

[JOURNAL TWO]

[Psychology 200]

[My thoughts, questions, and short analysis of our class topics, related learning links and discussions]

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4/16/2013



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MARCH 4 – DEVELOPMENTAL SCIENCE, PART II

Today we had student presentations on the developmental milestones in the lifespan of humans.

1. Prenatal: The first cells are forming and this is the most important time for the parents' bodies to be in prime condition since the child will inherit their chemical state. The group presenting this stage covered the milestones quite well, although I feel that they strayed into the biological processes slightly more than necessary.
2. Infancy: This is the stage when humans first begin learning about motor control and developing trust. I think the group presenting this stage extended the age range slightly too far in both directions – they touched on prenatal and extended well into toddlerhood and even into childhood.
3. Toddlerhood: This is the stage when humans begin making decisions and learning concepts such as if-then/action-consequence. Humans also begin understanding a world beyond their own self and desires. The group presenting this stage (my group) touched the important milestones, but did not go into detail about the various stage theories as we were trying to observe the 7 minute time-limit.

4. Childhood: Humans begin to desire independency and autonomy as they have begun to learn about in toddlerhood. They are able to communicate quite effectively, although emotions are still loosely regulated. The group presenting this stage touched on important milestones and explained theories well.
5. Adolescence: At this stage, humans have begun understanding sexuality and sexual interests, social and power roles, and exploring their “self”. The group presenting this stage touched on important milestones and mixed in personal stories, which helped make it more memorable.
6. Early Adulthood: This is the stage where successfully developed people have begun understanding themselves and are looking for strong friendships and relationships. This is the prime time for conception as the body is at its peak, if it is well maintained. The group presenting this stage made a point to mention the importance of not developing bad habits and maintaining a good diet.
7. Middle Adulthood: The stage when the body and mind are working well together. Humans seek status, but are comfortable with their “self”, for those who have developed successfully. The group presenting this stage made many good points about the importance of exercise.

8. Mature Adulthood: The stage when the body begins to decline in development and must use the resources collected over the other stages. It is harder to heal from injuries, but common colds are easier to avoid. The group presenting this stage struck a good balance between explaining the biological processes in the body and cognitive development.

A very nice table showing Freud and Erikson's developmental stages (Feldman, 2011 , p. 15)

TABLE 1-3 Freud's and Erikson's Theories

Approximate Age	Freud's Stages of Psychosexual Development	Major Characteristics of Freud's Stages	Erikson's Stages of Psychosocial Development	Positive and Negative Outcomes of Erikson's Stages
Birth to 12–18 months	Oral	Interest in oral gratification from sucking, eating, mouthing, biting	Trust vs. mistrust	<i>Positive:</i> Feelings of trust from environmental support <i>Negative:</i> Fear and concern regarding others
12–18 months to 3 years	Anal	Gratification from expelling and withholding feces; coming to terms with society's controls relating to toilet training	Autonomy vs. shame and doubt	<i>Positive:</i> Self-sufficiency if exploration is encouraged <i>Negative:</i> Doubts about self, lack of independence
3 to 5–6 years	Phallic	Interest in the genitals; coming to terms with Oedipal conflict, leading to identification with same-sex parent	Initiative vs. guilt	<i>Positive:</i> Discovery of ways to initiate actions <i>Negative:</i> Guilt from actions and thoughts
5–6 years to adolescence	Latency	Sexual concerns largely unimportant	Industry vs. inferiority	<i>Positive:</i> Development of sense of competence <i>Negative:</i> Feelings of inferiority, no sense of mastery
Adolescence to adulthood (Freud) Adolescence (Erikson)	Genital	Reemergence of sexual interests and establishment of mature sexual relationships	Identity vs. role diffusion	<i>Positive:</i> Awareness of uniqueness of self, knowledge of role to be followed <i>Negative:</i> Inability to identify appropriate roles in life
Early adulthood (Erikson)			Intimacy vs. isolation	<i>Positive:</i> Development of loving, sexual relationships and close friendships <i>Negative:</i> Fear of relationships with others
Middle adulthood (Erikson)			Generativity vs. stagnation	<i>Positive:</i> Sense of contribution to continuity of life <i>Negative:</i> Trivialization of one's activities
Late adulthood (Erikson)			Ego-integrity vs. despair	<i>Positive:</i> Sense of unity in life's accomplishments <i>Negative:</i> Regret over lost opportunities of life

MARCH 18 – COGNITIVE SCIENCE, PART I

In class today we began learning about the Cognitive Sciences. After the summary and one-minute motivator, Alex presented his weekly research and the topic was on Howard Gardner's Multiple Intelligence Theory. Gardner's theory showed the flaws of popular “IQ” tests by introducing the many different areas of intelligence that are independent of one another. We will cover this more in-depth tomorrow, as it is a strong part of learning what “Intelligence” is, and how to “test” it.

The lecture began with the foundation of what Cognitive Science is, where/how it began, and what it encompasses. Dr. Rosalyn King says in a 2009 Oxford Round Table report

that “The Cognitive Sciences have been evolving from the beginning of philosophy and epistemology.”

“Why do we question?”

(King, 2009) The Cognitive Sciences is an integration of many disciplines, theories, models and concepts. In lecture, we learned how the first decade of the Cognitive Sciences brought ideas such as the importance of interdisciplinary concept of sciences and empirical responses to science.

Important new theories to the Cognitive Sciences were examples such as Locke's “blank at birth” theory, and Descartes' opinions on “Man = Machine” - a foundation for Artificial Intelligence and Computer Science.

Linguistics, the study of human language, is important to psychology – specifically Developmental Psychology. Chomsky, a linguist and cognitive scientist, says that linguistics is a “branch of cognitive psychology” (Chomsky, 1972, p. 1) although some disagree (McDonald, 2003). A theory specific to linguistics is Chomsky's Innateness Hypothesis, which states that at least some linguistic knowledge exists at birth for humans. This clearly conflicts with Locke's tabula rasa theory which states that the human mind is a “blank slate” at birth, possessing no knowledge at all. These are only two of many persons important to the Cognitive Sciences; Piaget, Kant and James are all more examples of this. Sternberg and Gardner are two names important specifically to Intelligence, which will be covered more in-depth next week.

We also learned about the relationships between learning, thinking, and language. A few examples can be seen in this table:

Learning	Thinking	Language
Classical conditioning	Frontal lobe	18-24 months - puberty
Operant conditioning	Creative	Learning
Observational learning	Critical	Cognitive view

Memory was discussed in class, and the name Oliver Sacks was mentioned. I looked up his name on a search engine, and one of the results I found was an article he wrote on February 21, 2013 for the New York Review of Books after

publishing a memoir of his childhood, *Uncle Tungsten*. In the article, he talks about memories, and specifically false or distorted memories and how they can result in plagiarism. I find the idea that memories can be completely fictional fascinating, especially since I can relate to this. In his article, Sacks recalls the bombs he saw as a child during WWII in London, specifically two incidents. He says that when he mentioned them to his older brother Michael, “My brother immediately confirmed the first bombing incident, saying, 'I remember it exactly as you described it.' But regarding the second bombing, he said, 'You never saw it. You weren't there.’” (Sacks, 2013) It turns out, another brother had sent a letter about the second bombing to Sacks and Michael and Sachs had created his own “memory” from the details in the letter.

Researching more on false memories, I learned about Elizabeth Loftus, a professor at the University of California, Irvine. In the early 1970s, Loftus began studying the “misinformation effect” - when a person who witnessed an event can have the memory distorted by later being exposed to misleading information. (Loftus, *Creating False Memories*, 1997) In an article written for *Scientific American* in 1997, Loftus describes one of her studies

In one example, participants viewed a simulated automobile accident at an intersection with a stop sign. After the viewing, half the participants received a suggestion that the traffic sign was a yield sign. When asked later what traffic sign they remembered seeing at the

intersection, those who had been given the suggestion tended to claim that they had seen a yield sign. Those who had not received the phony information were much more accurate in their recollection of the traffic sign. (p.70)

In September 1969, an 8-year-old girl disappeared in Foster City, California. Her body was found three months later, a few miles from her home. In 1989, the daughter of George Franklin reported that she had recovered a memory of her father murdering the girl. Eileen provided numerous details that matched details of the crime scene and in 1990, solely on the basis of her memory, George Franklin became the first ever US citizen convicted of murder by a witness who recovered repressed memories more than 20 years after the event. Loftus wrote about this incident in *Cosmopolitan Magazine*, as she was asked to testify her opinion on the credibility of Eileen's memories. Eileen's recount of the incident changed many times between when she first told the police and the trial, even contradicting herself and providing wrong evidence that was published in newspapers – but despite this, the jury found Franklin guilty of first degree murder and he was sentenced to life in prison. After it was discovered that Eileen had been hypnotized prior to the memory resurfacing, her testimony was discounted and he was released. (Loftus, 1995)

Suggested further reading for this would be Sacks' article (Sacks, 2013) and his book *Uncle Tungsten*, Loftus' article in *Scientific American*

(Loftus, Creating False Memories, 1997), as well as Loftus' article on the Franklin case in Cosmopolitan Magazine (Loftus, The Myth of Repressed Memory, 1995). I will use this research for next week's topic.

Two videos were assigned for us to watch after class - "Learning" and "Remembering and Forgetting" from the *Discovering Psychology* series. They were both very interesting and informative. I sometimes have a hard time remembering things, so it was nice learning the process that is actually happening. I looked at the related learning links for Memory, and I was drawn to the story of Clive Wearing. I was particularly struck by something his wife wrote in her book, *Forever Today: A Memoir of Love and Amnesia*, when she said that "his memories had fallen out." While my memory problems are nothing compared to Wearing's, I finally felt like I could explain what the blank spots in my memory is like – the memories fall out, I'm not just forgetting things. Many friends and family members assume that I was simply not paying attention to something when I say I can't remember it, but I forget entire conversations within a matter of a few hours. I can remember hardly any detail from an event if it has been more than a few weeks.

MARCH 25 – COGNITIVE SCIENCE, PART II

After the summary, one-minute motivator and research today, we took the Chitling Intelligence test. The test was developed in 1968, and was designed to show how cultural and racial differences how people understand things. Very few of us got more than a couple of answers right and even then I think it was a lot of guesswork. I personally didn't know anything on the test, although I used reasoning on a few and found that I was correct. The test was used to demonstrate that "Intelligence tests" are not accurate and can be very biased using cultural knowledge.

We discussed possible definitions of Intelligence and learned about the different IQ Analytical Models

such as Raymond Cattell's Fluid and Crystallized IQ Model.

Taken from the PowerPoint in class, it states that there are 2

"Intelligence is not something that is measured with tests"

types of intelligence: Fluid and Crystallized

- Fluid intelligence is the capacity for insight into complex relationships, the ability to acquire new concepts and the ability to adapt in novel situations. Includes reasoning, forming concepts, drawing inferences and dealing with abstractions.

- Crystallized intelligence is a combination of acquired knowledge and developed intellectual skills (vocabulary, general knowledge, balancing a checkbook, etc)
- Fluid intelligence declines, but crystallized intelligence generally does not

Another model that was particularly interesting was Robert Sternberg's Triarchic Theory of Intelligence. According to Sternberg's theory, there are 3 different types of intelligence: componential, experiential, and contextual. Componential IQ is about how effectively information is processed. Persons with high Componential IQ are those who are strong with thinking critically and analytically. Experiential IQ is about how effectively new ideas are formed, and insight used. Persons with high Experiential IQ are those who are strong with creativity and insight. Contextual IQ is about how effectively information is used practically. Persons with high Contextual IQ are those who are strong with understanding what factors influence what tasks, how to plan success, adapt to the environment, and shape the environment to accomplish goals.

Last class Alex presented Howard Gardner's Theory of Multiple Intelligence, and now we have a chance to expand on it. The Theory of Multiple Intelligence states that there are at least 7 separate kinds of intelligences:

Logical-mathematical	Scientist, Mathematician	Sensitivity to, and capacity to discern, logical or numerical patterns; ability to handle long chains of reasoning.
Linguistic	Poet, Journalist	Sensitivity to the sounds, rhythms, and meanings of words; sensitivity to the different functions of language.
Musical	Composer, Violinist	Abilities to produce and appreciate rhythm, pitch, and timbre; appreciation of the forms of musical expressiveness.
Spatial	Navigator, Sculptor	Capacities to perceive the visual-spatial world accurately and to perform transformations on one's initial perceptions.
Bodily-kinesthetic	Dancer, Athlete	Abilities to control one's body movements and to handle objects skillfully.
Interpersonal	Therapist, Salesman	Capacities to discern and respond appropriately to the moods, temperaments, motivations, and desires of other people.
Intrapersonal	Person with detailed, accurate self-knowledge	Access to one's own feelings; the ability to discriminate among them and draw upon them to guide behavior; knowledge of one's own strengths, weaknesses, desires, and intelligences.
Naturalist	Hunter, Botanist	Ability to recognize plants, animals and other part of natural environments.
Existential	Philosopher, Theorist	Capacity to conceptualize deeper questions about human existence, such as the meaning of life, why are we born, what is consciousness, how did we get here, why do we die.

TABLE 1 The Seven Intelligences (Gardner & Hatch, 1989) – Revised; two sections added

APRIL 1 – DIFFERENTIAL PSYCHOLOGY, *PERSONALITY*

We began with the summary and one-minute motivator, followed by Alex and my research. Then we watched a video on Animal Intelligence, since we weren't able to last class and proceeded to begin the section on Personality.

My research topic for this week was on Intelligence and Education, relating to last week's topic. I presented a study (we also watched a video with this study) in which a group of researchers from University College of London released a report that the hippocampi (in the posterior region) of London taxi drivers were more developed than those of their ordinary citizens. Why is that? It is because this region of the hippocampus is specialized in acquiring and using complex spatial information in order to navigate efficiently.

Being a London taxi driver has demands not only for spatial

understanding, but also to be able to process large amounts of information. Required to pass an extensive test where they must be able to immediately recall the route from any two points in London, the test takes on average 34 months of preparation to pass. By physically practicing one of 320 standard routes on moped, future drivers are demanded to have impressive recall of exact details of routes, such as intersections, roundabouts, and landmarks.

“The personal qualities of an individual” – Dr. Rosalyn King

The longer that drivers have been doing these routes, the more their hippocampi posteriorly expand. This demonstrates that there is not a preexisting neurological difference, but that the area of the hippocampus is malleable enough to adapt to changing needs of the individual. (Maguire, et al., 2000).

Plasticity, the brain's ability to change with new information, can also be observed in the brains of bilinguals. Bilingual speakers have more grey matter in the language region, with a direct correlation between the amount of grey matter and the age at which they became bilingual. Even learning a new language later in life changes the brain by producing more grey matter, although it is not as elastic as before. It looks like learning a second language is possible through functional changes in the brain: the left inferior parietal cortex is larger in bilingual brains than in monolingual brains. (Mechelli, et al., 2004) Finally, in 2006, a study showed that extensive learning of abstract information can also trigger some plastic changes in the brain. Researchers imaged the brains of German medical students 3 months before their medical exam and again right after the exam. They compared the results to brains of students who were not studying for an exam at this time. The medical students' brains showed some learning-induced increase of size in regions of the parietal cortex as well as in the posterior hippocampus, regions of the brains are known to be involved in memory retrieval and learning.

Suggested readings are the research on the taxi drivers (Maguire, et al., 2000) and Howard Gardner's book, *Frames of Mind*, which was very interesting.

Animal Intelligence:

The video we saw in class about Animal Intelligence discussed how certain animals excel in different intelligences, such as a hummingbird having good memory to remember which flowers it has eaten from, or crows that can use tools to reach their goals. One of the animals I didn't see mentioned in the video was octopuses. I have always had an interest in octopuses and their family members, squids and cuttlefish because of their incredible intelligence and slyness. By the suggestion of a classmate, I would like to present my research next week on the intelligence of octopuses.

Personality:

After finishing with Animal Intelligence, we began today's topic of Personality, the first part of the section on Differential Psychology. We discussed definitions of Personality as well as what conscientiousness is, and how it is important to Personality. Some of the questions we looked at were "Is personality inherited or learned?" and "Past, present, future – is personality development basically complete in early childhood, or is it independent of past, capable of changing?" Looking at the first question, I would say it is some of both. Inherited traits can be supported or covered by

learned behavior. A child who is born with a rough personality “just like his dad” could then learn his father’s behavior in order to fulfill that statement. On the other side, a quiet introvert child could learn to be loud and extroverted to catch his parents’ attention. That child could act in one way (extroverted) around every other person, and in another way (introverted) when he is by himself – which is his “true” personality? Abraham Maslow is a good example of change in personality from childhood to adulthood, which I will detail below.

Personality Folders (Theory & Theorists):

I chose Abraham Maslow for the theorist I would present, or as it turned out, write a blog entry on. Once I saw his name in the pile, I immediately picked his folder. The Hierarchy of Needs has been involved in a few classes before, so I have been exposed to it a few times and I agree with most of the structure. In one class there was a debate of whether the right to vote or the right to own property should have been of more importance during the Women’s Rights Movement. I supported the right to own property with Maslow’s Hierarchy of Needs as my support, since the second tier of the pyramid is Safety (security of body, of resources, of health, of property, etc.), while the other side supported voting because then “a woman can change society”. To this, I reply that they are looking at the fourth tier, Esteem (achievement, respect from others, contribution to society), which must first be supported by the foundation of the lower levels.

As an example of Personality, Maslow himself is a good example of how a personality can change. In his youth, he was a very shy and withdrawn person with low self-esteem; as he grew older, he became more open and confident. His parents were poor, Jewish, and uneducated, living in the middle of Brooklyn, New York. (Boeree, 2013) It is possible that he inherited the “quiet” traits to help him survive easier by being less noticeable, since organisms aim to pass needed traits to their offspring. On the other hand, there are many children who are raised in the same type of environment who have a completely opposite personality – rough and on-edge.

From what I gather, I would say Maslow's view on personality is

1. The way one acts and thinks is influenced by how they see things, i.e. positively or negatively.
2. Personality can change with growth (cognitive, physical, and spiritual) as in his example.
3. The Hierarchy of Needs is how one reaches Self-Actualization. Self-Actualization is how one grows to have a more accurate perception of reality, become more independent, and accept their own self as well as others and society.
4. Our actions and personalities can be influenced by past experiences... his shyness and low self-esteem as an adolescent was spurred by his situation in his younger years. These same experiences changed him as he got older - in the interview with Psychology Today, he answered the

question "What's the most important thing I can do in this time of crisis?" with "Get to work on hostility and aggression." He also taught his daughters to "Learn to hate meanness. Watch out for anyone who is mean or cruel. Watch out for people who delight in destruction." (Maslow, 1992) His past experience with cruelty from his peers clearly affected his outlook of being more sensitive to this behavior than another person might be.

Suggested reading for this week would be the webpage written on Abraham Maslow (Boeree, 2013), any of many articles written by Maslow in the *Journal of Humanistic Psychology* which he was the co-founder of, the full interview from Psychology today (Maslow, 1992), or one of Maslow's books such as *Motivation and Personality*. The Personality Project's "Big Five" assessment test was interesting, as well as their explanation of personality and their recommended readings (Revelle).

APRIL 8 – DIFFERENTIAL PSYCHOLOGY, *PSYCHOPATHOLOGY*

We began class with the summary, one-minute motivator, and research; the topic for today's lecture is psychopathology and learning about mental disorders.

My research for this week was on animal intelligence, specifically the intelligence of octopuses. They experiment, problem solve, plan ahead of time, play, and use tools – all of which are indicators of intelligence in animals.

Jennifer Mather is a comparative psychologist at the University of Lethbridge in Canada who has been studying octopuses for 35 years.

Experimentation and Problem Solving: Jennifer Mather is a comparative psychologist at the University of Lethbridge in Canada who has been studying octopuses for 35 years. In one study, she explains “[My research team and I] give them clams and mussels in order to figure out which they like best. They are very strong, but we found they prefer mussels because mussels are easier to open. They switched to clams when we put the clams on a half shell. They clearly made a decision to go with what was easiest. They were selective about what technique they would use with what species. We decided we would cheat on them: We took one of the easier ones and wired them shut.” The octopuses quickly realized something was different and changed their technique of opening it. This might seem easy, but most simple animals only rely on one way of doing things and cannot easily switch. (Borell, 2009)

Roland Anderson, Mather's co-author of a book, reports that octopuses can open screw-on lids and even learned to open the childproof caps on Extra Strength Tylenol pill bottles—a “skill” that many humans with university degrees find difficult. (Montgomery, Deep Intellect, 2011)

Planning: While Mather was observing an octopus in the wild, she noticed something astounding. The octopus returned to its home and began

cleaning in front of it. Then it suddenly swam to some rocks, picked one up, and placed it near its house. It got two more, then crawled inside the home and carefully arranged the three objects in front. Then it went to sleep. Mather says the octopus “must have had some concept,” she said, “of what it wanted to make itself feel safe enough to go to sleep.”

Play: One of the things that sets “intelligent” animals apart from others is the behavior of playing. One study discovered that octopuses play in boring situations. The researchers placed octopuses in empty tanks with only a floating pill bottle and waited to see what would happen. After a while, a couple of them began to “play”. One octopus blew a jet of water at the pill bottle and that caused it to go over a water jet in the tank and come back to the octopus. The other blew a jet of water to make the pill bottle slide across the surface of the tank. These two individual animals did it in a sequence over 20 times.

They can solve complex puzzles after 3 tries, and one octopus disassembled a water valve and sprayed 200 gallons of seawater around the room overnight (Borell, 2009). He played with the water, shooting it into all different places and onto other tanks, seeing how far he could spray it.

Tool use: One observed octopus laid a clutch of eggs in a concrete block and she defended it with a rock from a sea cucumber that had wandered too close. A scientist filmed an octopus discovering a coconut shell in the sea and using it like a sled, using its legs to slide around in the coconut shell. It also

climbed in and closed the two halves around itself as a hiding place. (Finn, 2009)

Other than those, there are many displays of slyness, something odd in animal behavior. Mather says "... an octopus got out of its tank at night when no one was watching, went to the tank next door and ate one of the lumpfish and went back to his own tank and was sitting there the next morning. The aquarium lost several lumpfish before they figured out who was responsible." A similar story my Biology teacher related was that the octopuses would climb out of their tanks at night, unlock a female's tank, climb in to mate, lock it back up to cover their tracks and crawl back their own tank. Some octopuses even climb out of the tank and follow the researchers around the lab.

The most fascinating of all, to me, is something a fisherman complained about. His job was to catch small octopuses for lab experimentation. They needed to be alive so he would put them in a very tall bucket. They would climb out and crawl over to an icebox with fish in it when no one was looking. The octopuses would open the icebox, carefully pull the top layer off and eat the fish from below. They replaced the fish on top and crawled back to the bucket. When the fishermen opened the icebox to get bait, he didn't notice anything wrong until he used the top layer and found the bottom empty. The octopuses were clearly covering their tracks and sneaking around.

Suggested reading for more on octopus intelligence is Sy Montgomery's fascinating article about her experience with octopuses (Montgomery, Deep Intellect, 2011) and shows us that octopus have distinct personalities, her follow-up article (Montgomery, Interview with an Octopus, 2011), the Scientific American article about Mather (Borell, 2009), and the book by Montgomery and Anderson, *Octopus: The Ocean's Intelligent Invertebrate*.

Psychopathology:

We learned about what Psychological Disorders are, and what makes it a disorder. We explored different models, such as the *medical model*. The DSM, or Diagnostic and Statistical Manual of Mental Disorders, is a compilation of what behaviors the doctors and psychologists currently define as mental disorders. I own a copy of the DSM-III which I've read from cover to cover, and I would love to get the fifth edition when it is released. We looked at models of causation, and what people used to believe the causes of mental illness were. Most of the ancient or older civilizations believed mental illnesses were caused by evil forces in the sick person; therefore, they would kill, trephinate, and take the mentally ill for witches or sorcerers. We watched a video on the real footage of "Eve" a woman who has Multiple Personality Disorder, from the

"The psychopathology of the masses is rooted in the psychology of the individual"
— Carl Jung

movie *The Three Faces of Eve*. We saw how suddenly she changed personalities in fractions of a second and what she ended up as years later. Another video we saw was on a man named Tony, who also had MPD. Truddi Chase, a woman with 92 (or more) multiples wrote a very good book called *When Rabbit Howls*; the most unique thing about this book is that it is not only written by the “original” Truddi, but also by her multiples. It’s amazing to see the difference in writing style, voice, etc. between the different multiples. I have not finished the book yet, but I hope I will be able to soon. We also saw a video on schizophrenia, and how the senses of a schizophrenic person are greatly enhanced compared to those without schizophrenia.

While I was looking through psychopathology books in the library, I came across one that ties this section back to the neurotransmitters that we studied before. As we learned in class, deficiency of serotonin can cause severe depression. The book includes a study that found patients with psychotic depression take more serotonin into their platelets when injected with 5-HT than patients without psychotic depression (Rothschild, 2009, p. 44). Thinking back again, while researching serotonin I found that humans get it from food, so yet again we can see what negative situations a good diet can help prevent.

Another disorder that I had researched before is Oppositional Defiant Disorder (ODD). Looking through the symptoms listed in DSM-III, as well as a few other psychopathology books, I am quite sure I know someone with

ODD. Interestingly, it seems serotonin also has a role in this disorder.

However, analyzing the studies presented in *Oppositional Defiant Disorder and Conduct Disorder in Childhood*, the authors say that “...both genetic and environmental factors seem to affect the functioning of serotonin.” (Matthys & Lochman, 2010, p. 46) Therefore, it is not only how much serotonin is present in the body, but also what other chemicals are in the body, how well the body is functioning, and what environmental factors are present.

Suggested readings are Truddi Chase’s *When Rabbit Howls*, Julian Leff’s *The Unbalanced Mind*, Marie Thompson’s *Mental Illness*, and *Mental Illness* from the Opposing Viewpoints series.

SUMMARY:

In the last five classes, we have learned about Developmental Science, Cognitive Science, and Differential Psychology. We have learned about developing our body and mind, learning, memory, thinking, intelligence, personality and psychological disorders. We discussed how alcohol, drugs, caffeine, and diets can affect our bodies, brains and future and those of our offspring. We learned the biological processes of how the brain remembers and learns, as well as the more abstract process by which our mind thinks and questions. Are animals intelligent? We discovered that the answer is certainly “Yes” by looking at so many animals that are able to learn, remember, speak, and think just as humans can (although sometimes to a lesser extent). We discovered that animals have distinct personalities, likes and dislikes, and ways of playing and enjoyment as well. We looked at different theories on personality, from individuals such as Abraham Maslow and Gordon Allport, and schools of thought such as Shamanism and Buddhism. Finally, we learned how things can sometimes go very wrong and mental disorders can develop, such as Multiple Personality Disorder and Schizophrenia.

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GRADING CRITERIA FOR REFLECTIVE JOURNALS

Student Name _____ Psychology Course, Date & Time _____

Organization and Clarity (30 Points)

- ☐ Well Written
- ☐ Carefully Organized & Formatted
- ☐ Neatly Presented
- ☐ Includes a heading for each entry
- ☐ Includes dated entries
- ☐ Provided a brief list of events/material covered during class

Total Points _____

Reflective Thought (50 Points)

- ☐ Evidence of in-depth reflective thinking
- ☐ Presents ideas in coherent and logical manner
- ☐ Relates learning to previous understanding
- ☐ Reflective thought but ideas not carried through
- ☐ No evidence of reflective thought
- ☐ Clear evidence about what is learned
- ☐ Makes connections between class material, lectures, discussions and text
- ☐ Raises critical questions
- ☐ Includes exploration of other research and information
- ☐ Clear evidence of learning

Total Points _____

Technical Aspects (10 Points)

- ☐ Typewritten
- ☐ Carefully Proofed
- ☐ Correct Grammar
- ☐ No typographical errors
- ☐ Appropriate length
- ☐ Includes reference listing

Total Points _____

Overall (10 Points)

- ☐ Completeness of the Journal
- ☐ Displays creative & productive thinking
- ☐ Clear evidence of learning overall
- ☐ Connection of Theory to Application

Total Points _____

Overall Total _____