

# Psychology 30

## UNIT 2

Prenatal Development:  
From Conception to Birth

NOT NOW DEAR,  
I'M BUSY



## In this unit you will learn...

About the role **NATURE**, e.g. heredity, etc. and **NURTURE**, e.g. diet, stress, etc. play in the development of a fetus.

About Urie Bronfenbrenner's **SYSTEMS THEORY**.

About the role each of the four **DOMAINS OF HUMAN DEVELOPMENT** play in the development of a fetus.

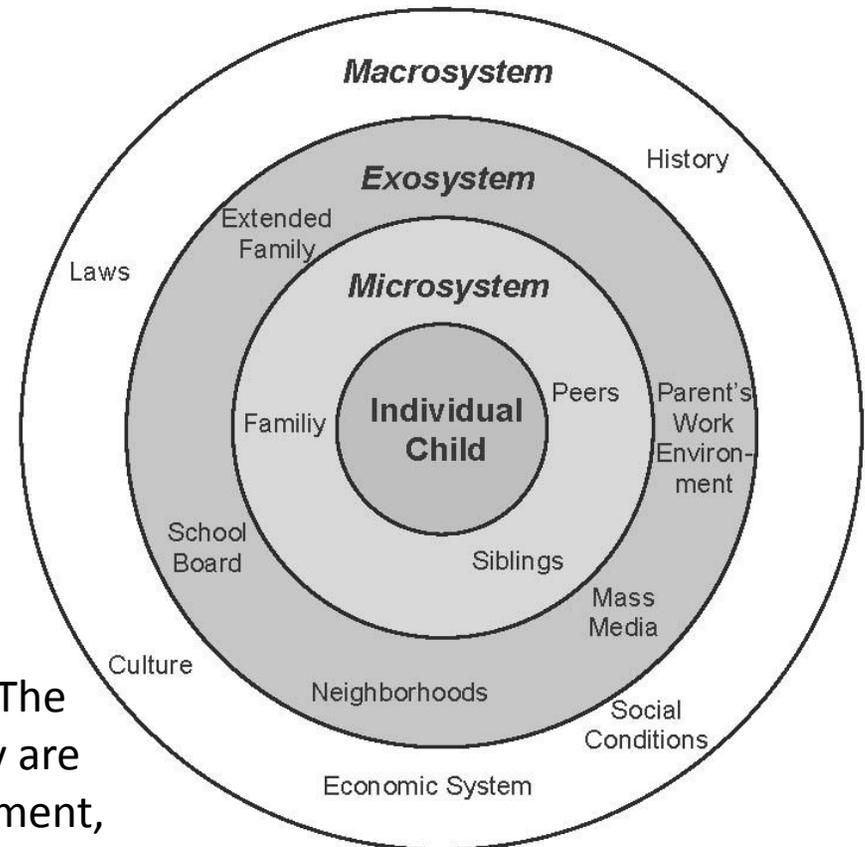
## **Systems Theory**

The theory identifies three specific systems exist that influence a child's development. Each system (or level) affects the child differently.

The primary (first) support system is called the **microsystem**. Those people who have a *direct* influence on the development of a child, e.g. mom, dad, siblings, etc. all belong to this system. This system helps us identify the role the people closest to us have on our emotional and cognitive development.

The **exosystem** is a secondary support system. This system includes those people, institutions or agencies that provide to different degrees either direct and/or indirect support to a child.

The **macrosystem** is the third level of support. The influences at this level are persistent ones. They are inherited by the child, e.g. laws, culture, government, history, etc. These influences shape the worldview of the child and its parents and affects the type of prenatal and postnatal care a child receives.



### *Systems Theory: Microsystem*

## What influence does the **MICROSYSTEM** have on prenatal development?

Both parents play an important role in promoting the healthy development of an unborn child. For example, the mother can reduce the chance of her child developing Fetal Alcohol Syndrome (FAS) by not consuming alcohol during the pregnancy. Also, she can ensure the child's body develops properly by consuming folic acid; moreover, since a mother's stress can negatively impact an unborn child the father (or family supporters) can take steps to remove stress from the mother's environment.

## *Systems Theory: Exosystem*

# What influence does the **EXOSYSTEM** have on prenatal development?

“It takes a village to raise a child.” This proverb reveals a scientific truth: the community plays an important role in the healthy development of a fetus. For instance, neighbors and friends can assist the mother thereby reducing stress. Health professionals can provide the mother with information about what to do and what not to do when it comes to pregnancy.

*Systems Theory: Macrosystem*

**What influence does the **MACROSYSTEM** have on prenatal development?**

Women who have access to health care facilities, family planning services, and supportive families are better equipped to make healthy decisions about parenting and pregnancy. Pregnant women who do not receive care in early pregnancy, who experience poor nutrition, and live in inadequate or overcrowded conditions are more at risk to become ill and/or stressed which, in turn, affects the growing fetus.

## Four Domains of Human Development

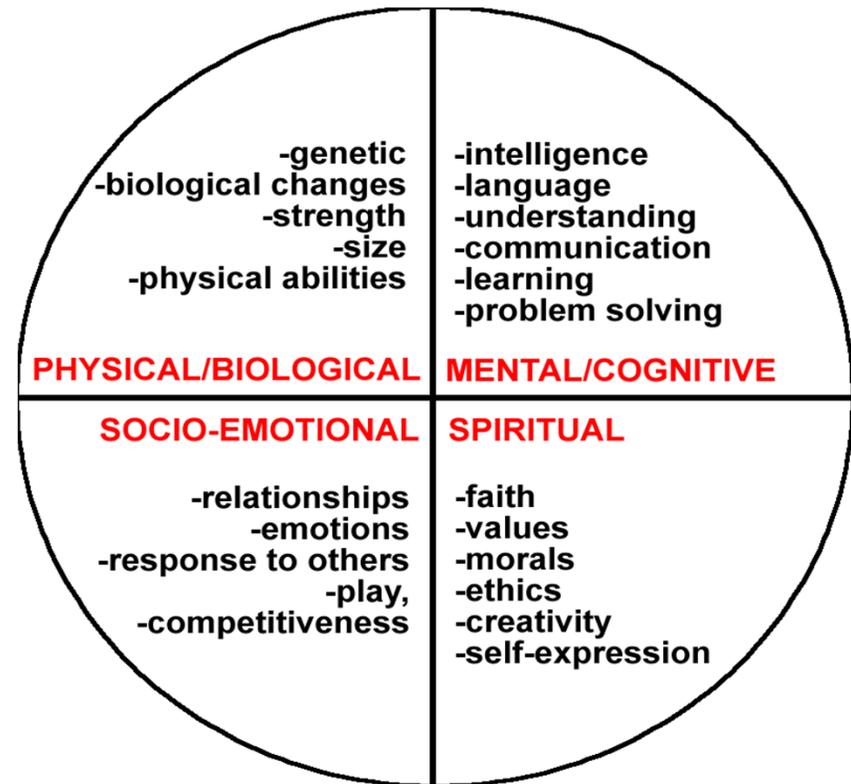
Developmental psychologists created four specific domains to help them describe forces they saw at work in a child's development.

**Physical Domain:** the development of the body, e.g. sensory (touch, taste, vision) and motor skills or movement.

**Cognitive Domain:** the intellectual or mental development of a child, e.g. thinking, perception, memory, etc.

**Socio-Emotional Domain:** the child's interactions with others and the subsequent development of personality.

**Spiritual Domain:** the child's worldview as shaped by its parents and/or parent culture.



The Four Domains Model and Bronfenbrenner's Systems Theory have a lot in common: they cover the same ground since both models describe the same "thing". The main difference between the two models is the use of different terms to describe the same forces or influences, e.g. The idea of a worldview belongs to the Spiritual Domain *but* it also belongs to Bronfenbrenner's "macrosystem" (persistent factors) *and* "microsystem" (family influences).



**Note:** most models omit the spiritual domain altogether. They separate "socio-emotional" in to two distinct domains, e.g. "Social" and "Emotional".

## *Four Domains of Human Development: Physical Domain*

### **What does prenatal development look like in the **PHYSICAL DOMAIN**?**

The prenatal period of the developing child can be divided into three distinct stages. Each stage is marked by specific physical changes in the developing child.

***Note:** do not confuse these three stages with the idea of a “trimester”.*

**Germinal Stage:** the first two weeks of prenatal development is characterized by rapid cell development, e.g. mitosis, etc. and cell differentiation, e.g. stem cells turning into bone, blood, neural, and muscle cells, etc. within the zygote.

**Embryonic Stage:** this period of prenatal development occurs from two to eight weeks after conception.

**Fetal Stage:** this period of prenatal development begins two months after conception and lasts for seven months (on average).

## *Four Domains of Human Development: Cognitive Domain*

**What does prenatal development look like in the **COGNITIVE DOMAIN**?**

Cognitive development is dependent upon the existence of two specific systems, e.g. nervous system and the blood circulation system. These two systems are the first ones to function in the embryo. All other systems develop *on top* of these systems.

**Note:** *the heartbeat starts three weeks after conception.*

## *Four Domains of Human Development: Social/Emotional Domain*

### **How does fetal development occur in the SOCIAL/EMOTIONAL DOMAIN?**

Every child is born with a unique set of psychological tendencies. These tendencies are fundamentally determined by the child's genes. Moreover, although personality is shaped by a host of factors the child's starting disposition (or temperament) is largely determined by their genes.