

# Biological Predisposition

by Sophia Tutorial



## WHAT'S COVERED

In this lesson, we'll discuss some important themes and concepts in the biological development area of developmental psychology.

The specific areas of focus include:

1. Biological Predisposition
2. Maturation
3. Readiness

## 1. Biological Predisposition

**Biological predisposition** is a presumed hereditary readiness, or preparedness, for humans to learn certain skills, or to behave in a certain way.

➦ **EXAMPLE** When they're born, babies have certain behaviors that are programmed into them; they do these things innately, without any learning. If you brush babies' lips, then they'll start to suck. When you touch their hands or their feet, they start to grasp or move their fingers.

These behaviors are programmed into people to help them survive in certain ways. The sucking obviously helps the babies to get food if they want milk, and the grasping is supposedly a leftover behavior from when we were primates, and we had to grasp trees.

There are mental or cognitive abilities that are also pre-programmed, or that humans have a biological predisposition to display.

➦ **EXAMPLE** This occurs with language, which we'll cover more in-depth when we discuss linguistics. According to Noam Chomsky, language is a pre-organized, or predisposed, ability of people. He says that each person has a language acquisition device built into the brain, which allows language to be learned more easily and efficiently. Because we are beings that must use language, we need to have something in our brains to help us do that.

There are a lot of developmental theories that are also built on this idea of biological predisposition. Any theory that has developmental steps involved, such as Erikson's or Piaget's theories, is essentially saying that

humans have some biological basis for progressing that way.



#### TERM TO KNOW

### Biological Predisposition

Readiness to learn new skills can be influenced by heredity

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## 2. Maturation

These next two concepts complement each other. The first is **maturation** or maturity, which is the developmental process of growth, both mentally and physically.

In other words, this is a developmental sequence occurring throughout life. Humans start at a certain stage, then slowly begin to develop. As children, we go from crawling, to walking, and finally to running and being able to do more complex physical abilities.

With this physical development, we have corresponding mental or psychological development, as the theories of Erikson and Piaget stated. These two types of development influence each other in certain ways.

↪ **EXAMPLE** When young children are developing motor skills, such as the ability to hold and manipulate objects with their hands, there's also a similar cognitive development occurring. In addition to gaining the ability to move those objects, children are growing and becoming more cognitively complex to understand that behavior.

In other words, the way people think influences the way that they are able to manipulate things because people can think of new and different ways to use those objects. In turn, the ability to manipulate those things allows for more complex ideas and thought.



#### TERM TO KNOW

### Maturation

Unfolding of skills and growth in a predictable way, allows for the condition of readiness

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## 3. Readiness

Going along with the idea of maturation, **readiness** is when a person has reached an advanced or sufficient enough level to allow for the acquisition of a certain skill. So, once people get to a certain stage of maturation, they're able to acquire a particular mental or physical ability.

↪ **EXAMPLE** One way this occurs in children is with toilet training. As you know, when children are born, or even reach one to two years of age, they're not sufficiently ready to toilet train. It takes some time and development of their cognitive and physical abilities to get to that point.

The important thing to remember about readiness is that if you try to learn something too early--if you don't have the sufficient abilities to acquire that certain skill--then you're likely to fail.

This idea is really helpful in a lot of learning theories as well because we need to know when children are

prepared enough to understand or learn something new, especially with abstract concepts that they might not be able to grasp at a younger age. We like to know at what developmental level children can acquire certain knowledge, abilities, or skills.



#### TERM TO KNOW

##### Readiness

Internal timing mechanism; as children mature, they can learn new skills more rapidly. A child may be prepared to reach new milestones more quickly because of previous development. As we acquire mental abilities in steps according to age and readiness.



#### SUMMARY

In this lesson, you learned that **biological predisposition** is a presumed hereditary preparedness to learn certain skills. In other words, humans are pre-programmed with certain instincts and knowledge as a result of evolution

You now understand that related to this concept are the ideas of **maturation** and **readiness**. While maturation is the progression of new skills and capabilities throughout a person's life, readiness is the particular level of maturation that must be reached in order to learn a certain skill. It's important to remember that these learned capabilities are physical as well as mental; these two areas of development influence each other.

Good luck!

Source: Adapted from Sophia tutorial by Erick Taggart.



#### TERMS TO KNOW

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##### Maturation

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##### Readiness

Internal timing mechanism; as children mature, they can learn new skills more rapidly. A child may be prepared to reach new milestones more quickly because of previous development. As we acquire mental abilities in steps according to age and readiness.