fundamental mechanism:
- competition (male - male)
- choice (male - female)

Sex roles
- competition for mates
- choice of mates
- parental care

Conventional sex role —— males compete with males, female care for young
sex-role reversal —— females compete & males care for young
  - male care evolved multiple times
  - Lots of variation in who cares
  - many evolutionary transitions among all states of care in all direction

Trivers 1972 (verbal model): conventional sex roles

“parental investment and sexual selection”
pre-mating investment—— gametes
post-mating investment—— parental care

unequal parental investment
sex that invests more is resource limited —— typically female
sex that invests less is limited by number of mates —— typically males
(higher potential reproductive rate & selection to get more mates)
  - sex invests more cares more → females
neural mechanisms enable different routes to sexuality & different types of sexuality & pair-bonding → some more oriented by gender than others

Brain Sex

Hormones and sexual development of Brains

- brain organization theory
  - sex difference is not dimorphic in human brains
  - individual studies report statistically significant difference between M & F brain regions → but some: no difference

- Compensation & convergence
  - causes or functional implications of cortical differences are not clear
  - some differences compensate for others, to enable functional similarity
  - dosage compensation - both XX & XY cells have the same number of active X chromosomes

- hypothesis:
  - sex difference in hormones → sex difference in brain structure → sex difference in behavior, abilities
  - strongest evidence → manipulative experiments → can’t do in human → look for correlation

- “quasi-experimental” study designs
  - cohort studies → broad definitions → experiment
    - choose a group without condition you are studying
    - expose 1 part of group to a factor
    - see if difference in development
■ hormones can regulate gene expression (interact with transcription factors)
■ endocrine disrupting chemicals
  ● Agricultural chemicals that interact with estrogen receptors can feminize phenotypes of genetically male frogs.
  ○ epigenetic regulation of gene expression
    ■ attachments to DNA → block binding of transcription factors
■ modification of DNA packing
  ● transmitted across generations
  ● make genes more or less accessible
■ brief experiences can cause lasting changes in gene expression

● environmental sex determination
  ○ sex as a reaction norm
    ○ sexes are alternative morphs
    ■ suites of differentially expressed traits, subsets of shared potential from regulated expression of shared genome
    ● unexpressed potential is not under selection
    ○ genetic variation accumulates
  ■ new selectable variation → rapid adaptive evolution

● plasticity and evolution
  ○ traits that evolved in one context can be expressed, then selected in other contexts
  ○ traits that evolved in one sex can be expressed, then selected in the other
● reaction norm perspective on sex
  ○ sex determination = / sexual development
  ○ phenotype diversity
- is not a direct consequence of anisogamy.
- is opposed by frequency dependent selection and highly variable evolutionarily.
- is affected by the evolution of cooperative breeding in primates.
- do not increases with the evolution of monogamy in primates.

sexual reproduction and Asexual reproduction
- asexual reproduction evolved multiple times
- It is harder to explain the evolution of obligate SR than of facultative SR combined with AR.
- AR has evolved from SR about 90 times in vertebrates.
- Obligate AR is not ancestral condition for animals.
- Biologists do not agree on a single explanation for why SR is so prevalent.

Sex role evolution
- Frequency-dependent selection favors equal parental investment.
- If mortality rates of males or females change sex roles can change very rapidly.
- Due to anisogamy sex roles don’t have an inherent tendency to diverge.
- Once female-biased care has evolved it is very likely to change.

process lead to conventional sex role (Kokko & Jennions model)
- High male mortality improves the mating prospects of the remaining males.
- Multiple mating by females reduces the relatedness of individual males to her brood of young.
- Strong competition for females not necessitates increased male investment in competition.

male parental care
- It is more common than female care in fishes and equally common in frogs.
- It can be favored by sexual selection if females find good fathers attractive.
- It can vary with experience and context in both humans and some other mammals.
- It occurs not only when males are certain of paternity.
- It not only evolved twice in mammals.

Biology of sex differences and roles
- Morphologically, humans are less sexually dimorphic than our ancestors.
- Morphology does not reliably predict mating systems and parental care patterns.
- Human sex roles have not been consistent across historical and cultural contexts.
- Human sex differences and roles are not similar to those found in other apes.

Facultative parthenogenesis 单雌繁殖
- is a biological mechanism enabling virgin birth in species that normally reproduce sexually.
- Has recently been discovered in snakes living in the wild.
- Has recently been discovered in captive mammals housed in single-sex groups.

Tree of Sex
- Consistent XX/XY sex determination characterizes just mammals and beetles (Coleoptera).
- Several mechanisms of sex determination have evolved convergently multiple times.
- Fishes and reptiles are more diverse than mammals in their sex determination mechanisms.
- Sex determination mechanisms are evolutionarily unstable in most groups of animals.
• greater freedoms to define and pursue our lives without pathologization, re-realization, harassment, threats of violence, violence and criminalization.

Bruce
• Obsessive → repeated acts → restricted by nuclear family
  ○ compensating?
  ○ fixing himself
  ○ performance

Alison
• presentation / non-conforming
• Burce’s compensating → projecting on Alison

Harper – Intersectionality

Harper’s book
• Harper ask how looking for less visible evidence can keep us from simply treating “as a matter of course” the existing oppression of a given identity position or combination thereof
• author come from 底特律 → 白人小哥以为他是Sri Lanka → 知道身份后就不愿意跟他讲话了 → 一开始对他有sexual interest
• birth origin in 底特律
  ○ demonstrates how felt intuition is never fully separated from the material conditions of life
  ○ reminds him of the continuing effect of slavery on his own life
• example of lesbian
  ○ how the constant instability of minority experience leads individuals to think speculatively
In “Gender Trouble,” Judith Butler responded to feminist efforts to separate and redefine sex and gender by recognizing the value of refusing to allow sex to dictate gender and the social meanings of women’s experiences.

Actors in Midori’s future profession include
- kinship
- not economics / hunger / gender / beauty

difference between Butler’s “gender performativity” and sociologists West and Zimmerman’s “gender performance”
- define gender differently
- Butler: gender doesn’t preexist its performance

Reason for the process by which biological females become socialized as “women”?
- Sigmund Freud describes how the diverse possibilities of sexuality become repressed.
- The sexual division of labor makes the smallest viable economic unit 1 man and 1 woman.

Science fiction thought experiments are useful for gender theorists because they can demonstrate the way our language reinforces assumptions about gender and sexuality.
- enable writers to imagine totally different sex-gender systems.

In Karhide
- most individuals experience kemmer as both males and females at some point in their lives.
- social classes and oppressive categories exist.
In Fun Home, Alison describes her relationship to her father as
- like a translation
- not biological or normative

Bechdel’s process of creating Fun Home included
- gathering family photographs
- taking pictures of herself as all the people in the book and using the photos as the basis for her drawings
- drawing images of books she read

In Fun Home, what do Alison and her father share?
- their reverence for masculine beauty

Bechdel’s graphic novel includes depictions of
- maps
- letters
- dictionary entries
- books

Which of the following connect Sedgwick and Harper?
- An interest in how unspoken forms of knowledge/ignorance structure how we experience the world
- not primary focus on race/gender as a lens of analysis

Petrus Liu’s argument
- Is a universalizing argument about sexuality
- uses his own experiences as an activist as an example
- says that international queer politics help us think about human rights
- shares with Butler and Sedgwick concern for groups of people who are constructed as disposable
Three types of equality

1. Equality of opportunity = fair game
2. quality of condition = equal resources
3. quality of outcome = equal rewards; equal ends

Durable inequality are transferred from generation to generation

Social institution?

- a set of patterned and relatively enduring strategies for dealing with one or more important social needs
  - eg. family, state, education, science, religion, media, health
- patterned social positions (statuses), rules and norms that operate to some degree independently of the individuals filling these positions
- gendered social institution → Bathroom

Equality of opportunity → inequality of outcome

Institutional inequality:
the uneven access by group membership to resources, status, and power that stems from facially neutral policies and practices of organizations and institutions.
man increase housework

Stalled Revolution
slow progress in three institutions:
- state (family leave and childcare)
- work (committed ideal worker)
- family (traditional gender ideology)

女性开始进入男性职业, 但男性没有进入女性职业

=continued gendered division of labor

The International Division of Reproductive Labor (Parrenas)
historical steps leading to IDRL

1. racial division of reproductive labor
   privileged white women historically outsource their devalued work to women of color

2. International division of labor
   globalization and global cities give rise to a global “servant class”

International transfer of caretaking: Three tier hierarchy

- begins because of the care deficit in the First World

- host women in receiving countries → Filipina migrant domestics (middle tier)
  → Filipina domestics in Philippines

- pain of family separation diverted mothering displaced caretaking
- conflicting class mobility (Downward mobility: high-educated women come to US to do low-status work in order to earn more wage)
- posits that gender identity are fixed over the life course.
- do not focus on intersections of gender with race and class.
- gender identity is not an achievement rooted in ongoing interactions.

Butler define gender as
- a performative act
- the repetition of acts / behaviors / gestures / bodily stylization
- not expression of sex
- not a cultural construct

Gayle Rubin’s discussion of gender in “The Traffic in Women”
- interested in oppression of women
- is focused on the historical origins of the sex/gender system not on daily acts.
- doesn’t believes that gender is defined by patriarchy.
- defines gender as a socially imposed division of sexes
- gender as part of a sex / gender system that produces domesticated women
- not the result of evolutionary imperative

why parents police their children’s gender presentation
- Parents are doing gender on behalf of their children.
- Parents are held accountable to gender norms.

Poverty in the U.S. is:
- most concentrated among children of single mothers.
- not concentrated among elders
- increasingly managed through private solutions.
- managed partly through the incarceration of the poor.
- is measured as falling below the official “poverty line” – three times the cost of adequate housing.