**January 6th 2010**

**Sexual attitude and religion**

* Religion has often been used as a tool to enforce restrictions on various types of sexual activity, but only sex for procreation is seen as acceptable.
* Society uses religion as a tool to keep sexual differences in check. Tell you that there are consequences for going against the norm.
* Ex. Matthew Sheppard, homosexuality and his death
* Adultery, incest, homosexuality, sex with animals, all seen as bad things in Leviticus in the bible.
* Religion wants you to reduce the arousal and make sex only for reproduction in marriage.
* Islamic teaching makes it okay for marital sex, but out of marriage sex there are repercussions against homosexuality, etc. Many are stoned or hung for doing it.
* Religious proscriptions concerning sexual conduct influence laws that restrict sexual expression.
* In 1958 Virginia, an interracial couple (Loving) was sentenced to jail because they were having interracial sex. Judge believed that races were made individually and were not to be mixed.
* Some religions are more tolerant of sexual diversity, but it depends on the type of sexual diversity.

1. Ex. Quakers - all they do is worship in silence, and sing. There are no main rules, they are more tolerant towards sexuality.
2. Reform Judaism is another example of a more tolerant religion. They are more liberal. Whereas Orthodox Jews tend to be quite restrictive in sexual matters.
3. Buddhism sees sexuality as being more intricate in peoples’ lives. In tantric Buddhism, they believe that through yoga poses you re-channel all of your sexual energy.

* Some religions can be tolerant towards only certain types of sexual diversity. For example many do not tolerate multiple marriage. Debates about polygamy and if it should be legal in places like South Africa.
* Humanism: moral principles about human life, including equality; freedom of thought, expression, action and worship; and respecting the rights of others. Humanism influences American attitudes and laws.

**Sexual Attitudes**

* Demographic factors influence attitudes about sexuality.
* In religion, the majority of weekly worshippers believe being homosexual to be less acceptable than those who only go to church for holidays.
* Sex - women always report that one night stands are wrong compared to men who believe them to be more morally acceptable.
* Age - The older you are the more you think it is wrong, but the younger you are the chances of thinking recreational sex is alright is a lot higher.
* Education - the more education you have, the more liberal you are towards sex. For example homosexuality.
* Ethnicity - depending on race, blacks believe abortion and gays to be more wrong than whites do.
* Marital status, Parental Status - married people tend to be more sexually conservative than singles and if you are a parent you also tend to be more traditional for your children’s sake.
* Nationality: Different countries believe different things and your attitudes. For example people from India believe it to be wrong to have a child out of wedlock compared to places more like France and Germany. Local cultures influence people’s sexual morality.

People differ in terms of what they think heterosexual sex is “for”

44.3% believe it to be relational – believe it to work towards a relationship. Have sex if you’re in a relationship that is more serious

30.6% believe it to be traditional – used for procreation.

25.1% recreational – sex is for fun and to get pleasure, and happens between 2 consenting individuals. (one night stands)

Sex that is perceived as endangering an existing relationship is widely condemned. Heterosexual swingers are widely condemned. Extra marital sex is considered wrong. More people believe that this is more wrong than sex out of wedlock.

**Sex Education**

* In most places sex education is severely curtailed. (especially in places down south)
* Things like abstinence are stressed. Only talk about abortion and homosexuality to emphasize the risk of disease transmission.
* Sex education in Canada is relatively liberal. Believe adolescent sexuality to be more normal and teaches about transgendered issues, homosexuality and contraceptive uses.
* In the US, it’s seen as more shameful to talk about sex and our bodies than it is in Canada.
* Research indicates that abstinence only “sex education” is relatively ineffective.
* True love waits movement, developed amongst teens where they stand up and pledge their virginity until they are married. These groups were more likely to have pledges doing other things such as oral sex and anal sex that they didn’t believe to be “real” sex. Although most teens who pledged had a prolonged rate of 18 months of no sex longer, many of the people afterwards didn’t use condoms and got STD’s compared to those who did not pledge.
* Sex researchers and their work are regularly attacked and condemned. Sex research faces significant obstacles. Some people don’t like what certain researches have to say about sex.

**Alfred Kinsey**

* His research was attacked as being immoral.
* He gave out sex surveys for people to fill out, and did all he could to convince the participants that everything was confidential in order to get correct results.
* The sample that he had was biased and was not random. There were some problems with his research. He did a lot on homosexuality and tried to find more gay men to interview, but the fact that he was looking for them and not being random made his results skewed.
* Came up with the Kinsey scale. 0-6 0 being completely attracted to opposite sex, and 6 being completely attracted to the same sex. X was also used and meant that you were asexual.

**January 13, 2010**

**Sex and Evolution**

Proximate explanations focus on the immediate causes for a behaviour or a psychological pattern:

* Genetic
* Hormonal
* Neurobiological
* Cognitive
* Social

Ultimate explanations focus why a trait evolved. There are 2 types of ultimate (evolutionary) explanations:

1. Historical (Phylogenetic) – focus on reconstruction the origin and the step by step changes in a trait over time. Example. Going from walking on all fours, to beings that walk on two feet and stand upright.
2. Functional (adaptive) – focus on identifying if and how a particular trait helps an individual survive to reproduce. Example. Monogamous family or a polygamous family. The thing that these have in common, is having a single father in both.

Why Sex?

* Asexual reproduction preserves 100% of an individuals’ undiluted genetic material in each ensuing generation.
* Sexual reproduction results in only 50% of an individuals’ genetic material being passed onto the next generation.

Mitosis (gain) and Meiosis (reduction): 2 types of cell division. \*See psych 2110 notes.

2 gametes (haploid) will fuse together to make a zygote (diploid). Asexual is mitosis and sexual is meiosis.

Theories for sexual reproduction

* Limits harmful mutation via recombination
* Generates beneficial gene combination
* Red queen hypothesis: you have to keep running as fast as you can to stay in the same place. (Environmental change) In a stable environment, asexuality is the best way to reproduce)

Parasitism

Sexual and Asexual reproduction in New Zealand fresh water snails

Snails that were close to shore where there were ducks were reproducing sexually, The ducks contained millions of parasites and in these situations they tried to produce offspring with a better chance against the parasites was to produce sexually and have the benefit of recombination to help aid them, whereas those snails out in the middle of the water, were producing asexually.

Sexually dimorphic characteristics are widespread in the animal kingdom. (Size, Shape, Colour, Sex difference in behaviour, psychology etc. Anything that is there when they are born that is different.)

Sexual Selection Theory

Sexual selection is a process of differential reproduction among individuals of the same-sex and species that occurs because some individuals are better able to acquire reproductive partners than others.

Why do individuals vary in terms of their reproductive success?

Simply because some individuals are better at acquiring mates than others

How do individuals acquire mates?

1. Mate competition - occurs intra-sexually (within the same sex, mostly among males for female mates)
2. Mate choice – try to get an individual to choose you. Occurs inter-sexually by females who carefully discriminate among potential male suitors and then they choose the best male.

Using sexual selection theory, Darwin explained that sexually dimorphic traits existed because they enhanced a males ability to acquire female mates (ie. Reproductive partners), not because they contributed to survival.

Some morphological, behavioural and psychological traits enhance males’ ability to compete directly with other males for access to female reproductive partners. Example, large body size to fight for the female.

Social dominance and copulatory success in elephant seals: Being aggressive and dominant allows these seals to move up and copulate more and move up against other seals.

Other morphological, behavioural and psychological traits evolved because they enhanced the male’s ability to attract discriminating females into choosing them as their mates. For example, male peacocks have giant tales and the ones that have the most spots and the most colors, are chosen more by females.

Sexual selection favours sex differences in these traits that increases a males ability to reproduce at the expense of other males. Example, infanticide in hanuman langurs. They are monkeys by themselves and they find a group and beats all of the other main males until they are gone and then goes around and kills all of the babies. He then takes over the females and gets them to ovulate and produce his babies, and then hopes that they grow up before he is killed.

Indiscriminate mating in males

Females are way more choosy than males are in what they will reproduce with.

Animals form a variety of mating systems including:

* Monogamous: A male and a female form an exclusive pair-bond.
* Polygamous: individual of one sex form sexual relationships with multiple members of the opposite sex. There are two types of polygamy:

1. Polyandry: One female, multiple males. This is very rare in humans and in the animal kingdom.
2. Polygyny: One male, multiple females. This is very common in the animal kingdom and also common cross-culturally.

* Promiscuous: Individuals of both sexes mate with multiple different partners. They often live in multi-male/multi-female groups.

Sexually selected traits vary as a function of mating system.

Why do males compete? Why do females choose?

To explain why this sex difference existed, Robert Trivers formulated his “Theory of Parental Investment.” Trivers noted that in “typical” species, females provide the overwhelming bulk of parental care for offspring.

Females are responsible for gestation, parturition, lactation, nurturing, protecting and feeding their young.

(Pigs) Female lifetime reproductive output is relatively low and more or less equivalent. It is similar because they are always going to be able to find males to reproduce with, they spend more time trying to keep their young alive so that they can reproduce and carry on. N = 7 offspring

(Pigs) Male lifetime reproductive success is potentially high, with high inter-individuals variance. N = 28 offspring. There is more variability in males, some can have many offspring and some can have zero due to male competition.

Human example: Moulay Ishmail “The Blood Thirsty” He produced 888 offspring, the most that any male has ever produced.

Females represent valuable reproductive “resources” for males. As such, males will compete intra-sexually for female mates and will copulate in a relatively indiscriminate manner, whereas females will carefully select the male with which they will mate.

In sex role reversed species, the opposite pattern holds true: males invest more in offspring and are choosy, whereas females compete intra-sexually for males.

If males and females invest more equally in reproduction sexual selection may not lead to marked differences between the sexes.

What type of males should females choose?

* Males that increase the female’s reproductive success by helping them produce and raise healthy offspring.
* Males that provide the female with protection.
* Males that provide resources. (ex. Food)
* Males that make some paternal investment in their offspring.
* Males with that are healthy and have “good genes” (genes that promote the reproductive success of the female and her offspring)

Females can assess desired qualities in males on the basis of a male’s courtship behaviour. Sometimes the males will give the female a gift, gives up 40% of their body weight as a gift to prove that they are healthy enough to do that and help them choose them over the other males.

Females assess desired qualities in males on the basis of a male’s morphology

* Fluctuating asymmetry: differences in the left and right side of the body that result from random perturbations during development.

Females assess desired qualities in males on the basis of a male’s morphology

* Exaggerated secondary sexual characteristics (“Handicaps”)

Females experience increase reproductive success when they mate with males that have elaborate secondary sexual characteristics.

Through these female assessments, they allow the survival of their offspring to last longer with males that are better at dances and are more symmetrical than with those who do not.

Males can be choosy sometimes, Why?

* Investing in mating is costly. (wounded through competition, and many die off due to this)
* Investing in offspring is costly

Females sometimes compete intra-sexually for male mates, Why?

* Males vary in their quality. Some males are better than others and females should have to fight for it because they are better. Especially like fatter males because they can incubate more eggs.

Females can also court males through proceptive behaviours which is someone who will seek a male for sex because she is so sexually motivated.

Receptive Behaviours are characterized by being willing to have sex but do not try to seek it out.

Some females mate promiscuously, because:

* they obtain resources from multiple males. Example: in chimpanzees with food; Trade food for sex.
* They can also obtain protection from multiple males. When they copulate, males will groom females and help carry their young around.
* They also obtain sperm from high quality males.
* Avoidance of infanticide helps with protection.

Some males are unable to compete for or attract female mates. Such males may sexually coerce females to mate with them by using force, or the threat of force.

When females are promiscuous, post-copulate competition can occur.

* Mate guarding, after a male copulates with a female he will stay with her to keep her from being copulated with again for a period of time.
* Sperm expulsion and timing of copulations. When males see the female copulating with another male, they will peck at the females’ genitals until the sperm is expelled from her reproductive tract. He also increases the number of copulations that he has with her.
* Sperm Competition: when females mate with 2 or more males the capacity exists for competition to occur between the sperm of rival males for access to the female’s egg cell.

Thus, sexual selection favours the evolution of mechanisms which increase a male’s ability to successful engage in sperm competition. Large penises and large testicles do not help you prior to copulation, but in post-copulation it helps with sperm competition the most.

Sperm competition and mechanism to engage in sperm competition vary with mating system.

When sperm competition occurs, sexual selection may favour cryptic female choice

* Post-copulatory choice in which a female’s reproductive anatomy and physiology exerts preferential influences on sperm of different males that are competing for access to her egg cell.

January 20, 2010

**Women’s Bodies**

Biological sex is defined by all or some combination of the following: chromosomes, gonads, gametes, internal reproductive organs, genitals, secondary sexual characteristics.

Chromosomal Sex

* Chromosomes are thread-like structures located within the nucleus of each of the body’s cells that carry the genes (genetic information) which governs the cells growth and biological activity.
* The nucleus of each of the body’s cell’s contains 46 chromosomes, 23 obtained from the mothers ovum and 23 obtained from the fathers sperm.
* 2 (of the total 46) chromosomes are known as sex chromosomes, also known as autosomes.
* There are 2 types of chromosomes: X and Y
* Sperm carries both types of chromosomes
* Ova only carry the X type of chromosome.
* If individuals have the 46 XX chromosome pattern they usually develop in a female-typical pattern.
* If individuals the have the 46 XY they develop typically in a male manner.

Gonadal Sex

Ovaries – come in pairs. They have 2 functions:

1. Gamete production (production of egg cells) A follicle is an oocyte (developing egg cell) with surrounding supporting cells such as granulose cells.
2. Sex steroid hormone production – are produced by the ovaries and signal other parts of the body to do something. Important for regulating sexual and reproductive functions. There are 3 types of these:
3. androgens – masculinize the body (regulating libido, growth of body hair)
4. estrogens – feminize the body (regulating the phases of the menstrual cycle, increase bone density, when to stop long bone growth)
5. progestins – also feminize the body (maintaining a pregnancy, also regulating menstrual cycle as well as regulating body temperature. )

Gametic Sex

Refers to whether an individual produces egg cells or sperm cells.

The egg cells are finite, whatever a women is born with is all that she has for the rest of her life. They steadily decline throughout life.

Internal Reproductive Organs

Fallopian Tubes (Oviducts) – Infundibulum are the part that is closest to the ovaries (The finger like part of the fallopian tubes that almost touch the ovaries, but do not) This fringe is called the fimbria. Isthmus is the part that is closest to the uterus. The central part is the Ampulla and this is where fertilization most often occurs. These fallopian tubes are lined with cilia (hair-like structures) that help move the ova down towards the uterus.

Do women’s fallopian tubes show evidence for cryptic female choice? Cryptic female choice was not important for the evolution of humans. Sperm competition is not as important.

Cervix – unites the uterus with the vagina. Covered with many glands that produce mucus, and the acidity of it changes throughout the different stages of menstruation. More acidic inhibits sperm transport and less acidic makes it easier for sperm transportation. The cervix and the vagina meet at an area called the “os.”

Uterus: has 3 layers – endometrium (inner lining), myometrium (muscular wall), amd perimetrium ( a thin outer covering).

The vagina (outermost portion) has three functions:

1. Site for sexual intercourse (coitus)
2. Site for sperm transport
3. Birth canal

Functions of mucus in the vagina: make and transport pheromones and to fight off bacteria and disease.

Existence of the Grafenber spot (G-Spot) is controversial. It is 3 to 5cm on the anterior wall of the vagina from the introitus (opening).

Women’s skene’s (paraurethral) gland may be a homologue of men’s prostate gland. A homologue is a developmental or evolutionary equivalent. Stimulation of the males prostate gland is seen as highly erotic. The women’s skene’s glands are also found to be highly erotic. Stimulation of the urethral sponge (erectile issue) play a role.

Bartholin’s Glands – tiny gland at the vaginal opening that produces a small amount of fluid to help lubricate and also it changes the acidity of the vagina. It can also have a role in the women’s scent (pheromones.)

Evolution not only produces adaptations but also by-products of adapatations that do not have a real purpose.

Female Exterior Genitalia

Vulva – the entire external genitalia of a woman

Mons Veneris – a dense cushion of fat that is covered in pubic hair. Functions: important for receiving and sending erotic messages, concentrates pheromones, cushions body from vigorous coitus.

Waxing and shaving of genital hair is influenced by cultural perceptions of beauty. Currently, 4 out of 5 women in North America shave some or all of their pubic hair.

Labial Folds:

1. Labia Majora – exterior tend to have hair and be lighter and less erotically sensisitve. Outer lips
2. Labia Minora – interior tends to be darker than the inside and more erotically sensitive. Inner lips.

Clitoral hood = clitoral prepuce

Vasocongestion: during sexual arousal, the labia minora swell and darken due to pooling blood within them.

Genital piercing appears to be most common in Western countries.

Vestibule: contains 3 different structures

1. Clitoris: is composed of a glans, a shaft, and two crura (wishbone like structure). It contains erectile tissue. This is homologous of a penis. The glans and part of the shaft can be seen, but the rest of it is a structure on the inside. There are 2 types of erectile structures in the clitoris. There are 2 corpus cavernosa that run down the shaft and into the crura and there is one corpus spongiosum that is found in the glans. There is a tough surrounding area called the Fascia that only allows the corpus cavernosa to be held down more. The corpus spongiosum does not have the Fascia and is allowed to expand further.
2. Urethral Opening
3. Vaginal Opening

Genital end bulbs are nerves that mediate sexual arousal. The clitoris is densely packed with these genital end bulbs.

Vestibular bulbs are erectile tissue surrounding the vagina and the clitoris. They are curved masses to help hold the penis in place during sexual intercourse.

Smegma – dried secretion mixed with dead cells and bacteria form this pasty material.

There are 3 main muscles associated with the clitoris and the vagina:

1. The ishiocavernosus – contract to move the clitoris underneath the clitoral hood. Help with erectile stimulation.
2. Bulblospongiosus – form a sling around the shaft and crura and around the vaginal opening, they function to hold the penis in place during coitus.
3. Pelvic floor muscles – sling that supports the pelvic organs and help to stiffen the walls of the vagina to heighten sexual arousal and hold penis again.

The appearance of the vaginal introitus is variable due to the fact of a hymen.

Types of female circumcision:

1. Sunnah – any kind of nick to full removal of the clitoral hood
2. Clioridectomy – removal of the shaft and glans, as well as clitoral hood and parts of the labia minora
3. Infibulation – entire labia minora removed and inner parts of labia majora removed as well. As well as the removal of the shaft and glans and clitoral hood. The vestibule is then sewn over with only a small hole for menstrual blood. This is done in Sudan and Somalia mostly.
4. Introcision – This is not common, but practiced by Australian aboriginals. Where the labia minora meet in the back is the fourette. They cut from there down to the perineum in order to enlarge the vulva area.

There are health risks with female circumcision, as well as haemorrhaging and infection if the tools are not properly sterilized. It also interferes with the right of a women’s sexual life.

The Menstrual Cycle

* It has 3 phases:

1. Menstrual Phase (1-5)
2. Follicular Phase (6 -14)
3. Luteal Phase: begins at end of ovulation (15-28)

Hormones regulate the menstrual cycle

Menstrual Phase: Gonadotropin levels increase(GnRH): being produced by the hypothalamus and tells the pituitary gland to produce follicle stimulating hormone (FSH) and lutenizing hormone (LH), Estradiol levels decrease

Follicular Phase: FSH and LH increase = follicle development and an increase in estradiol and testosterone. The increase of estradiol leads to an increase in the endometrial lining and a decrease in the acidic mucus. At the end of the follicular phase, ovulation is about to occur making estradiol increase hugely making extremely high levels of FSH and LH increase as well.

\*Note: Very low levels and very high levels of estradiol make FSH and LH. If it’s in the middle, it does not produce it.

Luteal Phase: Corpus Luteum which produces Progesterone which causes an increase in endometrial thickness and an increase in acidic mucus. The corpus luteum also produces moderate levels of estradiol which decreases the FSH and LH hormones. If no fertilization occurs there is a disintegration of the corpus luteum which decreases the progesterone causing menstruation. This disintegration causes a drop of the estradiol very low causing an increase in GnRH again and this singals the cycle to begin again.

The breasts (mammary glands): have miscroscopic sacs called alveoli. These are lined by glandular cells that secrete milk into the central cavity of the alveolus.

January 27, 2010

Men’s Bodies:

Gametic Sex:

Sperm consist of – a head (nucleus [genetic blueprint] and acrosome[contains receptors and enzymes), a midpiece, a tail.

Spermatogenesis refers to sperm production. It begins at puberty and continues until old age.

Testes produce sperm and are adaptively designed to do so. The testicles must be about 4 to 7 degrees below body temperature in order for sperm to be created.

The scrotal skin is covered in sweat glands and this helps regulate the temperature and the capacity to make sperm.

The dartos muscle lies underneath the scrotal sack. It wrinkles the scrotal skin and this causes a warming of the testicles, if it relaxes it is the opposite and causes cooling of the testicles.

Cremaster muscle – forms a swing around the testicles and this muscle either contracts or relaxes to help regulate the temperature of the testicles. Brings the testicles closer or farther away from the body to change the temperature.

The testicles are asymmetrical and this provides a marker of masculinity. Women do not choose men based on the symmetry of their testicles. Usually the left testicle hangs lower than the right and usually the right testicle is approximately 5.5% more larger than the left one. The larger the right testicle, the better men score on cognitive tests related to masculinity. This is true with gay men and straight men. Gay men do not perform as well on cognitive tests with mental rotation than straight men.

Spermatogenesis occurs in the seminiferous tubules. Sertoli cells produce sperm inside the seminiferous tubules. In between these cells are leydig cells which are responsible for sex cell steroid production primarily androgens. The sertoli cells main function is gamete sex production and hormones. Each of these cells produces about 4 sperm a day and in a total the body produces approximately 1 million sperm per day. The sperm then move into the rete testis and then move on to the epididymus. These two areas are storage and maturation areas.

Testes produce sex steroid hormones. Three classes of sex steroid hormones are procuded:

1. Androgens
2. Estrogens
3. Progestins

Gonadotropins influence spermatogenesis. FSH makes the seminiferous tubules to work (make sperm) and LH makes the interstitial cells to work. (the leydig cells to procuce sex steroid hormones).

Men have more circulating testosterone in the morning than in the afternoon, and every 3 hours or so there tends to be a peak in testosterone as well.

Testes size varies cross-culturally

Nigeria the weight of the tests is 52.62

USA the weight is 36.6

Hong Kong the weight is 17.7. These numbers are all in grams.

How can these differences be explained?

1. Research on mice and sheep demonstrates a positive correlation between testes size in males and ovulation rates in females.
2. This may be because the same genes have pleiotropic effects on male testes and female ovaries.
3. When the same genes influence multiple traits they are said to have pleiotropic effects.
4. Increased ovulation rates are positively correlated with increased dizygotic twinning. (twins that do not look the same.) Thus, higher testicle size, means higher rates of dizygotic twins cross-culturally.

Is racial variation in testes size related to racial variation in dizygotic twinning?

Through results this is true. Larger testicle size makes for more dizygotic twinning. Asian women due to smaller size, have fewer twins because it is more of a risk for them to carry and give birth to 2 babies. Thus, the result of testicle size is to decrease in cultures such as these.

Reduced dizygotic twinning = adaptation

Reduced testes size = by-product of adaptation owing to pleiotropic effects of genes for testes size and ovulation rates.

Dizygotic twinning is the norm for monogamous cotton-topped tamarins. Even though they are monogamous, these tamarins have larger testicles for their body size due to the fact that they produce dizygotic twins.

Ejaculate is composed of fluid from the seminal vesicles and the prostate gland. After the epidiymus, the sperm moves out into the vas deferens and it meets up with a gland called the seminal vesicle. The seminal vesicle produces fluid with fructose and a protein called fibrinogen and it makes up 70% of the fluid in ejaculation. The ejaculatory duct carries the sperm like paste and the fluid from the seminal vesicles. (Its a change in contents moving through the tube thus the name change.) This duct moves through the prostate gland, which makes the other 30% of the fluid. This 30% helps to neutralize the acid in a women’s vagina. Another important property of the fluid from the prostate gland is the enzyme fibrin which causes fibrinogen to coagulate when they meet. Because we only mate with one person, our sperm coagulates way less than those that are polygamous.

Each ejaculate is about one teaspoon.

Sperm production varies cross-culturally as well. Although places like Hong Kong have small testicular size, they have a fairly high sperm production. There is no link to this. Testicle size is not linked to sperm production and how much is made.

The name of the tube changes again to the urethral tube. It has a dual function: to carry both ejaculate and urine.

Bulbourethral Gland, also known as the Cowper’s Gland. They produce a small amount of fluid prior to ejaculation and this lubricates the tube so when ejaculation occurs it will pass through more easily. This is known as “pre-cum.

The two sides of the testicles meet up at the ejaculatory duct.

Homologous to the clitoris, the penis has a glans and a shaft.

There are 3 functions:

1. Gamete function
2. Expulsion of urine
3. mediating sexual arousal

Foreskin – loose skin that covers the glans of the penis.

Glans is made up of the corona and the frenulum.

There are 2 types of erectile tissue: corpus spongiosum (which fills the glans of the penis and runs down the length of the shaft) and on either side of the corpus spongiosum there are two tubular structures known as corpus cavernosum. This corpus cavernosum is surrounded by the fascia which restricts the movement of the penis when erect. There are 2 cura that the shaft splits into at the bottom.

Pre-pubic fat pad has no main name like the women’s.

The ishiocavernosus and the bublospingiosus muscles attach to the root of the penis and are involved in erection. You can voluntarily make it move up and down.

The penis is richly innervated with genital end bulbs.

What is a normal penis size?

Flacid: 3.5 inches

Erect: 6 inches

Penis size does not differ much across cultures.

Penises and vaginas co-evolve. As penis length increases, so does vaginal length.

The anus can be a sex organ. The sphincter muscle does not lubricate and is usually not under voluntary control.

There is little evidence that men’s bodies have been shaped by sperm competition. Testes are relatively small in humans.

Human sperm morphology suggests that sperm competition was not important during human evolution. Sperm midpiece volume is relatively small in humans.

Humans have the lowest recorded daily sperm production of any mammals for which data is available.

Human sertoli cells produce few sperm compared to other animals.

* Humans produce 4 sperm per sertoli cell
* Long tail macaques produce 8.2 sperm per sertoli cell

Circumcision

* More common in North America than in Europe.
* Most common in the complete removal of the foreskin and is skin is re-sewn.
* Disadvantages: result in bleeding, infection, reduction of erotic sensitivity
* Advantages: health benefits such as a reduction in urinary tract infections, reduction in getting AIDS, it is easier to keep penis clean. (shmegma can form underneath the foreskin and can cause infections.)

Superincision – cut done on top of foreskin and then the rest is just left to droop down. Done in places like Malaysa and Polynesia.

Subincision – cutting through shaft and into urethral tube. These incisions can differ in length. Mostly done in aborigines in Australia.

Why perform circumcisions?

* It embarks body as being a member of a particular culture. Initiates them into being a full member into the cultural community. Most of the time this takes place at the time of puberty.

Febuary 3, 2010

Sex and Gender Difference

Sexual determination: occurs at fertilization when a sperm either carrying x or y chromosome fuses with an ova. This determines what the chromosomal sex of an embryo will be.

Sexual differentiation: the genital ridge (embryonic gonads) is bipotential meaning that there is only one genital ridge which can turn into either testes or ovaries.

The SRY gene determines how the genital ridge differentiates. This gene is only found on the Y chromosome. (ie. Males are the only ones who have this SRY gene)

The SRY gene codes for testes transcription factor. It tells the genital ridge to develop in a male typical manner.

A pair of Dac-1 genes govern development of ovaries. Tells the genital ridge to become ovaries and develop in a female typical manner.

Developing embryos possess both a male and a female set of embryonic internal reproductive organs. Wolffian duct system turns into male typical internal organs. The Mullerian duct system turns into the female reproductive organs. These are both present in every embryo, but they turn either masculine or feminine. The must either masculinise and de-feminize, or the other way around.

Testes secrete:

1. Testosterone
2. Anti-Mullerian hormone (AMH)

During embryonic development, a single bipotential proto-genital exists

Urogenital sinus (cloaca), Genital tubercle, genital swelling, urethral fold, all develop into either parts of the outer male genitals or outer female genitals.

The proto-genital produces an enzyme called 5-alpha reductase. 5-alpha reductase converts testosterone into 5-alpha dihydrotestosterone. Once this happens the genitals will develop into a male typical pattern. If there are ovaries, there is an absence of this 5-alpha reductase and hence the genitals will develop in a female typical pattern.

Puberty is triggered by signals from the body and the production of kisspeptin. At a certain weight for females and males, this signal and the production of kisspeptin signals the pituitary to produce GnRH.

Humans exhibit reproductive bimaturism. Boys take longer to mature reproductively than girls do. Males have an addition 2 years for childhood growth.

Tanner Stages describe pubertal change in males and females. For males its changes in the genitalia. And for females it is change to both the genitalia and the breasts.

There has been a historical decrease in age at menarche. (menarche is the first menstruation that a female has). There are also ethnic differences. African Americans get their period on average 6 months earlier than Caucasian girls, and Hispanics are somewhere in between.

There has been a historical decrease in age at which boy’s voices break and deepen.

Males and females differ for a variety of sexual behaviour and attitudes.

* Interest in mates with status and wealth ( W> M)
* Interest in mate that are young and physically attractive (M>W)
* Interest in pornography (M>W)
* Frequency of sexual fantasy (M>W)
* Sexual aggression (M>W)
* Emotional jealousy (W>M)
* Sexual jealousy (M>W)
* Masturbation (M>W)
* Younger age at first sexual experience (M>W)
* Sexual interest in women (M>W)
* Sexual interest in men (W>M)

Why do men and women differ in these ways?

* Beginning in the 1960s gender differences were widely viewed to be the product of socialization.
* There is some support for the belief that socialization influences certain gender differences.

In the 1960s John Money suggested that gender identity and sexual orientation resulted from socialization. Able to make people believe they were a different gender than they were.

The David Reimer Case

* Biologically male, but penis burnt off when he was 2 years old due to a circumcision problem.
* Money gave him a vagina and the family socialized their son as their new daughter.
* This case didn’t work though. “Brenda” never felt comfortable being a girl and she and everyone else thought that something else was wrong with her.
* After being told, he switched back to being a boy within a week.

Cloacal Exstrophy: Intestines outside of their body, as well as bladder. Boys raised as girls because due to the fact of internal organs being outside, the genitals do not develop properly.

5-alpha reductase deficiency: look more or less like a girl, but are male. (They have functioning testes and a micro penis) In the Dominican these people are called Guevedoces. (eggs appear at 12) These people are recognized as a third biological sex.

These studies suggest a biology predisposes males and females toward gender differentiated patterns of behaviour, cognition and personality. Culture elaborates on these pathways.

What evidence is there that biology influences gender differences?

* Gender differences in toy and play preferences develop early in childhood. Ex. Before birth, male fetus’ are more active that female ones in the womb. After birth, boys are interested in trucks and scooters, whereas girls play more with dolls. Rough and tumble play more like for boys than girls as well.
* Gender differences in play exist cross-culturally
* Gender differences in play exist in monkeys.

If biology predisposes males and female toward particular patterns of toy preference and play activity preference, what are the proximate biological mechanisms that are involved?

Exposure to testosterone prenatally then you are going to be masculinised in this respect.

Research on CAH (Congenital Adrenal Hyperplasia) girl indicates sex steroid influence gender differences in play behaviour. These girls are found to behave in more masculine ways than normal girls would. They play more rough and tumble games and play more with boy toys than girls but less than the average boy.

Prenatal testosterone exposure in children influences gender differences in play behaviour for absolutely normal children as well. As the testosterone levels increase in the amniotic sac, the level of wanting to play with boy toys increases as well.

The organizational/activation hypothesis

* Prenatal exposure to androgens (or lack of exposure) differentially organizes the brain
* Differential exposure to sex steroid hormones at puberty activates this neural circuitry producing sex differences in behaviour and psychology.

Ex. Mounting in monkeys; the males are the ones who mount and the females are the ones who are mounted.

Testosterone exposure early in development influences adult behaviour.

Monkeys exhibit sexually dimorphic structures in areas of the brain that regulate sexual behaviour. There is a nucleus called the AHdc nucleus (this is in monkeys) and it is sexually dimorphic in the brain. These structures play some kind of role in things such as mounting, or other dimorphic sexual behaviour.

Does testosterone masculinise the brain?

* They did an experiment on rats, and were exposed to testosterone close to birth and the rat nucleus (same structure as AHdc in monkeys) is bigger in male rats and smaller in female rats. If they inject testosterone into female rats at birth, and they have a larger nucleus, equivalent to that of the males.

Primates exhibit multiple sensitive periods during which prenatal hormones can impact subsequent behaviour.

Socialization also influences gender differences in play behaviour and toy preference. Boys are encouraged only to play with boy toys and girls are encouraged only to play with girl toys. The ones that are raised to play with either, tend to be more flexible in their toy choices.

Gender differences can have different means across academic disciplines. In the textbook, these basically mean differences in males and females.

Gender: A system of meaning used to construct categories based on the concepts of masculine and feminine.

Gender role expectations: refers to culturally prescribed rules associated with how individuals that are perceived to occupy a particular gender category should behave.

Febuary 10, 2010

Intersexuality

True hermaphrodites possess either:

1. One ovary and one teste, or
2. Two gonads containing ovarian and testicular tissue (ovo-testes)

Pseudohermaphrodites have either 2 testes or two ovaries, coupled with some atypical combination of the other parameters that characterize biological sex. (ex. Penis, elongated clitoris, uterus, breasts)

Some common types of atypical genitals include:

* Clitoral hypertrophy: elongated clitoris >0.9cm
* Vaginal stenosis: a narrowing or shortening of the vagina. Doesnt allow for intercourse.
* Vaginal agenesis: absence of vagina
* Micropenis: small <2.5cm but well formed structures
* Hypospadiac penis: urethral introitus located on the shaft or at the base of the penis instead of at the glans is normal penises.

Andorgen Insensitivity Syndrome (AIS)

* Do not possess fucntioning androgen receptors
* In XY AIS individuals, testes determining factor is activated and testicular development proceeds.
* Both the mullerian and wolffian ducts wither away and their internal reprodutive system does not form properly.
* Small amounts of estrogen allows her body to feminize. Her body cannot read that their is testosterone present and makes her into a woman.
* Fail to menstruate and are infertile. Always attracted to men, always think of themselves as women.

Cogenital Adrenal Hyperplasia (CAH)

* Exposure to female-atypical levels of androgens during the later stages of prenatally growth stimulates atypical development of the external genitalia. Exposed to testosterone and make them more masculinized. Clitorises elongate and their genitalia is more masculine.
* Labial folds will fuse into an empty scrotum.
* Thais happens because the adrenal glands devleop later than the gonads, however the initial sexual differentiation of the fetus proceeds in a female typical pattern. Internal reproductive organs are feminized.

5 Alpha-Reductase deficiency

* XY individuals lack 5 alpha-reductase. Genitals do not masculinze as a typical male. They are born with bodies who look very much like little girls bodies.
* Go through stages where they dont think they are girls, and then go to boys, and the know they are males. Want to be treated like a man. They identify with the masculine gender.

Klinefelter Syndrome

* 3 or 4 sex chromosomes. They have at least one extra X chromosome.
* Male typical due to internal reproductive and genitalia.
* Extra x chromsome may develop breasts, be sterile/infertile, tend to be taller than normal and have longer long bones.
* 1 in 1000 births in males in the population.

Vaginoplasty – a vagina that is constructed out of skin from the intestines.

Genital surgeries to try and re-route the urethral tube to get to the glans of the penis. These surgeries can result in many complications. There are many different surgeries throughout the life of the individual.

The medical management of intersexed infants – only tell the parents the bare minimum about their intersexed kids. The doctors decide what the sex of the baby is going to be. Born with ambigous genitalia, but tell them that it is definately one sex or another so that the parents do not treat their kid any differenetly than what it should be.

stenosis – vagina gets narrower and shorter due to too many surgeries causing a build up to occur.

Fistulas – holes that develop due to surgeries on penises.

Psychosexual Neutrality at Birth – John Money. Individuals are born as “blank slates.” Surgically construct the intersexed geintals and then raise the individuals accordingly. This does not work though.

Money reccommendations for intersex management:

1. The child must be raised unambigusouly as either a boy or a girl. To do so the parents must be convinced the child is a boy or a girl. Likewise there must be no doubt in the mind of the intersexual patient that they are either male or female.
2. In order for the child to be raise unambigously, the genitals must be corrected to match the assigned gender.
3. Sex assignment (surgery) should occur as soon as possible. Definately no later than 2 years of age or else the child is at risk of developing ambiguous gender identity, becoming homosexual. This in turn will result in mental illness.

Defining Genitals:

Penis:

* neonate penis length range = 2.8 -4.5 cm
* As a real penis it must be > 2.5 cm in length.
* Must have a urethral tube and an introitus at the center and tip of the glans.
* Must be able to penetrate a vagina
* Must faciliate urination while standing.
* Must look normal to other boys

Clitoris

* Neonate clitoris length range is 0.2 – 0.85 cm
* Must be less than 0.9cm
* Must not protrude from the labial folds

Vagina

* Vaginal length in adult range = 10 – 12 cm
* Ability to accept a normal size penis during penile-vaginal intercourse

February 24, 2010

Sexual arousal is a state of sexual excitement.

* Psychological –involves sexual feelings, attractions or desires.
* Physiological – involves changes in the genitalia. Ex. Muscle contractions, heart rate changes, etc.

**Psychological**

* Feelings of sexual arousal

~feelings of genital arousal ( ex. How aroused do my genitals feel?)

~feelings of emotional arousal ( ex. How turned on do i feel?)

Men and women’s subjective experiences of sexual arousal and orgasm are very similar.

Sexual Fantasies

Can take place solo or during partner sex. For some people this increases sexual arousal and for some people it is necessary in order to orgasm.

Rape Fantasies

* Victim of some kind of physical force. These fantasies are not realistic of rape because the women herself is in control and she is the one who is fantasizing. There is no real correlation between these fantasies and real life rape. 62% of a sample had rape fantasies, about 4 times a year. More common in women than in men.
* Fantasies can either be scary and threatening or completely erotic.

Cognitive processes involving the evaluation of sexual stimuli may proceed sexual arousal especially in arousal. Make a positive evaluation to proceed with arousal from seeing something sexual.

Walen-Roth Cognitive model of sexual arousal. This is much more important in women than in men with respect to how they proceed and evaluate sexual stimulation. This idea has really been pushed by Rosemary Basson. She believes that by engaging sexually with the person and having a positive reaction to stimulus, she believes that intimacy will increase within the relationship. (relationships, romance)

**Physiological Sexual Arousal**

Genital changes during sexual arousal

1. Vasocongestion – in women labia minora and majora swell. Change from pinkish color to darker purple-ish hue. The vestibular bulbs also change and become more erect.
2. Lubrication (this prevents tearing in coitus)
3. Erection
4. Muscular contractions

What happens during male erection..

* Erectile tissue engorges with blood and there are 2 tubes in which the blood flows: blood flows in are called arteries and out which are veins. Arteries closed because of the sympathetic nervous system making them closed, this makes it so men don’t walk around with erections all the time. The contraction of the trabiculer makes it so the area for blood is smaller. Parasympathetic nervous system tells the arteries to open so blood flows in and the trabiculer tissue is relaxed. As more blood flows in, this presses against the veins and blocks them so that the veins are closed off.

Muscles – corpus spongisoum and the bulbuospongosus. Contractions of these muscles causes the penis to stand more up right. But without the blood inside the penis, a full erection cannot be achieved.

Lubrication from the bulbourethral glands (cowpers glands). This is the pre cum.

Sexual arousal follows a physiological response cycle. – Masters and Johnson

They did observational research and watched peoples genitals become aroused, then describe what the changes were. They came up with a cycle through this that involved:

Excitation(when sexual arousal begins) 🡪 Plateau (sexual arousal is maintained at a high level) 🡪 Orgasm (event, sexual climax – intense, pleasurable feelings) 🡪 resolution (all indicators of sexual arousal reverse themselves) 🡪 and back to excitation.

In women this cycle:

Excitement: swelling and opening of labia minora, vaginal lubrication begins, vasocongestion occurs (pooling of blood in genitals), clitoris starts to become erect as well as the nipples, increased heart rate, as well as blood pressure increased. The uterus swells and elevates into abdominal cavity.

Plateau: Thickening of the lower third of the vagina, muscles in abdominal area (pelvic floor muscles) thicken as well. This is known as the orgasmic platform. This portion of the vagina tightens around the penis during coitus. Upper part of vagina expands and lengthens, clitoris moves underneath clitoral hood, breasts swell, and the areolas also swell making the nipples become less prominent, increased muscular contractions which is known as myotonia.

Orgasm: oxytocin induces muscular contractions and feelings of euphoria. The oxytocin is released from the pituitary gland. In women there is a tightening in the lower third of the vaginal canal and well as contractions in uterus and fallopian tubes, and in both men and women there is a contraction in anal sphincter. In women contractions can happen 1 per second up to about 8.

Different types of female orgasms have been described:

* Clitoral orgasm
* Vaginal/uterine orgasm
* G-spot orgasm
* Blended orgasm

Female ejaculation: high-volume (watery) ejaculate emerged via the catheter, and was probably urine from the bladder. Low-volume (pearly) ejaculate emerged outside the catheter, and was probably secreted by the paraurethral gland.

In men this cycle:

Excitement: erection begins, can take as little as 10 seconds. The cremaster muscle contracts making the testicles move closer to the body, scrotum also begins to wrinkle, nipples become erect.

Plateau: lubrication occurs, erection becomes stronger, testicles elevate even further, heart rate, breathing increases, scrotal skin thickens.

Orgasm in men: seminal emission – the loading of the contents of the semen is pushed into the farthest part of the urethral tube. Ejaculation involves a contraction of the muscles and it results the seminal fluid to be shot out of the penis. The first contractions result in a more powerful ejaculation and gradually the forcefulness of the ejaculation dies down. 1 contraction per second as well.

Resolution: heart rate decreases, muscular contractions are at ease, respiration decreases. This can take as long as 15 minutes for the body to come back to a base-line state. In men there is an added component called “refractory period.” Men aren’t capable of being sexually stimulated during this period. This time period can be very variable.

The Coolidge Effect – shortening of the refractory period by a novel female (someone who is more interesting than normal)

* Some people have multiple orgasms.
* There can be many different orders of the Masters and Johnsons cycle. Sometimes orgasm doesn’t happen, sometimes its many times.

March 3rd, 2010

**Sex Differences in Sexual Arousal**

Penile Plethysmography - Measuring genital blood flow in males

Vaginal Photoplethysmography (VPP) – measuring genital blood flow in females. Light in your vagina, pooloing of blood makes it turn purple.

Sex differences in genital arousal

* Heterosexual men and women watched a variety of sexual videos while their genital sexual arousal was measured.
* Heterosexual men showed greatest genital response to videos that matched with preffered sex partners. (lesbian porn was highest)
* Heterosexual women’s genital responses were equally high across stimulus categories. (its the same for women, the lower type of porn was gay porn –2 guys but not much difference)

Sex difference in category-specific

* Category-specific: sexual arousal that is dependant on certain features of a stimulus (eg. Sex, age, species, etc)

~Heterosexual men’s sexual arousal is category-specific

* Non-category-specific: sexual arousal that is not dependant on certain features of a stimulus

~Heterosexual women’s sexual arousal is non-category-specific.

Sexual feelings and genital arousal

* Sexual concordance: the relationship between genital arousal and self-reported arousal. Men are typically more sexually concordant that women. They base it on whether or not they get an erection or not.
* Heterosexual men and women watched a video on human and bonobo (monkey) sexual interactions while their genital arousal was measured. She found that women are genitally aroused to video of bonobo sexual interactions.

Can VPP detect category specific arousal?

Homosexual transexual – guy gets surgery, likes men.

Autogynophilic transexual – guy gets surgery, likes women.

VPP detected category-specific genital arousal in transsexual women.

Are the measurement instruments able to differentiate sexual vs. Non-sexual stimuli?

* Both men and womens genital responses occured only in the prescence of sexual content, but mens genital responses were more directerd toward videos depicting their preffered sex partners.

Why do women exhibit non-catergory-specific sexual arousal?

* Preperation Hypothesis:

~ any sexual cue should produce a genital respsonse in women, even cues that are subjectively unappealing to women.

~this may be an adaptation to protect the vaginal canal from damage in contects where rape is a possibility.

Forced copulaton is rare in animals.

Females are genitally aroused to violent, non-consenting sexual stimuli.

Sexual arousal in homosexual men

* Homosexual men exhibit category sepcific genital arousal and are sexually concordant, like heterosexual men. They like gay porn the most, and lesbian porn not to be a turn on at all.

Sexual arousal in homosexual women

* Lesbians exhibited non-category specific genital arousal and are sexually non-concordant like heterosexual women. Lesbian porn turns them on the most, but gay porn and straight porn are also quite high.

Male bisexuality: sexual feelings vs. Physiological arousal

* Genital arousal: no bisexual patterm of genital response – more arousal to male-male stimuli than equal arousal to both male-male and female-female stimuli BUT
* Self reported sexual arousal: equal levels of sexual arousal to the female-female and male-male stimuli.

This tells us that bisexual guys may not exist. If its a self-identity then yes it is true, but if you want to label it as a bisexual activity then yes it exists because they have sex with both men and women. But, if you want to label it in terms of sexual arousal and blood flow, then no it should not exist fully.

Measures of sexual orientation

* Identity
* Behaviour
* Fantasy
* Genital arousal

Orientation distribution

* Most people are heterosexual
* 2-3% of men are homosexual
* 1% of women are lesbians

Sexual orientation varies cross-culturally

1. Egalitarian homosexuality

* Homosexual relationships are organized so that partners treat each other s equals and do not play specific social roles despite any differences that may exist
* Restricted to Western countries, not widespread

1. Transgendered homosexuality

* Homosexual relationships are organized according to gender distinctions, with one partner adopting the gender role of the opposite-sex
* More culturally widespread

1. Transgenerational homosexuality

* Homosexual relations are organized according to age distinctions between an older and younger partner

Female homosexuality is less well studied cross-culturally  
1. Female 'wives' in Lesotho  
- Married to men but also married to a woman  
2. Sworn virgin (transgendered)  
- Not considered a woman due to have never given birth  
- Male typical

Because the idea of "the homosexual" is socially constructed, "homosexuals" or "gays" are not recognized as existing in all cultures  
1. Consequently, we talk about 'androphillic males'  
2. There is no scientific evidence that sexual orientation can change  
 Conversion/Reparative Therapy  
- Religious groups  
- Refer to clients as 'Ex-Gays'  
- Believe heterosexually is innate and any deviations is due to 'damaged' family outcome

**Why are some people homosexual?**

Genes and male homosexuality  
 - Twin studies & concordance rates

1. Identical twins: 37.5%  
2. Non-identical twins: 6.3%

3.Monozygotic twins reared apart

This suggests that genes do effect male homosexuality. Men who have gay brothers are five times more likely to be gay themselves. The sibling and twin studies are consistent with the conclusion that there is a genetic influence on male homosexuality

Genes and Female homosexuality  
- Twin Studies  
1. Identical twins: 30%  
2. Non-identical twins: 30%  
3. Monozygotic twins reared apart  
This suggests genes do not effect female homosexuality

**Why don't 'gay genes' go extinct?**  
- Homosexuality has existed for millennia

- Sexually antagonistic gene hypothesis

1. Genes that promote sexual attraction to males have reproductive costs in males, but reproductive benefits in their female relatives  
2. The female kin of gay men are more likely to have more children  
○ Kin selection hypothesis  
3. Male homosexuals can help their kin survive and reproduce, thereby helping to pass on genes that they share with close kin to the next generation  
4. Fa-afafine exhibit elevated avuncular tendencies compared to men and women  
5. Fa-afafine's elevated avuncular tendencies are expressed in terms of monetary exchange with nieces

- Sexually antagonistic genes and kin selection appear to interact to maintain genes for male homosexuality in the Samoan population

March 10th 2010

Sexual Orientation

Homophobia – brought about depending on the culture that you live in.

* Men who are more homophobic are more genitally aroused by gay porn than non-homophobic men.

March 24th, 2010

Heterosexual Mating Strategies

Sexual Selection

* As a result of differential parental investment we see a sex difference in tactics to attract mates and in mate preferences.
* Sexual selection occurs when a trait provides an advantage to reproductive success.

Intrasexual Competition

* Involves competition between members of the same sex for mating access to the opposite sex.
* This is often referred to as male-male competition.

Intersexual Competition

* Involves preferential choice exerted by members of one sex for members of another sex who possess desirable qualities.
* This is referred to as female choice.

Parental Investment

* Human males and females have a differential parental investment
* Even on a gametic level the investment is substantially different
* The differential investment continues after fertilization. Ex gestation, birthing, lactation etc.
* As a result of differential parental investment we see a sex differently in mate strategies and preferences.

Sexual Strategies

* Long term mating: extended courtship, heavy investment, pair bonding, love, partner, offspring.
* Short term mating: fleeting sexual encounter

Sex difference in long-term partner preferences

* Compared to males, females place more emphasis on the resources and social dominance of their partners
* Compare to females, males place more emphasis on youth and physical attractiveness of their partners.

Female preferences for resources

* Female preference for resources is not limited to humans

Recognizing resources

* Human males can provide a range of resources for the female: food, shelter, protection from other males.
* Females should have evolved preference for males who: have good financial prospects, are older than themselves, have higher social status, display hard working and industrious characters.

Earning capacity

* Kenrick asked participants to indicate the minimum percentiles of characteristics they would find acceptable in a potential partner.
* Women have higher standards than the men do in earning capacity

Buss: Mating strategies tested over many different countries with many different ideas about dating, etc. There were differences country to country, but sex differences remained invariable throughout all.

Preference for high social status

* Looking at traditional hunter-gatherer societies, suggests men had clearly defined status hierarchies
* Male social status traditionally would have correlated with access to and control over resources
* Preference for high social status.

Townsend and Levy Study: attractiveness linked with status (signified by clothing) They found that women were more interested in having a relationship with someone that has a higher status than someone with a lower status.

Ability to invest: Age as an indicator

* Age correlates with access to resources
* In western societies, income generally increases with age
* Women do marry men slightly older than themselves

Ability to invest

* Men with greater industriousness achieve higher levels of education, higher annual salaries, and higher anticipated salaries
* Ambitiousness and industriousness signal ability to acquire resources in the present and future.

Sustainability

* Preference for ambition and industriousness: 952 females participants in the US rated as important or indispensible
* Preference for dependability and stability: of the 18 characteristics in the international study these were rated second and third only to love.

**Males long-term mating strategies**

Why do males enter into long-term relationships?

* Ancestral females required reliable signs of commitment before mating
* Males who show interest in resource sharing, protection, commitment, investment in children may attract higher quality mates
* More certain paternity
* Increase in survival of offspring
* Increase in status and potential coalition benefits

Problems of assessing reproductive value

* Unlike other primates, ovulation in human females is concealed
* The best solution is to determine a females reproductive value via qualities that are correlated with it
* Fertility: current ability to produce children

Male mate preferences

* Ancestral males faced different selective pressures than did ancestral females

Preferences for age

* Youth is a critical cue
* Males universally desire mates who are younger than themselves
* On average males expressed desire wives approximately 2.5 years younger than themselves.

Male mate preferences for attractiveness

* Men rate physical attractiveness as more important and desirable in a mate than do women
* Facial and body symmetry associated with physical attractiveness
* Facial asymmetry increases with age

Facial Symmetry

* Grammer and Thornhill found that female composite faces were judged as being more attractive and sexy than the individual photos.

Facial femininity

* Large eyes, high cheek bones, small nose, small chin, full lips, short eye-chin distance
* Such features are created by a high estrogen/low testosterone ratio.

Male long-term mating preferences

* Male preferences for cue correlated with reproductive value
* What other adaptive problem would men have faced with respect to producing offspring
* Desire for premarital chastity
* American men view lack of sexual experience in a spouse as desirable
* Men consider promiscuity as especially undesirable in a potential marriage partner.

Most men place a premium on youth and beauty in a mate.

**Sexual Attractiveness**

Female preferences

* Human sexual dimorphism in weight: 1.1-1.2 more than women
* Somatoyping: Mesomorphy(muscular), average, ecotomorphy(underweight), endomorphy (overweight). Different body types that women find sexually attractive cross-culturally. Tend to rank muscular and average at about the same attractiveness.
* V-Shaped Torso

Prefer Masculine stature

* Humans sexual dimorphism in height: 1.06:1
* Women prefer men that are slightly taller than themselves for both short term and long term partners
* Taller men have higher reproductive success
* Small, proportional increases in leg length increase attractiveness.
* Women like men who are 6 feet and taller.

Does penis size count?

12.8% said it was extremely important

The majority said it was only somewhat important, as well as the appearance.

Women have a preference for average sized penises rather than small or large.

Female preference for male hirsuteness varies cross-culturally. (how much hair a guy has)

Female Bodies

* Pubertal estrogens = increased fat deposition in buttocks, thighs and breasts
* Women accumulate more fat in their lower bodies with slimmer waist and broader hips
* Waist-to-hip ratio (WHR) in women: 0.67 -0.95

Devendra Singh

* Says hourglass figure = greater health and fertility
* WHR (waist hip ratio) is 0.7. This is what men prefer

Lower WHR=

* Increased estrogen during follicular phase of menstrual cycle
* Decreased ovarian cysts
* Decreased testosterone
* Increased fertility

There is cross-cultural variation in men’s preferences for womens WHR

In general, men prefer WHR ranging from 0.6 -0.8

Men’s preference for low WHR have probably existed for millennia

Body Mass Index (BMI)`

* Weight(kg) / height(m)
* BMI and WHR are positively correlated
* Lower WHR is preferred when BMI varies
* Highest ratings given to figures with WHR of 0.7 that were of average weight

Female Bodies

* Female breasts are unusual in that they enlarge in young women who are neither pregnant or lactating
* This enlargement is due to fat deposition
* Puberty is marked by breast changes in women
* Changes in breast morphology may provide signals of fertility
* Increase in breast size = increased estrogen during the follicular phase of menstrual cycle

Beard length

* Beards = older and higher in status, they also mean more dangerous
* Even though beards are a socially dimorphic trait, women find clean shaven guys more attractive.

March 31, 2010

Sexual Paraphilias

Paraphilias (DSM)

* Recurrent, intense, sexually arousing fantasies or behaviours involving:

1. Nonhuman objects
2. Suffering or humiliation of self or partner
3. Children or nonconsenting persons

* Classified as mental disorders
* Nonparaphilic sexuality is normophilic.

Recognized Paraphilias

- Voyeurism -Sadism -Transvestic Fetishism

- Exhibitionism -Masochism

-Frotteurism (rubbing up against unsuspecting individuals)

- Pedophilia -Fetishism

Features of Paraphilias

* Occur almost exclusively in men
* Tend to cluster (if you have one, then the chance of having a second or third etc increases)
* Not necessarily ones only sexual interest

Paraphilic dimensions

* Unusual partner preferences: children, animals, persons with unusual features
* Unusual activity preferences: sadism, masochism
* Erotic target location errors: attraction to a peripheral part of target or to impersonating target—fetishism, transvestism. (eg. Shoes, feet)

Normal target location error (ETLE) or inversion and comes back and is targeted on themselves.

ETLEs in men attracted to women (gynephiles)

(Heterosexual) fetishism: sexual arousal to womens clothing or a peripheral part of a womans body

Transvestism: sexual arousal to wearing womens clothing and imagining oneself to be a women. Temporarily transform your body.

Anatomic autogynephilia: sexual arousal to the thought or image of being anatomically female. Permanently transform your body.

Fetishism

* The fairly common
* Develops early in life
* Most popular fetishes:

1. Parts of the females body (feet)
2. Womens clothing
3. Special materials (rubber, leather)

* Fetish often treated like a living object; as if it was a relationship. Both nurtures it and finds it sexually arousing

Transvestism

* Develops early in life
* Fairly prevalent
* Usually a desire to cross-dress fully (unlike fetishism)

Autogynephilia

* Literally the love of oneself as a woman
* Definition: sexual arousal to the thought or image of oneself as a female

1. Transvestic: arousal to idea of wearing womens clothing
2. Anatomic: arousal to idea of having a womans body

2 types of male to female transsexuals

1. Homosexual – exclusively attracted to men, feminine in childhood, transition early, not sexually aroused by cross-dressing, not paraphilic.
2. Autogynephilic – its sexually arousing to them to get the surgery done, choose women, men and women, or neither as partners, not feminine in childhood, often marry and have children, transition later, sexually aroused by the thought or image of oneself as a woman, paraphilic.

ETLEs in men attracted to children (pedophiles)

* Pedophilic Fetishism: Five cases reports of pedophilic men aroused by childrens clothing or diapers, who did not fantasize themselves as children. Used an item linked to a child to get aroused or to masturbate with.
* Pedovestism: Four case reports of pedophilic men aroused by wearing childrens clothing and imagining themselves to be children.
* Anatomic autopedophilia: could these exist? Limits on their body into turning their body into convincing children.

ETLEs in men attracted to men

* Homosexual fetishism: sexual arousal to a men’s clothing or a peripheral or inessential part of the male body
* Homeovestism: sexual arousal to wearing other mens clothing and imagining oneself to be those men.

Acrotomophilia: preferential attraction to amputees; called “devotees”

* Stump fetishism: preferential attraction to a specific peripheral part of an amputees body
* Pretending: pretending to be an amputee with or without sexual arousal
* Apotemnophilia: desire to become an amputee, often with sexual arousal; called wannabes

**Feederism**

Fat fetish sub-culture that eroticizes feeding and weight gain.

Two Classifications:

1. Unusual objects of attraction – morphophilia: peak sexual arousal to a body characteristic. For this it is fat.
2. Unusual activity preferences – feeding and weight gain

Heterosexuals – feeders (men who like to feed females), feedees (females sexually aroused by being fatted up and being fed)

Homosexual – encouragers (fattening up their partners), gainers (aroused by being fattened or fed), mutual gainers (reciprocal weight gain and feeding relationship)

Feederism Community

* Internet based: Community Websites
* Fantasyfeeder.com
* Dimensionsmagazine.com
* Personal Sites
* GainingGabi.com
* FeedAFatty.com

Membership statistics from fantasyfeeder.com

* Canada: males 940 females 200

Internationally: 21200 males 4260 females

* It is very very rare

Activities:

* Hand feeding
* Funnel feeding
* Tube feeding
* Measuring/weighing
* Massaging/rubbing

Immobility

* The inability to get out of bed because you are so fat.
* This is a sacred act for somebody special, they don’t go immobile for just anyone.

A case study:

* Subject: Lisa, self-identified feedee 30 year old, Canadian female, weight 180lbs, 5’11”
* Procedure: interview via email, open-ended questions
* Early signs of feederism: sexual arousal to fat women, fat fixation, gaining fantasies
* Fantasies: being hand fed and funnel fed, gaining weight, stuffing
* Behaviour: actively gained 35 lbs, taking her from 165 lbs to 200 lbs, BMI 23 normal to 27.0 (pre-obese)

Sexual Masochism – domination and humiliation.

Conclusion: it is subjectively sexual, recurrent, intense, co-morbidity – difficult to determine if feederism is different that masochism, it could be a variation on it. Unusual objects of attraction (body fat), unusual activities (feeding and weight gain behaviours make it arousing)

Why FEEDERISM?

Quinsey and Lalumiere (1995) Paraphilias are exaggerated manifestations of more normative and functional mate selection principles observable in the general population. Ie. Pedophilia is a preference for youth. Normal males will have some response to images of pre-pubescent children but not as much as to women.

Historical Evidence: fat suggests fertility throughout history.

Cross-cultural evidence:

* Non-western cultures: Mauritania – gavage (feeding of small girls), Nigeria – Fat farms (houses that young girls are sent to when they are of marriage age and tutor waits on girls hand and feet so they do not have to move, feed them, and massage them to distribute fat evenly)
* Western cultures: US – National Association to Advance Fat Acceptance (NAAFA): Social group for individuals to get together and meet if they are large. Have a policy against feederism. Acceptance of all sizes and no one should encourage you to alter your body in any way.

Cross-Species Evidence

* Food-for-sex exchange

How to test it?

* Recruit members of the general population and measure genital arousal to feederism.

Summary: arousal to food f=m, males and females co-evolved there is no sex difference.

Nothing is going on genitally because they food stories and the neutral stories had the same level of arousal, and males or females do not differ genitally.

Subjectively they said they were more aroused to the food stories than the neutral stories. Male and female equal in this as well.

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Sexual Paraphilias Continued

Some Paraphilias involve unusual activity preferences (ex. Voyeurism, exhibitionism, frotteurism- rubbing up against unsuspecting people, non-sadistic preferential rape)

Courtship Disorder Theory

* These behaviours are thought to represent expression of the same underlying disorder, namely courtship disorder.

Idealized courtship sequence consists of:

1. Finding phase: locating and appraising a potential partner
2. Pretactile phase: characterized by nonverbal and verbal overtures
3. Tactile phase: physical contact is made
4. Copulatory phase: consensual sexual intercourse occurs.

Voyeurism, exhibitionism, frotteruism and preferential rape reflect disruptions in different courtship phases. Can be in one phase or a couple of them.

1. Finding phase: voyeurism (they become fixated on this phase because the finding is the part that is erotic for them)
2. Pretactile Phase: exhibitionism (just expose themselves do not move on to physical contact)
3. Tactile Phase: frotteurism (do not want to continue on to real sex, just want to rub themselves on the person that they have found)
4. Copulatory Phase: Preferential Rape – most normal heterosexuals do not want to have sex with someone who does not want it.

These all frequently co-occur with each other.

Individuals given the primary diagnosis of non-sadistic rape tend to not exhibit other types of courtship disorders.

This difference suggests that a distinction exists between pre-copulatory (ie. Courtship) versus copulatory phases of sexual interactions.

Sexual Masochism

* Sexual arousal in response to experiencing pain, humiliation and loss of control

Sexual Sadism

* Sexual arousal in response to inflicting pain, humiliation and loss of control

Moral Masochism

* The use of self-destructive behaviour to resolve inner problems
* Cannot do this to themselves unless they have a partner to do it for them
* Ex. Punishing the self for bad behaviour

Features of Sexual Masochism

1. Pain – spanking (hand, cane, whips, etc), Then there are other ways that only a select group of people will use for pain: dripping hot wax onto skin, skin clamps. The Masochist sets the limits for pain. It is not comfortable, but it is not unbearable.
2. Loss of control – bondage, being tied up, by submitting to rules.
3. Humiliation – transform into something that is less than themselves. Makes them inferior to who they are in everyday life.

Other characteristics (These all apply to both sexual sadism and sexual masochism)

* Sex difference in frequency: males greater than females
* Positively correlated with socioeconomic status and education. Tend to be quite well off and have a high level of education. Ex. CEO`s, judges, politicians
* More common among Caucasians
* Historically recent
* Overwhelmingly western phenomenon.
* Sexual masochists are often above average on several indices of mental health and adjustment
* Professionally successful, reliable and have high standards for themselves
* Most emphasize consensual, safe sexual “play” so no harm is done
* Nevertheless, the APA considers it a mental illness

These people are dependant on engaging in these practices to be sexually aroused. They can’t be aroused if they do not participate in masochism or sadism.

Sex differences in how sexual masochism is practiced.

* Ex. Females are not into heavy duty pain, they want milder forms of pain, whereas males like vast amounts of pain inflicted on them. Male masochist focus more on the pain whereas females focus more on the relationship dynamics that occur from spanking, etc. This makes some people not believe that females are actually masochistic.

Most sado-masochistic activities are consensual.

Ponyplay

* Humans performing as horses under the control of “grooms,” “owners” or “trainers” in consensual erotic roleplay
* Human ponies dress in various types of equestrian inspired restraining devices
* These people do not have any interest in having sex with horses. Just the idea of dressing up and having a loss of control/freedom.

Why would anyone do this?

Escape from Self Theory

* Sexual masochism is a technique for getting rid of one’s self because it is not conducive with the maintenance of self.
* Ponyplay fits well with the theory that sexually masochistic activities allow individuals to escape from the “self” by transforming into something other than the self.