Sy1102 g introduction to applied psychology

War, Intelligence

SY1102 G — Introduction to Applied Psychology Chapter 4 I-Introduction - Is it nature or nurture that defines us? o Nature — genes, heredity o Nurture — everything else that is not genetic (experience, environment) - Both are equally important in shaping who we are. There is also an interaction between the two. STUDY NOTES ONLY II — The Nature Component A) Genes: - 46 chromosomes, 23 pairs. - Genes carry DNA, which consists of thousands of genes amongst other things. - Genes = Basic Unit of Heredity - Gene complexes are genes working together to produce a trait or disease. - 4 Nucleotides: o Adenine (A) o Thymine (T) o Guanine (G) o Cytosine (C) - The sequence of nucleotides determines what a specific gene does or does not do. o Chromosomes = Books o Genes = Words o Nucleotides = Letters - People are 99. 99% similar to each other - Repartition of the 0. 01% difference: o 5% differences among “ races" o 95% differences within a “ race" - Us compared to: o Monkey: 95-98% similar o Mouse: 80% o Banana: 50% o Fruit Fly: 44% o Daisy: 30% NOTES ONLY B) Evolutionary Psychology (EP) - What is EP? o It is the newest perspective in psychology. Heavily influenced by Darwin and his Theory of Evolution. The main goal for an organism is to survive and transmit genes to the future. Natural Selection (Only the fittest will survive) o Our capacity to adapt is what makes us so strong. Clark & Hatfield s - Sent male and female average looking assistants out into public. When they see someone that is attractive, they asked them if they want to go to bed with them. Almost 100% of women said no, and a lot of men said yes. Why? - According to EP, men and women have the same goal but different strategies. Women would prefer to have a partner to ensure survival of the baby. Therefore they don’t prefer to have recreational

sex. EARN A POINT If women are not into recreational sex, whom are the men sleeping with? 18 societies that we know of, women are encouraged to have multiple partners. NOTES + EARN A POINT C) Behavior Genetics C. 1. Introduction - Interaction between nature and nurture, people are interested in understanding individual differences. C. 2Twin Studies: - Two types of twins: monozygotic twins and dizygotic twins - Monozygotic: o 1 egg, 1 sperm, same sex, 100% genetically similar - Dizygotic: o 2 eggs, 2 sperm, 2 embryos, same or opposite sex, 50% genetically similar - Rationale: o If a behavior has a genetic component, then an identical twin should be more similar compared to fraternal. - If 1 is diagnosed with Alzheimer's disease, then the other twin has a 60% chance of being diagnosed with the disease. - Fraternal twins are 30% for Alzheimer's - Twin studies were criticized; identical twins share the womb, school…etc. They have the same environment. - The solution was to study twins reared apart, run by Bouchard - This was eve criticized saying that even random strangers will have similarities if you go through enough stuff. - Solution: - Study Identical Twins similarities and compare it to Strangers similarities - CONCLUSION: o Even though I. D. twins reared apart are less similar than I. D. twins reared together, they are still more similar to each other than fraternal twins reared apart C. 3 Adoption Studies - Rationale: o An adopted child has two sets of parents: - Share genes with biological parents - Share environment with adoptive parents - Results: o Even though adoptive children don't share the environment with the biological parents, their personality is more similar than the adoptive parents. C. 4 Family Studies - Rationale: o Family members are more genetically similar than strangers - Regular siblings: 50%

genetically similar - Parents: 50% genetically similar - Grandparents: 25% genetically similar - Cousins: 12. 5% genetically similar - If a behavior has a genetic component, then people who are genetically similar should be more similar than strangers. NOTES ONLY FOR ABOVE C. 5 Temperament Studies - Definition: o Temperament studies is the typical way to emotionally respond to life *Seems to be a genetic component (from birth there are differences in temperament) - Easy Babies: (40%) - Slow-to-warm babies (15%) - Difficult babies: (10%) - Combination: (35%) - Physiological Studies: o Difficult Babies — higher heart rate, etc. ...therefore a genetic component - Nurture is very important in affecting temperament - American babies are more positive than Asian and Russian Babies C. 6 Heritability - Definition: o The extent to which differences between individuals are due to genetics - h2= heritability coefficient - h2= Variancegenes/ (Variancegenes + Varianceenvironment) - h2 varies from 0 to 1 o h2 = 0. 0 â†' no genetic influence o h2 = 1. 0 â†' all variance is due to genetics o h2 = 0. 4 â†' 40% genes, 60% environment - When environment is similar, h2 will be high - When environment is different, h2 will be low - Just because individual differences are heritable, it does NOT mean that differences between races, gender, generations are heritable. C. 7 Nature and Nurture Interaction - Genes may need the environment to turn them on - Environment can turn off genes that are active - Ex. Rats have to smell, see and hear their baby rat to nurture them. D) Molecular Genetics - Study DNA - Pros: o Can follow genes and prevent diseases, cancer, etc. - Cons: o If a gene is identified, people may abort babies, pilots are refused due to health problems, etc. III. The Nurture Component A. Prenatal Development - Nurture begins at the moment of conception - From

conception to birth - Safety of the womb is not 100% - Even though twins share the womb, they don’t necessarily share the same environment B. Experience and Brain Development B1. Experience Facilitates Brain Development - No matter what potential you are born with, it won’t reach its full potential without experience - Without stimulation from the surroundings, the brain will not develop properly B2. Experience Changes the Brain - The human brain will change with experience - Study: o Rats with more resources (toys, bigger cage, etc.) had thicker heavier brain and more neuron connections - High school drop out vs. University Student o 40% more neurons C. How Much Credit or Blame Do Parents Deserve? D. Peer Influence - Peer: people of the same age or maturity level - Importance of peers: o Can be traced as far back as infancy o How babies act towards other babies is a strong indicator of later life o Children with no peers create invisible friends o Children rejected/bullied by peers, they suffer mentally - Growing interaction = growing influence o Risk taking behaviours heavily influenced by peers - Selection effect: - If you re interested in smoking, for example, you will move towards peers that smoke - Parents can influence children in 3 different ways: o They choose where to live, what school, etc. o Parent-child interaction influences peer-child interaction o Advice on how to handle peer relationships E. Culture - Study on your own. IV. The Nature and Nurture of Gender - Gender similarities and differences ******* FINAL EXAM - The sex chromosome o XY - Mom contributes only to the X - Dad contributes to either the X or Y - XX= female, XY= male - The first few weeks of life in the womb o Not differences between male or female o Gene on the Y chromosome called SRY about the 7th week, which creates testes o Hormones influence

brhaviour and identity o Women (if lots of testosterone) will have more masculine behaviours (interests in women, genitalia more masculine) o Men (cells don’t respond to testosterone) III. The Nature and Nurture of Gender - The role of culture and society - Gender Identity: o Strong psychological sense of maleness or femaleness - Gender Roles o Varies from one culture to another, as well as varying over time - Gender Type: o Adoption of traditional role by a man, or adoption of traditional role by a female - Learning about Gender o Social learning theory o Gender schema theory - Do not accept that we learn through observation, etc. Don’t think the SLT goes far enough. Children taking in and organizing information. Ex. Boys don’t play with dolls, therefore I shouldn’t play with dolls Chapter 5: Human Development I. Introduction - Developmental psychology o Studies how we change/develop across the lifespan - Patterns of change from the moment of conception to the moment of death - The 4 major issues of developmental psychology: o Nature/Nurture o Nature of Development (Is development continuous or occurs in stages) o Stability vs Change (Traits) o The Impact of Early Experience II. Prenatal Development and the Newborn A. Conception - 200 million sperm - Releasing enzyme to break the protective layer and 1 sperm is taken in - Once the sperm is taken in, the protective layer is reformed - 1 out of 5000 eggs will mature - Fewer than half of the fertilized eggs will survive past 2 weeks B. Prenatal Development B1. Three Stages of Prenatal Development - The germinal Stage o First two weeks o Refer to the baby as a zygote o When the baby is born, the zygote would have split into trillions of cells o Travels from the fallopian tube to the uterus o Zygtoe attaches to the wall of the uterus - Embryonic Stage o 3rd week to the 8th week o Placenta

will form o Nervous system is formed o Heart will begin to beat o Limbs begin to form - Fetal Period o Week 9 to the birth of the baby o Organs mature further o Muscles undergo significant changes o Explosive brain changes o 250000 neurons a minute o 28 weeks and up, a baby can survive on its own B2. Environmental Influences - Teratology o Studies the causes of birth defects - Teratogen o Any substance that causes a birth defect - Maternal factors o Prescription and non- prescription drugs o Psychoactive drugs o Infectious diseases (HIV, Herpes etc) o Nutrition o Emotional States and Stress o Age o Temperature o Exposure to Environmental Hazards - Minimata Disease o Lots of factories dumped stuff into the bay o High levels of mercury in fish from the bay o Babies became retarded, etc. - Paternal factors o Low in Vitamin C o Smoking o Exposure to radiation o Age C. The Competent Newborn - Methods of study: o Brain waves o Sucking response - Suck fast to hear a story mom read while in the womb, or slow to hear a different story o Orienting reflex o Habituation III. Infancy and Childhood A. Physical Development - Maturation: o Genetically determined process o When growth will take place o What rate it will take place - Maturation and memory o Childhood amnesia: - Not remembering the first year of life - Motor development o READ FROM BOOK - Brain Development o At birth many of the connections have not formed yet B. Cognitive Develoment - Cognition o A higher order mental process used to understand and adapt to the world - Jean Piaget o Most influential psychologist in the 20th century o NOT a psychologist, but a biologist o Studied for 50 yeas o Children are not little people, the mind is different than that of an adult o Children are not “ soaking things in", they are active learners - Assimilation: new experience

fits into existing schema - Accomidation: the child will change the existing schema to fit in the new experience - Accomidation occurs in 4 stages o Sensorimotor Stage (0-2yrs) - Uses senses and motor ability in order to acquire knowledge - Major achievement: Object permanence o Preoperational Stage (2-7yrs) - Animism, egocentrism, literal thinking, symbolism - Major limitations: - Unable to perform mental operations - Concentration (focus on 1 aspect and disregard all other aspects) - Conservation (an object remains the same, even though some of the superficial properties have changed) o Concrete Operational Stage (7-12 yrs) - Can perform concrete mental operations - Concentration and conservation are not a problem o Formal Operational Stage (12 yrs and up) - Abstract, theoretical thinking - Theory of Mind - Autism - ^^Earn A Point ^^^ - C. Social Development C. 1 Attachment - Attachment has survival value - Factors that facilitate the development of attachment o Body contact o Familiarity o Responsiveness C. 2 Self-concept - Self awareness - Self concept infleunces actions - Parenting Styles: o Warm dimension: - Warmth vs shaming/abusive o Control dimension - Supervised vs free roam - Authoritarian Parents o High on control o Low on warmth o Dictator like fashion o Enforce rules with threats - Permissive Parents o High on warmth o Low on control - Authoritative Parents o High on control and warmth o Strict rules, but they do it with respect to the child o Punishment fits the crim o Open to discussing the rules with the kid - Uninvolved parents o Low on control o Low on warmth IV. Adolescence A. Introduction - Period of time between childhood and adulthood - Period of adolescence is becoming a larger span of time - Correlates of earlier puberty: o health and puberty o

presence of hormones in the food supply o when Dad is absent, puberty occurs earlier o Obesityâ†’enter earlier o Stepdad, boyfriend, etc. â†’ girls tend to enter puberty earlier B. Physical Development - Puberty o Primary sexual characteristics will develop (enlarge and become mature) o Secondary characteristics will develop (change in voice, development of breasts) - Landmarks of puberty: o Spermarche (wetdream, first ejaculation) o Menarche (first menstrual cycle) - Early Maturations o Boys: - Stronger, popular, leadership roles, parents tend to show more respect - More likely to do risk taking behaviour o Girls: - More conflict with parents, sexually harassed by older boys, social disruption, higher risk of pregnancy, eating disorders, depression, higher risk of unhealthy weight gain - The adolescent brain o Has not finished maturing yet o Frontal lobes C. Cognitive development C. 1 Developing Reasoning Power - Piaget's formal operational stage - Imaginary audience (others are judging me, more self conscious) - Personal fable o Tendency to believe they are unique o Believe they are indestructible and immortal - Idealism o Easily disappointed with themselves and others, they do not accept imperfection C. 2 Developing Morality - Importance o Individuals who respect laws, etc. make a better place for society to live in - 3 aspects to developing morality o Moral thinking - Type of reasoning we engage in when thinking of what is right and wrong - Kohlberg: How does it develop? - Preconventional level o Driven by self interest - Conventional Level o Rules of society, family, culture, and law of the land influence thinking - Postconventional level o Own self chosen values based on universal ethical principles o Moral thinking - Social Intuitionist - Moral feelings come first ahead of moral thinking o Moral Action - Gap between

attitude and action D. Social Development - Forming and identity - TABLE 5. 2 IS A MUST FOR FINAL ****** - Path to identity: o Some people adopt family values, ideas, etc. D. 2Separating from parents - The real “ rebellion" heated argument over control - Most admire/respect parents - 97% reported they got along fairly or very well with parent - NOTES AND BOOK ABOVE Prenatal NOTES ONLY Experience & Brain Development NOTES AND BOOK Parental Influence BOOK Peer influence NOTES Culture EARN A POINT (In Depth!) The Nature and Nurture of Gender NOTES AND BOOK Reflections NOTES ONLY Chapter 5 Intro NOTES ONLY Prenatal Deve. NOTES Infancy Childhood NOTES AND BOOK Cognitive Development EVRYTHING FROM NOTES EXCEPT FOR: Reflections from Piaget, and earn a point are FROM BOOK Social Development NOTES AND BOOK Adolescence Intro NOTES, Physical Deve. NOTES, Cognitive deve: C. 1 NOTES ONLY C. 2 NOTES AND BOOK Social Deve. NOTES AND BOOk Erikson Table V. Adulthood A) Physical Development 1. Middle Adultohdd - Women â†’ Menopause o Signals the end of the reproductive capacity o Majority of women report doing better than ever after menopause o Menopause does not increase the risk of depression - Men o Gradual decline in testosterone level, sperm count, ejaculation, sexual drive - Both men and women continue to engage in sexual activity and enjoy sex until they die. o Unless lack of partner o Society tells them they are too old o Physical disability NOTES 2. Old Age - Fastest growing segment of the population - In 1950, the average life expectancy in the West was 49 - Today: 75+ - By age 100, the female: male ratio is 5: 1 - Decline of sensory abilities - Men are more likely to have hearing problems compared to women - Immune System o Elderly has an experienced immune system o Weakened

immune system: more vulnerable to chronic long term illnesses o Only 5% over the age of 65 live in homes - Brain o Speed of formation process will slow down o Shrink with age o Last areas to mature are the first to age (frontal lobe) - Dementia (group of systems that are linked and associated with change in the brain) - Alzheimer’s Disease (a form of dementia) o Not a normal part of aging o Disease that will relentlessly and progressively destroy the neurons of the brain o Acetylcholine neurons are the first ones to be destroyed - Prevalence: o Age 64-75: 3% o Over 85: may be 50% - Causes of Alzheimer’s Disease o Causes — unknown o Genetics - Early Onset Alzheimer’s (30-60): linked on chromosomes 21, 14 , 1 - Late Onset (age 60+) linked on chromosomes - Other Possible Risk factors o High cholesterolâ†’higher risk for Alzheimer’s o Chronic Inflammation in the body â†’ linked to Alzheimer’s o Free Radicals (unstable molecules) o Hormones o Diet o Weight B) Cognitive Development 1. Memory - Is memory a recall or recognition? o Decline in recall, no decline or minimal in recognition - Everyone ages differently 2. Intelligence - First studies indicated that intelligence did decline: cross-sectional studies - Then the longitudinal studies say that intelligence does not decline with age Crystallized Intelligence - Stored Intelligence - Increases with Age Fluid Intelligence - Type of intelligence engaged when solving novel problems, attempting to recognize patterns - Peaks in young adulthood, and then slowly decrease around 75, and decreases sharply around 85 EARN A POINT Social Development — always questions on the final exam VI REFLECTIONS - Japan has the longest lived and healthiest seniors on earth - Traditional Japanese diets are very healthy - Elderly are very well respected NOTES AND BOOK

MIDTERM Appears easy but it is not Must study notes and the book Don’t just memorize, study to understand Trick — sit down to study, pretend you are the teacher Multiple choice, one or two questions long answer Between 50 and 60 questions Chapters 4, 5, and 10 Chapter 10 — Intelligence 1. What is Intelligence? A) Definition: hundreds of definitions for intelligence. Thinking rationally and solving problems is linked to intelligence. B) One or Several Intelligences? NOTES B. 1 The Factor Analysis Approach - psychometric approach - Factor Analysis is a very powerful statistic procedure - Statistical procedure used in order to identify common factors among clusters of test items - Spearman â†’ cofounder of factor analysis o A specific intelligence is defined as “ g" (general intelligence o “ s" (specific abilities) NOTES B. 2 Contemporary Approach Gardner: Multiple Intelligence: - Logic: o Neurologically separate - If someone has an accident and has brain damage, they lose some abilities but not all. â†� Great indicator that we have multiple intelligences according to him. - Savants: o Super brilliant in one or more areas, but in the same time they have way below average intelligence in other ways - Prodigies: o Super brilliant in somethings, but average in others - Different abilities develop among different courses - The intelligences: o Linguistic (smart with words) o Logical-mathematical o Musical o Bodily-Kinesthetic o Spatial o Interpersonal o Intrapersonal o Naturalist (understand environement) o Existential NOTES Sternberg’s Approach: - Analytical Intelligence (book smart) - Creative Intelligence (thinking outside the box) - Practical Intelligence (solving everyday life problems) NOTES 3. Emotional Intelligence (EQ) - Mayer, Salovey & Caruso (coined the term EQ) o People who have a high IQ are not the most

successful in life - Knowing your emotions - Understanding emotions - Managing your feelings - Self-motivation - Delay of gratification - Recognizing other’s emotions - Managing other’s emotions NOTES AND BOOK Main text + Chapter Review C. Intelligence and Creativity C. 1 Creativity and IQ - Link between creativity and IQ o Up to and IQ of 120, there is a correlation between creativity and IQ C. 2 Components of Creativity - Expertise - Nonconformity - Curiosity - Persistence - Divergent thinking - Intrinsic Motivation - A creative environment II. Assessing Intelligence A. Origins of Intelligence Testing B. Modern Tests ^^^^^^^^^^EARN A POINT^^^^^^^^^^^ C. Principles of Test Construction - Standardization o Large group representative of the population you are interested in o Use the scores of the specific people to determine norms, standards, averages, etc. - Reliable o Test will produce consistent results when it is given to the same group of people time and time again o Test-retest - Give the test at time 1, and at time 2 (Look to see a correlation between time 1 and 2). Higher the correlation, the better reliability. o Split half (Part 1 at time 1, and part 2 at time 2) - Validity o Does it predict what it is supposed to be predicting? o Content validity o Predictive validity NOTES AND BOOK D. Is Intelligence Neurologically Measureable? D. 1) Brain Size - Highly educated â†’ more synapses - Einstein’s brain - Some areas were a little bit smaller than an average Canadian’s brain - Parietal Lobe’s were larger than the average Canadian’s brain D2) Brain Function - Reaction time - People with high IQ have shorter reaction time, indicating they process information faster - Inspection time: How long before you understand and answer the stimulus o The inspection time is smaller for people with higher IQ - Brain Waves o The

brain waves of people with high IQ are faster and more complex than people with lesser IQ - Glucose consumption o Simples task is asked to sovle: - High IQ, the brain is not working that hard; more efficiently - Low IQ, the brain is working hard, using a lot of glucose - Glutamate (pill to increase glutamate) o Cognitive functions will improve - Dopamine o Cognitive functions will improve NOTES III. The Dynamics of Intelligence A. Stability & Change - This section is not on the midterm but a must for final - Study point 8 in the chapter review section B. Extremes of Intelligence - This section is not on the midterm but a must for final - Study in the main text plus point 9 in the chapter review IV. Genetic and Environmental Influences A. Genetic Influences o Twin Studies o Adoption Studies o Genes? - Heritability NOTES B. Environmental Influences - Gave orphan’s IQ test, found they were mentally challenged - Took the worst of the group - Gave them 1-1 help - Then put them up for adoption - IQ scores increased by 30 points on average - Schooling Effects o During the school years they have higher IQ numbers compared to the summer years - Positive correlation between schooling and IQ NOTES AND BOOK C. Group Differences in Intelligence Test Scores - Ethnic Differences o Whites have scored higher on IQ test than blacks historically o Babies: - Research: No significant differences between black or white babies in terms of IQ o Ancestry o Socio-economic status - Poverty makes a difference for IQ - Poor children do not do as well as well off children in the IQ test o Discrimination - Any group that is discriminated against tends to perform lower on the IQ test than the group doing the discrimination o Attitudes o 10-15 points smarter than your Grandparents NOTES ONLY - Gender Differences o No significant IQ score differences between men and

women o Women tend to better on verbal abilities o Spatial abilities (reading maps, etc) Men tend to do better o Emotion-detection ability…women are better - Differences between groups are ALWAYS smaller than the differences within a group NOTES AND BOOK D. The Question of Bias - Are IQ tests biased? o Yes - Reflect the knowledge, values and culture of the people who develop them o No - Statistical sense - Good predictive validity - We can use IQ scores and predict with a certain degree of confidence whether you will do well in school or not - Stereotype Threat o Negative stereotype about your group is activated; you may think they will judge me on this stereotype. Because of this anxiety, you will end up doing poorly - Stereotype Lift o Positive stereotype is activate, it will improve your performance TWO QUESTIONS ON THE MIDTERM - Use your knowledge of evolutionary psychology to answer: o 4 grandparents, which one of them will spend the more time, more money and most energy - IQ = Adult Shoe Size * 13 o Is this a valid measure? NOTES AND BOOK MIDTERM Chapters 4, 5 and 10 Chapter 12: Stress and Health (pg 527-549) I. Stress and Illness A) Introduction - 1900’s…dying from: tuberculosis, pneumonia, diarrhea - Today…dying from: Heart disease, cancer, stroke - Half of the mortality rate in North America is due to bad health habits and bad behaviors - Behavioural Medicine: combine psychological and medical knowledge in order to address issues pertaining to health. o Health Psychology — psychology contribution - NOTES B) Stress and Stressors B. 1) Definition - Cycle, biological process that has both physiological and psychological components - How you perceive a certain situation and it’s outcomes B. 1) The Stress Response System - Canon: Both animals and humans; when faced with stressful situations,

stress hormones are released: Epinephrine — Norepinephrine - “ Fight or Flight" theory - Selye: General Adaptation System (GAS) - Spent 40 years of his life on stress - Coined the term “ stress" - The body will go through 3 phases in a sequential way: o Alarm Reaction: - First facing the stressor, body goes into fight or flight mode o Resistance Phase: - Body will do anything to face the stressor, more vulnerable to diseases like asthma, etc. o Exhaustion Phase: - Resources of the body are depleted - Can not cope with stress - Very vulnerable to diseases, organ’s may fail and death may occur - Adrenal Glands: o Sitting on top of kidneys, release a number of different stress hormones o Cortexâ†’Hypothalamusâ†’Spinal Cord, Sympathetic Nervous Systemâ†’Adrenal Medullaâ†’Epinephrine, Norepinephrine (Fast acting system) o SECOND SYSTEM o Cortexâ†’Pituitary Glandâ†’Adrenal Cortexâ†’Cortisol (Slow acting system) B. 3) What Causes Stress - Stressful life events: o Catastrophes o Significant life changes o Daily Hassles o Social and Cultural o Conflict - Approach-approach conflict (Would I rather go to NYC or Florida?) - Approach-avoidance (Love the environment, new hybrid car that you want…way to expensive and it will hurt me financially) - Avoidance-avoidance (Fire in the apartment building, you are on the 30th floor. You can go and catch fire, or jump out the window) - Perceived Control o I can deal with the stress, and if I can’t, I can deal with my emotions o I am in control NOTES C. Stress in the Heart C. 1) Freidman and Rosenman - 1956 - 1st Study - Did a study on men and women for heart disease - 2nd Study o Did test on men on the job, around September their cholesterol levels were normal. Around the April time when the job got really busy, they did another blood test, and their cholesterol studies were sky high - 3rd Study o Type A

(Highly motivated, verbally aggressive) o Type B (Easy going) o Out of the 2000 men studied, 257 died after 9 years o 67% were type A o 0% were type B C. 2) What is it about Type A? - Unhealthy Behaviours o Smoke more, drink more coffee, coke, etc. o Temperament o Negative emotions â†’ Angry C. 3) Other toxic Emotions - Pessimism - Depression - 180 nuns â†’AGE 22 o write a small autobiography o noticed two groups of nuns - depressed nuns - happy nuns o Happy nuns tended to live 7 years longer than the other nuns o By age 80, 54% of the depressed nuns died versus 24% of the happy nuns NOTES AND BOOK CHAPTER 13 REVIEW D. Stress and Susceptibility to Disease D. 1) Stress and the Immune System - Macrophages o First line of defense o Destroy foreign cells by ingesting them, or deliver them to other cells to kill them - B-lymphocytes o Born and mature in the bone marrow o Release antibodies o Go after bacteria and viruses - T-lymphocytes o Born in the bone marrow but mature in the thymus o Go after infected cells and cancer cells, as well as bacteria and viruses - Natural Killer cells o Protect us from the cancer cells and the proliferation of viruses - Helper T-cells o Targeted by HIV virus that causes aids - Stress weakens the immune system NOTES AND BOOK D. 2) Stress and AIDS - Cause by HIV virus - Transmitted through bodily fluid NOTES AND BOOK D. 3) Stress and Cancer - Injected all rats with a type of cancer that 50% of the rats will develop cancer - Divided random into 3 groups o Zapped the first group of rats, control over the shock (they can turn it off) o Zapped the second group with no control over the shock o Third group was just normal - Control over the shock : 30% developed cancer - No control: 70% developed cancer - Nothing: 50% developed cancer NOTES II. Promoting Health A.) Coping with Stress - Coping

can be adaptive and maladaptive - Problem focused coping o What is the problem and what am I going to do about it - Emotion focused coping o Focus on the emotions that were triggered from the stressful situation - Reappraising the problem o “ It’s not the end of the world if I am not accepted to med school, there are other things I can do" - Learning from experience - Making social comparisons - Cultivating a sense of humour - Perceived control - Learned Optimism B.) Managing Stress B. 1) Aerobic Exercise - Sustained physical activity that increases heart rate - Health: Strengthens Immune System o Lowers heart disease by 30% o Reduces risk of stroke by 400% o Colon Cancer 66. 67% o Breast Cancer by 200% - Brain: Nerve Growth Factors (NGF) o Protect the brain from free radical damage o Rescue neurons from imminent death o Encourage neurons to form new branches o Enhances nerve regeneration Stress: - Increases the levels of: o Norepinephrine o Serotonin o Dopamine o Endorphins - Lowers: o Depression B2. Biofeedback & Relaxation and Meditation - Meditation: o Lowers: - Physiological arousal - Blood pressure - Heart rate - Stress hormones - Blood lactate o Shuts down: - Fight or flight response o Increases: - Melatonin - Attention and focus o Decreases: - Biological age NOTES AND BOOK B. 3 Social Support - Quality of relationships o Accepted, respected, appreciated o We are happier, healthier, etc. - Toxic Relationships o Worse than smoking - Being Judged - DNA o Telomers - Stretch of DNA at the end of chromosomes…protect them from deteriorating o Genetic Alterations - Health enhancing genes are suppressed o Nurture: - Fantastic social support: - Higher left frontal lobe activity - Not great social support: - Higher right frontal lobe activity (linked to depression, etc.) o A good marriage at age 50

predicts healthy aging better than low cholesterol levels B. 4 Spirituality - If you go to church regularly, you are going to live on average 8 years longer NOTES Chapter 13 — Personality EARN A POINT!!! BIG ONE! Pg. 553-572 Minimum of 10 questions on the second midterm, a fifth of the midterm Part of Contemporary Research on personality BIG 5 TRAITS Personality: - Typical way we think, typical way we feel, and typical way we behave III. Contemporary Research on Personality A.) The Trait Perspective â†’ See Earn A Point Evaluating the Trait Perspective - Mischel blasted trait theory o Trait theory does not take into account the environment o Another major criticism, traits do not influence and affect behaviours like trait theory describes. - Mischel's critique created: o The person-situation controversy - Different situations, different behaviours. - Symour Epstein o Mishcel was right and wrong - We can use trait's not to predict specific behaviours, but behaviours on average B. The Social Cognitive Perspective Introduction: - Bandura o According to the SCP, your personality is a result of a complex interaction between social and cognitive factors o Learning o Conscious cognitive processes o Self-efficacy beliefs - Do you feel you are able to perform adequately, confidently etc. â†'high self efficacy beliefs o Situation-Environment - Different situations, different reactions B. 1 Reciprocal Determination Aâ†'B Bâ†'A - Both variables influence each other - Good moodâ†'positive thoughts Behaviour, Internal Influences, External/Environmental Influences â†' In a triangle with two way arrows connecting all of them - 3 ways in which indiviuals and their environment interact o Different people choose different environments o Our personality shapes how we interpret and react to the environment o Our personality

helps create situations to which we react B. 2 Personal Control - Locus of control o Internal vs. External - External: believes that something outside of themselves are in control - Internal: Captain of their own ship. Through their own actions they can create circumstances of their life - Learned helplessness o Exposed to a situation uncontrollable - Become helpless, hopeless and stop trying - Optimism has to be balanced with healthy decisions B. 3 Assessing Behaviours in Situations - What is the best way to predict future behavior? o Past Behaviour B. 4 Evaluating the Social Cognitive Perspective - Relies heavily on research - Sensitizes researches on how situations affect people and how people affect situations - Forgets about: o Traits, emotions, unconscious motives C. The Biology of Personality - Genes o Seems to be a genetic component to personality - Brain o Structure & Function: o Neurotransmitters - Some people when they take anti depressants, become less anxious and become more outgoing o Sensation seekers need to go far to reach pleasure pathways activated III. Exploring the Self - Possible selves o Part of your self concept that you have not developed yet - Spotlight Effect o We feel that others pay more attention to us as we actually do - Self-focus and memory o Make up a story and put yourself in it, you will remember it better - Self-esteem - Self-serving bias: o Own our strengths and distance from weaknesses - IV. Reflection - Bio-psycho-social perspective o Looks at multiple factors NOTES