Thinking is essentially abstract. The mind abstracts or “separates out” the intelligible content from its object and considers it abstracted from individual matter (the particular thing). The concept or idea “man”, for example, does not refer to any individual (particular) man. Our ideas, such as our idea “man”, are not material things; otherwise our ideas would be particular and could not be shared or communicated. All our ideas are universal. The physical or empirical sciences take place on the first level of abstraction. What this means is that the mind abstracts from the particular or individual material thing (ie., this bone, these organs, this tissue, etc), but not from common sensible matter (ie., bone, organ, tissue in general). The scientist studies this cadaver not in order to understand this cadaver, but to understand the anatomy of all bodies. But he does not abstract from “bone, muscle, tissue, etc.,” just this bone, this muscle, this tissue, etc.
Ideas like “cell”, or “branch”, or “oak tree”, or “photosynthesis” are all ideas at the first level of abstraction. They do not refer to any particular cell, branch, or tree, but only “cell”, “branch”, or “tree” in general. Cells have quantity, and so too do branches and oak trees. But the idea of “oak tree” does not include any particular size.

But some ideas are more abstract than others. The mind abstracts even further when it considers quantity separated from its sensible matter. For example, a cell is generally round; the mind abstracts round or circular from sensible matter and considers the properties of the circle *abstracted from sensible matter* (*i.e.*, *the clear and hard glass of this clock*). To do so, one does not need to know anything about the properties of the glass, or the cell, or the properties of wood, or various metals that might possess a circular shape, such as a street sign, etc. The mind also abstracts number from individual material things to consider number alone. In the real world, we find a multiplicity of substances or things, but the mind is able to separate out number alone from the concrete substance (whatever it might be), such as 2, 10, 50, etc. This is the level of abstraction on which the mathematician operates. This is called the second level of abstraction.

The mind is capable of abstracting even further. It can abstract from quantity and any other particular “mode of being” (accidents) in order to consider “being” simply *as being*. In this way, the mind focuses on the properties of being. In other words, just as the mind can focus on the properties of water (chemistry - first level of abstraction) or the properties of living things (biology - first level of abstraction) as well as the properties of quantities such as triangles, circles, numbers, etc., (mathematics – second level of abstraction), the mind can also focus on the properties of being in so far as it is being –not insofar as it is circular, and not insofar as it is living, or chemical, etc., (metaphysics – third level of abstraction). This provides a much more abstract knowledge. In fact, the philosophy of being is the highest level of abstraction. It is not possible to abstract any further, for there is nothing wider than being (beyond being is non-being, or nothing).

The more abstract the level on which the mind operates, the greater the certainty of its conclusions. The reason for this is that when the intellect abstracts, it separates its object from *matter*, and the more abstracted from matter, the clearer is that knowledge.
Level 3: For example, we know with absolute certainty that whatever is, is one. One is a property of being. If a being is not one, but two, then it is not a being, but beings (plural). We also know with absolute certainty that *nothing can both be and not be at the same time and in the same respect*.

Level 2: We know with certainty that $a^2 + b^2 = c^2$, but that has to be worked out or discovered. Not every human being knows that this is true. Pythagoras was the first to discover this, but everyone knows immediately that nothing can both be and not be at the same time and in the same respect (3rd level).

Level 1: We know that the boiling point of water is 212 °F and that the freezing point is 32 °F, but we are not able to reason to that conclusion, nor can we determine this mathematically. That universal truth has to be arrived at through empirical investigation (experiment).
On the level of the concrete (particulars), we have very little certainty. For example, although we may be able to determine that a certain number of radon atoms will disintegrate within a particular time, exactly which ones will disintegrate out of this collection is not certain (only probable). Although we may be able to determine what percentage of students will be away from school tomorrow (statistical syllogism), it is not possible to determine with certainty who will be away tomorrow as a result of a cold or flu.

Each being is what it is

\[ a^2 + b^2 = c^2 \]

E = MC^2 (energy = mass x the speed of light squared); oak trees produce acorns, etc.)
Ethics

The science of ethics corresponds to the same pattern we’ve been discussing above. The virtue of prudence (the mother of the virtues) is the application of universal principles to particular situations. As a result, there are aspects of ethics that are clear and certain, but as we approach the level of the particular, moral matters become a bit more murky, that is, things become less certain and clear. For example, it is clear to everyone that “good is to be done, evil is to be avoided”. That is the first principle of morality. A more intermediate moral precept is the following: “Treat human persons as ends, not as means to ends”. As a principle, people generally agree with this. In other words, its truth is clear. It is not always clear, however, whether a particular behaviour in a specific context is an instance of treating another as a means to an end. We all agree that loving another simply for the sake of what he or she does for me is a violation of that principle, but it is less certain whether Artificial Insemination or In Vitro Fertilization is such an instance.

This is not to imply that moral truth is impossible to achieve on the level of the concrete particular. Rather, it means that on this level there are more things to consider, which is why the virtue of prudence contains a number of virtues that are its “parts”, such as memory, docility, circumspection, foresight, shrewdness,
understanding and reasoning. The former are needed to deal adequately with particular situations. In order to make prudent (morally good) decisions that will achieve one’s end without adopting evil means and without making matters worse, we need an ability to learn from experience, which is memory. Circumspection enables us to read all the details in a situation, and docility enables us to seek out the advice of others and learn from them. With caution and experience comes foresight, the ability to see what consequences certain decisions are likely to have.

And so it is not enough to have theoretical knowledge of ethics. Nor is it enough to have lived. One needs both in order to apply the one (universal moral principles of natural law) to the other (particular situations).

Everyone is inclined to pursue “life, truth, beauty, art and play, sociability, marriage, religion, and integrity” (basic intelligible human goods). All human persons are inclined to fullness of being, that is, everyone naturally desires his/her own perfection. But not everyone achieves that perfection or “goodness”, because in order to achieve it, one must make good choices, that is, choices conducive to that perfection. The perfection of the human person includes willing the good of others (love). A human being who is solely concerned with his own perfection will never achieve it, because he is not concerned enough for the perfection of others. He is too self-centered. And so it requires a great deal of thought to know how one ought to choose in accordance with one’s human nature; it requires an understanding of the fundamentals of the philosophy of human nature, i.e., how man differs from brute, the nature of knowledge, the powers of the human person, etc.
But all this can be figured out sitting in an “arm chair”, so to speak. What makes matters difficult is that human beings live **in the world**, and the world is complex. Human beings are complicated, and the passions, which in us are disordered, tend to obscure matters, they move us in this or that direction, but not every direction is good for us. Prudence has to be cultivated, and to cultivate it requires an understanding of moral principles as well as the ability to reason clearly, but it also requires the cultivation of other habits or virtues, such as temperance and its parts, and fortitude and all its parts, as well as justice and its parts. Inordinate passion blinds the intellect, and so having a clear head is not simply a matter of taking courses. Having a clear head is also a matter of virtue; one must choose well in order to see clearly. This is connatural knowledge (see Knowledge Summary).

But how does one know what choices are good in the first place, in order to choose well so as to see clearly? I think an immediate answer is docility. “But”, you may ask, “how does one know who to listen to, that is, who to follow?” I believe our inverted pyramid will help us answer this question.
Our knowledge is a combination of ideas that are more or less universal. There is a spectrum that begins with the most universal and moves towards the particular (see inverted pyramids above). The more universal principles of natural law are universally known; they are much clearer, and everyone—unless one is developmentally disabled—understands the fundamentals of natural law, however imprecise and obscure. For example, everyone understands that “one ought not to do to another what one would not like done to oneself”. Also, no one likes to be used. The reason is that we understand that we are ends in ourselves, not a means to an end, and that it is contrary to our dignity to be used like an instrument. These are basic principles that everyone understands, whether that understanding is preconscious or a fully conscious one.

A person who chooses in accordance with that understanding is one who chooses according to his conscience. Not everyone will choose in accordance with his own limited understanding of those basic principles, and so very early on, we see people going down different paths. If a person chooses to order his passions in accordance with his limited understanding of what is morally good, his mind will become clearer. If a person chooses contrary to justice and follows the inclinations of his passions, he becomes more and more blinded by the very disorder of his passions. Consequently, he does not grow in an understanding of the good. That is why some adults have a moral maturity level of a young adolescent, while others are more mature.
And so one must choose well so as to acquire moral wisdom, and this acquisition is very gradual. As one grows in wisdom, one comes to know who is wise and trustworthy, that is, worthy of emulation. We choose our role models on the basis of what we ultimately want, and what we ultimately want either blinds us or opens our eyes. If I want to be a person of justice, if I want to be “good”, my eyes will be open to that and I will be drawn to people who are good and just. If I am indifferent to goodness and justice and ultimately want to “feel good” regardless of how others are affected, I will not take notice of those who are truly good and just.