11.1 -> Motivational Concepts

Our movitations arise from the interplay between nature (bodily "push") and nurture ("pulls" from our thought processes and culture). There are 4 perspectives: instinct theory (replaced by evolutionary theory) focuses on genetically predisposed behaviors. Drive-reduction theory focuses on how our inner pushes and external pulls interact. Arousal theory focuses on finding the right level of stimulation and Abraham Maslow's hierarchy of needs describes how some of our needs take priority over others.

Motivation – a need or desire that energizes and directs behavior.

In the early 20th century, we classified all sorts of behavior as instincts. If people criticized themselves, it was because of their "self-abasement instinct" and if they boasted, it was their "self-assertion instinct". Rather than explaining human behaviors, the early instinct theorists were simply naming them.

Instinct – complex behavior that is rigidly patterned throughout a species and is unlearned. Such behaviors are common in other species (imprinting in birds, and return of salmon to birthplace). Human behavior also exhibits unlearned, fixed patterns (infant's innate reflexes for rooting and sucking). Although instinct theory failed to explain more human motives, the underlying assumption that genes predispose species-typical behavior remains as strong as ever. Evolution influences our phobias, helping behaviors, and romantic attractions.

When the original instinct theory of motivation collapsed, it was replaced by driven-reduction theory (the idea that a physiological need creates an aroused state that drives the organism to reduce the need). With few exceptions, when a physiological need increases, so does a psychological drive – an aroused, motivated state.

The physiological aim of drive reduction is homeostatsis (a tendency to maintain a balanced or constant internal state; the regulation of any aspect of body chemistry). An example is the body's temperature regulation system, which works by feedback loops. If our body temperature cools, blood vessels constrict to conserve warmth and we feel driven to put on more clothes.

Not only are we pushed by our need to reduce drives, we're pulled by incentives (+ve or –ve environmental stimulus that motivates behavior). Smells and sights we find attractive/threatening can motivate our learning. When there is both a need and an incentive, we feel strongly driven.

Some motivated behaviors actually increase arousal. Curiosity is a drive to explore the relatively unfamiliar is one of several motives that doesn't fill any immediate physiological need. Those who enjoy high arousal are most likely to seek out intense music, novel foods and risky behaviors; they are sensation seekers.

Human motivation aims not to eliminate arousal but to seek optimum levels of arousal. Having all our biological needs satisified, we feel driven to experience stimulation and we hunger for information. We're infovores -> lacking stimulation, we feel bored and look for ways to

increase arousal to some optimum level, but too much stimulation = stress, and then we look to decrease arousal.

Some needs take priority over others. With certain needs satisfied, other motives are energizing and directing your behavior. This is described as the hierarchy of needs (by Maslow). At the base of the pyramid are our physiological needs (food/water), then we are prompted for our need for safety, and then to satisfy the belongingness/love need and beyond it is esteem needs, self-actualization needs where people seek to realized their potential, and self-transcendence needs, where people strive for meaning and purpose beyond the self (transpersonal), at the top.

Maslow's hierarchy is kinda arbitrary; the order of such needs is not universally fixed. Today's evolutionary psychologists concur with the four basic levels of the pyramid, but they note that gaining/retaining mates, and parenting offspring, are also universal human motives.

The simple idea that some motives are more compelling than others provides a framework for thinking about motivation. Worldwide life-satisfaction survey support this idea. In poorer nations, financial satisfaction strongly predicts feelings of well-being, while in wealthy nations, home-life satisfaction is better predictor. Self-esteem matters most in individualist nations, where people focus on personal achievements.

A vivid demonstration of physiological needs came when Keys studied semistarvation by cutting the food intake of 36 males, which had major psychological effects. They dreamed about food, talked about food, collected recipes, daydreamed and lost interest in sex and social activities, which illustrated the power of activated motives to hijack our consciousness. When you're hungry, thirsty, fatigued, or frisky, nothing else matters. Motives matter.

11.2 -> Physiology of Hunger
Keys' semistarved volunteers felt hunger due to homeostatic system designed to maintain normal body weight and an adequate nutrient supply. Washburn found that you have stomach contractions when you're hungry.

Organisms automatically regulate their caloric intake to prevent energy deficits and maintain a stable body weight.

Glucose – form of sugar that circulates in the blood and provides the major source of energy for body tissues. When its level is low, we feel hunger.
Increases the hormone insulin (secreted by pancreas) diminished blood glucose (by converting it to stored fat). If the blood glucose level drops, you don't consciously feel this change but it will trigger hunger. Signals from the stomach, intenstines, and liver (which say if glucose is being deposited or withdrawn) signal the brain to motivate eating or not.

The brain integrates these messages by several neural areas in the hypothalamus. One neural (arcuate nucleus) has a center that secrete appetite-stimulating hormones and another center that creates appetite-suppressing hormones. It can be stimulate electrically. If the area is destroyed, there is no interest in food. The opposite occurs when electrically stimulating an appetite-suppressing area: animals stop eating. If destroyed, the animals will continue eating.

Blood vessels connect the hypothalamus to the rest of the body, so it can respons to our current blood chemistry and other incoming information. It monitors levels of ghrelin, which is a hunger-arousing hormone secreted by an empty stomach. Other appetite hormones include leptin and PYY (decreases hunger) and orexin (increases hunger).

The complex interxn of appetite hormones and brain activity may help explain the body's apparent predisposition to maintain itself at a particular weight level (losing weight = hunger increases and energy expenditure decreases)(gaining weight = hunger decreases and energy expenditure increases). Heredity influenes body type and set point (point at which an individual's "weight thermostat" is supposedly set).

Our bodies regulate weight through the control of food intake, energy output, and basal metabolic rate (body's resting rate of energy expenditure/rate of energy expenditure for maintaining basic body functions when body is at rest).

Some researchers doubt our bodies have a preset tendency to maintain optimum weight, they point out that slow, sustained changes in body weight can alter one's set point and physiological factors also drive our feelings of hunger. For these reasons, some have abandoned the set point, preferring the term settling point to indicate the level at which a person's weight settles in response to caloric intake and expenditure (influcenced by environment and biology).

11.3 -> Psychology of Hunger.

Eating is pushed by our physiological state – our body chemistry and hypothalamic activity. Part of knowing when to eat is our memory of our last meal.

Body chemistry and environmental factors together influence our taste preferences. When tense or depressed, we crave carbohydrates because it helps boost levels of serotonin, which has calming effects.

Our preferences for sweet and salty tastes are genetic and universal. Other taste preferences are conditioned. The frequency of children's illnesses provides many chances for them to learn food aversions. Cultures affect taste, too. We tend to avoid unfamiliar food. Such neophobia (dislike of things unfamiliar) was adaptive for our ancestors, protecting them from toxic substances. In experiments, people who repeatedly sample an initially new thing typically experience increasing appreciation for the new taste and exposure to new food will increase our willingness to try more.

Other taste preferences are also adaptive. For example, countries with hot climate (where food spoiled more quickly) use spices, which inhibit the growth of bacteria. Pregnancy-related nausea and food aversions peak around the 10^{th} week, where the embryo is most vulnerable to toxins. Cultural trends influence the human genetics that affect diet and taste.

Situations also control our eating. For instance, people eat more when eating with others. The presence of others tends to amplify our natural behavior tendencies (called social facilitation).

Another aspect of eating is unit bias, where food portions are increased or reduced. If given a larger option, we tend to go for more.

Food variety also stimulates eating. Buffets result in more eating. When foods are abundant and varied, eating more provides needed vitamins and minerals and produces fat that

protects us during winter or famine. When a bounty of varied food is unavailable, we eat less – which extends the food supply.

For cultures struggling with obesity rates, the principle is: before eating with others, decide how much you want to eat. Reduce standard portion sizes. Serve food with smaller bowls, plates and utensils. Limit variety and store appealing foods out of sight.

11.4 -> Obesity and Weight Control

Our bodies store fat for good reasons. Fat is an ideal form of stored energy – a high calorie fuel reserve to carry the body through periods when food is scarce (in prehistoric ancestors' world). In most developing societies, obesity signals affluence and social status and people find heavier bodies attractive.

In those parts of the world where food and sweets are abundantly available, the rule that once served our hungry distant ancestors (when you find energy-rich fat or sugar, eat it!) has become dysfunctional. People have a growing problem. More than 1 billion people are overweight, and 300 million are clinically obese.

In the US, the adult obesity rate had doubled and child-teen obesity had quadrupled. Being slightly overweight is a real but modest health risk. Fitness matters more than being a little overweight. But significant obesity increases the risk of diabetes, high blood pressure, heart disease, gallstones, arthritis and certain types of cancer, thus increasing health care costs and shortening life expectancy. Women's obesity is linked to their risk of late-life cognitive decline, including Alzheimer's and brain tissue loss.

Being obese can cut life short. Those that are moderately obese lived 2-4 years less than those not overweight, while severely obese were akin to smokers (living 8-10 years less).

Obesity can also be socially toxic, by affecting both how you are treated and how you feel about yourself. Obese people know the stereotype: slow, lazy and undisciplined. They're though to be less sincere, less friendly, meaner, more obnoxious. Obese women make less money and are less likely to be married. The weight bias is especially strong against women and weight discrimination is greater than race and gender discrimination.

"Weighty decisions" occur at every stage of the employment cycle – hiring, placement, promotion, compensation, discipline and discharge – and affects women more.

This prejudice appears early. Children scorn fat kids and normal-weight kids who hang out with fat kids.

Obesity has been associated with lower psychological well-being, especially women; have an increase in depression. Obesity contributes to depression and depression fosters obesity. 4 in 5 said their children asked them not to attend school functions. 9 in 10 said they'd rather have a leg amputated than gain more weight.

Once we become fat, we require less food to maintain our weight than we did to attain it. Fat has a lower metabolic rate – it takes less food energy to maintain. When an overweight person's body drops below its previous set point, hunger increases and metabolism decreases, thus the body adapots to starvation by burning off fewer calories.

Reducinging your food intake by 3500 calories won't reduce your weight by 1 pound. Those who starve themselves only lose 6% of weight and their metabolic rates drop 15%. This is why a rigorous diet produces rapid losses followed by a plateau. We can regain weight by eating amounts of food that maintained weight before a diet began because the body is still conserving energy.

Those who gain the least weight tend to spend extra caloric energy by fidgeting more. Lean people are naturally disposed to move about, thus burning more calories than do energy-conserving overweight people who tend to sit still longer. These individual differences in resting metabolism help explain why 2 people of the same height, age, and activity level can maintain the same weight, even if one of them eats much less than the other does.

Studies reveal a genetic influence on body weight.

- Adoptive siblings' weights are uncorrelated with one another or with those of their adoptive parents. Their weights resemble the biological parents.
- Identical twins' weight's correlate +.74, even when apart. Fraternal twins' weight's correlate +.32.
- Given an obese parent, a boy is 3x and a girl is 6x more likely to be obese.
- Many different genes influence body weight; most of which have small effects. A gene called GTO doubled the risk of becoming obese. People who are genetically disposed to a sluggish brain-reward system may eat more to boost its activity.

Environmental factors are important. Children and adults who suffer from sleep loss are more vulnerable to obesity, because levels of leptin (which reports body fat to the brain) fall and ghrelin (appetite stimulating stomach hormone) rise.

Social influence is another factor. People are most likely to become obese when a friend became obese. If the obese friend was a close one, the odds of likewise becoming obese almost tripled. Moreover, the correlation among friends' weights was not simply a matter of seeking out similar people as friends. Friends matter.

Strongest evidence that environment influences weight comes from our fattening world. Although the developed nations lead the trend, people across the globe are getting heavier. Every 7 in 10 Mexicans are obese. Obesity is increasing everything and will continue to increase. By 2020, 3 of 4 Americans will be obese, with associated health problems like diabetes.

Changing food consumption and activity levels explains the growing problem. We are eating more and moving less. New stadiums, theatres, and subway cars (not airlines) are widening seats to accommodate the girth growth. Today's people need more room.

If the changing environment explains the expanding obesity problem, then environmental reform is part of the solution.

Losing weight is intense, especially for women. Permanent weight loss is not easy, but there are tips: begin if you feel motivated and self-disciplined. Exercise. Don't starve all day. Beware of bingeing. Eat healthy. Connect to support group.

Researched have not identified guilt, hostility, oral fixation or any similar personality maladjustment to causing obesity. Obesity isn't a matter of lack of willpower. Dieters are more

likely to binge when under stress of after breaking their diet. It's better to accept oneself as a bit heavy than to diet and binge and always feel out of control/guilty.

11.5-> Sexual Response Cycle
Sexual arousal depends on the interplay of internal and external stimuli.

Masters and Johnson monitored and filmed more than 10k sexual cycles. Their description of the sexual response cycle (four stages of sexual response – excitement, plateau, orgasm and resolution). During the initial excitement phase, men's and women's genital areas become engorged with blood. A woman's vagina expands and lubricates and her breasts and nipples enlarge.

In the plateau phase, excitement peaks as breathing, pule and blood pressure rates continue to increase. The penis becomes fully engorged and some fluid may appear at its tip. Vaginal secretion continues to increase, the clitoris retracts and orgasm feels imminent.

Masters and Johnson observed muscle contractions all over the body during orgasm; accompanied by further increases in breathing, pulse, and blood pressure rates. At orgasm, pulse rate surges to 115 beats/minute. A woman's arousal and orgasm facilitate conception by helping propel semen for natural reproduction.

The pleasurable feeling of sexual release is the same for both sexes. When men and women undergo PET scans while having orgasms, the same subcortical brain regions flow. And when people who are passionately in love undergo fMRI scans while viewing photos of their partner, the brain responses are pretty similar.

The body gradually returns to its unaroused state as the engorged genital blood vessels release their accumulated blood – relatively quickly if orgasm ha occurred and slow otherwise. During this resolution phase, the male enters a refractory period (resting period after orgasm, where a man can't achieve another orgasm; lasting from a few minutes to a day or more). The female's much shorter refractory period may enable her to have more orgasms if restimulated during or soon after resolution.

Sexual disorders are problems that consistently impair sexual arousal or functioning. Some involve sexual motivation, especially lack of sexual energy and arousability. For men, others include erectile dysfunction and premature ejaculation. For women, the problem may be pain or orgasmic dysfunction (distress over infrequently or never experiencing orgasm). About 4 in 10 women reported a sexual problem, such as orgasmic dysfunction or low desire but only 1 in 8 reported that this caused personal distress. Most women who experience sexual distress relate it to their emotional relationship with the partner.

Women's orgasm frequency is genetically influenced. The genetic factor account for 51% of the variation in frequency of orgasm via masturbation but for only 31% of the variation in frequency of orgasm via intercourse. When there's a partner, emotional closeness, security and intimacy also matter.

11.6-> Hormones and Sexual Behavior

Sex hormones have 2 effects: they direct the physical development of male/female sex characteristics and (esp in nonhuman animals) they activate sexual behavior. In most mammals, nature neatly synchronizes sex with fertility. The female becomes sexually receptive when secretion of the female hormones, the estrogens (sex hormones, such as estradiol, secreted in greater amounts by females than males and contributes to female sex characterisitics. In nonhuman female mammals, estrogen levels peak during ovulation, promoting sexual receptivity). Researchers can stimulate receptivity by injecting female animals with an estrogen. Male hormone level are more constant and hormone injection doesn't easily manipulate the sexual behavior of male animals. If testes are lost, which manufacture testosterone (most important of the male sex hormones. Both males and females have it, but the additional testosterone in males stimulates the growth of the male sex organs in the fetus and the development of the male sex characteristics during puberty), interest in receptive females declines, but it can be regained if injected.

In humans, hormones more loosely influences sexual behavior, although sexual desire rises slightly at ovulation among women with mates. When at peak fertility in their menstrual cycle, they express increased preference for masculine faces and ability to detect sexual orientation, but also increases apprehensiveness of men perceived as potentially sexually coercive. On the days around ovulation, intercourse was 24% more frequent.

Around ovulation, women fantasize more about sex with desirable partners, wear more sexually attractive clothing and have slightly higher voice pitch. After sniffing a T-shirt worn by a women, men display higher testosterone levels if she was ovulating vs not. In a strip-club, dancers hourly tips almost doubled on the days near ovulation compared to days during menstruation.

Women's sexuality differs from other mammalian females because we're more responsive to testosterone level. If a woman's natural testosterone level drops, as happens with removal of the ovaries or adrenal glands, her sexual interest may wane. But testosterone-replacement therapy sometimes restores diminished sexual desires. For men with abnormally testosterone levels, testosterone-replacement therapy often increases sexual desire and energy and vitality.

In men, normal fluctuations in testosterone levels have little effect on sexual drive. Fluctuations are partly a response to sexual stimulation. Sexual arousal can be a cause to increased levels. Married fathers have lower levels than bachelors and married men without children.

Large hormonal shifts over the lifespan have a great effect. A person's interest in dating and sexual stimulation usually increases with the pubertal surge in sex hormones. If the hormonal surge is precluded, the normal development of sex characteristics and sexual desire doesn't occur. When adult men are castrated, sex drive typically falls as testosterone levels decline sharply. Depo-Provera (drug for male sex offenders) reduces T levels. In later life, as sex hormone levels decline, the frequency of sexual fantasies and intercourse declines as well.

Sex is not a need, while hunger is. There are similarities between hunger and sexual motivation. Both depend on internal physiological factors. Both reflect the interplay of excitatory and

inhibitory responses and both are influenced by external and imagined stimuli and by cultural expectations.

Many studies confirm that men become aroused when they see, hear or read erotic material. Most women report or exhibit nearly as much arousal to the same stimuli (their brains respond differently, with fMRI scans revealing a more active amygdala in men). Men also have more obvious genital response.

People may find sexual arousal either pleasing or disturbing. With repeated exposure, the emotional response to any erotic stimulus often lessens/habituates.

Depictions of women being sexually coerced – and liking it – tend to increase viewers' acceptance that women enjoy rape and increase male viewers' willingness to hurt women. Viewing images of sexually attractive women and men may lead people to devalue their own partners and relationship and find them less attractive. Viewing X-rated films tends to diminish people's satisfaction with their own sexual partner. Reading/watching erotica may create expectation that few men and women can fulfill.

The brain is our most significant sex organ. The stimuli (imagination) inside our heads can influence sexual arousal and desire. Those with spinal-cord injuries with no genital sensation can still feel sexual desire. Sleep researchers discovered that genital arousal accompanies all types of dreams, even though most dreams have no sexual content. Nearly all men and 40% of women can have dream-orgasms. In men, nighttime orgasm and "wet dreams" are more likely when orgasms haven't occurred recently.

Wide-awake people become sexually aroused by both memories of prior sexual activities and fantasies. Happy individuals in blossoming new relationships might fantasize about hoped-for future marriage and intimacy. About 95% of both men and women say they have sexual fantasies. Men (gay or straight) fantasize about sex more often, more physically and less romantically. They also prefer less personal and faster-paced sexual content in books and videos. Fantasizing about sex doesn't indicate a sexual problem or dissatisfaction. Sexually active people have more sexual fantasies.

11.7 -> Adolescent Sexuality

Adolescents' physical maturation fosters a sexual dimension to their emerging identity. Teen intercourse rates are roughly similar in Western Europe, American and in Latin America but much lower in Arab and Asian countries. Environmental factors accounted for almost three-fourths of the individual variation in age of sexual initiation. Family and cultural values matter.

American teens have a high rate of teen pregnancy compared to European teens. This is because of:

- ➔ Minimal communication about birth control. They feel uncomfortable discussing contraception with parents, partners and peers.
- ➔ Guilt related to sexual activity. Most American girls regret having sex. If passion overwhelms intentions, they may also reduce attempts at birth control.

- ➔ Alcohol use. Sexually active teens are typically alcohol-using teens; those who drink prior to sex usually don't use condoms. By depressing the brain centres that control judgment, inhibition, and self-awareness, unsafe sex can occur.
- ➔ Mass media norms of unprotected promiscuity. The more sexual content adolescents view, the more likely they are to perceive their peers as sexually active, to develop sexually permissive attitudes and to experience early intercourse.

TV, the interest, music videos, lyrics, movies, magazines, sports media and advertising portray females as sexual objects, which leads to harm to their self-image and unhealthy sexual development. Sexualization occurs when girls are led to value themselves in terms of their sexual appeal, compare themselves to narrowly defined beauty standards and see themselves as sexual begins for others' use. It can lead to eating disorders, depression and unrealistic expectations regarding sexuality.

Unprotects sex has led to increase rates of STIs. Two-thirds of new infections occur in people under 25. Teenage girls (due to not fully mature development and lover levels of protective antibodies) are especially vulnerable. 40% of sexually experienced American 14 to 19 year old females had STIs.

Consider this: if someone use a birth control method that's 98% effective in preventing pregnancy, a 2% chance of failure in the first use increases to a risk of nearly 50% after 30 such uses. Moreover, when people feel drawn to a partner, they underestimate risks.

Given these odds, the rapid spread of STIs is not surprising. Condoms offer limited protections against certain skin-to-skin STIs, such as herpes. Condoms have been 80% effective in preventing transmission of HIV (human immunodeficiency virus – causes AIDS) from an infected partner. As condom use increases, the annual number of bacterial STIs dropped.

STI facts of life have led to another response: a greater emphasis on teen abstinence within some comprehensive sex-education programs. Those who participate in school-based abstinence programs are just as likely to have premarital sex as those who don't participate in these programs. However, abstinence education programs rooted in social psychological theory and research results in only 34% starting to have sex compared to those randomly assigned to a health promotion control group.

There are several predictors of sexual restraint:

- ➔ High Intelligence. Teens with higher than average intelligence more often delay sex, because they understand possible negative side effects and are more focused on future achievement.
- ➔ Religious engagement. Actively religious teens more often save sex for marriage.
- ➔ Father presence. A father's absence is linked to sexual activity before age 16. Close family attachments also predict later sexual initiation.
- ➔ Participation in service learning programs (volunteering). Researchers are unsure why.

11.8 -> Sexual Orientation

Def: an enduring sexual attraction towards members of one's own sex or to the other sex. We experience this attraction in our interests, thoughts and fantasies. Cultures vary in their attitudes toward homosexuality; however heterosexuality prevails and homosexuality survives.

Gay men and lesbians often recall childhood play preferences like those of the other sex. But most homosexuals report not becoming aware of their attraction until puberty and not thinking themselves as gay or lesbian until later in their teens or twenties.

The most accurate figure seems to about 3% of men and 1-2% of women are gay. A larger number of adults report some same-sex sexual contact during their lives. And more people report having had an occasional homosexual fantasy.

Sexual orientation isn't an indicator of mental health, emotional or social problems. Moreover, same-sex civil unions provide emotional, social and health benefits similar to those of heterosexual unions. Many homosexuals contemplate suicide, especially during adolescence.

Sexual orientation is so basic to who they are that it operates subconsciously, by drawing their attention toward particular flashed nude images not consciously perceived.

This conclusion is most strongly established for men. Women's sexual orientation tend to be less strongly felt and potentially more changing. Men's lesser sexual variability in apparent in various cultures, situations, educations, religions, and peer influence. Women prefer to alternate periods of high sexual activity with periods of almost none and are somewhat more likely to feel and act on bisexual attractions. Baumeister calls women's more varying sexuality a gender difference in erotic plasticity.

In men, a high sex drive is associated with increased attraction to men OR women, while in women, a high sex drive is associated with increased attraction to both. When show erotic or nonerotic contexts, heterosexual men tend to look at the woman while the heterosexual women look more equally.

There aren't environmental influences that influence sexual orientation. Homosexuals appear more often in certain populations; homosexual and bisexual people especially overrepresented among poets, fiction writers, artists and musicians. Gay men also express interest in occupations that attract many women (florist, decorator and flight attendant).

Men who have older brothers are also somewhat more likely to be gay; about 1/3 more likely for each additional older brother. The reasons for the fraternal birth-order effect is unclear; it's suspected a defensive maternal immune response to foreign substance produced by male fetuses; with each pregnancy with a male fetus, the maternal antibodies may become stronger and may prevent the fetus' brain from developing in a male-typical pattern. This effect only occurs in men with older brothers born to the same mother and isn't found among women with older sisters, women who were fraternal twins with a boy and men who are left-handed.

Another theory suggests that people develop same-sex erotic attachments if segregated by gender at the time their sex drive matters.

Sections of the hypothalamus taken from deceased heterosexual and homosexual people revealed that one cell cluster is reliably larger in heterosexual men than in women and homosexual men. The hypothalamus is an important part of the neural pathway engaged in sexual behavior, which may influence the brain's anatomy. Brain responses to sex-related sweat odors and to pictures of male and female faces show hypothalamus's lighting up in an area governing sexual arousal.

There is a genetic influence on sexual orientation. Homosexuality does run in families. Identical twins are more likely than fraternal twins to share a homosexual orientation. It's likely that multiple genes, possibly in interaction with other influences, shape sexual orientation.

The gay genes survive in the human gene pool by kin selection because many of our genes reside in biological relatives. An alternative "fertile females" theory suggest that maternal genetics may be at work; meaning homosexual men have more homosexual relatives on their mother's side.

Elevated rates of homosexual orientation in identical and fraternal twins suggest that a shared prenatal environment may be a factor. Prenatal hormone conditions have altered a fetus' sexual orientation by manipulating exposure to male hormones. Females fetuses most exposed to testosterone = homosexual while male fetuses least exposed to testosterone = homosexual.

A critical period for the human brain's neural-hormonal control system may exist between the middle of the conception. Exposure to the hormone levels typically experienced by female fetuses during this time appears to predispose the person (either male or female) to be attracted to males later.

On several traits, homos appear to fall midway between straights. Lesbians' cochlea and hearing systems develop is a way that's intermediate between those of heterosexual females and males. Gay men tend to be shorter and lighter, while women were mostly heavier. Fingerprint ridge counts also differ (more on right than left). Some studies find a greater right-left difference in heterosexual males than in females and gay males, explaining why they're more likely to be left-handed. Faces and facial expressions can also identify homos. The average pregay child was rated as more gender conforming. A gay men's spatial abilities resemble those typical of straight women.

The consistency of the brain, genetic and prenatal findings show there's a biological explanation of sexual orientation.

11.9 -> Sex and Human Values

Those whose relationships first developed to a deep commitment (marriage) shower greater relationship satisfaction and stability and better sex.

Knowledge provided by sex research is preferable to ignorance. The researchers' values should be stated openly, enabling us to debate them and to reflect on our own values. Scientific research on sexual motivation doesn't aim to define the personal meaning of sex in our own life.

One significance of sexual intimacy is its expression of our profoundly social nature; it's a socially significant act. Most people find greater satisfaction and experience a much greater surge in the prolactin hormone (associated with sexual satisfaction) after intercourse and orgasm with their loved one.

With the satisfaction of intimacy and relationship surpassing the satisfaction of self-stimulation, there's a yearning for closeness in sexual motivation.

11.10 -> Need to Belong

Social bonds boosted our ancestors' survival rate. Attachments serve as powerful survival impulses. Those who form attachments are more likely to reproduce and to co-nurture their offspring to maturity. Wretched – to be without kin nearby.

Survival is enhanced by cooperation. Group combat is more effective than solo hunting. As foragers, they gained protection from predators and enemies by traveling in groups. Those who felt a need to belong survived and reproduced and their genes now predominate.

Those in close relationships live in better health and are at lower risk for psychological disorder and premature death.

The satisfaction of self-esteem and relatedness-belonging needs are top two contributors to happiness. The need to belong runs deeper than any need to be rich. When our need for relatedness is satisfied in balance with autonomy (sense of personal control) and competence, the result is a deep sense of well-being. To feel connected, fee and capable is a good life.

Humanity is tied up in others'; a person is a person through other persons.

When we feel included, accepted and loved by those important to us, our self-esteem is high. To avoid rejection, we conform to group standards and make favorable impressions. To win friendship and esteem, we monitor our behavior, hoping to make the right impressions. To be accepted, we spend billions on clothes, cosmetics and diet aids.

When the fear of being alone seems worse than the pain of emotional or physical abuse, attachments can keep people in abusive relationships. After separations, feeling of loneliness, anger, and desires to be with the former partner linger. Separated/divorced people are less happy than married people.

Children who move through a series of foster homes/family relocations may have difficulty forming deep attachments. Children reared in institutions without a sense of belonging to anyone or have extreme neglect become pathetic – withdrawn, frightened and speechless.

Life's worst moments are when close relationships end. When something threatens our social ties, anxiety, loneliness, jealously or guilt may overwhelm -> may lead to depression, mental decline and ill-health.

Ostracism (social exclusion) is punishing. It makes people feel especially bad about themselves. Being shunned threatens one's need to belong; it results in depressed moods, initial efforts to restore their acceptance and then withdrawal.

To experience ostracism is to experience real pain. It elicits increased activity in brain areas, such as the anterior cingulate cortex, that also activates in response to physical pain. That explains why the pain-reliever acetaminophen (Tylenol, Anacin) lessens social and physical pain. Pain focuses our attention and motivates corrective action.

Feelings of love activate brain reward systems. The pleasure of love is a natural painkiller.

Rejected and unable to remedy the situation, people may seek new friends or gain stress relief by strengthened religious faith; they may also turn nasty. Those who are excluded become much more likely to engage in self-defeating behaviours and to underperform on aptitude tests. The rejections also interfered with their empathy for others and made them more likely to act in aggressive ways against those who had excluded them.

11.11 -> Social Networking

The changes in how we connect are fast and vast.

Cell phones are the most rapidly adopted technology. Texting and emailing are displacing phone calling. Facebook, texting and other messaging technology have led to declining e-mails. Texting is very popular (90% of teens). If we don't check in on a social network, we may feel like we're missing out.

By connecting like-minded people, the Internet serves as a social amplifier. It can serve as an online dating matchmaker and affect our relationships.

Adolescents and adults who spent more time on the Internet spent less time with friends and their offline relationships suffered as a result. Social networkers are less likely to know their real-life neighbors.

The Internet is diversifying our social networks. Despite the decrease in neighborliness, it strengthens our connections with people we already know.

When communicating electronically, we often are less focused on others' reactions, less self-conscious and thus less inhibited. We become more willing to share joys, worries and vulnerabilities (leads to sexting and cyber-bullying). The increased self-disclosure serves to deep friendships; but eye-to-eye conversation with family and friends is more rewarding.

Social networks reveal people's real personalities.

Self-esteem gone awry becomes narcissism; people are self-important, self-focused, and self-promoting. Those who score high on narcissism are more active on social networking sites. We have a constant social comparison – where we measure ourselves against others.

Social networks both connect us and become a gigantic time- and attention-sucking diversion; this can result in lower grades (C grades).

In today's world, each of us is challenged to find a healthy balance between real-world tasks, time with people and online sharing. To keep a healthy balance: monitor your time, monitor your feelings, hide your more distracting online friends, turn off phones/leave them elsewhere, detox Facebook or replenish your focus with a nature walk.

11.12 -> Motivation at Work

There is person-to-person variations in people's attitudes toward their work. Across various occupations, some people view their work as a job, an unfulfilling but necessary way to make money. Others view their work as a career, an opportunity to advance from one position to a better one. The rest view their work as a calling, a fulfilling and socially useful activity – these report the highest satisfaction with their work and lives.

People's quality of life increases when they are purposefully engaged. Between the anxiety of being overwhelmed and stressed, and the apathy of being underwhelmed and bored, lies a zone in which people experience flow (a completely involved, focused state of consciousness, with diminished awareness of self and time, resulting from optimal engagement of one's skills), can be experienced while texting or playing a video game.

Csikszentmihalyi formulated the flow concept, where those immersed in a project worked as if nothing else mattered. He later confirmed an overriding principle: it's exhilarating to flow with an activity that fully engages our skills. Flow experiences boost our sense of self-esteem,

competence and well-being. Purposeful work enriches our lives. Busy people are happier. On average, people are happier when not mind-wandering.

In many nations, work has been changing, from farming to manufacturing to knowledge work.

Industrial-organizational (I/O) psychology applies psychology's principles to the optimizing human behavior in the workplace. There are three subfields:

- ➔ Personnel psychology -> matches people with jobs by identifying and placing well-suited candidates. Focuses on employee recruitment, selection, placement, training, appraisal and development.
- ➔ Organizational psychology -> modifies jobs and supervision in ways that boost morale, productivity and worker motivation. It facilitates organizational change.
- ➔ Human factors psychology -> study people's natural perceptions and inclinations to create user-friendly and safe machines in work settings.

11.13 -> Personnel Psychology

Psychologists can assist organizations at various stages of selecting and assessing employees. They may need help identifying needed job skills, deciding upon selection methods, recruiting and evaluating applicants, introducing and training new employees and appraising their performance.

Personnel selection techniques aim to match people's strengths with work that enables them and their organization to flourish. Strengths are any enduring qualities that can be productively applied.

The first step to a stronger organization is instituting a strengths-based selection system and then focus employment ads more on identified strengths. As a manager, you must identify a most effective and a least effective group of people and then try to measure performance as objectively as possible.

Interviews for potential jobs are less informative than aptitude tests, work samples, job knowledge tests and past job performance.

Interviewers' overrating their discernment is called the interviewer illusion. They have overconfidence because:

- ➔ Interviews disclose the interviewee's good intentions, which are less revealing than habitual behaviors.
- ➔ Interviewers more often follow the successful careers of those they have hired than the successful careers of those they have rejected and lost track of.
- ➔ Interviewers presume that people are what they seem to be in the interview situation.
- ➔ Interviewers' preconceptions and moods colour how they perceive interviewee's responses.

Traditional unstructured interviews provide a sense of someone's personality; but they also give the interviewees considerable power to control the impression they're making in the interview situation, thus creating false impressions. Personnel psychologists try to improve selection by putting people in simulated work situations, scoured sources for information on past performances and etc.

Structured interviews is a process that asks the same job-relevant questions in the same order of all applicants, each of whom is rated on established scales. It offers a disciplined method of collecting information.

They pinpoint strengths (attitudes, behaviours, knowledge and skills) that distinguish high performer in a particular line of work. The process includes outlining job-specific situation and asking candidates to explain how they would handle them and how they handled similar situations in their prior employment.

Structured interviews had double the predictive accuracy of unstructured interviews. They also reduce bias. Thanks partly to its greater reliability and partly to its job-analysis focus, one structured interview is equal to that of three to four unstructured interviews.

Performance appraisal helps decide who to retain, how to appropriately reward and pay people, and how to better harness employee strengths. It serves individual purposes too: feedback affirms workers' strengths and helps motivate needed improvements. Performance appraisal methods:

- ➔ Checklists; specific behaviors are checked off.
- ➔ Graphic rating scales; ex/ five-point scale on how often an employee is dependable, productive, etc.
- ➔ Behavioral rating scales; scaled behaviors that describe a worker's performance.

If you join an organization that practices 360-degree feedback, you'll rate yourself, your manager, your colleagues and you'll be rated by your manager, other colleagues and customers. The net result is often more open communication and more complete appraisal.

Performance appraisal can be biased. Halo errors occur when one's overall evaluation of an employee's specific work-related behaviours is biased because of personal traits (like friendliness). Leniency and severity errors reflect evaluators' tendencies to be either too easy or too harsh on everyone. Recency errors occur when raters focus only on easily remembered recent behavior.

Using multiple rates and objective, job-relevant performance measures help stop bias.

11.14 -> Organizational Psychology: Motivating Achievement.
Achievement motivation: a desire for significant accomplishment; for mastery of skills or ideas; for rapidly attaining a high standard.

People with high achievement motivation do achieve more. Those most successful were more ambitious, energetic, and persistent. As children, they have more active hobbies. As adults, they participated in more groups and favored being participants vs. spectators.

Self-discipline has been a better predictor of school performance, attendance and graduation honors than intelligence scores. Discipline also refines talent. The 10-year rules states that world-class experts in a field have typically invested "at least 10 years of hard week; 40 hours a week for 50 weeks a year). Outstanding scholars, athletes and artists are all highly motivated and self-disciplined, willing to dedicate hours every day to the pursuit of their goals.

Grit is a passionate dedication to an ambitious, long-term goal. Achievements are not distributed as a bell curve, meaning achievement involves much more than raw ability.

I/O psychologists study employee satisfaction. Satisfaction with work feeds satisfaction with life and leads to improved health. Positive moods at work enhance creativity, persistence and helpfulness. There's a positive correlation between individual job satisfaction and performance.

It's found that engaged workers know what's expected of them, have what they need to do their work, feel fulfilled in their work, have regular opportunities to do what they do best, perceive that they are part of something significant and have chances to learn and develop. It's also found that business units with engaged employees have more loyal customers, less turnover, higher productivity and greater profits.

11.15 -> Managing Well

Effective leaders harness job-relevant strengths, set goals and choose an appropriate leadership style.

There must be effective deployment of human assets. Effective leaders want first to select the right people then they aim to discern their employees' natural talents, adjust their work roles to suit their talents and develop their talents into great strengths.

Effective managers start by helping people identify and measure their talents, match tasks to talents and then give people freedom to do what they do best, care how much people feel about their work and reinforce positive behaviors through recognition and reward. Good managers focus training time on education people about their strengths and building upon them.

Celebrating engaged and productive employees in every organizational roles builds upon operant conditioning.

Our specific, measurable objectives serve to direct attention, promote effort, motivate persistence and stimulate creative strategies. When people state goals together with subgoals and implementation intentions (action plans that specify when, where and how they will achieve goals), they become more focused in their work and on-time completion becomes more likely. People best sustain their motivation when they focus on immediate goals rather than distant goals. You manage by objectives (target dates for completion); are short-term goals.

The best leadership style depends on the situation and the leader. There's 1) task leadership (goal-oriented leadership that sets standards, organizes work and focuses attention on goals); it's a directive style and keeps a group centered on its mission and 2) social leadership (group-oriented leadership that builds teamwork, mediates conflict and offers support); it's a democratic style and is good for morale because people feel more satisfied and motivated thus performing better.

Because effective leadership styles vary, the great person theory of leadership (that all great leaders share certain traits) is overstated. Effective leaders tend to be neither extremely assertive or unassertive. They also tend to show charisma, which blends a goal-based vision, clear communication and inspiring optimism.

Transformational leadership motivates others to identify with and commit themselves to the group's mission. Transformational leaders are natural extraverts, articulate high standards, inspire others to share their vision and offer personal attention, which leads to more engaged, trusting and effective workers. More women have transformational leadership qualities.

Effective managers care about how well the work is done and are also sensitive to their subordinates' needs. An increase in employee participation in making decision leads to successful businesses.

There's voice effect: if given a chance to voice their opinion during a decision-making process, people will respond more positively to the decision. They'll feel more empowered and more creative.

11.16 -> Human Factor

Human factor psychologists help to design appliances, machines and work settings that fit our natural perceptions and inclination. They also work at designing efficient environments. It locates work areas to enable doing tasks in order and at a comfortable position.

Understanding human factors can help prevents accidents.

Technology developers sometimes mistakenly assume that others share their expertise – that what's clear to them will be similarly be clear to others. When you know a thing, it's hard to mentally stimulate what it's like not to know (curse of knowledge).

The point to remember: designers and engineers should consider human abilities and behaviors by designing things to fit people, user-testing their inventions before production and distribution and being mindful of the curse of knowledge.

12.1 -> Cognition and Emotion
Emotions are a mix of bodily arousal, expressive behaviors, conscious experience and feelings.
There's two questions: does bodily arousal come before or after emotional feelings?
How do thinking and feeling interact and which comes first?

James-Lange theory: that our experience of emotion is our awareness of our physiological responses to emotion-arousing stimuli. A feeling follows a body's response (ex/ We jump at a sound before knowing what was the source, meaning some of our emotional reactions involve no deliberate thinking).

Cannon-Bard theory: that an emotion-arousing stimulus simultaneously triggers physiological responses and the subjective experience of emotion. The emotional stimulus travelled to my hypothalamus, causing a bodily arousal and also to my brain's cortex, causing my awareness of my emotion (ex/ my heart began pounding as I experienced fear).

- ➔ In an experiment, those with lower-spine injuries reported little change in their emotions' intensity. Those with high spinal cord injury did report changes; some reactions were much less intense. Other emotions were expressed more intensely. Our bodily responses seemingly feed our experience emotions

Most researchers agree our emotions also involve cognition.

Two-factor theory: the Schacter-Singer theory that to experience emotion, one must be physically aroused and cognitively label the arousal. Our physical reactions and our thoughts create emotions.

Spillover effect -> arousal from another activity can fuel emotions. A stirred-up state can be experienced as one emotion or another, depending on how we interpret it and label it. Arousal fuels emotion and cognition channels it.

Zajonc contended that we actually have many emotional reactions apart form, or even before, our interpretation of a situation. Zajonc says emotional reactions are instant.

We have an acutely sensitive automatic radar for emotionally significant information, such that even a subliminally flashed stimulus can prime us to feel better or worse about a follow-up stimulus.

Our emotional responses can follow two different brain pathways. Some emotions (like love or hate) travel a "high-road"; a stimulus following this path would travel (by the thalamus) to the cortex where it'd be analyzed and labeled before the command is sent out, via the amygdala to respond.

Sometimes our emotions take the "low road", a neural shortcut that bypasses the cortex. It travels from the ear or eye (via the thalamus) directly to the amygdala. This shortcut enables our emotional response before our intellect intervenes. The amygdala reactions are so fast that we may be unaware of what's happened. Fearful things trigger increased amygdala activity.

The amygdala sends more neural projections up to the cortex than it receives back, which makes it easier for our feelings to hijack our thinking.

Some emotional responses don't require conscious thinking. Much of our emotional life operates via the automatic "low road". However, it's still a mental function because the brain

must have some idea if the stimulus is good or bad. Emotions arise when we consider an event as harmless or dangerous, whether we truly know it is or no.

Some emotional responses – especially simple likes, dislikes and fears – involve no conscious thinking. Such responses are difficult to alter by changing our thinking. We may automatically like one person more than another, which can even influence our political decisions if we vote.

Our memories, expectations and interpretations also influence our feelings. Highly emotional people are intense partly because of their interpretations. They may personalize events as somehow being directed at them and they may generalize their experiences by blowing single incidents our or proportion. Thus, learning to think more positively can help people feel better. The thinking high road allows us to retake some control over our emotional life. Together, automatic emotion and conscious thinking weave our emotional lives.

12.3 -> Emotions and Autonomic Nervous System

Arousal affects performance in different ways, depending on the task. Sympathetic division = crisis; while parasympathetic is calm.

Without any conscious effort, your body's response to danger is coordinated and adaptive – preparing you to flight or flee.

12.4 -> Physiology of Emotions

Discerning physiological differences among fear, anger and sexual arousal is much more difficult than a calm/bored feeling. Different emotions don't have sharply distinct biological signatures nor do they engage sharply distinct brain regions. The insula is neural center deep in the brain that is activated when we experience various social emotions, such as lust, pride and disgust.

Despite their similarities, sexual arousal, fear, anger and disgust feel different to you and me and they often look different to others. Research has pinpointed subtle, distinct physiological and brain pattern distinctions among the emotions. For example, the finger temperatures and hormone secretions that accompany fear and range differ. Fear and joy both prompt similar increased heart rate but stimulate different facial muscles.

Some emotions also differ in their brain circuits. Brain scans and EEG recordings show that emotions also activate different areas of the brain's cortex. Negative emotions activate the right prefrontal cortex. Depression-prone people, and those with negative personalities, also show more right frontal activity.

Positive moods tend to trigger more left frontal lobe activity. The more a person's baseline frontal lobe activity tilts left, the more upbeat the person typically is.

We can't easily see differences in emotions form tracking heart rate, breathing, and perspiration. But facial expressions and brain activity can vary with the emotion.

12.6 -> Detecting Emotion in Others

Most of us read nonverbal cues well. People can often detect whether one person is attracted to another. We are especially good at detecting nonverbal threats. In a crowd of faces, a single angry face is more noticeable to us than a single happy one. And even when hearing another language, most of us readily detect anger.

Experience can sensitize us to particular emotions. Physically abused children are much quicker than other children to spot the signals of anger. Their perceptions become sensitively attuned to danger that non-abused children miss.

Hard-to-control facial muscles reveal signs of emotions you may be trying to conceal. Lifting the inner part of the eyebrow = distress or worry. Eyebrows raised and pulled together = fear. Activated muscles under the eyes and raised cheeks = natural smile.

Our brains are rather amazing detectors of subtle expressions. First impressions occur with astonishing speed.

Despite our brain's emotion-detecting skill, we find it difficult to detect deceiving expressions (telling truth from lies).

Some of us are more sensitive than others to physical cues. Introverts tend to excel at reading others' emotions, while extraverts are generally easier to read.

Gestures, facial expressions, and voice tones, which are absent in written communication, convey important information. Electronic communications provide impoverished nonverbal cues. Without the vocal nuances that signal whether a statement is serious, kidding or sarcastic, we're in danger of communicating our own egocentrism, as people misinterpret out "just kidding" message.

Women generally surpass men at reading people's emotional cues when given "thin slices" of behavior. Women have also surpassed men in other assessments of emotional cues.

Women's nonverbal sensitivity helps explain their greater emotional literacy. Men describe simpler emotional reactions.

Women's skill at decoding others' emotions may also contribute to their greater emotional responsiveness. Women more than men reported themselves open to feelings. The perception of women's emotionality also feeds – and is fed by – people's attributing women's emotionality to their disposition and men's to their circumstances: "She's emotional. He's having a bad day."

On exception: Anger strikes most people as a more masculine emotion.

When surveyed, women are also far more likely than men to describe themselves as empathic (identifying with others). Children and adults who skillfully infer others' thoughts and feeling tend to enjoy positive peer relationships.

Females are more likely to express empathy – to cry and to report distress when observing someone in distress. Women also tend to experience emotional events more deeply, with more brain activation in areas sensitive to emotion; they better remember the scenes three weeks later.

12.7 -> Culture and Emotional Expression

The meaning of gestures varies with the culture.

However, facial expressions don't have different meanings in different cultures; they're universal. Facial expressions do convey some nonverbal accents that provide clues to one's culture. The telltale signs of emotion generally cross cultures. People blind from birth spontaneously exhibit the common facial expressions associated with such emotions such as joy, sadness, fear and anger.

Musical expressions also cross cultures. Fast-paced music seems happy and slow-paced music seems sadder.

Ancestors communicated threats, greetings and submission with facial expressions. Their shared expressions helped them survive. Emotional expressions may enhance our survival as well: surprise raises eyebrows and widens the eyes, allowing us to take in more info and disgust wrinkles the nose, closing it from foul odors.

Smiles are social as well as emotional events. Although we share a universal facial language, it has been adaptive for us to interpret faces in particular contexts. People judge an angry face set in a frightening situation as afraid.

Although cultures share a universal facial language for basic emotions, they differ in how much emotion they express. Those that encourage individuality (Europe, Australia, New Zealand, and N. America) display mostly visible emotions. Those that encourage people to adjust to others (China) tend to have less visible displays of personal emotions. In Japan, people infer emotion more from surrounding context. The mouth conveys less emotions than the eyes.

Cultural differences also exist nations. Irish are more expressive than Scandinavians. Like most psychological events, emotion is best understood as a social-cultural phenomenon.

12.8 -> The Effects of Facial Expressions

We can control emotions by going "through the outward movements" of any emotion we want to experience (William James).

Studies of emotional effects of facial expressions reveal precisely what James predicted. Expression not only communicate emotion, they also amplify and regulate it. Facial feedback effect is the tendency of facial muscle states to trigger corresponding feelings such as fear, anger or happiness.

Smiling enhances positive feelings even more when you're reacting to something pleasant or funny; you also understand sentences that describe pleasant events more quickly.

Your face feeds your emotions. Depressed patients reportedly feel better after between-the-eyebrow Botox injections that paralyze frowning muscles. 9 out of 10 felt no longer depressed in two months. Botox paralysis of the frowning muscles slows people's reading of sadness or anger-related sentences and it slows activity in emotion-related circuits.

Going through motions also awakens emotions (certain postures and actions).

Likewise, people perceive ambiguous behaviors differently depending on which finger they move up and down while reading a story. If participants read the story with an extended middle finger, the story seems hostile. If read with a thumb up, they seem more positive. Hostile gestures prime hostile perceptions.

Acting as another acts helps us feel empathy. Natural mimicry of others' emotions helps explain why emotions are contagious. It's difficult to make emotional connections with words and tone of voice only; the facial expression helps share emotions.

12.9 -> Experienced Emotion

There is 10 basic emotions (joy, interest-excitement, surprise, sadness, anger, disgust, contempt, fear, shame and guilt), most present in infancy, proposed by Izard. However, some believe that pride and love is also a basic emotion.

The ingredients of emotion include physiology, expressive behavior and conscious experience. Across the world, people place emotional experience along two dimensions: positive-vs-negative valence and low-vs-high arousal. Any emotion is some combination of feeling good vs. bad and of being aroused/energized or not. On the valence and arousal dimensions, terrified is more than afraid, enraged is more than angry and delighted is more than happy.

12.10 -> Anger

Anger is a response to someone's perceived misdeeds, especially when the person's act seems willful, unjustified, and avoidable. But small hassles and blameless annoyances (bad smalls, hot temperatures, traffic jams, etc) also have the power to piss us off.

Anger can harm us: Chronic hostility is linked to heart disease. To get rid of anger, more boys report walking away from the situation or exercising, while more girls talk out the situation, listening to music or writing.

Encouraging people to vent their rage is typical in individualistic cultures, but it would seldom be heard in cultures where people's identity is center more on the group. People who keenly sense their interdependence see anger as a threat to group harmony.

The Western vent-your-anger advice presumes that we can achieve emotional release (catharsis) through aggressive action or fantasy. Only sometimes when people retaliate against a provoker, they may indeed calm down. This tends to be true only if they direct their counterattack toward the provoker, if their retaliation seems justifiable and if their target is not intimidating. Expressing anger can temporarily be calming if it doesn't leave us feeling guilty or anxious.

Catharsis usually fails to cleanse one's rage. More often, expressing anger breeds more anger. It may provoke further retaliation, thus escalating a minor conflict into a major confrontation.

Venting to reduce anger actually results in more hostility. When anger fuels physically or verbally aggressive acts we later regret, it becomes maladaptive. Anger primes prejudice. Angry outbursts that temporarily calm us are dangerous because they may be reinforcing and therefore habit forming; whatever relieved your anger in the past, you're likely to repeat it.

The best way to handle our anger is wait; you can bring down the level of physiological arousal of anger by waiting. Another thing is deal with anger in a way that involved neither being chronically angry over every little annoyance, nor sulking and rehearsing your grievances. Ruminating inwardly about the causes of your anger serves only to increase it.

Anger isn't always wrong. Used wisely, it can communicate strength and competence. It can benefit a relationship when it expresses a grievance in ways that promote reconciliation rather than retaliation. Controlled expressions of anger are more adaptive than either hostile outbursts or pent-up angry feelings. Civility means not only keeping silent about trivial irritations but also communicating important ones clearly and assertively. A nonaccusing statement of feeling can help resolve the conflicts that cause anger.

Forgiveness can resolve conflicts. Without letting the offender off the hook or inviting further harm, forgiveness releases anger and calms the body. As we mentally rehearse forgiveness, negative feelings (and perspiration, blood pressure, heart rate and facial tension) all were lower than when grudges are favored.

12.11 -> Happiness

Happy people perceive the world as safer and feel more confident. They make decisions, cooperate more easily, and are more tolerant. They live healthier, more energized and satisfied lives. When your mood is gloomy, life as a whole seems depressing and meaningless – you think more skeptically and attend more critically to your surroundings. We become more playful and creative with happiness.

Women with natural, happy smiles were more likely to be happily married in middle age. When we're happy, our relationships, self-image and hopes for the future seem more promising.

Happiness doesn't just feel good, it does good. A mood-boosting experience has made people more likely to give money, pick up dropped papers, volunteer time and do other good deeds; called the feel-good, do-good phenomenon (people's tendency to be helpful when already in a good mood). The reverse is also true: doing good also promotes good feeling.

Subjective well-being: self-perceived happiness or satisfaction with life. Used along with measures of objective well-being to evaluate people's quality of life.

The most positive days are Friday and Saturday. Over the long run, our emotional ups and downs tend to balance out. This is true for over the course of the day. Positive emotion rises over the early to middle part of most days and then drops off. A stressful event can trigger a bad mood, but by the next day, the gloom lifts. If anything, people tend to rebound from bad days to a better-than-usual good mood the following day.

Even when negative events drag us down for longer periods, our bad mood usually ends.

Grief over the loss of a loved one or anxiety after a severe trauma can linger, but even tragedy is not permanently depressing; they usually recover near-normal levels of day-to-day happiness.

People mostly cope well with a permanent disability, although they may not rebound all the way back to their former emotions. A major disability leaves people less happy than average, yet much happier than able-bodied people with depression.

We overestimate the duration of our emotions and underestimate our resiliency and capacity to adapt.

Wealth does correlate with well-being. Individuals with lots of money are typically happier than those who struggle to afford life's basic needs; they enjoy better health than those stressed by poverty and lack of control over their lives. People in rich countries also experience greater well-being than those in poor countries.

When money covers the cost of hunger and hopelessness, more money than that does less to increase our feelings of happiness. This is because of the diminishing returns phenomenon. Experiencing luxury diminished our savoring of life's simpler pleasures.

The power of more money to increase happiness is significant at low incomes and diminished as income rises. The average American, though certainly richer, is not a bit happier. Economic growth in affluent countries has provided no apparent boost to morale or social well-being.

Ironically, in every culture, those who strive hardest for wealth have tended to live with lower well-being, especially when those hard-driving people were seeking money to prove

themselves/show off rather than support their families. Those who strive for intimacy and personal growth experience a higher quality of life.

Adaptation-level phenomenon: our tendency to form judgments (of lights, sounds, incomes) relative to a neutral level defined by our prior experience.

We adjust our neutral levels based on our experience. We then notice and react to variations up or down from these levels. So if our current condition improves, we feel an initial surge of pleasure and then consider this new level normal and require something even better to give us another surge of happiness.

Feelings of satisifaction and dissatisfaction, success and failure are judgments we make based on our prior experience.

Relative deprivation: the perception that one is worse off relative to those with whom one compares oneself.

When expectations soar above attainments, the result is disappointment. Just as comparing ourselves with those who are better off creates envy, so counting our blessings as we compare ourselves with those worse off boosts our contentment.

Happy people share many characteristics. Genes matter, meaning happiness is heritable. Our personal history and our culture matter, too. Our emotions tend to balance around a level defined by our experience. On the cultural level, groups vary in the traits they value. Self-esteem and achievement matter more to Westerners, who value individualism. Social acceptance and harmony matter more to those in communal cultures (Japan) that stress family and community.

Depending on our genes, our outlook and our recent experiences, our happiness seems to fluctuate around our "happiness set point", which disposes some people to be more happy and others more negative. Our satisfaction with life is not fixed. Happiness rises and falls and can be influenced by factors that are under our control. Relationship quality matters.

Policymakers should be interested in the positive benefits for the society as a whole. Happy societies are not only prosperous, but also places where people trust one another, feel free and enjoy close relationships. Thus when debating the minimum wage, economic inequality, tax rates, divorce laws, health care and neighborhood planning, people's psychological well-being should be a prime consideration – a point now affirmed by the Canadian, French, German and British governments, which have added well-being measures.

To study how stress and healthy/unhealthy behaviors influence health and illness, the interdisciplinary field of behavioral medicine was created. It integrates behavioral and medical knowledge. Health psychology is a subfield that provides psychology's contribution to behavioral medicine. Stress often strikes without warning and we become overwhelmed.