E-kursuse "Developmental Psychology“ materjalid

Aine maht 4 EAP

Karmel Tall (Tartu Ülikool), 2012

I Psychosocial Theory

According to Santrock (2008), Erikson's theory takes Freudian thought farther because it includes social and cultural influences. Erikson believes that the ego develops individually through its biological (psychosexual) processes, but also due to interpersonal concerns and relationships (psychosocial).

Erikson actually thought the prime motivation for development was social- the internal drive to interact with others. Erikson's theory deeply reflects his own struggle for development of an individuated personality, because of his confused, bicultural background. His mother was Jewish and Danish, and Erikson had the fair characteristics of the Nordic people. His stepfather was Jewish, and Erikson thought he was his natural father until later in his development, when he found out he was fathered by a relationship with a Danish Protestant who left her unmarried and with child. He didn't know what culture to affiliate and ultimately renamed himself: Erik Erikson, Erik, son of Erik- child as father to the man. He connected to Freud by teaching art to children of Freud's entourage, and marrying a woman in his retinue, Joan Serson, who was studying to be a psychoanalyst (they flipped roles later in life as Erikson became the analyst and Serson became the artist).

Erikson was analyzed by Freud's daughter, Anna, and finally became an analyst himself, although he had no degree beyond a certification as a Montessori teacher. Many of his ideas about development can be traced to Maria Montessori's approach to the child and her understanding of the inherent positive development of children, given positive encouragement and stimulation and support. After he moved to the US in 1933, due to the pressures in Germany against Jewish people, he began teaching at Harvard and working with Henry Murray who developed his own personality theory and tests. Erikson also worked with anthropologists and did field research in 2 Native American cultures, the Sioux and the Yurok. When Harvard demanded a loyalty oath in response to the Communist scares of the 1950s, Erikson felt similar pressures as he had in early Nazi Germany and he refused to sign such an oath, believing that education must be allowed to speak freely for critical thought to be developed. His theory expanded Freudian theory to include the entire lifespan, and he and his wife continued their own studies long into the 80s.

Epigenetic Principle is the idea, recognized in biological development and easily seen in the fetus, that there is a plan to our development and according to this plan, parts develop in a particular order, and not until all the parts develop fully does the individual become a functioning whole. So, according to the stage theory, we must all follow a framework of development through the 8 stages, and there is a particular focus and area of development at each stage. If a stage is imperfectly resolved, there will be later handicaps.

Eight psychosocial stages were defined by different social aspects in each stage. His first stages correspond to Freud's but the last ones are more encompassing of adult development. There is an ego strength (Virtue) developed in each stage. Each stage involves a crisis with conflict centered on a particular issue. The virtue developed becomes part of one's ego skills. There is an opposite form of the virtue if the ego strength is poorly developed. Early development paves the way for later developments, although there can be rehabilitation later in life within positive relationships. Significant others are important at

each stage, so intergenerational relationships are important for aiding younger people to develop and helping older people to feel vital and useful late in life. The individual's development can also impact social/cultural development, too. (Hitler's impact on Europe vs. Nelson Mandela's impact in South Africa.)

Eriksons stages of development

1. Trust vs. mistrust

Basic trust is the sense that others are dependable and will nurture and provide for you, as well as the sense that one is worthy of care, and inherently trustworthy. It is based in good, appropriate, responsive parenting. The baby is busy soaking up the stimulation available- food, sensory stimulation- and actively assimilates these experiences into a picture of self and the world. This is an interactive stage, as the baby tries to explore and get the parent to pay attention. If the world is not responsive to the baby's needs, s/he develops a sense of mistrust. Some mistrust is useful, as complete naiveté or gullibility puts a person at risk. In a healthy resolution, there is more trust than mistrust however, allowing the person to connect with others and trust them.

The virtue developed is Hope.

2. Autonomy vs. shame, doubt

During the second year of life the toddler develops a sense of autonomy and self-control, due in part to toilet training and motor development, walking and climbing. The psychological issue is broader, though, including the concepts of holding on and letting go. Adults that support toddlers' exploration and protect them from their vulnerability build in a sense of personal control. Those who are over-protected or shamed by their experiences or parents' discipline develop a sense of doubt in their efforts at independence. Autonomy should prevail in a healthy development, but some shame and doubt enable moral development and safety awareness.

The virtue developed is Will.

3. Initiative vs. guilt

From 4 – 5 years old children learn what kind of person to be, based on identification with parents (Freud's Oedipal complex and gender identity development) Children are interested in sexuality and sex differences and are developing a conscience (superego). They are curious and their explorations may be intrusive on others. Their play may reflect this curiosity. But the challenge is to develop some sense of initiative in exploring the world. If this curiosity is shamed, the child develops a sense of guilt.

The virtue developed is Purpose.

4. Industry vs. inferiority

School develops a sense of industry, learning to win recognition from producing things. Without a healthy development of this skill, the child develops feelings of inferiority. Teachers and coaches are vital in encouraging persistence on task and valuing the products of children.

The virtue developed is competence.

5. Identity vs. identity diffusion

During adolescence, the teen tries to develop a separate sense of identity from parents and others. Ego identity is the awareness of one's own individuality, as well as a continuity in one's meaning for others. The question is "Who am I?" Personal identity will develop past identifying with role models, as the teen must develop his/her life story, encompassing his values.

Identity confusion happens if a teen can't develop a coherent sense of identity.

Negative Identity develops if a teen develops an identity based on negative role models, criminals, slackers, etc. This is particularly a risk id juvenile delinquents are housed with hardened criminals to better learn the criminal lifestyle and value.

Identity foreclosure occurs if a teen chooses an identity commitment too quickly without independent thought.

Moratorium is the period in adolescence when teens actively explore all the career and values possibilities. It makes commitment to a values system more meaningful.

The virtue of this stage is fidelity, the ability to commit to a loyalty promised. This does not only apply to marriage, but various areas of adult personal responsibility.

6. Intimacy vs. isolation

Erikson believed that until identity is firmly established, it is not possible to develop true psychological intimacy with another person. Once identity is set, though, it is possible to choose fusion with another without fear of loss of self.

Distantiation is a term Erikson used as the counterpart to intimacy- the willingness to isolate from others or destroy any who seem dangerous to one's self. These people often remain isolated and self-absorbed, even if they go through a number of relationships on the surface (Donald Trump comes to mind.) Marriage may resolve this crisis, but it doesn't necessarily. People can also develop intimacy with others than spouse.

The virtue of this stage is love.

7. Generativity vs. self-absorption

Generativity is the interest in establishing and guiding the next generation. These people mentor youth, train others at work, develop social institutions that benefit others, as well as develop tolerance for others who hold different ideas. It may simply be expressed in parenting, but does not require becoming a parent to develop.

Stagnation is the negative resolution of this stage, with the person not able to be involved in caring for another.

The virtue of this stage is Care.

8. Integrity vs. despair

Old age is about making sense of one's life. To develop integrity means you feel your life has been meaningful and you don't feel regrets about your life choices.

Despair is the experience of regret, blame, and feeling fear and resistance to the process of death.

The virtue of this stage is Wisdom.

II Major Theories for Understanding Human Development

The Theory of Evolution

According to Newman and Newman (2008), psychosocial theory is like the map of the country: It provides a broad, conceptual umbrella for the study of human development. However, we need other theories to explain behavior at different levels of analysis. The theories presented in this chapter are like the maps of states, cities, and special scenic areas. They guide research and thinking in specific areas of human development. This chapter does not provide comprehensive coverage of all theories of human development, but a group of theories selected for their significant impact in guiding research and intervention. Many theories presented here continue to be evaluated and challenged by researchers as new and competing ideas about human behavior emerge.

Newman and Newman (2008) point to Darwins (1859/1979) theory of evolution that explains how diverse and increasingly more complex life-forms come to exist. Evolutionary theory assumes that the natural laws that apply to plant and animal life also apply to humans. The law of natural selection explains how, over generations, species gradually change to respond to changing environmental conditions. The law of natural selection claims that behaviors adapted to the environment in which it occurs. Natural selection operates at the level of genes that are passed, via an organism's reproductive process, from one generation to the next.

Every species produces more offspring than can survive to reproduce, because of limitations of the food supply and natural dangers. Darwin observed that there was quite a bit of variability among members of the same species in any given location. Some individuals were better suited than others to their immediate environment and, thus, were more likely to survive, mate, and produce offspring. These offspring were also more likely to have characteristics appropriate for that location. Over time, those members of the species that had the selective advantage would be more likely to survive and reproduce, thus passing their genetic characteristics on to future generations. If the environment changed (e.g., in climate), only certain variations of organisms would survive, and again species would evolve.

Forms of life that failed to adapt would become extinct. Thus, in the context of changing environmental conditions, the variability within a species ensures the species' continuation or its development into new forms. Darwin viewed evolutionary change as taking place slowly and incrementally as individual organisms adapt and populations with similar adaptive characteristics come to dominate an environment or ecological niche.

Cognitive Developmental Theory

Dr. C. George Boeree (2006) explains the theory of Jean Piaget and cognitive development as follows:

Jean Piaget began his career as a biologist - specifically, one that studies mollusks. But his interest in science and the history of science soon overtook his interest in snails and clams. As he delved deeper into the thought-processes of doing science, he became interested in the nature of thought itself, especially in the development of thinking. Finding relatively little work done in the area, he had the opportunity to give it a label. He called it **genetic epistemology**, meaning the study of the development of knowledge.

He noticed, for example, that even infants have certain skills in regard to objects in their environment. These skills were certainly simple , sensorimotor skills, but they directed the way in which the infant explored his or her environment and so how they gained more knowledge of the world and more sophisticated exploratory skills. These skills he called **schemas**.

For example, an infant knows how to grab his favorite rattle and thrust it into his mouth. He's got that schema down pat. When he comes across some other object -- say daddy's expensive watch, he easily learns to transfer his "grab and thrust" schema to the new object. This Piaget called **assimilation**: The baby assimilates a new object into an old schema.

When our infant comes across another object again - say a beach ball - he will try his old schema of grab and thrust. This of course works poorly with the new object. So the schema will adapt to the new object: Perhaps, in this example, "squeeze and drool" would be an appropriate title for the new schema. This is called **accommodation**: The baby accomodates the old schema to a new object.

Assimilation and accommodation are the two sides of **adaptation**, Piaget's term for what most of us would call learning. Piaget saw adaptation, however, as a good deal broader than the kind of learning that Behaviorists in the US were talking about. He saw it as a fundamentally biological process. Even one's grip has to accommodate to a stone, while clay is assimilated into our grip. All living things adapt, even without a nervous system or brain.

Assimilation and accommodation work like pendulum swings at advancing our understanding of the world and our competency in it. According to Piaget, they are directed at a balance between the structure of the mind and the environment, at a certain congruency between the two, that would indicate that you have a good (or at least good-enough) model of the universe. This ideal state he calls**equilibrium**.

As he continued his investigation of children, he noted that there were periods where assimilation dominated, periods where accommodation dominated, and periods of relative equilibrium, and that these periods were similar among all the children he looked at in their nature and their timing. And so he developed the idea of **stages** of cognitive development. These constitute a lasting contribution to psychology.

The sensorimotor stage

The first stage, to which we have already referred, is the sensorimotor stage. It lasts from birth to about two years old. As the name implies, the infant uses his or her senses and motor abilities to understand the world, beginning with reflexes and ending with complex combinations of sensorimotor skills.

Between one and four months, the child works on **primary circular reactions** - just an action of his own which serves as a stimulus to which it responds with the same action, and around and around we go. For example, the baby may suck her thumb. That feels good, so she sucks some more... Or she may blow a bubble. That's interesting so I'll do it again....

Between four and 12 months, the infant turns to **secondary circular reactions**, which involve an act that extends out to the environment: She may squeeze a rubber duckie. It goes "quack." That's great, so do it again, and again, and again. She is learning "procedures that make interesting things last."

At this point, other things begin to show up as well. For example, babies become ticklish, although they must be aware that someone else is tickling them or it won't work. And they begin to develop object permanence. This is the ability to recognize that, just because you can't see something doesn't mean it's gone! Younger infants seem to function by an "out of sight, out of mind" schema. Older infants remember, and may even try to find things they can no longer see.

Between 12 months and 24 months, the child works on **tertiary circular reactions**. They consist of the same "making interesting things last" cycle, except with constant variation. I hit the drum with the stick -- rat-tat-tat-tat. I hit the block with the stick -- thump-thump. I hit the table with the stick -- clunk-clunk. I hit daddy with the stick -- ouch-ouch. This kind of active experimentation is best seen during feeding time, when babies discover new and interesting ways of throwing their spoons, dishes, and food.

Around one and a half, the child is clearly developing **mental representation**, that is, the ability to hold an image in their mind for a period beyond the immediate experience. For example, they can engage in **deferred imitation**, such as throwing a tantrum after seeing another child throw one an hour ago. They can use **mental combinations** to solve simple problems, such as putting down a toy in order to open a door. And they get good at

pretending. Instead of using a doll as something to sit on, suck on, or throw, now the child will sing to it, tuck it into bed, and so on.

Preoperational stage

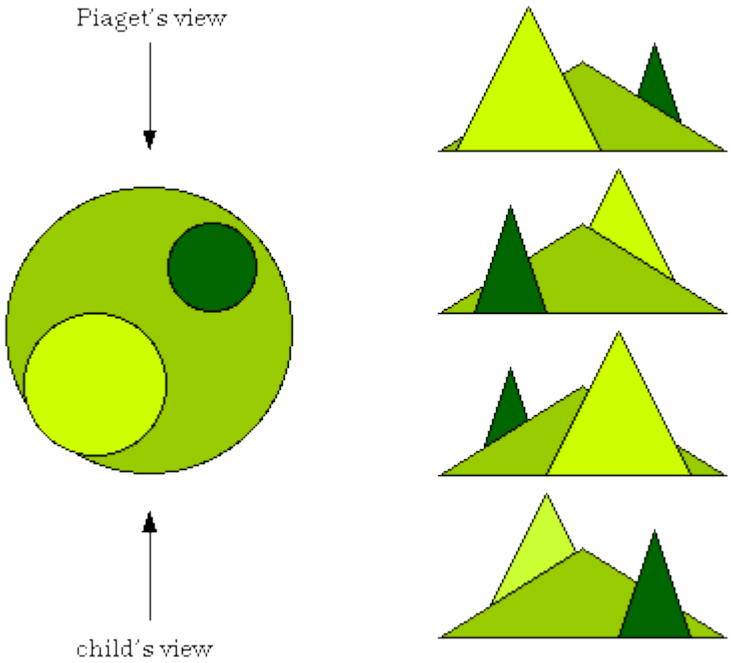
The preoperational stage lasts from about two to about seven years old. Now that the child has mental representations and is able to pretend, it is a short step to the use of **symbols**.

A symbol is a thing that represents something else. A drawing, a written word, or a spoken word comes to be understood as representing a real thing. The use of language is, of course, the prime example, but another good example of symbol use is **creative play**, wherein checkers are cookies, papers are dishes, a box is the table, and so on. By manipulating symbols, we are essentially thinking, in a way the infant could not: in the absence of the actual objects involved!

Along with symbolization, there is a clear understanding of past and future. For example, if a child is crying for its mother, and you say "Mommy will be home soon," it will now tend to stop crying. Or if you ask him, "Remember when you fell down?" he will respond by making a sad face.

On the other hand, the child is quite **egocentric** during this stage, that is, he sees things pretty much from one point of view: his own! She may hold up a picture so only she can see it and expect you to see it too. Or she may explain that grass grows so she won't get hurt when she falls.

Piaget did a study to investigate this phenomenon: He would put children in front of a simple plaster mountain range and seat himself to the side, then ask them to pick from four pictures the view that he, Piaget, would see. Younger children would pick the picture of the view they themselves saw; older kids picked correctly.



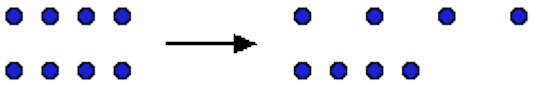
Similarly, younger children **center** on one aspect of any problem or communication at a time. for example, they may not understand you when you tell them "Your father is my husband." Or they may say things like "I don't live in the USA; I live in Pennsylvania!" Or, if you show them five black and three white marbles and ask them "Are there more marbles or more black marbles?" they will respond "More black ones!"

Perhaps the most famous example of the preoperational child's centrism is what Piaget refers to as their inability to conserve liquid volume. If I give a three year old some chocolate milk in a tall skinny glass, and I give myself a whole lot more in a short fat glass, she will tend to focus on only one of the dimensions of the glass. Since the milk in the tall skinny glass goes up much higher, she is likely to assume that there is more milk in that one than in the short fat glass, even though there is far more in the latter. It is the development of the child's ability to **decenter** that marks him as having moved to the next stage.

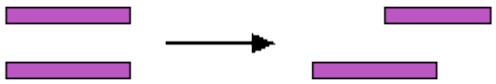
Concrete operations stage

The concrete operations stage lasts from about seven to about 11. The word **operations** refers to logical operations or principles we use when solving problems. In this stage, the child not only uses symbols representationally, but can manipulate those symbols logically. Quite an accomplishment! But, at this point, they must still perform these operations within the context of concrete situations.

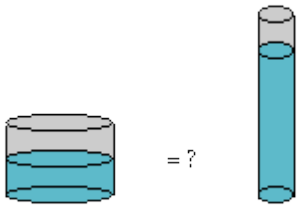
The stage begins with progressive decentering. By six or seven, most children develop the ability to **conserve** number, length, and liquid volume. **Conservation** refers to the idea that a quantity remains the same despite changes in appearance. If you show a child four marbles in a row, then spread them out, the preoperational child will focus on the spread, and tend to believe that there are now more marbles than before.



Or if you have two five inch sticks laid parallel to each other, then move one of them a little, she may believe that the moved stick is now longer than the other.

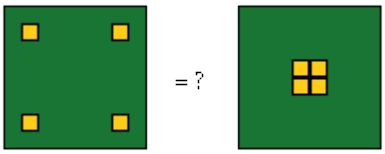


The concrete operations child, on the other hand, will know that there are still four marbles, and that the stick doesn't change length even though it now extends beyond the other. And he will know that you have to look at more than just the height of the milk in the glass: If you pour the milk from the short, fat glass into the tall, skinny glass, he will tell you that there is the same amount of milk as before, despite the dramatic increase in milk-level!



By seven or eight years old, children develop conservation of substance: If I take a ball of clay and roll it into a long thin rod, or even split it into ten little pieces, the child knows that there is still the same amount of clay. And he will know that, if you rolled it all back into a single ball, it would look quite the same as it did - a feature known as **reversibility**.

By nine or ten, the last of the conservation tests is mastered: conservation of area. If you take four one-inch square blocks ("houses"), and lay them on a six-by-six cloth together in the center, the child who conserves will know that they take up just as much room as the same blocks spread out in the corners, or, for that matter, anywhere at all.



If all this sounds too easy to be such a big deal, note that many adults do not conserve area. Or test your friends on conservation of mass: Which is heavier: a million tons of lead, or a

million tons of feathers? Many will focus on the words "lead" and "feathers", and ignore the fact that they both weigh a million tons.

In addition, a child learns **classification** and **seriation** during this stage. Classification refers back to the question of whether there are more marbles or more black marbles. Now the child begins to get the idea that one set can include another. Seriation is putting things in order. The younger child may start putting things in order by, say size, but will quickly lose track. Now the child has no problem with such a task. Since arithmetic is essentially nothing more than classification and seriation, the child is now ready for some formal education!

Formal operations stage

But the concrete operations child has a hard time applying his new-found logical abilities to non-concrete - i.e. abstract - events. If mom says to junior "You shouldn't make fun of that boy's nose. How would you feel if someone did that to you?" he is likely to respond "I don't have a big nose!" Even this simple lesson may well be too abstract, too hypothetical, for his kind of thinking.

Don't judge the concrete operations child too harshly, though. Even adults are often taken-aback when we present them with something hypothetical: "If Edith has a lighter complexion than Susan, and Edith is darker than Lily, who is the darkest?" Most people need a moment or two.

From around 12 on, we enter the formal operations stage. Here we become increasingly competent at adult-style thinking. This involves using logical operations, and using them in the abstract, rather than the concrete. We often call this **hypothetical thinking**.

It is the formal operations stage that allows one to investigate a problem in a careful and systematic fashion. Ask a 16 year old to tell you the rules for making pendulums swing quickly or slowly, and he may proceed like this:

A long string with a light weight - let's see how fast that swings.
A long string with a heavy weight - let's try that.
Now, a short string with a light weight.
And finally, a short string with a heavy weight.

His experiment - and it is a true experiment - would tell him that a short string leads to a fast swing, and a long string to a slow swing, and that the weight of the pendulum makes no difference at all!

It doesn't seem that the formal operations stage is something everyone actually gets to. Even those of us who do get there don't operate in it at all times. Even some cultures, it seems, don't develop it or value it like ours does. Abstract reasoning is simply not universal.

Psychosexual Theory

According to Freud (1933) (above picture), people enter the world as unbridled pleasure seekers. Specifically, people seek pleasure through from a series of erogenous zones. These erogenous zones are only part of the story, as the social relations learned when focussed on each of the zones is also important. Freud's theory of development has 2 primary ideas: One, everything you become is determined by your first few years - indeed, the adult is exculsively determined by the child's experiences, because whatever actions occur in adulthood are based on a blueprint laid down in the earliest years of life (childhood solutions to problems are perpetuated) Two, the story of development is the story of how to handle anti-social inpulses in socially acceptable ways

Libido was Freud's word for psychic and sexual energy. How libido is expressed depends on the stage of development. But in each stage of development there are frustrations. If those frustrations are not successfully dealt with, then the libido will be tied to that stage of development more than it should. There is only so much libido for each person, and to develop successfully a person cannot use too much of their libido in one stage, because then there will less for the others. Such overuses will be reflected in later behavior in one of two ways.

Fixation may occur, which would mean that there are lingering desires for pleasure from the source experienced at that stage

Reaction Formation may occur, which would be taking the lingering desire for pleasure from some source and acting in the opposite way

STAGES OF DEVELOPMENT

Freud proposed that there were **5 stages of development**. Freud believed that few people successfully completed all 5 of the stages. Instead, he felt that most people tied up their libido at one of the stages, which prevented them from using that energy at a later stage.

ORAL Stage This occurs from birth to about 1 year, and the libido is focussed on the mouth. The individual may be frustrated by having to wait on another person, being dependent on another person. Being fixated at this stage may mean an excessive use of oral stimulation, such as cigarettes, drinking or eating.

ANAL Stage This period occurs about age 2 and 3 yrs. Here individuals have their first encounter with rules and regulations, as they have to learn to be toilet trained. This encounter with rules and regulations will dictate the later behavior with rules and regulations. The libido is focussed anally, and frustration may arise from having to learn a somewhat complex cognitive and motor response. Being fixated at this stage can result in stinginess, stubborness, or orderliness, as well as messiness. Essentially, behavior related to retention and expulsion may be related to experiences at this stage.

PHALLIC Stage This period starts about age 4-5 years. Some critical episodes for development occur during this stage, but these episodes occur differently for boys and girls.

Oedipus conflict - the boy begins to have sexual desires for his mother, and sees his father as a rival for her affections. The boy begins to fear that his father is suspicious of his longing for his mother, and that the father will punish him for his desires. That punishment, the boy fears, will be castratation, which brings us to the second critical episode for this stage.

Castration anxiety. The fear of castration make the boy anxious. This anxiety begun with the fear of punishment from the father leads to the boy thinking that the father hates him eventually becomes unbearable and the boy renounces his sexual feelings for his mother and chooses instead to identify with his father, and hopes to someday have a relationship with a woman (though not his mother) just like dear old dad has with his mother.

The story for girls is slightly different. The oral and anal stages are the same for both girls and boys, so the focus of affection and attention is on the mother for both. But this focus changes, for girls, from the mother to the father, when the girls realize that they don't have penises, so they develop penis envy. This realization coupled with the knowledge that her mother doesn't have a penis leads to her thinking her mother unworthy, and becoming attracted to her father, as he does have a penis.

Just as with boys, girls begin to suspect the same sex parent knows about their attraction to the opposite sex parent, and they hate them for it. These feelings go round and round for awhile until the point when the girls renounce their feelings for their fathers and identify with their mothers.

LATENCY Stage This period occurs after the oedipus conflict has been resolved and the feelings that were aroused during that time have subsided. This lasts from about the age of 7 until puberty, and this is a period of rest where there are no developmental events

GENITAL Stage Begins at puberty involves the development of the genitals, and libido begins to be used in its sexual role. However, those feelings for the opposite sex are a source of anxiety, because they are reminders of the feelings for the parents and the trauma that resulted from all that.

Classical Conditioning

According to Hall (1998), The researcher with which classical conditioning is most often associated is **Ivan Pavlov**. In fact, classical conditioning is sometimes referred to as "Pavlovian" conditioning. Pavlov was a Russian physician and researcher who did a lot of important work studying the digestive system, for which he won a Novel prize in 1904. He’s best known however, for his development of a model for describing a basic non-conscious instinctual type of learning.

The "classic" classical conditioning experiment conducted by Pavlov goes as follows: A dog is hooked to a mechanism that measures the amount that the dog salivates. A tone is sounded just before a dog is given meat powder. This occurs several times. Eventually, conditioning occurs in that the dog salivates just to the bell alone. Of course, the dog salivates instinctively in response to the food, but "learns" to salivate to the sound of the bell, much

as you might find your mouth watering at the site, smell, or even memory of your favorite food. Pavlov used this relatively simple experiment as a model for describing much of the automatic/nonconscious learning that occurs in everyday life. In any case where you have "learned" to respond automatically to some sort of stimulus with fear, joy, excitement, or anticipation you have become classically conditioned. In fact, a basic characteristic of classical conditioning, in comparison to another popular model, operant conditioning, is that the learning is automatic and non-conscious. Pavlov identified four basic components in this classical conditioning model. The **unconditioned stimulus** is the stimulus that naturally and instinctively elicits the target response, which, in the case of his classic experiment is the meat powder. **The conditioned stimulus** is the stimulus that comes to elicit the target response, which was the tone in Pavlov's experiment. The **unconditioned** and **conditioned responses** are a little trickier to identify in that they are often the exact same behavior. For example in Pavlov's experiment they are both salivation. The fundamental difference is that the unconditioned response occurs as a result of the unconditioned stimulus, and the conditioned response occurs in response to the conditioned stimulus. In the Pavlov experiment, the unconditioned response is salivation in response to the meat powder, and the conditioned response is salivation in response to the tone.

One special and very powerful example of classical conditioning is **taste aversion**. Taste aversion is a case where an organism learns to have an aversion to the taste or smell or other characteristics of some food or drink. For example, after consuming too much alcohol, it's not unusual for someone to associate the smell or even sight of the alcohol with the sickness that resulted from consuming the alcohol.

Another example that's legendary in psychology circles involves the story of John B. Watson, the father of behaviorism and "**Little Albert**". John B. Watson carried out a classical conditioning experiment with a child (Little Albert) by making a loud noise behind the child's head (smashing two bars together) as the child was playing with a rabbit. Though the child was quite happy playing with the rabbit up until that time, he came to be terrified of the rabbit.

Finally, let's consider a hypothetical example involving a college student. Let's start with the assumption that college student's instinctively fear tests. Let's then imagine that the student is taking a general psychology class, and that the instructor always wears a Hawaiian shirt on test day. Thus, the shirt eventually comes to serve as a conditioned stimulus in that it elicits fear in the student, independent of the test. For the record, this last example is actually "second order" classical conditioning in that in "pure" classical conditioning, the unconditioned stimulus - unconditioned response contingency should be basic and instinctive. Students don't actually have an instinctual fear of tests; rather, this is something that is itself classically conditioned at an earlier age. However, note one important thing about all these examples, which is that they all involve a target/learned behavior that is non-conscious and basic, usually involving some response of the autonomic nervous system (e.g., fear, sadness, anxiety, excitement, or joy).

Other Characteristics of Classical Conditioning

There are, of course, many variables that can effect the degree to which classical conditioning will or will not occur in different situations. As you might have suspected the study of classical conditioning can become quite complex through the consideration of these different variables, and learning researchers have examined many over the years. In this section we will briefly consider some of these variables that have received the most attention.

The time difference between the conditioned stimulus and the unconditioned stimulus is referred to as **latency**. First of all, note that the conditioned stimulus must come first. For example, if Pavlov always sounded the tone after the dog got meat powder, the tone, in the absence of the meat powder, would signal was that the dog somehow missed getting it's meet powder so, in fact, it might as well **not** salivate. Given that the conditioned stimulus does precede the unconditioned stimulus, the general rule of thumb is that the shorter the latency the more likely it is that the conditioning will occur. Another interesting phenomenon that Pavlov identified was a phenomenon that's come to be known as "**spontaneous recovery**". This is the re-occurrence of a classically conditioned response after extinction has occurred. **Extinction** refers to the fact, that, if the conditioned and unconditioned stimuli are not paired for a given number of trials an organism will stop exhibiting the conditioned response. For example, the student mentioned above will, perhaps, some day come to really like Hawaiian shirts again. However, after the student has officially gotten over the fear of Hawaiian shirts, the fear may suddenly reappear. This would be spontaneous recovery. A final important characteristic of classical conditioning is referred to as **generalization**. This is the case where stimuli that are like the conditioned stimulus come to elicit the same response. A classic example is that Little Albert allegedly became fearful of other animals and even his Mother's fur coat.

III Prenatal Development and Infancy

According to Penn (2005), the workings of human bodies – and almost all living creatures – are extraordinarily intricate and complex. We know a great deal about bodily processes and how the body develops, grows and ages. We know that it is possible to regulate and control those processes, with drugs and surgery and through the provision of more healthy and hygienic living and working arrangements. In the UK, there is an entire public service – the National Health Service – dedicated to these ends. And yet we do not understand even very basic biological processes of the human body. Despite recent progress in genetics and the neurosciences, there are still immense gaps in our knowledge. In addition, we do not understand, and do not conceptualize very well, the relationship between consciousness and the body. What is happening inside us and what is happening outside of us, and how are they connected? In particular, the brain is a great mystery.

What is the relationship between the physical substance of the brain and the mental processes it supports? Growth and maturation are influenced by diet, lifestyle and disease. The study of growth and maturation has been given new dimensions by recent medical research – for instance, embryology or molecular biology. Biological maturational processes are uneven. Different systems of the body run on different timescales.

When we speak of biological maturation we refer to a composite account of intricately related molecular machinery. Norms of maturation have to be continually updated as circumstances change, and new facts are discovered. For instance, children in rich countries are bigger than children in poor countries. Obesity in children is a major health problem. Bodily changes reflect nutritional environments. The body gets accustomed to different kinds of food, and then cannot cope easily with changes in diet. For example, nomadic groups in very cold countries such as northern Canada and Mongolia have fat-saturated diets that would kill people elsewhere. In Mongolia, nomads claim that they can tell where an animal came from the taste of its fat. An Inuit woman described to me how raw whale blubber is 'soul-food'. I tasted the rubbery fat but to me it was so nasty that it was impossible to imagine it as comfort food!

Diet leads to distinctive and measurable changes in physique and well-being, but it is highly contextual. The spread of new diseases such as HIV/AIDS affects morbidity rates (the death rates of the population). In some countries life expectancy has been reduced to 40 years or less. Similarly, changes in drug use seem to be leading to new reactive patterns to illness and disease. The emphasis on hygiene in the care of young children, and overuse of antibiotics and painkilling drugs, have probably resulted in children with less effective immune response systems and less resilience. A recent survey of mothers of 15-month-old children undertaken in London asked the question, 'Was your child on any kind of drugs last week?' It revealed that 50 per cent of the sample were given painkillers and 10 per cent were on antibiotics (Wiggins 2001).

In some other European countries – for example, France – reliance on pills and prescriptions is even higher. Certain kinds of cells – embryonic stem cells – seem to be what drive biological change. They have unique regenerative functions – they can repair and refresh. Stem cell biology is prophesied to hold the key to ageing. Stem cells are those which appear to operate the triggers or controls for the growth, development and possibly the regeneration of different bodily systems than children in poor countries. Obesity in children is a major health problem. Bodily changes reflect nutritional environments. The body gets accustomed to different kinds of food, and then cannot cope easily with changes in diet. For example, nomadic groups in very cold countries such as northern Canada and Mongolia have fat-saturated diets that would kill people elsewhere.

In Mongolia, nomads claim that they can tell where an animal came from the taste of its fat. An Inuit woman described to me how raw whale blubber is 'soul-food'. I tasted the rubbery fat but to me it was so nasty that it was impossible to imagine it as comfort food! Diet leads to distinctive and measurable changes in physique and well-being, but it is highly contextual. The spread of new diseases such as HIV/AIDS affects morbidity rates (the death rates of the population). In some countries life expectancy has been reduced to 40 years or less. Similarly, changes in drug use seem to be leading to new reactive patterns to illness and disease. The emphasis on hygiene in the care of young children, and overuse of antibiotics and painkilling drugs, have probably resulted in children with less effective immune response systems and less resilience.

Newman and Newman (2008) state that Infancy is a stage of strikingly rapid development. During the first year of life, the infant's birth weight almost triples. The baby seems to grow before your very eyes. Parents will remark that they go to work in the morning, and their baby seems to have changed by the time they return in the evening. Along with this extraordinary rate of physical growth comes a remarkable process of increased control and purposefulness, leading to the integration of simple responses into coordinated, patterned behavior.

By the age of 2, the fundamentals of movement, language, and concept formation can be observed. Most infants are marvelously flexible, capable of adapting to any of the varied social environments into which they may be born.

The psychological community is giving attention to infant temperament and to the early origins of personality, focusing on individual differences among infants from the very first weeks of life. A growing "baby industry" offers special equipment, foods, toys, books, and other paraphernalia intended to enrich the infant's sensory, perceptual, and motor development and to support the parent–infant bond. Furthermore, parents take classes, read books and magazines, and join support groups so that they can "get it right the first time. „The story of development during infancy requires that one keep in mind a strong, genetically guided pattern of grow than development in continuous interaction with a complex and changing social and physical environment (Plomin, De-Fries, Craig, & McGuffin, 2003). The mother's personality, the father's involvement in child care, cultural beliefs surrounding childrearing practices, and poverty or economic strain that affect the parents' psychological well-being are all factors that influence a child's vulnerability or resilience (Plomin & McClearn, 1993).

As the infant's capacities change, they bring him or her into interaction with new facets of the environment. As daily experiences take place, they shape the infant's neural pathways into patterns of thought and behavior (Coll, 2004). From the perspective of psychosocial development, five major developmental tasks are especially critical during infancy:

- establishment and coordination of the sensory, perceptual, and motor systems
- formation of an attachment to at least one person
- elaboration of the sensorimotor intellectual system
- initial understanding of the nature of objects and creation of categories for organizing the physical and social world
- differentiation of the emotional system

According to Mitchell (1992), There are various ways in which we perceive: touch, hearing, taste, smell and vision. In this chapter we shall focus primarily on vision, simply because most research has been carried out on this sense. It is amazing that we are able to see. If we reflect for a moment, it seems astonishing that in our heads we should have a lens covering a light chamber that has a light-sensitive surface at its rear (called the retina). It is further remarkable that this light-sensitive surface is able to transduce the light energy into

neuronal signals that can be interpreted by the brain. Perhaps most remarkable of all, however, is that the brain can make sense of this information, in such a way that we experience seeing things in the world. This 'making sense of…' is what we call perception.

The really impressive thing is that the brain performs a phenomenal number of computations on the input from the eye which enables us to see items stably located in space. Consider these examples. We look at a chair from one viewpoint and then move to another. From the new viewpoint, the pattern of light falling on the retina is very different from that of the original viewpoint. Yet this experience does not throw us into a terrible confusion about chairs changing in shape as we move around the room. We have no difficulty in recognizing that the shape of the chair remains constant (shape constancy), which shows that our brains are equipped to take our movement into account, and work out that it is this movement that gives rise to the different image emanating from the chair, and not a curious metamorphosis that the chair has gone through.

Moreover, on our travel from one point to the other, although images move across the retina as we move, we do not experience this as an earthquake, with the environment suddenly becoming unstable. Our brains take into account body movement, and work out the implications for this in terms of the images moving across our retinas. The brain can do this to work out whether the movement of the retinal image is just due to our movement, or whether it is instead, or also, to do with the movement of the object itself. This is a process we take for granted so much that it is sometimes difficult to comprehend how amazing it is. Only when the brain makes a mistake are we alerted to some of the processes which automatically take place. One such error occurs when travelling by train. We stop at a station next to another train which has a destination in the opposite direction. After a while, we find that we move off, leaving the stationary train behind. Then we find our brain has made an error, that we are stationary, and that really it was the other train that moved away.

Another perceptual facility is size constancy. As we move away from a chair, it projects a smaller image onto our retinas. Again, this poses no problem. Our brains do not tell us that the chair is getting smaller, but instead takes into account that an effect of greater distance is smaller retinal image (size constancy). A related issue is the perception of depth. If we are blindfolded, and then taken to an unknown vantage point, on removal of the blindfold we will find that we have a fair idea of the distances of various objects from us. We might not be able to express this accurately in units of measurement, such as metres or kilometres, but it is very likely that we would judge accurately which object is nearer or more distant than other comparison objects.

Do we have to learn to do these wonderful feats of perception, or are they something our genes equip us to do? One of the very first psychologists, William James, stated at the beginning of the Twentieth Century that the newborn's world is a 'blooming, buzzing confusion'. Apparently, James took the view that perceiving is something the infant has to learn to do. In recent years, psychologists have set out to investigate whether this is indeed the case, and their attempts are fascinating not just because of the conclusions they have

arrived at, but for some of the ingenious methodology that has been devised as a means for coming up with answers.

Perception of Depth

Let us begin by taking a look at the perception of depth. One of the first, yet still highly pertinent, studies on this was conducted by Gibson and Walk (1960). The now famous apparatus they constructed is known as the 'visual cliff'. The design of this apparatus was inspired by a visit to the Grand Canyon, when Eleanor Gibson wondered whether her baby would get dangerously close to the precipice, or, like adults, would show a healthy respect for the great height and keep well away from the edge. An experiment which utilizes the Grand Canyon seems a little ungainly, not to mention risky! Gibson and Walk set out to recreate a miniature, perfectly safe, precipice in their laboratory, and examine whether babies display fear when near the edge.

The visual cliff apparatus was essentially a very large box, the top of which was clear perspex. Under the perspex was a black and white chequered surface. The surface under one half of the perspex, known as the shallow side, was pressed against the underneath of the perspex. The surface under the other half, known as the deep side, was a substantial way below the surface. Dividing the deep and shallow sides was a plank, forming a kind of bridge across the apparatus. On the deep side of this bridge there appeared to be a nasty drop. On the shallow side, there was no such drop. Of course, this is the impression we adults have, but what about babies? Would they be reluctant to venture onto the deep side, suggesting that they could perceive depth?

Gibson and Walk put a baby onto the bridge, and asked the mother to call to her baby from the shallow side and then from the deep side. The youngest babies tested were about 9 months, for the simple reason that babies under this age are unable to crawl. The findings were that babies were perfectly willing to crawl to the mother across the shallow side, but exhibited a very strong reluctance to go onto the deep side. This neatly demonstrates that 9-month-olds perceive depth: we can make the simple inference that the infants' reluctance to go onto the deep side was because they had some kind of awareness of the danger of a precipice. This could only have resulted from being able to perceive that the deep side was deep.

How did the infants perceive depth? One clue to the distance (or depth) of things that we use all the time without realizing it is 'binocular parallax'. This rather technical-sounding phrase simply means that as an item gets closer to our face, so the discrepancy in the image of the object between our two retinas increases. You can carry out a little demonstration to show that this is so. Look at an item very near to you, say 10 cm from your face, then switch from closing your left eye to closing your right eye, repeatedly. You get the illusion of the item shifting around as you do this. Now focus on a distant item, say a kilometre away if possible, and do the same.

This time, you find that the item does not shift around quite so much. This is because the difference between the location of your two eyes in your face is relatively unimportant where great distances are concerned, but important where small ones are concerned. When the object is close to your face, there is a considerable difference in the view from each eye.

Does the perception of depth make use of binocular parallax from a very early age, possibly from birth? The answer to this question may or may not be 'yes', but what we do know for sure is that the babies in Gibson and Walk's study were not reliant upon binocular parallax for perceiving the depth of the visual cliff. We know this because babies continued to show unease about the deep side even when they wore an eye patch, making it only possible to see through the remaining uncovered eye. In this case, binocular parallax could not have provided a clue to depth.

Although we can rule out one clue to depth that the babies might have used, we cannot be certain how they achieved depth perception instead, and it boils down to opinion and argument. Gibson and Walk put forward the plausible suggestion that the babies perceived depth on the basis of 'motion parallax'. This is something we experience most often when travelling. As the train speeds along, close things, like signals, speed past the window. Distant things, such as hills, move past the window slowly. Indeed, very distant things, such as the moon, seem to travel along with us! The relative speed at which items move past our area of vision as we travel along, gives us a clue to relative distance of the items.

In the case of the visual cliff, perhaps the babies could make use of the information that as they moved their heads, the bridge they were crawling on moved about much more in their visual area than did the chequered material on the deep side of the cliff. This gives the clue that the deep side is further away than the bridge. In contrast, there would be no such discrepancy between the apparent movement of the bridge and the chequered material on the shallow side.

Assuming Gibson and Walk are correct, and infants perceived depth on the basis of motion parallax, can we conclude that the ability to utilize motion parallax information in perception is with us from birth? Gibson and Walk's study suggests it is with us from an early age, but it cannot rule out the possibility that by 9 months of age, when the babies were tested on the visual cliff, they had learned about the link between motion parallax and depth. Younger babies could not serve in the experiment, for the simple reason that they were not mobile. However, some precocious animals, such as goats, lambs and baby chickens can walk within twenty-four hours of birth or hatching. These creatures were tested on the visual cliff, and the findings were clear. The animals ventured onto the shallow side, but not onto the deep side. This strongly suggests that for these creatures, depth perception is innate. If it is innate for these animals, then perhaps it is also innate for humans. That seems a plausible suggestion, but we cannot be entirely sure it is true.

A very imaginative experiment suggesting infants are capable of depth perception at only 3 months of age has been conducted by Bower (1965). Bower placed a 30 cm cube before the infants, one metre away. At the beginning of the session, the babies had been supplied with a pacifier, which was wired to a sensor that detected sucking. If they sucked on the pacifier when the cube was present, they were rewarded by an adult popping up and saying

'peekaboo'. The peekaboo experience gave the babies pleasure, and so they repeated sucking in order to repeat the pleasurable experience. However, sucking only brought about a peekaboo when the cube was present. As a result of this, babies learned that it was useless sucking when the cube was absent, and so did not bother to suck then.

Having done all this, Bower then presented a variety of cubes of different sizes and distances, and noted which combination elicited the most sucking. He found that a cube the same size as the original, but more distant and therefore giving rise to a much smaller retinal image, produced considerable sucking by the infants. Indeed, the sucking was at least as great as that elicited from a larger cube at greater distance that produced the same size of retinal image as the original. In contrast, a cube of different size from the original, situated at a distance that resulted in a different retinal size also, elicited relatively little sucking from the babies.

In this experiment, the babies' sucking served as an indication of recognition of the original cube. Since babies sucked a great deal when the original cube was moved into the distance, it suggests that the babies recognized this as being the original cube presented to them during the peekaboo game. This demonstrates that young babies have some understanding of depth, since they seem to appreciate that an object which moves into the distance produces a smaller image in the eye. This shows that they know something about the features of depth or distance, at an age younger than demonstrated by Gibson and Walk. The earlier in development we can demonstrate an ability, the more likely it is innate, yet we cannot rule out the possibility of learning in these studies.

Developmental Changes (according to Austrian, 2008):

In 1965, Sheldon H. White popularized the notion of the five-to-seven-year shift as the time when children can begin to take on responsibilities, do simple tasks, and in some cultures, become part of the labor force (White 1965). In Western and other cultures, from the Middle Ages on, the “age of reason” was felt to be seven years (White 1996).

Between five and seven years of age, children begin to learn more independently. This is facilitated by their capacity to pay attention, understand and respond to rules, and maintain self-control. Their ability to cooperate, share ideas, and be sensitive to the needs of others creates an environment in which they can learn. As children become more discerning in general, their palates seem to become a little less discriminating, making it easier for them to eat a variety of foods and therefore be away from home. By six years of age, most children are self-sufficient and largely independent in activities of daily living, allowing them to do more and to have more significant interactions with their peers. As they learn to tell time and to understand the seasons, their sense of time changes. However, it is not to be expected that six-yearolds will be able to sit for any length of time without an outlet for their seemingly boundless physical energy.

Middle childhood is a period of explosion of structured learning. Reading, writing, and arithmetic, the foundations for formalized learning, are established. Six- and seven-year-olds

can understand relationships between numbers. Letters, sounds, and words come together, resulting in the ability to read.

Much study has been given to linguistic development, the mechanisms by which children learn and assimilate new vocabulary (Walley 1993). Early school-age children have a greater sense of more words and are closer to being able to understand words in context, a skill that develops over the next several years. Preschoolers learn two to four new words a day, four-year-olds know 2,500–3,000 words, and first graders know 7,000–10,000 (Anglin 1989; Pease and Gleason 1985). Five- and six-year-olds demonstrate a beginning mastery of complex rules of grammar and syntax. They are eager to be read to and to try to read to others, or to share stories. Writing performance progresses on a continuum: the five-year-old writes or copies words needed for work or play, such as making a sign for a play activity; the six-year-old writes words, phrases, or sentences to convey meaning, such as making a shopping list; and the seven-year-old uses writing to convey meaning for different purposes, such as writing a story about a personal experience (Meisels 1996). At each age in these early years, as language and cognition increase, children's jokes become a more regular part of their routine, and riddles and puns emerge.

Younger children are often afraid of a variety of things, including the dark, ghosts, snakes, skeletons, basements, attics, slimy things, and monsters, and are subject to nightmares and night terrors. More realistic fears involving bodily harm and physical danger become more frequent as children get older (Bauer 1976). Of worries reported by 70 percent of a group of seven-yearolds, nearly half were event-related concerns such as a motor vehicle accident, while less then one fourth were imaginary or nighttime fears (Stevenson-Hinde and Shouldice 1995).

Six- and seven-year-olds may struggle at times, trying to find their place. They have begun to be able to reason, yet they are sometimes treated like the babies they just were. Alternatively, with their new competencies, they no longer have someone paying attention to their every word; this may periodically evoke statements such as, “You don't care about me,” or “No one wants to talk to me.” Six- and seven-year-olds are more sensitive to responses from others, particularly parents, and can say “You hurt my heart,”or “My stomach sank when you said that.” These children may struggle with separation from caregivers, and with issues of not getting their way. They like to be in control, yet rely on rules set by others to afford them the structure they need in order to thrive. They desire to know more, to be more grown up, but lack cognitive and emotional autonomy.

Early school-age children spend increasing amounts of time with peers and can more easily identify attributes they do and don't like in other children. This contact with peers may lead to a new appreciation that not everyone's life is the same. For example, a child whose father is ill and who has only known that reality may assume that all families have the same limitations imposed on them. When the child gets to school and connects with friends who have young, energetic fathers, the differences will become apparent. Children's inner representations of the world are now being influenced by multiple external factors. Issues of religion, economic status, work styles, family constellations, and family responsibilities are among the differences they begin to appreciate.

This is a time when children develop more refined motor skills, leading to greater physical aptitude and independence. Because they can adhere to the rules and meet the physical demands, team sports, such as baseball and soccer, or other activities like gymnastics become more important parts of their lives. They also enjoy fine motor activities, but may become frustrated by their lack of coordination.

Given the opportunity, children will play with what they choose. Girls may play with remote-control cars and Legos and boys may play with dolls and dress up, but societal stereotypes influence the process in latent and manifest ways, resulting in “engendered” children. If a child grows up in a community that values difference, the child will value difference. If a boy is given the message that playing with dolls or nurturing is bad, or if a girl is given the message that girls don't play with bugs, then they are deprived of opportunities for growth.

SEVEN TO NINE

Children seven to nine years old learn quickly, tire easily, and are anxious about new experiences, yet can be joyfully childlike in expression. They are more independent from family, but will eagerly stay close to home. They have great attachments to their primary caregiver, and are happy both on family adventures and playing with friends. Issues that arise in school with classmates and with teachers can enable these children to become more adept in communication with friends and family.

Intuition gives way to logic and game playing gains complexity. With reason comes a more sophisticated sense of the universe; children in this age group learn to understand time. Seven-year-olds' new facility in reading and writing expands the parameters of their worlds dramatically. Their abilities to categorize and to plan set them apart from younger children. They love to collect items such as trading cards, dolls, and rocks. These activities and hobbies display their newly developed abilities in organization and memorization.

Seven- to nine-year-olds can be paradoxical. They are not quite independent enough to be on their own but not dependent enough to need close watching. Unsupervised time increases, as they enjoy being alone and are entirely able to entertain themselves. Their capacity for emotional connection and intimacy with others expands, as does the amount of time they spend with peers. These are sensitive years, because these children are more able to evaluate themselves. Having just learned to be reflective, they have not yet perfected a strong emotional veneer in response to their own or others' appraisals of them.

An eight-year-old child's physical growth may slow, but everything else is happening rapidly. Children are moving, thinking, and acting quickly. They are much less introverted and have acclimated to the routine of school, enjoying their competence. Reading affords them volumes of emotional, intellectual, and practical realities, and allows for a richer fantasy life.

Societal perceptions of the learning needs of children have changed in recent decades. Children are becoming computer proficient before they have learned to read and write. Some elementary schools oppose the incorporation of computers into the curriculum before third grade, arguing that computer learning does not allow the child to integrate tactile and

visual stimuli in the same way as do actual puzzles or expressive materials. Computer learning does not emphasize skills utilized when more is left to the imagination and when responses are not immediate; it does not allow the child to contemplate the next move, let alone alternative avenues of thought.

Nine-year-olds have a varying range of emotions and can exhibit behavior that is unpredictable. Not being shy, these children are “in your face” while showing sensitivity to their own needs as well as those of others. Their increased awareness allows them to reach new highs and lows of feelings, and their emotional range is quite striking. These children explore new territory emotionally and physically, and have more opinions and attitude. Their behavior may seem somewhat capricious, with mood swings. This volatility may have its roots in nine-year-olds' attempts to assimilate cognitive and emotional gains while trying to come to grips with a new host of feelings and sensitivities. Sometimes they have trouble maintaining this balance and may seem like they are erupting emotionally, but the storms pass. At this age, children begin to censor their thoughts and impulses and so begin a process of screening information from parents and others. They begin to have a more separate life as a result of actual emotional, intellectual, and practical experience.

Children in this age group are easily embarrassed. They are more aware of their potentialities and limitations than they were before. They can actually think differently and reflect upon what they are thinking. They are more critical of themselves, feeling that “I could have done better” and, as an extension, of their caregivers: “You should have known.”

Children between seven and twelve years of age are inclined to be dramatic. They are the most likely to get on stage for school and social events. They are more outgoing, reflective, sensitive, curious, and critical. Although they are performers, they may not actually achieve peak performance levels. They need to take tasks to completion, verifying the rules of order and logic they have just learned. The nine-year-old is better able to master tasks than the seven-year-old, who was able to contemplate taking them on but might not have excelled in the process. This is a period of refining motor skills. Sports activities and interests expand to include jumping rope, skateboarding, and skating. Other unique skills emerge during this time, such as snapping fingers, whistling, wiggling the ears, and crossing the eyes.

Eight- and nine-year-olds may seem more grown up than they actually are. They possess increasingly sophisticated understanding of rules, structure, and systems. Children who appear to be able to discuss complex issues openly may still benefit from play (dramatic or fantasy driven) as a safer and perhaps more effective medium than words for self-expression.

By nine years of age, there is a clearer shift of emotional energy from family to friends. Children can be true, committed friends, and their friendships can become more intimate. The ease of same-sex relationships continues. However, media portrayals of strong sexual identification and other cultural changes have led children to earlier interest in individual relationships with those of the opposite sex, predominantly with neighbors and school friends. While much more serious about their relationships with peers, they still enjoy adult companionship and attention, particularly on their terms.

For children nine and older, this is a period of physical and emotional growth toward independence. They are establishing their own identity, but they have not yet truly come into their own. They may have issues with regard to self-worth and may have trouble accepting compliments and criticism graciously. They can be more anxious than younger children, seemingly less certain, and more cautious. These children have increasingly realistic evaluations of themselves, are able to assess and accept discipline as fair or unfair, and are more accepting of rules, if they are logical. They have many and more varied interests. Collections are still important but are more complex.

Verbal and mathematical skills increase, language becomes much more sophisticated, and abstractions are better understood. Life and death are more realistically contemplated. The previously carefree child is beginning to have worries that parallel those of adults. Nine-year-olds are more discriminating and understand the boundaries between adult and child. They are more logical and reasonable, but may struggle with knowing what their place is, what they are allowed to do, and how to manage the range of emotions they are experiencing.

Adults have preconceived notions about how children should behave at this age. One does not often hear a five-year-old described as “mature” or a seven-year-old as “young for his age,” but one often hears of a nine-year-old being immature or notably responsible. Some children have baby-sitters through their early teen years, whereas others start baby-sitting by age nine.

TEN TO TWELVE (PREADOLESCENT)

As they approach age ten, children remain connected to childhood in activities and emotions though being pulled toward adolescence. The unique attributes of this age group may be frequently overshadowed by the impending upheaval. The “preteen” years show the cumulative effects of childhood. Preadolescents have learned decision-making skills and know their own minds.

Ten- to twelve-year-olds are able to develop interpersonal intimacy, have evolved in their cognitive and emotional ability, and have internalized a sense of morality and caring. They develop a capacity for assessing others and for self-reflection. They can seem very capable. With each passing year they have more freedom and more responsibilities; many of them are baby-sitting, delivering newspapers, or working at other part-time jobs. They are making choices about their lives and are thinking about the future, anticipating changes. These children are seeking to understand life more completely and when affected by a crisis, they will still seek parental guidance and reasoning.

The preceding decade of learning allows the preteenager, who remains a little awkward, to emerge into the person he will be. Linguistically speaking, fifth-graders have command of between 39,000 and 46,000 words (Anglin 1989). Younger children have greater linguistic capabilities, felt to be related to greater plasticity in brain structures associated with

language acquisition. Placed in a new environment, they will easily adopt a new language and retain a native comprehension of it; after age twelve, this is less likely.

The academic transition to junior high or middle school, which occurs during this period, has been identified as a stressful life event for children, sometimes associated with depression, academic failure, and use of addictive substances. Preparation for junior high school, including building skills for responding to peer pressure and for decision making, has been recognized as a way to deal with the stress and to minimize subsequent deviant behavior (smoking, drinking, and using drugs) as a means of adjusting (Epstein, Griffin, and Botvin 2000; Gilchrist, Schinke, Snow, Schilling, and Senechal 1988; Snow, Gilchrist, Schilling, Schinke, and Kelso 1986).

Preadolescents want to spend more time with their peers, although they still go along on family vacations and enjoy family time. They are more aware of their sexuality and are beginning to be interested in more intense individual relationships. Sexual preferences are said to be determined by adolescence, suggesting that at this age, children explore and question their initial feelings about sexuality. In keeping with this, appearance is a major issue. At this time, a perceived drop in self-esteem can affect a child's outlook on life. Twelve-year-olds enter adolescence grounded in reality, which serves them well when they experience the volatility of the teen years.

According to Steinberg, Morris and Sheffield (2001):

Research on growth and development during adolescence expanded at a remarkable rate during the past 13 years, since the last time a comprehensive review of the literature on adolescent development appeared in this series (Petersen 1988). [Although two other contributions to the Annual Review of Psychology published during the last decade focused on adolescence (Compas et al 1995, Lerner & Galambos 1998), neither of these were intended to provide a broad overview of the literature.] The flood of interest in adolescence during the past decade sparked the appearance of numerous new journals devoted to the publication of theoretical and empirical articles on this age period (e.g. the Journal of Research on Adolescence), as well as a substantial increase in the number of pages devoted to adolescence in established outlets within the subfield of developmental psychology (e.g. Child Development, Developmental Psychology) and within psychology as a whole (e.g. American Psychologist, Psychological Bulletin). The Society for Research on Adolescence, the major association of social and behavioral scientists interested in adolescent development, which met for the first time in 1986, grew from a fledgling organization of a few hundred individuals to an association with some 1000 members. In view of the fact that the empirical study of adolescence barely existed as recently as 25 years ago, the remarkable rise of interest in the second decade of life merits some explanation.

Four broad trends were likely responsible for the growth of this interest area. First, the increased influence of the "ecological perspective on human development" (Bronfenbrenner 1979) during the late 1980s and early 1990s within the field of developmental psychology drew researchers' attention toward periods of the lifespan characterized by dramatic changes in the context, and not simply the content, of development, making adolescence a natural magnet for researchers interested in contextual variations and their impact. Second,

methodological improvements in the study of puberty enabled researchers interested in "biosocial" models of development to test these models within a developmental period characterized by wide, but easily documented, variation in both biology and context. Third, the shift in research funding priorities toward more applied areas of study, and toward the study of social problems in particular, encouraged many scholars to turn their attention to such issues as antisocial behavior, drug use, nonmarital pregnancy, and depression--problems that typically emerge for the first time during adolescence. Finally, many of the important longitudinal studies of development launched during the 1980s shifted their focus toward adolescence as the study samples matured into preadolescence and beyond.

These general trends are reflected in the specific topic areas that have dominated the adolescence literature over the past decade or so. Our informal content analysis of several journals (Child Development, Developmental Psychology, and the Journal of Research on Adolescence) revealed that the most popular areas of inquiry were adolescent development in the family context, problem behavior, and, to a lesser extent, puberty and its impact. Although other topics did receive concerted, if not sustained, attention during this same period of time--the study of changes in self-image and of adolescents' peer relations were well-represented--the family-puberty-problem behavior triumvirate accounted for about two-thirds of the published articles on adolescence during the past decade. Indeed, if a visitor from another planet were to peruse the recent literature, he or she would likely conclude that teenagers' lives revolve around three things: parents, problems, and hormones. We suspect that this characterization is only partially true.

New research on old topics (Steinberg, Morris and Sheffield, 2001):

The Causes and Correlates of Problem Behavior

From its beginnings at the turn of the century, the scientific study of adolescent development has always had as part of its implicit and explicit agendas the goal of describing, explaining, predicting, and ameliorating problematic behavior. Despite oft-repeated pleas to "de-dramatize" adolescence (e.g. Dornbusch et al 1991), frequent reminders that adolescence is not a period of "normative disturbance" and accumulating evidence that the majority of teenagers weather the challenges of the period without developing significant social, emotional, or behavioral difficulties (Steinberg 1999), the study of problem behavior continued to dominate the literature on adolescent development during the 1980s and 1990s. Indeed, one recent article (Arnett 1999) suggested that scholars might reconsider the fashionable assertion that the "storm and stress" view is incorrect and acknowledge that the early writers on the subject may have been onto something.

The notions that adolescence is inherently a period of difficulty, that during this phase of the life-cycle problematic development is more interesting than normative development, and that healthy adolescent development is more about the avoidance of problems than about the growth of competencies have persisted virtually unabated since the publication of Hall's treatise on the topic, nearly a century ago (Hall 1904). Thus, whereas there continue to exist overarching frameworks to explain dysfunction and maladaptation in adolescence (Jessor's

"Problem Behavior Theory," perhaps the most influential of these, continued to dominate research during the past decade), no attempt to develop a general theory of normative adolescent development has met with widespread acceptance, and theories of normative adolescent development that had once been popular have declined considerably in their influence. Erikson's (1968) theory of adolescent identity development, for example, once a dominant force in adolescence research, endures in undergraduate textbooks but has all but disappeared from the empirical landscape. Piaget's theory of formal operations, the chief organizing framework for adolescence research during the 1970s and early 1980s, was more or less abandoned, as the study of cognitive development became more and more dominated by information-processing and computational models, and as empirical studies cast increasing doubt on many of Piaget's fundamental propositions about cognitive development during adolescence (Keating 1990).

Although one may bemoan the relative lack of attention paid to normative adolescent development in recent decades, the field's concerted focus on adolescent problem behavior has paid off with a wealth of information based on solid research. In addition, much of what we learn about atypical development in adolescence informs our understanding of normal adolescent development. The influence of the discipline of developmental psychopathology on the study of dysfunction in adolescence has been especially important, as have the many longitudinal studies that have been carried out within this framework (e.g. Farrington 1995, Henry et al 1993, Rutter 1989). As a consequence, a number of general conclusions about adolescent problem behavior have begun to emerge, and they have shaped, and will continue to shape, research on the topic.

First, one needs to distinguish between occasional experimentation and enduring patterns of dangerous or troublesome behavior. Many prevalence studies indicate that rates of occasional, usually harmless, experimentation far exceed rates of enduring problems (Johnston et al 1997). For example, the majority of adolescents experiment with alcohol sometime before high school graduation, and the majority will have been drunk at least once; but relatively few teenagers will develop drinking problems or will permit alcohol to adversely affect their school or personal relationships (Hughs et al 1992, Johnston et al 1997). Similarly, although the vast majority of teenagers do something during adolescence that is against the law, very few young people develop criminal careers (Farrington 1995).

Second, one must distinguish between problems that have their origins and onset during adolescence and those that have their roots in earlier periods. It is true, for example, that some teenagers fall into patterns of criminal or delinquent behavior during adolescence, and for this reason we tend to associate delinquency with the adolescent years. However, most teenagers who have recurrent problems with the law had problems at home and at school from an early age; in some samples of delinquents, the problems were evident as early as preschool (Moffitt 1993). Likewise, longitudinal studies indicate that many individuals who develop depression and other sorts of internalizing problems during adolescence suffered from one or another form of psychological distress, such as excessive anxiety, as children (Zahn-Waxler et al 2000, Rubin et al 1995). We now understand that simply because a problem may be displayed during adolescence does not mean that it is a problem of adolescence.

Third, many of the problems experienced by adolescents are relatively transitory in nature and are resolved by the beginning of adulthood, with few long-term repercussions. Substance abuse, unemployment, and delinquency are three examples: Rates of drug and alcohol use, unemployment, and delinquency are all higher within the adolescent and youth population than among adults, but most individuals who have abused drugs and alcohol, been unemployed, or committed delinquent acts as teenagers grow up to be sober, employed, law-abiding adults (Steinberg 1999). Unfortunately, little is known about the mechanisms through which individuals "age out" of certain types of problems, although it has been suggested that much of this phenomenon is due to the settling-down effects of marriage and full-time work (e.g. Sampson & Laub 1995). Nevertheless, many researchers have begun to search for ways of distinguishing, during adolescence, between so-called "adolescence-limited" problems and those that are "life-course persistent" (Moffitt 1993). Ironically, the predictors that discriminate between adolescents who persist versus those who do not are best assessed prior to, not during, adolescence (e.g. attention deficit disorder, neurological insult, conduct problems in preschool). This finding reminds us that development during adolescence cannot be understood without considering development prior to adolescence.

Far less is known about the developmental course of internalizing problems than externalizing problems, but it appears that the inverted U-shaped developmental curve of externalizing in adolescence, with prevalence rates peaking during the middle adolescent years and then declining, does not characterize age changes in internalizing problems. The prevalence of depression, for example, increases during early adolescence and continues to increase, albeit less dramatically, during adulthood (Avenevoli & Steinberg 2000). Perhaps more interestingly, the widely-reported gender difference in rates of adult depression, with women far more likely than men to suffer from this disorder, does not emerge until adolescence (Nolen-Hoeksema & Girgus 1994). Indeed, at least one analysis indicates that the gender difference in rates of adult depression can be accounted for entirely by gender differences in adolescent-onset depression; gender differences in rates of adult-onset depression are not significant (Kessler et al 1993).

Although the spike in prevalence rates of depression at adolescence and the emergence of gender differences in depression in adolescence are both well-established, surprisingly little is known about the underlying mechanisms for either phenomenon; interesting theories abound, but definitive data that differentiate among alternative hypotheses are surprisingly scarce. Among the most frequently offered explanations are those that point to developmental and gender differences in (a) hormonal changes at puberty (e.g. Cyranowski & Frank 2000), (b) the prevalence and nature of stressful life events (e.g. Petersen et al 1991), and (c) the emergence of certain types of cognitive abilities and coping mechanisms (e.g. Nolen-Hoeksema et al 1991). The disappointing truth, though, is that we do not know why depression increases in early adolescence or why adolescent girls are more likely to manifest the disorder than adolescent boys.

According to Kroger (2003), numerous studies have been undertaken to examine a broad range of personality features, interpersonal behaviors, family antecedents, and developmental patterns of movement for each of the identity statuses. Within many

Western contexts, these characteristics have been found for both men and women in more recent decades. Early stages of identity status research through the 1970s focused primarily on core personality features of each identity status within the United States and Canada, with developmental patterns studied over only two data-collection points during adolescence. However, the past two decades have seen a wide range of personality features examined in many countries around the world. Developmental patterns have been examined over more points in time, and the study of identity-status patterns of change and stability has been extended into the years of early and middle adulthood. Recent criticism of the developmental nature of the identity statuses will be addressed in a subsequent section. The following section details personality variables, patterns of family interaction, and behavioral consequences associated with each of the four identity statuses.

Kroger (2003) continues, that identity-achieved individuals have shown such personality features as the high levels of achievement motivation and self-esteem and low neuroticism and high conscientiousness and extrovertedness . Conversely, the identity-achieved have also shown the lowest use of defense mechanisms (e.g., Cramer, 1997), and low levels of shyness (e.g., Hamer & Bruch, 1994) relative to those of other identity statuses. They also have shown the highest levels of internal locus of control (e.g., Abraham, 1983).

In terms of cognitive processes, identity-achieved individuals have demonstrated the ability to Function well under conditions of stress (e.g., Marcia, 1966) and to use more planned, rational, and logical decision-making strategies than other identity statuses (e.g., Blustein *&* Phillips, 1990; Boyes & Chandler, 1992). This group has also demonstrated the highest level of moral reasoning regarding issues of both justice and care (e.g., Rowe & Marcia, 1980; Skoe & Marcia, 1991). They have also demonstrated the highest levels of ego development in Loevinger's (1976) ego development scheme (e.g., Berzonsky & Adams, 1999).

Emerging Adulthood (according to Jeffrey Arnette, 2000)

What are the distinguishing features of emerging adulthood? What makes it distinct from the adolescence that precedes it and the young adulthood emerging adulthood that follows it?

There are five main features:

1. It is the age of identity explorations, of trying out various possibilities, especially in love and work.

2. It is the age of instability.

3. It is the most self-focused age of life.

4. It is the age of feeling in-between, in transition, neither adolescent nor adult.

5. It is the age of possibilities, when hopes flourish, when people have an unparalleled opportunity to transform their lives.

Let's look at each of these features in turn.

The Age of Identity Explorations

Perhaps the most central feature of emerging adulthood is that it is the time when young people explore possibilities for their lives in a variety of areas, especially love and work. In the course of exploring possibilities in love and work, emerging adults clarify their identities, that is, they learn more about who they are and what they want out of life. Emerging adulthood offers the best opportunity for such self-exploration. Emerging adults have become more independent of their parents than they were as adolescents and most of them have left home, but they have not yet entered the stable, enduring commitments typical of adult life, such as a long-term job, marriage, and parenthood. During this interval of years, when they are neither beholden to their parents nor committed to a web of adult roles, they have an exceptional opportunity to try out different ways of living and different options for love and work.

Of course, it is adolescence rather than emerging adulthood that has typically been associated with identity formation. A half century ago Erik Erikson designated identity versus role confusion as the central crisis of the adolescent stage of life, and in the decades since he articulated this idea, the focus of research on identity has been on adolescence. However, Erikson also commented on the "prolonged adolescence" typical of industrialized societies and the psychosocial moratorium granted to young people in such societies, "during which the young adult through free role experimentation may find a niche in some section of his society."

Decades later, this applies to many more young people than when he wrote it. If adolescence is the period from age 10 to 18 and emerging adulthood is the period from (roughly) age 18 to the mid-twenties, most identity exploration takes place in emerging adulthood rather than adolescence. Although research on identity formation has focused mainly on adolescence, this research has shown that identity achievement has rarely been reached by the end of high school and that identity development continues through the late teens and the twenties.

In both love and work, the process of identity formation begins in adolescence but intensifies in emerging adulthood. With regard to love, adolescent love tends to be tentative and transient. The implicit question is "Who would I enjoy being with, here and now?" In contrast, explorations in love in emerging adulthood tend to involve a deeper level of intimacy, and the implicit question is more identity-focused: "What kind of person am I, and what kind of person would suit me best as a partner through life?" By becoming involved with different people, emerging adults learn about the qualities that are most important to them in another person, both the qualities that attract them and the qualities they find distasteful and annoying. They also see how they are evaluated by others who come to know them well. They learn what others find attractive in them—and perhaps what others find distasteful and annoying!

In work, too, there is a similar contrast between the transient and tentative explorations of adolescence and the more serious and identity-focused explorations of emerging adulthood.

Most American adolescents have a part-time job at some point during high school, but most of their jobs last for only a few months at most. They tend to work in service jobs—restaurants, retail stores, and so on—unrelated to the work they expect to be doing in adulthood, and they tend to view their jobs not as occupational preparation but as a way to obtain the money that will support an active leisure life—CDs, concert tickets, restaurant meals, clothes, cars, travel, and so on.

In emerging adulthood, work experiences become more focused on laying the groundwork for an adult occupation. In exploring various work possibilities and in exploring the educational possibilities that will prepare them for work, emerging adults explore identity issues as well: "What kind of work am I good at? What kind of work would I find satisfying for the long term? What are my chances of getting a job in the field that seems to suit me best?" As they try out different jobs or college majors, emerging adults learn more about themselves. They learn more about their abilities and interests. Just as important, they learn what kinds of work they are not good at or do not want to do. In work as in love, explorations in emerging adulthood commonly include the experience of failure or disappointment. But as in love, the failures and disappointments in work can be illuminating for self-understanding.

The Age of Instability

The explorations of emerging adults and their shifting choices in love and work make emerging adulthood an exceptionally full and intense period of life but also an exceptionally unstable one. Emerging adults know they are supposed to have a Plan with a capital P, that is, some kind of idea about the route they will be taking from adolescence to adulthood, and most of them come up with one. However, for almost all of them, their Plan is subject to numerous revisions during the emerging adult years. These revisions are a natural consequence of their explorations. They enter college and choose a major, then discover the major is not as interesting as it seemed—time to revise the Plan. Or they enter college and find themselves unable to focus on their studies, and their grades sink accordingly—time to revise the Plan. Or they go to work after college but discover after a year or two that they need more education if they ever expect to make decent money—time to revise the Plan. Or they move in with a boyfriend or girlfriend and start to think of the Plan as founded on their future together, only to discover that they have no future together—time to revise the Plan.

The Self-Focused Age

There is no time of life that is more self-focused than emerging adulthood. Children and adolescents are self-focused in their own way, yes, but they always have parents and teachers to answer to, and usually siblings as well. Nearly all of them live at home with at least one parent. There are household rules and standards to follow, and if they break them they risk the wrath of other family members. Parents keep track, at least to some extent, of where they are and what they are doing. Although adolescents typically grow more independent than they were as children, they remain part of a family system that requires responses from them on a daily basis. In addition, nearly all of them attend school, where teachers set the standards and monitor their behavior and performance.

The Age of Feeling In-Between

The exploration and instability of emerging adulthood give it the quality of an in-between period—between adolescence, when most people live in their parents' home and are required to attend secondary school, and young adulthood, when most people have entered marriage and parenthood and have settled into a stable occupational path. In between the restrictions of adolescence and the responsibilities of adulthood lie the explorations and instability of emerging adulthood.

It feels this way to emerging adults, too—like an age in-between, neither adolescent nor adult, on the way to adulthood but not there yet. When asked whether they feel they have reached adulthood, their responses are often ambiguous, with one foot in yes and the other in no.

The Age of Possibilities

Emerging adulthood is the age of possibilities, when many different futures remain open, when little about a person's direction in life has been decided for certain. It tends to be an age of high hopes and great expectations, in part because few of their dreams have been tested in the fires of real life.

Emerging adults look to the future and envision a well-paying, satisfying job, a loving, lifelong marriage, and happy children who are above average. In one national survey of 18–24-year-olds, nearly all—96%—agreed with the statement "I am very sure that someday I will get to where I want to be in life." The dreary, dead-end jobs, the bitter divorces, the disappointing and disrespectful children that some of them will find themselves experiencing in the years to come—none of them imagine that this is what the future holds for them.

Throughout his imagery of adults, there are two integrated biases of Erikson's that permeate his thought. These are his placement of humans decidedly within the animal kingdom and his disinclination to believe that highly cerebral, tool-driven humans are developmentally more advanced than less industrially or technologically progressive humans, either in the contemporary world or historically. At times these biases are explicit. At other times they are soft undercurrents in his thought. From 1965 on, they became more prominent in his work.

Looking to these biases, it is a fact of the twentieth century that humans understand their species as part of the animal kingdom, typically placing Homo sapiens at the upper rung of evolution. Further, many people tend to believe that later, more progressive and "civilized" humans are more rational, and thus are better, than earlier or more primitive humans. Erikson disputed such notions. He accepted that the development of grey matter, upright posture, linguistics, and tool use places humans on top of the evolutionary ladder and gives them dominance. However, he found that humans are far less dependable and trustworthy than lower-form creatures. To Erikson, at least nonlinguistic beasts have predictable reliable instincts as behavioral guidance systems, whereas most human adults were a different case. Highly cerebral animals, human adults frequently behave in de-cerebrate ways, even after long eras of evolution and extended human childhoods of teaching and nurturing. Further,

he held that human adults' rational, orderprone, de-emotionalized thinking obscures their limbic powers to feel and “to see” with feeling. To him, the intellect of the evolved human adult sits on top of, and obliterates, senses, sense, and insight. Rational intellect evaluates from its power center in some icy cold region of the cerebrum where “thinking” adults calculate how one or another option might lead to greater personal gain or good. Such “reason” necessarily mixes with variable doses of infantile rage. This is a rage-reason blend that exists in every adult. But in some persons and situations, its blend is volatile. Detached reason and aggressive rage can obliterate feeling, leading to the destruction of others and of the self. Watching along as Erikson thought and wrote, readers find him wondering how the evolved, tool-making, manipulating, intellectualized adult might be intentionally reversed down the evolutionary tree to a person who feels and cares deeply.

Erikson's related bias was that humans are contained within the animal kingdom in perpetuity. He found that many adults tend to deny the biological forces and controls that life places on all animals, just as he found mid-to latetwentieth-century adults in particular tending to deny the reality of death. In his Harvard papers and audiotapes, we find Erikson musing about the sounds of bird chirpings, about the rhythmic beat of the songwriting Beatles of the 1960s, about the pull and sway of native American and African drums, and about the lyrical symmetry of elders' reveries in songs and poems. Softly planted in Erikson's images is his sense of humans as creatures of the wild, now domesticated perhaps, but only arbitrarily wrenched from a more natural ecological niche. He held that human preferences to see the species as separate from these natural abodes and as both separate from and better than lower creatures creates difficulties that most adults themselves cannot see.

The images that follow in the next chapters do not specify stages or the specific contents of adult love, care, and completeness. Erikson's psychosocial stage energies, investments, and sequencing are integral to his writing. They are implicit in the chapters and content that follow. However, when singled out, they obscure the images Erikson conveyed in which such content necessarily finds its form. In fact, Erikson's stage content blinds readers to seeing his images in published works. This is partly because Erikson intended other primary messages and partly because readers will find what has been memorialized in more than 60 years of Erikson's work in print. Adults always find what they expect to see. Erikson wished to teach lessons to his public, those of stage-unfolding potentials and requirements and that of the integration of the unconscious in a partly conscious, connected, potentially ethical and developing, biopsychosocial, and historically embedded human. Had he emphasized from the outset the insights and images that are built so carefully into his telescoping stage concepts about the adult, those would by now define his thought. Instead, he took another path and left behind the work of unearthing the images he and development portray.

According to Nemiroff and Colarusso (1990), as an adult develops, he or she responds to the changing context of life as mediated by time, situation, and internal shifts. The end product is behavior newly integrated into the repertoire of behaviors characteristic of that individual. The conflict-free sphere of the ego is enlarged, and the new behavior is contained in an enhanced definition of self. This kind of development takes years to complete and usually is accomplished in a series of small steps. Situational variables are extremely important to the success of the process.

I have in mind a man who was earlier cold and withdrawn in his relationships and eventually was able to develop nurturing behaviors. He was self-critical in the earlier stages of the process, when he failed to demonstrate the capacity to care in situations that called for it. He also received ample criticism from his wife. His self-criticism was compounded by and confused with that external criticism. Being dissatisfied with oneself in this way is a painful state of mind and results in instability, which can lead to added defensiveness to avoid the conflict or to further development to resolve it. Unhealthy defensive responses may be frequently chosen. Progression takes place only when the developmental response takes place more often than the defensive response.

Usually, the mental effort to forget about the conflict—that is, to stop being dissatisfied with oneself—is accompanied by defensive behavior such as being distant and preoccupied; finding justification for an aloof or above-it-all posture; or becoming too busy to care. The man to whom I refer used all three maneuvers. Defensive behavior is directly competitive and incompatible with caring behavior. Defensive behavior creates problems : it is not responsive to reality but serves to deny a painful state of

mind. Although such behavior is inevitably problematic, it is not extinguishable by ordinary contingencies of reward and punishment specific to a context, because it is driven by the more powerful motive to relieve pain through temporary unawareness.

Therefore, like any developmental conflict, a conflict about becoming caring has two inappropriate sets of behavior. In this man's case, the primary behavior was the inability to respond to his own intent. The secondary patterns were the defenses expressed as behavior, namely, always being too busy.

During this man's first marriage, his inability to develop the caring function was an ingredient *and* a consequence of the failed relationship. However, when he remarried at age forty-three, he was able to be a different kind of husband—busy still, but not too busy to care about his wife. Five years later, his eighteen-year-old son from the first marriage almost died in his arms from an overdose of drugs. Up to that point, the man had been a critical, cold father who could only fight with his son. He was tough and competitive with colleagues at work and with his son at home. His caring was limited to his wife.

In the four months after his son's close call, he gained forty pounds, his diastolic blood pressure went up to 120, and he slept and concentrated poorly. Dissatisfied with his inability to express a nurturing side of himself to his son who was in great distress, he experienced intense conflict whenever he found himself compounding his son's problem by his uncontrolled tough approach. The unfinished developmental conflict about caring was transformed into a poignant *existential* conflict ("My actions can determine his life or death struggle") and an unremitting *volitional* conflict ("How can I control myself?") under the influence of a highly specific *contextual/developmental* situation.

The confluence of these three frames of reference set the stage for an apparent "accidental" insight representing the remaining frame of reference, the *developmental /psychodynamic* frame. While having dinner with a friend from his high school years and sharing his woes, his friend reminded him of how hurt he had been as a teenager by his

father's rough and rigid approach. He began to question why he had become so much like his father. He realized that he did not have to be a tough disciplinarian as his own father had been with him. He thought, "At work you take charge, compete, and show your employees how tough you are. At home it is not a win-lose situation. You aren't going to be destroyed by being soft and loving and cooperative." In a flash of insight he saw that the dangers of experimenting with being caring were bogus and based on false conclusions formed by a child's mind and enmeshed in an overdetermined identification with his own father.

Over the next few months, with the encouragement and support of his wife, the man became more nearly the caring and nurturing father he had always intended to be. Development occurred without formal treatment but progressed in a way that can be understood in formal theory.

Adult development can be defined as becoming attuned to the changing context of reality by healing the split that inhibits integration of important functions and simultaneously giving up inappropriate defensive maneuvers. The driver of development is the painful state of dissatisfaction with oneself. The final decision about change is made in the action center of the volitional conflict.

The theme of ownership of the self is as important in adulthood as it is during the parent-child authority conflicts of youth. The youthful identity crisis of ownership is just a point in a lifelong continuum; it is not the point of final resolution. Self versus self-object control of self-function is a critical aspect of adult consciousness that is in the background of other conflicts at all times and frequently becomes a foreground issue presenting itself as a developmental dilemma to be resolved. In that sense the developmental process is fundamental to psychoanalytic and psychotherapeutic processes. This definition of the adult developmental process strongly implies a critical role for current reality as a factory in the therapeutic enterprise.

When Erikson opened the era of theory building for adult development, he extended the useful concept of childhood stages into the adult part of the life cycle. Others have continued the stage concept or modified it to avoid the lockstep implication with such words as "phases of adult life." Both stages and phases point toward changes over time in response to new realities in the life cycle. Clinically, the concepts of phases, stages, and tasks can be better understood as two pressing reality processes. Having to respond to the demands of external idiosyncratic situations triggers a developmental conflict. Specific situations that evoke the push for growth may include geographical moves, a divorce, a promotion, a sudden illness, or the loss of a child or spouse.

There is another, less obvious stimulus to the internal imperative to recover functions. A slow cumulative process tied to age and time subtly challenges illusions of safety over decades and stimulates the self to produce more realistic strategies of safety based on present-day knowledge, clear thinking, and flexible action emanating from an autonomous self. The process is tied to age-related expectations and marker events signifying the passage of time, but essentially it is an inner imperative to liberate the self from being controlled by internal objects or external pressures. Leaving college, starting a marriage, parenthood, and retirement are some marker events generally related to a person's time in life.

The two processes involve similar phenomena: One process, emanating from a critical situation, we can call a situational demand process; the other, emanating from an imperative linked to time in life, we might call the life-cycle demand process. Both processes represent demands to undertake structural psychological work, that is, to recover or add functions.

The situational and life-cycle demands can be positively adapted to but still not be developmental in the sense employed here. If the demands are easily accommodated by using new combinations of conflict-free functions, we attribute change to the health and flexibility of existing mental structures and regulatory functions. When, however, the demands of age or task point toward a conflicted function, a unit of developmental work must occur.

Information about the task, phase, or stage of life needs to be translated into the four therapeutic reality frames of reference to achieve maximal clinical leverage. For example, the midlife developmental tasks relating to time, aging, loss, and shifting relationships with adult children and parents are properly interpreted as part of the existential framework inasmuch as they lead to both small and large life-course decisions. The immediate contextual factors bear on and point to the specific contextual/developmental issue largely through the instrumentality of life-course decisions.

The focus for the therapist must be on the idiosyncratic function that is required to meet the demand of the task as translated through the first two frames of reference. For Steven, the age-appropriate tasks—namely, to be able to work productively as an apprentice—involved several conflicted functions. Other patients will have to respond to the same task, but the functions in conflict may be different, and therefore the unit of work to be accomplished will be different.Once the specific unit of development is identified, a new set of considerations comes into play. Where is the patient in the developmental process relative to this unit of work? The question leads to the psychodynamic and volitional frames of reference. The point reached in the developmental process is a major consideration for the clinician. The work to be done can be more readily identified if we break the process into four steps that expand our understanding of the psychodynamic and volitional frameworks.

1. **Recognition of the Underdeveloped Function.** The demand of the situation unbalances the ambivalence about recovering a specific inhibited function. Defenses maintain and rationalize the underdeveloped function while a low-intensity, enduring internal imperative pushes against the defenses. The demand of the situation makes the person challenge the ambivalence.

2. **Articulating the Intentional Action.** The conscious conflict that mobilizes the internal conflict is represented by the decision whether to act in a way that represents the right to recover the conflicted function. A positive answer represents an attempt to recover the function (at least temporarily) and master the pertinent confusion among past, present, and future of self-doubt and of other memories mobilized in the catastrophic prediction. In order to act, one must differentiate the present conflict from the unconscious resistance to action based on past conclusions about a past reality. When the intended action is carried out, the person is opting

for probable safety on the basis of reality testing and is giving up a cherished illusion of safety.

3. **Resolving the Internal Conflict.** This centers our attention on the self- definition boundary as a critical clinical concept, since the threatened transgression of the boundary-controlling rule that organizes past adaptational experience triggers the boundary-maintaining superego-like forces. These boundary-maintaining phenomena include predicting catastrophe (exaggerating the possible consequences of the intended act), confusing memories of painful experiences with future reality, and fearing exposure of a deeply hidden sense of a damaged or helpless self- state.

4. **The Resolution of an Interpersonal Conflict.** Recovery of function takes place in a social context. A change in self-definition invokes a system change in that context. The current self-definition is confirmed and supported by family and fellow workers and the meaning attached to various work and social roles. An enlarged self-definition may pose a threat to others or trigger developmental envy. In order to create or find a niche that is confirming of the enlarged self-definition, the individual may have to resolve several interpersonal conflicts. The failure to resolve those conflicts threatens the viability of an expanding self-definition.

With these four steps, the clinician can locate, describe, study, and facilitate an adult developmental unit of work within the frameworks of current reality and still be intimately connected to the observations and concepts about nuclear neurotic conflicts and defenses (functions are inhibited originally because of adaptations to nuclear conflicts, which result in rigidification of immature defenses). Inasmuch as the recovery of a function represents a partial solution, or an unraveling of a nuclear conflict and a remodeling of the defense system toward responsiveness to current reality, the clinician can work in the depths while remaining in touch with the driving developmental processes that give immediacy and impact to each therapeutic hour.

Understanding Death, Dying, and Grieving

Definition of death

But what is death? Once more, the complexity of this subject is also revealed by our futile efforts to define it. A common definition is that death is the absence of life. This assertion, however, is exceedingly naive, since it is negative, namely, it tells us what death is not, not what it is. In general, since life has not always been explained naturalistically, death has often been described supernaturally. Some primitives, for instance, attribute it to gods or demons. Religion has referred to it as the departure of the soul from the body, or the destruction of the body-soul unity. More specifically, Christianity saw Adam's sin as the cause of death, while a modern philosopher, Martin

Heidegger (Sein und Zeit, 1927), has averred that death is not a natural phenomenon.

In law, death has been defined in three main ways:

1. "Natural death" is "the cessation of life," or "the ceasing to exist," or a total stoppage of the circulation of the blood, and a cessation of the animal and vital functions consequent thereon, such as respiration, pulsation, etc.

2. "Civil death" is the state of a person who, though possessing natural life, has lost all his civil rights, and as to them, is considered as dead.

3. "Violent death" is one caused or accelerated by the interference of human agency. Another legal type, "presumptive death," refers to that which is presumed from proof of a long continued absence unheard from and unexplained, such absence usually lasting seven years.

From the physical point of view, there is a distinction between clinical death, which refers to the entire organism, and biological death, which covers individual organs. Since not all the components of the organism discontinue their function simultaneously and to the same extent, death has also been defined as a process. In other words, the line between life and death is always arbitrary, depending on our purpose and criteria. Traditionally, clinical death has been regarded as the absence of the following: a heartbeat (therefore, lack of a peripheral pulse), breathing (thus, presence of bluing of the lips, mouth, and limbs), and certain eye reflexes.

In addition, three other conditions make their appearance: algor mortis (the chill of death), rigor mortis (rigidity of skeletal muscles), and livor mortis (cutaneous purple-red spots on portions of the cadaver due to the settling of the blood). But most mammals have six essential parts, that is, the gastrointestinal, excretory, respiratory, circulatory, nervous, and supportive systems.

And their damage does not lead equally to death. For instance, there is no death even when much of the bone is lost or if a kidney stops functioning for hours. But if the heart and lungs discontinue their function even for a few minutes, death may result. Now, however, this definition becomes inadequate, since clinical death may be prevented by means of pacemakers, respirators, and the like. In fact, this is even true of cases where the brain has stopped functioning, namely, when cerebral death has occurred.

Brain death, of course, which means cessation of the brain processes, presents an additional difficulty. This is the philosophical mind-body problem, one of the most controversial hypotheses dealing with it being the "identity thesis," namely, that brain processes and consciousness coincide.

Cellular death involves the cell, which, as is well known, lives only when growth, assimilation, and division occur. Nerve cells, however, are never replaced, and replacement does not present the same rate for all cells. Besides, it is exceedingly difficult to determine exactly when the homeostatic mechanism of the cell undergoes irreversible damage, that is, death. Then, the same kind and degree of damage is not equally destructive to all cells. Phosphorus, for example, affects the peripheral cells of the liver, and chloroform the central cells. Hypoxia (lack of an adequate amount of oxygen) does not damage all cells similarly. A

cell may rupture (cytolysis), or its nucleus may shrink (pyknosis), fragment (karyorrhexis), or rupture (karyolysis).

Finally, electronic microscopic inspection reveals cell damage quite early, whereas light microscopic inspection does so several hours later.

In general, cerebral and cardiorespiratory functions were considered interdependent in the past. Modern technology, however, has separated these functions, which now can continue independently. Of course, there are degrees of biological disintegration, some of the marginal states between life and death being artificial survival, coma vigil (delirious lethargy with open eyes and partial consciousness), coma depassé, persistent vegetative state, and irreversible coma. More specifically, a distinction has been made between cardiac death and brain death, the latter being subdivided by some authorities into cerebral death and cortical death. In brief, it seems more helpful to distinguish between cardiological and neurological criteria of death, while the traditional criteria have been of two types: three primary (respiration, cardiac pulse, and blood pressure) and one secondary (body temperature).

Finally, medical conferences during the late 1960's have stressed irreversible coma as a criterion of death. This refers to a permanently nonfunctioning brain, that is, a flat electroencephalographic recording, or absence of brain waves. These conferences have also emphasized a lack of spontaneous cephalic reflexes, muscular movements, and respiration. Later, the criterion of an agonal angiogram was added (diminished blood circulation). Unfortunately, these criteria are unsatisfactory in cases of hypothermia (body temperature below 32 C), or severe central nervous system depression due to a drug overdose. Besides, irreversibility cannot be determined objectively, for what was irreversible in the 19th century can now be reversed, and the 20th century's irreversible coma may be reversed in the 21st century.

Bereavement

Bereavement is defined as the objective situation one faces after having lost an important person via death. Bereavement is conceptualized as the broadest of the three terms and a statement of the objective reality of a situation of loss via death. Bereavement is the time period after a loss during which grief is experienced and mourning occurs. The time spent in a period of bereavement depends largely on how attached and dependent the person was to the person who died and how much time was spent anticipating the loss. Death is like pulling the band aid off the hairy part of your arm. You know it’s going to hurt. There's no sure way to escape the pain. For slow peelers to quick stripper it's still going to hurt.

Mourning

Mourning is defined as the public display of grief. While grief focuses more on the internal or intrapsychic experience of loss, mourning emphasizes the external or public expressions of grief. Consequently, mourning is influenced by one’s beliefs, religious practices, and cultural context. There is obvious overlap between grief and mourning, with each influencing the other; it is often difficult to distinguish between the two. One’s public expression (i.e.,

mourning) of the emotional distress over the loss of a loved one (i.e., grief) is influenced by culturally determined beliefs, mores, and values.

Grief

Grief is defined as the primarily emotional/affective process of reacting to the loss of a loved one through death. The focus is on the internal, intrapsychic process of the individual. Normal or common grief reactions may include components such as the following:

Numbness and disbelief.

Anxiety from the distress of separation.

A process of mourning often accompanied by symptoms of depression.

Eventual recovery.

Grief reactions can also be viewed as abnormal, traumatic, pathologic, or complicated. Although no consensus has been reached, diagnostic criteria for complicated grief have been proposed.

Attitudes towards death

According to DeSpelder and Strickland (2006), by assessing our past experiences and projecting our imaginations into the future, we develop attitudes that prepare us to respond to the varied situations we encounter in life. Attitudes toward death reveal themselves through the language people use when talking about death and the humor they employ in response to it, as well as through the manner in which death is portrayed by the media and in music, literature, and the visual arts. Although direct, firsthand experience with death is rare for most people in modern societies, death still has a significant, even if rarely acknowledged, place in our social and cultural environment.

Language

When people talk about dying or death, they often use language that is indirect. The words dead or dying tend to be avoided; instead, loved ones "pass away" and the deceased is "laid to rest." Burial becomes "interment," and the undertaker is transformed into a "funeral director." Such language suggests a well-choreographed production surrounding the dead. A careful listener will notice that euphemisms, metaphors, and slang comprise a large part of "death talk".

Euphemisms-substitutions of indirect or vague words and phrases for ones considered harsh or blunt-may be used to keep death at arm's length by masking its reality. In some cases, euphemisms are used to devalue and depersonalize death. This occurs, for example, when plain talk about death is subverted by a lexicon of substitutions -as when soldiers killed in battle are described in terms of "body counts" or civilian deaths are termed "collateral damage." When used in this way, euphemisms replace accurate descriptions of the horror of death in war.

It is important to recognize, however, that the use of euphemisms and metaphors does not always imply an impulse to deny death or avoid talking about it. Sometimes these linguistic devices communicate subtler or deeper meanings. Among members of some religious and ethnic traditions, for example, terms like "passing" convey an understanding of death as a spiritual transition.

In a similar manner, sympathy and condolence cards generally allow people to express their condolences to the bereaved without directly mentioning death. Death may be referred to metaphorically, as in sentiments like "What is death but a long sleep?" or apparently denied in verses like "He is not dead, he is just away." Images of sunsets and flowers are often used to create an impression of peace, quiet, and perhaps a return to nature. Bereavement, the fact of losing a loved one by death, may be mentioned within the context of memories or the healing process of time. Sympathy cards acknowledge loss in a gentle fashion intended to comfort the bereaved.

Language usage can also reveal something about the intensity and immediacy of a person's close encounter with death. In "danger of death" narratives-stories about close calls with death-a tense shift typically occurs when the narrator comes to the crucial point in his or her story, the point when death seems imminent and unavoidable. In one instance, a man who had experienced a frightening incident some years earlier while driving in a snow storm began his story in the past tense as he described the circumstances. But as he came to the point when his car went out of control on an icy curve and slid into the opposing lane of traffic, he switched to the present tense. It was as if he were reliving the experience of watching the oncoming car heading straight for him and believing in that moment that he was about to die.

Word choices also reflect changes in the way a death event is experienced at different times. For example, after the terrorist attack of September 11, 2001, when the focus of rescue efforts changed, so did the language used to describe the work of emergency personnel and search-and-rescue teams. As hours stretched into days, rescue work became recovery work.

Efforts to find words to adequately describe what happened on September 11 were evident in the days and weeks immediately following as people resorted to a variety of phrases such as "the terrorist attacks," "the events of Septem ber 11," "the tragedy," or simply "it." Each word choice has its own associations and connotations. For some people, the word "attack" was too vague; for others, "event" seemed to trivialize what occurred. Many police officers, firefighters, military personnel, and others who viewed the experience as a direct assault found the word "attack" to be an apt description that helped mobilize a response. Others preferred the word "tragedy" because it suggested a focus on emotional recovery, such as occurs after disasters. Another solution to the issue of word choice was what linguists call a metonym, a kind of shorthand way of referring to an event. Just as "Pearl Harbor" became a metonym for the Japanese attack on Hawaii in World War II, "September 11" or "9-11 " became a way of describing the sequence of events at the World Trade Center, at the Pentagon, and in Pennsylvania. After trying out the words "attack," "tragedy," and "a bombing," one man said the name "September 11" had the most resonance because it was all of those things and more.

People who experience the same death-related event from different perspectives may have different ways of talking about it. When Kurt Cobain of the rockgroup Nirvana died by suicide, the language used by fans and by the media showed interesting contrasts. Whereas fans expressed their shock by saying, "Can you believe it? He offed himself; he actually blew himself away," reporters used formal language to describe Cobain's death by "suicide" from "gunshot."

Look again at the words and phrases used in death talk. Notice how language offers clues about the manner of death and a speaker's attitude toward the death. Consider, for instance, the differences between "passed away" and "passed on". Subtle distinctions can reflect very different attitudes, sometimes involving cultural or spiritual frameworks. Paying attention to the metaphors, euphemisms, slang, and other linguistic devices people use when talking about death helps us appreciate the variety and range of attitudes toward dying and death.

Awareness of death

Both Sheets-Johnstone and Foucault argue that awareness of death is at the root of thought and language. There is no way of escaping from this connection, even if we call upon thought and language to conceal death from us. Neither of these authors are psychologists per se; rather, they are philosophers with a broad range of historical, cultural, and scientific knowledge.

According to Kastenbaum (2000), "You are dead“ and "I will die" are two concepts that might at first appear simple and self-evident, but are in fact very difficult.

We begin with two basic concepts that might at first appear simple and self-evident. As we come to appreciate the complexity of these ideas, we will also become more sensitive to the challenges that children must overcome in their efforts to comprehend death.

"You Are Dead"

One of most fundamental distinctions occurs between our conceptions of the death of the other and the death of the self. The first of these constructions can be expressed as "You are dead." It is more concrete and therefore more within the young child's grasp to begin with "dead" rather than "death." "Hammy the Hamster is dead" literally makes more sense— especially when one is looking at or touching Hammy— than "Death has taken our beloved hamster as it must all mortalbeings."

There is reason to believe that "You are dead" develops earlier and more rapidly than the inward-looking, "I will die." But the child must know, guess, or imagine several not-so-simple concepts in order to arrive at the conclusion: "You are dead"?

1. You are absent.

But what does it mean to be absent? We must appreciate the observer's frame of reference. For a young child, the frame of reference is largely perceptual. Absence means not hereand-now. The younger or less developed the child, the more thathere-and-now are condensed

into the same global unit. Spatial and temporal dimensions are not yet treated independently. Suppose that you are "away," in another city. From an adult frame of reference, you have a spatial existence at the present time, even though you are not within my own personal space. But the child experiences your total absence. You are not in the child's perceptual space at thismoment, therefore, you are not.

2. I am abandoned.

This statement is the organismic reciprocal of the first proposition. Your disappearance from my perceptual frame of reference has destroyed my sense of security. As the child, I am not merely aware of your absence, but also of the presence of dysphoric feelings within myself. Your absence and my anxiety are intimately related. We see that the child has an organismic, embodied response. There is a cognitive core, but the stress and fear run through and through the child's state of being.

3. Your absence plus my sense of abandonment contributes to the general sense of separation.

I have been isolated from the contact and support that I need to feel safe in the world and good about myself. This separation may also lead me to experience a pervasive sense of having lost contact with the environment, not just with you.

I am nowhere. I am anxiety. Furthermore, my distress may have been intensified by the feeling that I was forcibly separated from you, wrenched away. This trauma could intensify the already bleak picture of absence and abandonment. Sheets-Johnstone (1990) maintains that this sense of sundering between the observer and the observed is crucial to forming the concept of death. She focuses on the perception of a dead person or animal, how different it is from the living version. In our view, this sense of alarming separation also has its roots in the infant and young child's awareness that the mother-self bond has been violated.

4. The separation has no limits.

Young children do not grasp the concept of futurity nor of a general time that flows directionally through all lives everywhere. They live in a world of what might be called "local time" that is limited to its overall egocentric organization of experience.Therefore, the immediate experience of separation cannot be modulated by future expectations.

The infant or young child cannot say to itself, "Mother has gone away . . . but she will return Wednesday and have a nice present for me." The young child cannot distinguish among short-term, long-term, and final, irreversible separations. Once the separation experience has been induced, the child has no dependable way of estimating or anticipating its conclusion. What the outsider may regard as a brief separation may be indistinguishable in the child's mind from the prospect of prolonged separation. Is not-here-now the same as never-again? Even very young children experience the former; it is more difficult to determine just when they start to comprehend the latter.

5. The child's involvement in recurring psychobiological rhythms complicates its relationship to separation and death.

You and I have accepted the existence of "objective" or "external" time that moves unit by standard unit from the past, through the present, to the future: a clockwork universe that does not much care about our own wishes and priorities. It is different for the child whose time begins afresh each morning when he/she awakens. Midday nap signals a "time-out." The child's experience of time is strongly influenced by its internal rhythms of hunger-satiation, sleep-activation, and so forth, as well as the recurring rhythms of night and day.

How does this relationship to time affect the child's construction of death-of-the-other? The vulnerability to separation has already been emphasized. For example, the child cannot distinguish well between the prospects of brief and extended or final separation. Now we must give more attention to an apparent contradiction within the child's experiential world. The sense of limitless separation and the endlessness of any experience conflicts with the recurring rhythms, the periodicitythat characterizes infancy and early childhood. As a child who feels abandoned, I have no way of establishing a future limit upon my present experience. The intensity of my distress suggests that I fear that this will go on and on without relief.

Nevertheless—and this is the more difficult part to grasp—my psychobiological state is always in transition. I am always becoming hungry or sleepy or curious or... something! And the environment in which I am embedded is also in transition. The sun is coming up or it is going down. Various periodic household routines are being started or completed. If the cat has just jumped on the ledge of the living room window, this means that the sound of Daddy's or Mommy's car will soon be heard; those rattling sounds in the kitchen suggest that food is again on the way, and so forth. As a cyclical creature in a cyclical environment, I do not maintaina constant frame of reference over a protracted period of clock or calendar time. There are breaks and interruptions in even my most steadfast thought and behavior patterns. In other words, I do not have a continuous experience. Periodic changes in my inner state and in my relationship with the external environment rest, refresh, and distract me. This means that my experiential world is subject to both rules:

(a) the lack of limits or boundaries within which to place a separation experience, but also

(b) the inability to maintain a steady frame of reference over an extended period of time.

As a young child I might misinterpret your temporary departure as being a consequential separation. By this same token, however, I may under estimate a consequential separation—even your death. My cyclical pattern of functioning has lead me to anticipate that every end has a fresh beginning, just as every beginning has an end. But there is no end to ends. You have been away a long time now. Imeasure "long time" arbitrarily by my own feelings—long enough to make me feel uncomfortable, abandoned. And I have deeply rooted within me the expectation that the familiar pattern of separationreunion will be repeated. Two opposite responses can testify to the young child's special relationship to time:

(a) The child may respond in panic or despair over what is objectively a brief and insignificant separation because to the child this feels like total and unmoderated abandonment or

(b) the child may respond as though expecting a dead parent, sibling, oranimal companion to return any minute now.

6. You do not respond.

This applies to the specific situation in which an infant or young child is in close contact with a dead person or animal. It can also involve a "dead toy" that does not do what it was supposed to do. The most characteristic behavior I have observed in this kind of situation involves the child's attempt to persuade the dead other to respond. Nonresponsiveness, of course, remains an important constituent of the death construct for adults as well. This includes death in the literal sense: "The eyes did not respond to light; there was no response to pressure or pain stimuli, or to words." It also includes death in the figurative sense: "Alas, Percy was deadto my pleas." For the young child, it is clear that the concept of nonresponsiveness arises from an interactive context. "I will make you move. I will make you talk to me. I will make you smile." It is only through the expectation of responsiveness and through failed attempts to elicit responsiveness that the child can generate this facet of the "You are dead" concept. Very early in development, then, an infant or young child will have considerable difficulty in grasping the concept of nonresponsivity. Experience with the world as well as maturational changes in the central nervous system will soon teach the child that it is characteristic of living things to respond, and, therefore, a discomfirmation of expectation when they do not. But precisely what—and how—are children thinking when they puzzle over a nonresponsive being or toy? There is an emerging controversy here that we will take up when we review empirical studies on the child's constructions of death.For children as well as adults it is much easier to realize (Weisman, 1974) death when one has had the evidence of one's own senses to support this conclusion. Again, this is an embodied response: one feels as well as thinks. The need to realize death is perhaps the most frequently cited reason for advocating open caskets at memorial services: there really is a body in that casket, and it is the body of ourdeceased friend. The young child's direct experience of a dead person or animal will differ appreciably from an adult's, but in either instance this kind of contact does provide a firmer reality base for one's response. A 2-year-old does not think of death the way his/her parents do, but the encounter with a cold, still, unresponsive form conveys vital, if still mysterious information.

"I Will Die"

This proposition requires even more of the child. We are not in a position to make this statement in a meaningful way until we have mastered a number of related concepts. These include the following:

1. I am a person with a life of my own, a personal existence.
2. I belong to a class of beings, one of whose attributes is mortality.
3. Using the intellectual process of logical deduction, I conclude that my personal death is a certainty.

4. There are many possible causes of my death, and these causes might operate in many different combinations.

5. Although I might overcome or evade one particular cause, I cannot overcome or evade all causes.

6. My death will occur in the future. By future, I mean a time-to live that has not yet elapsed, a time that I have not previously experienced.

7. But I do not know when in the future my death will occur. The event is certain; the timing is uncertain.

8. Death is a final event. My life ceases. This means that I will never again experience, think, or act, at least as human being on this earth.

9. Accordingly, death is the ultimate separation of myself from the world.

"I will die" implies self-awareness, logical thought operations, conceptions of probability, necessity, and causation, of personal and physical time, of finality and separation. It also requires bridging a tremendous gap: from what I have actually experienced of life to a construction of life's negation. I have not been dead (the state). I have not experienced death (the event). Therefore, the mental operations that I call upon in my efforts to fathom death tend to falsify as they proceed. If death implies lack of movement, then my eyes conspire against this fixed image by moving restlessly as I scan the environment (your eyes do the same). If death implies emptiness or silence, my mind again rushes ahead to fill in the void with its own operations, just as people in sensory deprivation experiments manufacture their own stimuli to satisfy our need for cognitive activity. Our mind's own modus operandi equips us for interpreting life, not life's negation. This will continue to be a problem for adults, and probably contributes to the child's difficulties in comprehending cessation of life.

Brock Haussamen (1998) argues that the rules of our language systematically falsify the propositions we articulate about death. More specifically, our syntax often produces a denial rather than an acknowledgment of death. Language does not have much respect for the dead, in the sense that it does not treat them any differently than it does the living. Some of the ways we refer to the dead—not euphemisms but the most ordinary statements—are incongruous, on the fact of it. The verb in the sentence John is dead, for instance, is in the present tense, as if the statement were a variation on John is sick. And the other ordinary announcement of death—John died—has the same structure as any other in which John did something intransitive, such as John fell or John slept. John may have died, but in saying so we present him as the same source of action that he always was.

Simple sentences about a person's death cannot help but cast the person in the mold of the living. The more rapidly children master language, then, perhaps the more rapidly they learn to present their discoveries about death in a way that subtly contradicts their insights into the fundamental disconnect between being and nonbeing. Perhaps, as Foucault (1984) suggests, the very act of speaking or writing about death achieves a triumphant denial:

Death is undoubtedly the most essential of the accidents of language (its limits and its center): from the day that men began to speak toward death and against it, in order to grasp and imprison it, something was born, a murmuring which repeats,recounts, and redoubles itself endlessly, which has undergone an uncanny process of amplification and thickening, in which our language is today lodged and hidden, (p. 55).

To put it another way: the dead are not dead if we can retain and revive them through words, and we will not die as long as we are speaking, listening, writing, or reading. Again, Foucault: " . . . discourse has the power to arrest the flight of an arrow" (p. 53).

Children, through their avid observations and compelling discoveries, are less likely than adults to thicken and hide their constructions of death. Improving our understanding of the child's growing awareness of death may be essential to understanding how we manipulate these ideas as adults.There is a further difficulty as well. Children's conceptions of death often are influenced by encounters with a dead person, animal, or plant. Yet these perceptions do not truly bridge the gap. The deadness is perceived from the outside only. What it feels like not to feel eludes me. In the language of phenemonology, the Otherness of the dead startles us into awareness of the chilling distance between life and death. However, under some circumstance both children and adults are vulnerable to misinterpretations, taking the living for dead, or vice versa. Experiences with the dead and with the transition from alive to dead must be taken into account as we attempt to understand the development of death conceptions.

References

Austrian SG (2008). Developmental Theories Through the Life Cycle
Steinberg L, Morris A, Sheffield A (2001). Adolescent Development. Annual Review of Psychology
Kroger (2003). Identity Development During Adolescence
Nemiroff RA, Colarusso CA (1990). New Directions in Adult Development
Dent A (2005). Supporting the bereaved: theory and practice. Counselling at Work. Autumn 2005.
DeSpelder LA, Strickland AL (2006). The Last Dance: Encountering Death and Dying.
Kastenbaum R (2000). The Psychology of Death. Springer Publishing Company.
Kastenbaum R. Grief. Encyclopedia of Death and Dying.
http://www.deathreference.com/Gi-Ho/Grief.html, last visited 08.05.12.
Kastenbaum R. Fear of death. Encyclopedia of Death and Dying.
http://www.deathreference.com/A-Bi/Anxiety-and-Fear.html, last visited 08.05.12.
Langner T (2002). Choices for Living : Coping with Fear of Dying. Hingham, MA, USA: Kluwer Academic Publishers.
Rando TA. Mourning. Encyclopedia of Death and Dying.
http://www.deathreference.com/Me-Nu/Mourning.html, last visited 08.05.12.