and measurement
- For a long time human sexual behavior was considered to be off-limits as a subject of scientific inquiry

Measurement of Sexual Responses

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  - Masters and Johnson
    - Same of 312 men and 382 women from their local community
    - Ages of 18-89
    - It was a room with a bed and recording equipment
    - Participants first allowed to have sex with no one in the room so they would feel comfortable
    - But after there would be one or more investigators present
    - Recorded over 10,000 sexual episodes leading to orgasm
    - Participants engaged in masturbation, oral-genital sex, and intercourse
    - Many were observed dozens of times to determine variability in their responses
    - Subjects hooked up to equipment that measure heart rate, blood pressure, muscle tension, respiration and brain waves
    - Penile strain gauge- thin rubber tube filled with mercury that fits over the base of the penis and transmits small electric current that record the change in circumference of the penis
    - Vaginal photoplethysmograph- fits like a tampon and has a light and photocell to record blood volume in the vaginal walls by measuring changes in the reflection of light
    - Criticized for unnatural setting
- Models of Sexual Response
  - Physiological responses that take place in men and women occur in 4 phases
    - 1. Excitement
    - 2. Plateau
    - 3. Orgasm
    - 4. Resolution
    - Known as the **sexual response cycle**
  - Helen Kaplan Model: 3 phases
    - 1. Desire

        - 2. Excitement
        - 3. Orgasm
        - Appealing because most people can distinguish the differences in these phases
- Men's Sexual Response Cycle
    - 2 models into a 5-phase model:
        - 1. Desire
        - 2. Excitement
        - 3. Plateau
        - 4. Orgasm
        - 5. Resolution
- Phase 1: Desire
    - Desire: a psychological state subjectively experienced by the individual as awareness that he or she wants or wishes to attain a sexual goal (object or activity)
        - Or an intrinsic motivation to pursue sex
    - Important because it incorporates the subjective aspects of sexual responsiveness (how one thinks and feels) and not just the physiological responses (erection)
    - The remaining phases do not differ with different stimuli
- Phase 2: Excitement (Arousal)
    - Arousal in men follow a wide variety of physical and or cognitive/emotional cues
    - First sign is erection of the penis
        - Resulting from the spongy tissues of the corpora cavernosa and the corpus spongiosum becoming engorged with blood
        - This is a **Vasocongestive Response**
            - Filling tissues with blood
            - Starts within 3 to 8 seconds after stimulation, not result in a full erection right away
        - Vasocongestion results from nerve impulses causing dilation of the arteries that carry blood to the penis
    - 2 erection centers in the spinal cord
        - the lowest part (Sacral) part of the spinal cord
            - reflexive in manner
        - higher in the spinal cord (thoracolumbar) region
            - receives impulses originating in the brain and contributes to psychologically caused erections

- Phase 3: Plateau
  - Plateau- a period of high sexual arousal that sets the stage for orgasm
  - This phase can be short or a long time
  - Penis increases in size
  - Testicles become fully engorged with blood
  - Cowpower's glands secrete the clear fluid at the top of the penis
  - 25% of men will get sex-tension flush on various areas of the skin due to the vasocongestive response
- Phase 4: Orgasm
  - Orgasm- brief but intense sensations (focused on genitals but really a whole body response) experienced during sexual arousal. During orgasm, rhythmic muscle contractions occur in certain tissues in both the man and woman. Third phase of the sexual response cycle proposed by Masters and Johnson
    - Also known as climax or coming
  - Masters and Johnson: define orgasms as a sudden discharge of the body's sexual tension
  - Orgasm is a perceptual experience (generated in the brain, thus not always requiring genital stimulation) and that its occurrence is subjective
  - Men's Orgasm
    - Occurs in 2 stages
      - 1. Emission- rhythmic muscular contraction in the vas deferens, prostate gland, and seminal vesicles force the sperm and seminal fluids into the ejaculatory ducts (producing semen)
        - feeling of "coming"
      - 2. Expulsion- contractions are joined by contractions of the urethra and muscles at the base of the penis to force the semen from the penis.
        - Ejaculation
        - The sphincter muscles surrounding the urethra are tightly contracted so that urine is not mixed with semen
  - Retrograde ejaculation- when the semen goes into the man's bladder instead of out of the body