

Section 1: What Is Simple Apprehension?

Introduction. In this section we will discuss the first of the three parts of logic, simple apprehension. We will do this by defining what simple apprehension is. Let us try to explain simple apprehension by an illustration. Let's say we have a simple apprehension of a chair. What happens in our minds when we have a simple apprehension of a chair?

Generally speaking, three things happen. First, we perceive it with our senses; second, we form an image of it in our minds; and thirdly, we conceive its meaning. Although all three of these things occur when we have a sense perception, it is this final act, the conception of meaning, that we properly speak of as simple apprehension.

What is Sense Perception

Let's use an illustration to try to understand sense perception. When you look at a chair, when your senses (in this case your sight) present a chair to your mind, you have a sense perception. In other words, your senses perceive the chair. This sense perception is present when you are looking at the chair but goes away when you stop looking at the chair. You will continue to have a sense perception of the chair as long as you look at it but goes away when you stop looking at the chair.

The sense perception of the chair is different from the chair itself, since the sense perception occurs in your mind, while the chair exists outside of your mind. The sense perception lasts as long as you see or hear or smell or taste or touch an object and stops when you stop doing these things.

Sense perception is the act of seeing or hearing or smelling or tasting or touching.

What is a Mental Image?

When you have a sense perception of something – when you see or hear or smell or taste or touch an object – an image forms in your mind. When you see a chair, for example, an image – which has color and shape – forms as a result of the sense perception you have of the chair. When the sense perception ceases, however, when, for example, you stop looking at the chair – the image can continue. And this image will occur again in your mind whenever you think about the chair – even if you are not looking at the chair.

This happens, for example, every time you remember something you have seen before.

Like the sense perception you had when you looked at the chair, this mental image of the chair is different from the chair itself, since the chair exists outside the mind, while the mental image exists inside the mind only. Furthermore, this mental image of the chair is different from the sense perception because, while the sense perception lasts only as long as you are looking at the chair, the mental image can be present even when you are not perceiving the chair, and the mental image is also different from the sense perception.

A **mental image** is the image of an object formed in the mind as a result of a sense perception of that object.

What is a concept?

The third aspect of simple apprehension is idea or **concept**. When you look at a chair, there is something else that happens in your mind other than a sense perception and a mental image. It is the idea or concept of the chair. When you grasp the concept of something, like a chair, you understand what a chair is. That is all we mean by a concept.

Although the idea of a chair in your mind may be accompanied by the sense perception of a chair or by the mental image of a chair, it does not have to be. You can have the concept without the sense perception and without the mental image.

For example, you may be reading this book right now but not have a chair around to look at, and yet you can still understand what is meant by the word **chair**. In other words, you don't have to look at a chair to understand what a chair is. Similarly, you may be reading this book right now and not even have a mental image of chair and still understand what the word **chair** means. You may understand what a chair is without having a picture of a chair in your mind.

Understanding what we mean when we talk about a concept is important in understanding what we mean when we talk about simple apprehension, since simple apprehension is the grasping of a concept. Remember also that simply apprehending, or understanding something is different from making a judgment about it. Simple apprehension takes place prior to making a judgment.

Concept vs. Image

While a mental image is representative of something tangible and material (for example, it has shape and color), the simple apprehension is the grasp of something intangible and immaterial. A simple apprehension itself does not have shape or color; it involves understanding a universal meaning.

When we have a simple apprehension of something – when, in other words, we understand it – we do not just get a glimpse of the sensible qualities of it - like its color and shape, we grasp the **essence** (or meaning) of the thing.

This becomes clearer when we consider a term like **man** (meaning **human being**). When we think of the concept **man**, we may have some kind of image in our minds, such as an actual man, tall, with blond hair, blue eyes, and light skin. But when someone else thinks of the concept **man**, they may have a completely different image in their mind. They may think of an actual man who is short, with dark hair brown eyes, and dark skin. Although the mental images

we have when we think of the concept **man** are completely different, that doesn't mean that we do not both understand the same concept **man**.

Abstraction.

The process by which a simple apprehension is derived from a sense perception and mental image is called **abstraction**. Through abstraction, an object such as a chair is lifted from the level of the senses to the level of the intellect.

Simple Apprehension vs. Judgment

If we affirm or deny anything about a simple apprehension of the chair, we are going beyond simple apprehension – the first aspect of logic – and engaging in judgment – the second aspect of logic. If, in other words, we think, “The chair is brown,” then we are going beyond simple apprehension to affirm something about the chair and engaging in judgment. If, however, we think simply **chair**, merely an idea of a chair, then we are engaging in simple apprehension.

Section Summary

In this section, we discussed the meaning of simple apprehension. We said three things generally occur during simple apprehension; we perceive it with our senses, we have a mental image of it, and we conceive the meaning of it. We also said that simple apprehension is an act by which the mind grasps the concept or general meaning of an object without affirming or denying anything about it. We said, finally, that the process by which a simple apprehension is derived from a sense perception and a mental image is called **abstraction**.

Section 2: Comprehension and Extension

Introduction.

In the last section we explained what simple apprehension was. We said that it was an act by which the mind grasped the essence or meaning of a thing without affirming or denying anything about it. We explained how simple apprehension differed from sense perception and image, and that simple apprehension is different from judgment because simple apprehension does not affirm or deny anything about a concept, while judgment does.

In this section, we will discuss, not the **definition** of simple apprehension, but the **properties** of simple apprehension.

The definition of something is an explanation of what it is. The properties of something are the things that distinguish it and help us to know how it differs from other things.

The two properties of simple apprehension are comprehension and extension.

Comprehension.

Some concepts (and remember, concept is just another word for simple apprehension) are simple, but some are complex.

In the last section, the example we used when we talked about simple apprehension was a chair. When we are asked what a chair is, we can simply say, “A structure of metal or wood designed for people to sit on.” The concept of a chair is a fairly simple concept. But there are other concepts that are not so simple. For example, the concept **man** is not a simple concept. It is not a simple thing to say exactly what a human being is.

The ancient Greek philosopher Plato once gave a tongue-in-cheek definition of **man**. He said a man was a featherless biped. Technically speaking, Plato’s definition is correct. Human beings don’t have feathers and they are all bipeds. But if you were an intelligent being (say, from another planet) who had never seen a human being before, would this description really tell you enough to know what a man is? It certainly rules out birds, since they have feathers. And it rules out horses, because they walk around on four legs. But even if the term **featherless biped** applied only to human beings, it still wouldn’t tell us what a man is. The expression **featherless biped** doesn’t tell us that he is rational. It doesn’t tell us many things about human beings that make up his nature or essence.

But there is a way to break down the complex elements of a concept. These elements of complex meaning are made clear by the use of the idea of **comprehension**.

Comprehension can be defined as the completely articulated sum of intelligible aspects, or elements (or notes) represented by a concept.

All this means is that when we ask what a man is, we are asking, “What is the comprehension of the concept **man**?”

When we ask the question, “What is man?” we can correctly say, as did Aristotle, that a man is a “rational animal.” We know that the term **rational** means. To be rational is simply to have the ability to distinguish the true from the false. (There’s more to it, but that will get us started.)

The term **rational** is a simple concept, which doesn’t mean that it is easy to understand, only that it cannot be broken down into simpler parts. But the term **animal** is not simple, since it can be broken down into simpler parts. So, when we try to answer the question, “What is an animal?” we continue to break it down into simpler and simpler concepts until we have included all the simple concepts that make up the concept **animal**.

In fact, we can break down the concept **animal** into the following simple concepts:

- Sentient
- Living
- Material
- Substance

The word **sentient** means it has senses. The word **material** means it has a body, rather than being purely spiritual, like angels. The word “substance” simply means it is something rather than nothing.

Notes.

In logic, each one of these simple concepts we used above to define the complex concept **animal** (sentient, living, etc.) are called **notes** (look back at the definition of comprehension we used earlier). As you can see, there are four simple concepts into which we have broken the complex concept animal. Therefore, the concept **animal** is said to have four notes. In other words, the answer to the question, “What is an animal?” is “A sentient, living, material substance.”

If, on the other hand, we go back to the term **man**, which we said was a **rational** animal, and ask, “What is a man?” we say, “A **rational**, sentient, living, material substance.” The concept animal has four notes:

- Sentient
- Living
- Material
- Substance

The concept **man** has five notes:

- Rational
- Sentient
- Living
- Material
- Substance

The Porphyrian Tree.

When you were very young you may have played a game called, “Animal, vegetable, mineral.” In it, a thing was presented to you and you were to tell whether the thing was an animal, a vegetable, or a mineral. The use of the term **comprehension**, in which we state the notes to which a thing belongs, is a little bit like this childhood game – it is just more complex.

We can put all the notes by which we comprehend an object into a diagram. The diagram that follows is called the **Porphyrian Tree** because it was invented by the third century logician Porphyry. It gives is a convenient way to break down a complex concept into the simple concepts out of which it is made.

We can apply comprehension to any object. In fact, let’s apply it to the concept **chair**, since that is the concept we used in the last chapter.

Notice that the first category on the Porphyrian Tree is **substance**. If a thing is a thing at all – in other words, if it exists – then it is said to have substance. A unicorn, for example, could not be said to have substance, because there are no unicorns. They don't exist. But a chair exists, so it must have substance. But what kind of substance?

Is it material substance or nonmaterial (or spiritual) substance? A chair is, of course, a material substance; in other words, it has a body (the next level of the Porphyrian Tree). Now we know, then, that a chair is **material substance**, but what kind of material substance? Is it living material or nonliving material substance? A chair (let's say it is a metal chair instead of a wooden one) is a nonliving material substance, since metal cannot be said to be living.

And that is about as much as we can say about it. We can say, then, that the complex concept **chair** consists of the following simple concepts;

- Material
- Substance

In other words, we could go only two steps down on the Porphyrian Tree, and therefore the concept **chair** only has two notes. It is a substance with a body. The answer to the question "What is a chair?" then, is "A nonliving, material substance." [Notice here that there are three adjectives we use to describe the chair. This could make you think that the concept **chair** doesn't go down to the next step on the Porphyrian Tree. The term **nonliving** is sort of like a logical cul-de-sac that doesn't go anywhere. On the Porphyrian Tree, only one of the two ways at each step leads to the next step down (the ones that go to the left). The other leads nowhere. If we had determined that the chair was living, rather than nonliving, we could have gone down one more step on the Porphyrian Tree and it would have had three notes but it is not living, so it has only two.]

To ask what is the comprehension of a concept, then, is to ask the question, "What is a man (or animal or chair, etc.)?"

Supreme genus:

Differentiae:

Subordinate genera:

Differentiae:

Subordinate genera:

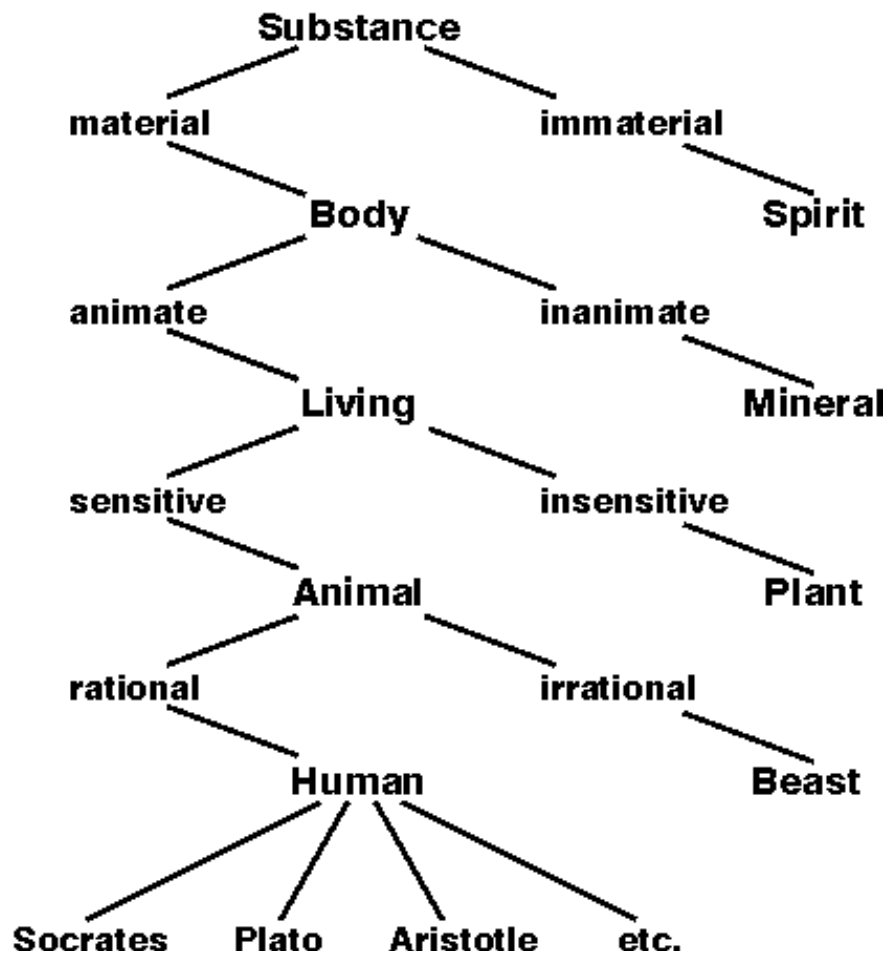
Differentiae:

Proximate genera:

Differentiae:

Species:

Individuals:



You can see that the concept **animal**, which we defined as a substance that was material, living, and sentient, is on the fourth step down on the tree, indicating it has four notes. The concept **man**, on the other hand, is five steps down, indicating it has five notes.

Extension.

The second of the two properties of simple apprehension we study in this section is the property of **extension**

To ask about the extension of a concept is not to ask, “What is a man (animal, chair, etc.), but it is to ask instead, “To what does the concept man refer?”

For example, the answer to the question, “What is **man**?” (comprehension) is “A substance that is material, living, sentient, and rational.” But the answer to the question, “What is the extension of **man**?” is “All the men who have ever lived, who are not living, and who will live in the future.”

We can ask the same questions about the concept **animal**. The answer to the question, “What is an animal?” is “a substance that is material, living, and sentient.” And the answer to the

question, “What is the extension of **animal**?” is “All the animals (including men, lions, dogs, fish, insects, etc. (that have ever lived, are now living, and that will ever lived).”

Comprehension tells us what the essence of a thing is; extension tells us the things to which that essence applies.

The Relationship Between Comprehension and Extension.

Notice an important thing about the relationship between comprehension and extension; namely, that the greater number of notes a concept has, the less extension it has. The concept **man** has five notes – one more than the concept **animal**. Yet, while the concept **animal** has only four notes, the variety of things to which the concept **animal** applies is much greater.

In other words, while the concept **man** has more notes than the concept **animal**, the concept **man** applies to fewer things. While the comprehension of the concept **man** is greater than the concept **animal**, the extension of the concept **animal** is greater than the concept **man**.

You may be able to picture this more easily by looking at the figure. In the left-hand column you will see that concepts are listed according to their comprehension – from those with more notes to those with fewer notes. In the right-hand column, you see that concepts are listed according to their extension – from those which apply to a few things to those which apply to many things.

You can see here that the greater the comprehension a concept has, the less extension it has; and the more extension it has, the less comprehension.

Summary.

In this section, we discussed the **properties** of simple apprehension. We said there are two properties of simple apprehension; **comprehension** and **extension**. The comprehension of a simple apprehension is a description of what a concept is. The extension of a concept is a description of the things to which a concept applies. We said, finally, that the greater the comprehension of a concept, the less its extension; and the greater its extension, the less its comprehension.