INTRODUCTION TO
PHILOSOPHICAL PRINCIPLES

LOGIC, PHYSICS, AND THE HUMAN PERSON

CONTINUUM PHILOSOPHICAL INSIGHT | BRIAN KEMPLE
INTRODUCTION TO

PHILOSOPHICAL PRINCIPLES

LOGIC, PHYSICS, AND THE HUMAN PERSON

BRIAN KEMPLE
This book is dedicated to every student, friend, colleague, professor, family member, or random stranger who has asked a question that caused me to think, to reflect, or which challenged me in any way not anticipated.

I only hope that those who read it will have the same experience.

Cover design by Brian Kemple. The background image is the *ars combinatoria* of Wilhelm Gottfried Leibniz.

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Thanks, and good luck.
There are many “introductions” to philosophy. Some of these are very good. Many more are not. The goal of this book is not to replace either the good or the bad, but only to provide another entryway into the philosophical way of life. It is intended for serious, dedicated persons who wish to challenge themselves and improve their ability to think; not for armchair “intellectuals” nor for those faint of heart; not for sophists nor pretenders nor anyone who would mistake eloquence for wisdom.

Despite being an “introduction”, this is not an easy book. Philosophy made easy, or simple, or for dummies, hardly deserves to claim the name. But there is reward in the struggle. Indeed, is there any reward without?

Brian Kemple
27 March 2019
INTRODUCTION

All human beings by nature stretch themselves out toward knowing. A sign of this is our love of the senses; for even apart from their use, they are loved on their own account, and above all the rest, the one through the eyes.

- Aristotle

Τὰ μετὰ τὰ φυσικά (The Metaphysics)

This short book introduces what I consider to be the most important principles for conducting any systematic philosophical inquiry, and therefore for building any serious philosophical habit. These principles are broken down into three sections: logic, physics, and person; or, the basic encounter with thought, with the world, and the nexus of thought and world. I draw primarily upon the Thomistic tradition of philosophy—that is, the tradition begun with St. Thomas Aquinas (c.1225-1274) which has seen two primary periods of development, the first from Capreolus (c.1380—1444) through John Poinsot (also known as John of St. Thomas, 1589—1644) and the second from Pope Leo XIII’s 1879 encyclical Aeterni Patris, which exhorted a return to St. Thomas, most famously championed in the 20th century by Étienne Gilson (1884—1978) and Jacques Maritain (1882—1973), which continues up until today. Additionally, however, I include some insights taken from the traditions of semiotics as begun by Charles Sanders Peirce (1839—1914) and from the phenomenological approach advocated by Martin Heidegger (1889—1976).

Despite my drawing upon these traditions, the reader does not need to know anything about the persons involved or their teachings in order to engage the ideas presented herein; for the focus in this book is on neither history nor dialectic—that is,
how these ideas have developed through time or the argumentative demonstrations of their veracity—but rather on a clear presentation of the ideas themselves along with heuristic suggestions for reflecting on these ideas and their integration into our lives. History and dialectic are important but can be found in countless other books.

At the same time, this introduction should not be consumed in the manner of a textbook, nor should it be considered a reference for philosophical concepts. Rather, it should be considered an introduction to philosophical questioning; for one does not develop the philosophical habit by rote, but by pursuing thoughtful inquiry with dedication; and while repetition is the mother of all learning, there is profound difference between the repetition of a parrot and the repetition of a recursively-engaged program of rigorous inquiry after the truth.

As might be obvious, it is the latter kind of repetition that I would encourage, and it is to that kind of repetition that this book is oriented: to be a helpful series of guideposts not only as to the kind of material you should engage, the sorts of questions you should ask—an introduction to the cultural phenomenon of philosophy, that is—but to how the very process of philosophy is carried out. It may not always help, and the farther you progress in questioning thoughts, the world, and the nexus of the two, the less likely you will be to find a complete answer here, either as to content or as to method. But it is good, nevertheless, to have recourse to the basics even for the most advanced philosopher—just as writing this has been to my own benefit.

**Asking questions**

Because inquiry in philosophy needs no specialized training, it is often assumed that its practice requires minimal to no training at all. Indeed, one could assume that very little is required for the professional philosopher beyond the ability to read, perhaps, in a few languages, a course or two in logic, and the rhetorical ability to seem profound. But even if, in a certain respect, this is so—certainly, it seems that many

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1 The term “dialectic” gets thrown around to mean a lot of things, including “argumentation without certainty” or “non-demonstrative argumentation”. This is not how it is being used here, but rather, in the more general sense wherein it refers to all demonstrative argumentation, including that which is through causes (*propter quid* demonstrations), that which is from effects (*quia*), and that which appears fitting in light of clear principles (*convenientia*). This is dialectic as it was understood in the 17th century and as discussed by John Poinsot in the beginning of the *Tractatus de Signis* edited by John Deely.
within the academy possess little more in the way of genuine capability, regardless of their institutional credentials—the fact is, for the purposes of true philosophical habit, time and study alone are not enough.

Rather, one needs to learn to ask questions and to ask them in the right way. All too often, we tend to ask questions with the goal of getting the answer we want (which is usually the answer that allows us to keep doing and pursuing the things we desire) rather than the answer that is true (which often insists we change our behavior); and very often, do not realize what we are doing, as we have grown up in this bad habit since a time before we can remember. This kind of pre-philosophical attitude of unquestioning, in which most of us spend most of our lives, often appears as the path of least resistance for getting along on a day-to-day basis in the workaday world. But it also encourages bad thinking and shoddily-formed beliefs to control our behavior unchallenged; it encourages us to take for granted that we know what is true, or at the very least, that we do not need to know any better. As the Elatic Stranger says in Plato’s Sophist (229c): “When a person supposes that he knows, and does not know; this appears to be the great source of all the errors of the intellect... And this, if I am not mistaken, is the kind of ignorance which specially earns the title of stupidity.”

For this reason, philosophical inquiry always proceeds disclosively—meaning that it seeks to unveil what really is—in a twofold manner: namely, we want disclosure of both the object of our inquiry and of our own conceptualization of the object. We ask not only, “What is that?” but “How am I thinking about that?” and “Do I really know what I am talking about?”

This twofold necessity of disclosure structures the text here: logic teaches us how to understand our own thinking processes, physics (and later, metaphysics, upon which we only lightly touch in this book) discloses the structure of the world to us, and a study of the person helps us to understand how the two come together in a complex dynamic of potentially infinite growth.

On the structure
As stated, this “introduction” is not intended as a reference or as a textbook. It is not an introduction to logic, nor to physics, nor to the human person; but rather, an introduction to the principles which root both these studies and the philosophical habit as a whole. On its own, the most it can accomplish is to point you in the generally-right direction. To assist in this direction-pointing, I have included, by
endnote, certain glosses which include reference to more substantial texts of philosophical inquiry as examples of how and where one might apply the lessons this text contains, and where one might look for further edification on the topics at hand. These texts are the “primary sources”, in the sense that they are exemplars of asking questions “in the right way”. Some glosses will dig a bit into the more complicated matters directly and provide a deeper, more elaborate answer given by yours truly.

Further, the method I employ here, as elsewhere, is what may be called a resolutive method: put as simply as possible, the goal of all our inquiries is to produce conclusions that become part of a coherent whole, such that the answers to more difficult questions are resolved with the answers to simpler and more fundamental questions. We do not want a philosophy riddled with holes, but one without gaps; a philosophy that sees truth the revelation of a continuum of reality rather than an amalgamation of facts. Often, this disclosure of the continuous reality requires a recursive process: we might, and almost certainly will, cover the same ground multiple times, but—it is to be hoped—each time with a better understanding of how it all fits together; our first pass over new ground will often leave us with a painfully incomplete understanding. Indeed, our understanding is never complete; but with a well-developed habit of philosophical reflection, that incompletion turns from a pain into a joy; from a source of worry—over how much one does not know or understand—into a source of delight, for there is ever more to learn.

I have attempted to simplify the presentation as much as possible; at times, however, the language and ideas both will become complicated and perhaps difficult to grasp. Some sections, some paragraphs, and some sentences will not be clear on the first, second, or even third reading. But philosophy is never a linear pursuit; if you find yourself struggling with a concept or a section, come back to it later, and repeatedly. Like with any habit, the philosophical improves with practice.
First, a couplet of final exhortations before you begin...

A little learning is a dangerous thing;  
Drink deep, or taste not the Pierian spring:  
There shallow draughts intoxicate the brain,  
And drinking largely sobers us again.

- Alexander Pope  
“A Little Learning”

When a person supposes that he knows, and does not know;  
this appears to be the great source of all the errors of the intellect... And this, if I am not mistaken, is the kind of ignorance which specially earns the title of stupidity.

- Plato  
The Sophist
The words “logic” and “logical” get thrown around in common parlance quite a bit: the latter often forming a part of an insult or the vague facsimile of an argument, in the formats of “You are not being logical”, “That’s not logical”, or “[Institution or practice I dislike] is a relic of an illogical time”, or something along those lines. What is meant by the “logical” way of thinking in most of these usages is: “Asserting a viewpoint or behaving in a manner which conforms with my own unexamined presuppositions.” Thus, “logic” has some connotation of “right thinking”, but “right thinking”—unfortunately—is understood to mean “thinking that agrees with my own”... which usually is thinking that has not been well-thought.

On the other hand, mention “logic” around the typical university today and most people who hear you are likely to think of something having to do with computer programming: loops, if → else → then statements, and so on; or maybe they will think of a very dry textbook; or the name Gottlob Frege; or perhaps, if someone has taken a course called “Logic”—or stumbled upon the whiteboard leavings of such a class—something that looks a lot like this:

\[\neg \exists x (Rx \& Px) \rightarrow \exists x Qx, \neg \exists x (Rx \& Px) \rightarrow \exists x Qx\]

This lattermost sense of logic has much to do with computer programming and quite a lot to do with dry textbooks and Gottlob Frege, whose rather dry 1879 paper,
Begriffschrift ("Concept notation"), was a watershed moment in the development of a new, post-Aristotelian approach to logic for the ensuing 20th century. Frege's work as a whole was a great advance in the field of formal logic, for he introduced a system more agile in dealing with both predicates and propositions than the traditional formal logic which had preceded it.\(^2\)

Unfortunately, Frege conceived of his logic on the model of mathematics. I say this is unfortunate not because of the many and often-confusing (or confused) variations in abstract symbolization which have arisen since Frege (including those of Frege himself), but because of the consequent disconnection of logic from the reality of the λόγος; the logos, a Greek word which can be translated in a variety of ways, including reason, account, word, discourse, oration, thought, consideration, meaning, proportion, and even the person of Jesus Christ.\(^3\) The word has obvious importance for English: we use it to designate many of our fields of study (biology, theology, psychology, etc.) and it is, as one should expect, the source of our word “logic”.

But “the disconnect of modern logic from the λόγος”—as counterintuitive as it might seem, given the etymological connection—what do I mean by this? Put simply: the formal structure which logic studies ought to be studied for the sake of revealing something true about reality. The study of modern logic tends towards study of the

\(^2\) It is a legitimate point, raised by Frederik Stjernfelt, that Charles Sanders Peirce rather than Frege was really the most influential thinker on modern symbolic logic. As Stjernfelt writes in his 2014: Natural Propositions: The Actuality of Peirce’s Doctrine of Dicisigns, 50: “Already in the period from 1880-85, Peirce constructed his linear formalizations of propositional logic and first order predicate logic—following immediately, but unknowingly, in Frege’s 1879 footsteps. These few years apart, Frege and Peirce independently discovered predicate logic with polyvalent predicates and quantification. As has gradually become known, it was Peirce’s rather than Frege’s much more cumbersome formalization of the Begriffsschrift which came, via Schröder, Peano, and Russell, to be taken as the basis for modern formal logic.”

\(^3\) This lattermost stemming from the Gospel of John, in its opening lines (1:1): “Ἐν ἀρχῇ ήν ὁ λόγος, καὶ ὁ λόγος ήν πρὸς τὸν θεόν, καὶ θεὸς ήν ὁ λόγος”, “In principio erat Verbum, et Verbum erat apud Deum, et Deus erat Verbum”, “In the beginning was the Word, and the Word was with God, and the Word was God.” This passage of the Bible comes as the appropriation of a truth recognized in ancient Greek philosophy; that is, a notion supposedly proposed by Heraclitus of Ephesus and adopted by the Stoics, of the λόγος as the source of the world’s order. Cf. Marshall McLuhan 1943: The Classical Trivium: The Place of Thomas Nashe in the Learning of His Time, 22.
formal structure for the sake of understanding the formal structure, and consequently in applying the lessons learned to manipulation of data, to engineering possibilities, and to abstracting the structure of thought so as to control its consequences. Consider the above formula of abstract symbols: there is meaning in it, but that meaning is removed from natural language and therefore from natural experience. If we elevate this concern for formula above all else, we enervate the λόγος and make it an empty shell.  

In contrast, we propose here, the λόγος is best understood as the intelligibility of the real; not as residing in intellects, but as transcending both the intellect which grasps it and the reality in which it is grasped, irreducible to either. In other words, the λόγος is what really is, as it can be understood, regardless of how poorly or incorrectly we or others might think about it. Logic, on the other hand, is or ought to be the study of this process by which the mind strives for grasping this intelligible reality in its full relation: in thought and in thing, in mind and world, and in the possible connections between the two.  

In the preface of his commentary on Aristotle’s Posterior Analytics, Aquinas asserts:  

“a certain art is necessary, which is directive of the very act of reason, namely, that through which humans may proceed orderly, more easily, and without error in the act of reasoning itself”; that is, logic. Logic has long been considered, therefore, a liberal  

4 This is not to deny a place for modern, formal, symbolic logic in our philosophical studies: but rather, to insist we study it in the right way and for the right purposes. Highly-abstracted formal systems of symbols can help us understand our own thinking and the logicality of relations more clearly than we can attain in natural language systems, but too exclusive a focus on such systems results in a divide of them from the real world in which we live, cleaving “thought” from “thing”.  

5 Thomas Aquinas i.1269-72: In Posteriorum Analyticorum Expositio, proem.: “ars quaedam necessaria est, quae sit directiva ipsius actus rationis, per quam scilicet homo in ipso actu rationis ordinate, faciliter et sine errore procedat”. Distinctions of logic as either an art or a science have received a great deal of attention; for a science is certain knowledge while an art is knowledge concerning something to be done, something which can be otherwise. Put as succinctly as possible, the art of logic is the conduct of reasoning itself, while the science is the knowledge of how that reasoning occurs. To practice logic as an art requires investigating it as a science, though not all great scientific logicians are great logical artists; and vice versa.


art: “because it is at the core of the studies that free the mind in its own order by the disciplines proper to thought”.

1.1. The Basic Encounter with Thought
But what is thought, or thinking? Even though we all find ourselves “thinking” to some degree or another nearly all of the time we are conscious—it is something we encounter in the subjectivity of our lived experiences continually; you cannot think about thinking without thinking, and even if you think you are not thinking, you are still thinking—thinking is nevertheless an activity we find difficult to describe. Because it has an omnipresence in our consciousness, we take for granted that we “know” what we mean by “thinking”, which makes it a challenge to articulate what it really is, let alone how we would begin to study “thinking”.

One of the easy-out answers someone might give to the question, “What is thinking?” today is that thinking is the activity of our brains: an idea that has been floating around commonly since the 1940s, but which can be traced back into thinkers as early as Thomas Hobbes (1588—1679) and Gottfried Wilhelm Leibniz (1646—1716). However, our neurological activity—while very important for our cognitive abilities—is not what is meant by “thinking”, and anyone claiming it is has fallen into a reductive fallacy. After all, do we really believe that the neurological activity in our brains corresponding to sight is what we see? Or is it not a means by which we see? That is, I do not see synapses being fired between neurons, but because of those firing synapses, perceive the green of the glass from which I am drinking, the black of my keyboard, the white from my computer monitor.

Why would thought be any different?

6 John Deely, 1985: Logic as a Liberal Art, 4.
7 I.e., the fallacy of thinking that, because some whole is made up of parts, those parts are what is really real, while the whole is simply a mirage. For instance, if someone were to say that the table in front of you is not really there, but actually just a collection of atoms with a relatively enormous amount of “empty space” in between, this would be a reductive fallacy—likewise that a fetus is just a clump of cells, or that water is just hydrogen and oxygen.
We are further inclined today to computational metaphors: metaphors which posit that thinking is some kind of “information processing” or that it is the “software” to the brain’s “hardware”; as though thoughts are programs or subroutines running in a massively-complex operating system installed by our genes. This description often finds an audience that takes it literally and unquestioningly, rather than metaphorically—especially those who are involved with research in artificial intelligence and the continual advancement of our programmed, computational prowess, and most especially those who are committed (whether as advocates or as political [and not theoretical] opponents of transhumanism or posthumanism movements—ideologies that believe the next stage of life will be achieved through programmed intelligence). 

Or we might think of thinking as “talking to ourselves”, or “talking without speaking”, perhaps as a kind of interior, spiritual, mystical, ethereal experience carried on by a force not only inexplicable by any means of study—not by neuroscience, psychology, physiology, biology, chemistry, physics, or philosophy—but even undetectable: an anima ex machina.

In general, that is, we tend to presume that thinking is an in-principle private endeavor: something that happens “inside” of us, “in” our minds. But why? Our thinking—while it is certainly something that we as individuals do—seems entirely dependent upon things experienced outside of ourselves; and perhaps most dependent upon language, which certainly does not arise spontaneously from our minds, but is something we learn through interaction with other human beings. This dependence does not mean that thinking is language, but it does seem to indicate that thinking operates principally through language (among other things which become subordinated to the structure that language gives us). So while we certainly do have “private thoughts”, and we are all quite practiced at “keeping our thoughts to ourselves”, the privacy is incidental to thinking, rather than essential. Rather, thought as we experience it begins and usually ends in something public: in the reception and transmission of thought between persons.

An accessible book explaining this ideology—wherein one finds little serious questioning about what thinking really means, it being taken for granted at every step that thinking is nothing more than information processing in the same manner as held by a computer—is Max Tegmark’s 2017: Life 3.0: Being Human in the Age of Artificial Intelligence.
In other words: we seem to encounter our own capacity for thought primarily through language; for thinking, said most generally, is the effort to produce concepts: whether good or bad, for moral or immoral purposes, whether ordered to necessary truths or to contingent projects, when we *think*, we are attempting to produce a conceptual sign—or a series of signs which somehow resolve into a coherent whole—which directs our minds to these ends. When we try to study the operation of the mind, therefore, we do so through language, because a language is composed from perceptible signs which signify the concepts of the mind. Conventionally, and rightly, the history of logic has focused on three kinds of linguistic structures: *terms*, *propositions*, and *arguments*.

We will come to these three structures in a moment. But first, we must warn against taking the term “structure” too literally: that is, just as computational metaphors misleadingly suggest a mechanical functioning to the mind’s operations, so too the “structural” metaphor may misleadingly suggest a kind of static architecture to the development of thought. That is, “thought” does not have walls nor ceilings, framing nor trellis nor trestle, nor, for that matter, a foundation. Prior to every thought, there is some other thought—or at least, something “thought-like”. In other words, our thinking is always conditioned by prior thinking, and our prior thinking is itself conditioned by activity that may not be “thought” properly speaking but is nevertheless “thought-like”. You cannot start to have an entirely new thought, right now, at this moment which is not prompted by some other thought, either a thought of your own or that of another. You cannot start a new foundation for thinking on untrammeled mental real estate like you could a new building on land untouched by human hands. And while you might remember a “first thought”, there were undoubtedly thoughts you had before that one, and prior to those, something else that enabled you have those thoughts, which in turn enabled you to have the thoughts you now remember.

Nevertheless, the idea of “structure” is not limited to architecture: atoms, planets, plants, and animals, too, have structures, and in a way more closely analogous to the kind of structure that we discover in thought than is the kind of structure we discover in the artifices of humankind: rooted but flexible, organic and intrinsically-purposive, and self-developing, growing from within by appropriating what it discovers, absorbs, and transforms from without. If we think of plants as a simple analogate, terms are like roots, propositions are like stems and branches, and arguments are like fruits or
flowers—fruits and flowers that cross-pollenate and reproduce and may seamlessly continue the life of thought, if we encourage them.

1.2. Terms
A term may be defined as a verbal signifier—that is, a word or group of words which directs our mind to something other than itself—of a unified concept. A unified concept is itself a sign that directs our minds to some intelligible object. Thus, terms signify on behalf of concepts, which signify objects. Terms, as the linguistic signifiers of unified concepts, are the basic building blocks of more complex linguistic structures (propositions and arguments). Yet even so, we speak of terms in a plurality of divided ways: between 1) categorematic and syncategorematic terms, 2) simple and complex terms, 3) superior and inferior terms with regard to their extension and comprehension, 4) univocal, equivocal, and analogical terms, 5) collective and distributive terms, and 6) positive and negative terms. Further, as terms are appropriated into more complex linguistic structures—propositions and arguments—the syntax adds further qualifications which we will deal with in the respective sections.

1.2.1. Categorematic and Syncategorematic
Simply put, a categorematic term is one which signifies something categorically identifiable, while a syncategorematic term signifies the relationship which might obtain between categorematic terms (i.e., their potential togetherness or separation—this is what the Greek root “syn” means). For something to be categorically identifiable, that means it has a distinctive kind. Aristotle gave ten such kinds:

1. Substance – something which is relatively independent; the kind of thing that a being is.
2. Quantity – the way in which something can be counted (divided into continuous and discrete).
3. Quality – the particular modality in which something exists. Divided into:

9 See gloss VI for a discussion of the meaning of the term “object”.

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a. Habits and dispositions (relatively stable but changeable modes of being)
b. Natural capabilities and incapacities (stable and unchanging modes of being)
c. Affective qualities and affections (highly unstable and changeable modes of being)
d. Shape

4. Relatives – the ordination contained within one thing towards another.¹⁰
5. Place – the way in which a thing is identifiably located.
6. Time – the pastness, present, or futurity of a thing.
7. Posture – the relative orientation of a thing’s parts to one another.
8. Vestition – the way in which a thing possesses another as a modification of itself (e.g., glasses).
9. Action – the way in which a thing dynamically alters itself or another.
10. Being-acted-upon – the way in which a thing is dynamically altered by itself or another.

Thus, as examples of categorematic terms, we can give: “human”, “dog”, “animal”, “five”, “courage”, “reason”, “anger”, “square”, “captain”, “inside”, “yesterday”, “sitting”, “clothed”, “slapping”, and “being-slapped”. Contrariwise, syncategorematic terms—which have no widely-accepted enumeration—would include as examples: “if ... then”, “either ... or”, “both”, “and”, “whether”, “to”, and so on.⁷Ⅶ The categorematic kinds are broadly divided into substance (that which does not exist “in” any other thing) and the nine “accidents” or “incidentals” (all of which are dependent upon substance for their existence).

This may appear as a rather abstract and removed system of classifying terms. In truth, however, it should help us to think of how terms signify realities or aspects of reality. Categorematic terms are ordered towards the intelligible “what” of a thing; syncategorematic terms towards the relationships things have towards one another. Some words that we use as categorematic terms are ordered towards patterns of relationships: as “society” or “culture”, “fatherhood” or “professor” (when not used as a title for an individual, but as indicating a kind of position within an institution or

¹⁰ Not to be confused with relation itself. See gloss VII.
profession), and so on. Oftentimes, these relationship-pattern signifying terms can be used misleadingly; they may not be used consistently with any one concept, but equivocally or vaguely, signifying unrelated aspects of reality or relationships but without any pattern. That is, because the patterns are not themselves easily perceived, uncritically-minded individuals may persistently mistake the nature of the patterns while presuming they have correctly identified them, leading not only to those individuals being confused themselves, but to diffusing that confusion throughout their social spheres.

1.2.2. Simple and Complex
A simple term is one which comprises a single word. A complex term is one which comprises a plurality of words. In the natural use of language, we encounter complex terms more frequently than simple terms. In the first sentence of this section, “A simple term is one which comprises a single word”, we find three terms: “A simple term” (complex), “is” (simple), and “one which comprises a single word” (complex). This lattermost term could be broken down into constituent parts (“one which comprises” and “a single word”), but this would dismantle the unified signification of the term.

Thus, modifying words—adverbs, adjectives—phrases, and subordinate clauses can all become part of a single complex term, logically speaking. Often, these modifiers signify one or another of the incidental categories: as “a” in “a simple term” signifies quantity, and “simple” signifies a quality of a quantity (the quality of not having many parts). Likewise, if we had “that sitting man” as a term, “sitting” would signify a

11 As can be observed in the way people might use terms like “antiquity”, “modern”, “postmodern”; “conservative”, “liberal”, “alt-right”, “centrist”, and so on. New terms, or terms used in attempts to classify contemporary events, are subject to the most fraught and hectic usage; but even very old terms, given their historical developments or abuses, may be misleadingly used as well, such as “nature”, “intelligence”, “reason”, “person”, and so on. Understanding the correspondences between terms and concepts, and concepts and reality, is essential to having clarity not only in communication with others, but in our own thinking.

12 Words are not precisely equivalent with terms: that is, a word is a potential signifier whereas a term is an actual signifier. The word “duck” in and of itself signifies nothing actually (as evidenced by the fact of its equivocal potency), but only potentially: if I were to shout “Duck!” the significance could be either “Hey look, there’s a duck over there!” or, “Get down, something is coming for you!”, or perhaps something else.
posture. Nouns typically signify substances, and verbs a category of action or passion. Thus, even the “simplest” of our statements often contains a multitude of facets to analyze.

1.2.3. Superior and Inferior

Every term has two properties which are related by an inversion proportion: extension and comprehension. A term’s extension is the range of potential instances it may signify. For instance, the term “man” may signify any human adult male, while “human” has a superior extension since it extends not only to adults and males, but women and children of both sexes as well. Likewise, “animal” has a superior extension to “human”, since it extends to every perceptually-endowed living creature.

Conversely, the term “man” has a superior comprehension to “animal”, for it contains within itself more “notes” of specification: that is, human, male, and adult. Comprehension, therefore, signifies a term’s definitional limits, while extension signifies the range of things to which that definition applies. The more precise a term’s definition, the superior its comprehension and the inferior its extension relative to less-precisely defined terms.

1.2.4. Univocal, Equivocal, and Analogical

A term is univocal if by widespread convention it has one precise and adequate meaning. Univocity of terms is therefore very important in practical situations, especially those dealing with science and medicine: “gall bladder” should always be used univocally, for instance, in discussing surgery options. In most contexts, therefore, we tend to use terms with a univocal intention: we mean to specifically indicate one and only one thing.

Equivocal terms, by contrast, are those that conventionally have two or more distinct and unrelated meanings. Classic examples include “bark”, as of a dog, of a tree, or of a ship; or “accident”, as of one of the nine categories following “substance” or of an unintended mishap; or “gay” as meaning happy and joyful or as meaning homosexually-oriented.

Carelessness with equivocal terms can lead to fallacious arguments, where someone switches between meanings of the terms (sometimes without being aware of it, thinking the meanings are somehow related or equally applicable to diverse situations). For instance, someone could use the term “dogma” in an equivocal sense,
meaning respectively “unquestioned teachings” (a vulgar use) and “defined doctrine” (the proper sense), by arguing that:

Anyone who believes in dogma (unquestioned teachings) is an idiot;

Jim believes in dogma (defined doctrine);

Therefore Jim is an idiot.

Analogical terms are those that conventionally have two or more distinct but related meanings. Much debate about the nature and kinds of analogical terms has occurred, but we will not get into the specifics here. Suffice it to say that some terms are analogical by a kind of improper proportion between the meanings—where a univocal meaning is extended by conventional use alone, or by a metaphor—while others rely upon a sameness in proportion between two things to some third. Examples of improperly-proportioned analogical terms would include things like “smile” said of a face and of a meadow, or of “notebook” said about a physically-bound set of pages for the sake of taking notes and of a small and lightweight laptop computer. Examples of properly-proportioned analogical terms would include “being”, “true”, “good”, and so on.

1.2.5. Collective and Distributive
Terms with an extension of more than one can be used either collectively or distributively. A collective use signifies the plurality together as a unit, while a distributive signifies each individual within the whole. For instance, in the sentence, “Animals are sentient beings”, the term “animals” is used collectively; while if I say, in reference to a particular group of animals, “Those animals are running around”, I am using the term distributively: it refers to the entire group but signifies something each is doing individually.

1.2.6. Positive and Negative
A term is positive when it signifies a manner of existence, and negative when it signifies the absence of a manner of existing. Often, negative terms begin with a privative prefix, but this can be misleading. For instance, “inclement” and “amoral” are negative terms, but “inflammable”—which only appears to have a negative prefix—is positive, as is “invaluable”, at least by common usage.
Notably, however, a negative term is still an “object” of consideration and still therefore signifies something having being, even though that being may only be a “being of reason” (an ens rationis as the scholastics called it).

1.3. Propositions

It is not a stretch to claim propositions stand at the heart of logic’s study: for thinking, which logic studies, proceeds through the compositions and divisions which are expressed by propositions. We ordinarily divide propositions into two kinds: categorical and conditional. Each proposes the possible connection or separation of ideas signified by terms and aims implicitly at providing a syntactical articulation of the realities as they are related to one another. By the use of a copula, a verb which joins together terms—“is” or some variant thereof—we try to express the real.

In other words, truth and falsity—which, succinctly defined, are the correspondence or non-correspondence of a proposition to reality—are properties of propositions, but not of terms. For a term to be used falsely, it must be used within a proposition. That is, terms may signify falsehoods (as, e.g., “lie”, “deceit”, “counterfeit”, etc.) but they do not signify falsely: even terms of pure fictions, like “phlogiston”, “celestial sphere”, “unicorn” signify an idea only, and not the idea of their real existence. If one were to say, “A unicorn is a one-horned animal,” even this is not a false signification—for one-horned and animal are both contained in the definition of “unicorn”; but if one were to say, “Unicorns still live in northern Japan”, this would be a false signification.

1.3.1. Categorical

Of the propositions we encounter in common discourse, categorical are likely the most common. These are propositions of the format “__ is __”, or “S is P” (where S stands for “subject” and P for “predicate”—a context-dependent distinction of terms)

13 Non-copulatively expressed propositions can always be re-worded to include a copula. “David and Shelly run together every Thursday”, for instance, can be re-written as “David and Shelly are running together every Thursday”; or “The science of philosophy demands rigorous critical reflection” as “Philosophy is a science which demands rigorous critical reflection”, “The science of philosophy is an endeavor which...” etc.

14 A concept can be false—as constituted from separable concepts which do not fit together—but this is a more advanced notion.
i.e., propositions which perform a categorization—or assignment of a broader term to a more specific term—through a copulative combination or through the announcement of an action (all of which can be re-written with a copula). Conventionally, categorical propositions are divided into four kinds:

1. Universal affirmative (A propositions) – “All animals are mortal” | “All S are P”.
2. Universal negative (E propositions) – “No lunches are free” | “No S is P”.
3. Particular affirmative (I propositions) – “Some animals possess intellects” | “Some S are P”.
4. Particular negative (O propositions) – “Some meals are not free” | “Some S are not P”.

The letters, (A, E, I, O) come from the first two vowels in the Latin terms for “I affirm” and “I deny”, *affirmo* and *nego*. Most statements of natural language can be reduced to one of these four kinds. For instance, the statement, “Reading challenging books develops one’s mental acuity” has “[The activity of] reading challenging books” for its S and “[an activity that] develops one’s mental acuity” for its predicate. What is clear from the statement is its quality, that is, that it is affirmative rather than negative. What is not clear is its quantity, i.e., whether it is universal or particular. This requires us to think a bit. For example:

What do we mean by “reading”? Certainly, more than just passing one’s eyes unknowingly over words; there has to be at least an attempt to grasp the meaning that the words signify in order for our action to count as “reading”. Now, what do we mean by “developing mental acuity”? Something more than just the appropriation of the ideas encountered; the term “acuity” implies sharpness, incisiveness. This seems to be something that will be improved by reading any challenging book, indeed, whether the challenge of the book stems from its ideas or from its language. So it seems that this is likely a “universal” statement. Thus, “All acts of reading challenging books are acts that develop one’s mental acuity”...

The process of discerning whether a normal language statement intends universal or particular extension is not always so easy and straightforward: all the more reason
that one needs a habit of interrogative posture to not only what others mean by their statements, but as to what oneself means by one’s own.\textsuperscript{35}

\textbf{1.3.2. Conditional}

Unlike categorical propositions, conditionals set up possibilities that demand a specific causal coordination in any argument where they are found; i.e., their internal logic is dictated by a condition. These conditional possibilities are of two kinds: \textbf{disjunctive} and \textbf{hypothetical}.

\textbf{1.3.2.1. Disjunctive}

A disjunctive conditional is one which phrases its possibilities in terms of an “either/or” statement. For example, “Either Pete stays or we all leave”, which takes the form of “Either ___ or ___” or “Either P or Q”. The Ps and Qs can be negated or negatives, or negated negatives, as well: “Either not P or not Q”, “Either non-P or not non-Q”, etc.

The key to sound disjunctive propositions is the exclusivity of the terms. A woman is either pregnant or she is not—there are no degrees between the two terms; someone cannot be “mostly pregnant” or “partly pregnant”. Contrariwise, it is not necessarily true that someone is either conscious or not; there are certainly degrees of “consciousness”, by which we mean (in its \textit{most proper} sense), someone who is awake to the point of being volitionally capable, or able to control him- or herself; someone can certainly be \textit{semi}-conscious, as we often experience a confusion between dreaming and waking, where our bodies often react before our minds are capable of processing what is happening, or where we have not yet gained control over ourselves or our bodies. Applying “either/or” disjunctive propositions to concepts such as “consciousness”, therefore, often requires some qualification: “Either he is \textbf{fully} conscious or he is not”, etc.

Oftentimes, we may find ourselves thinking of what terms signify as falsely exclusive when—while nevertheless truly different from one another—they differ from each other by \textit{degrees} and therefore might have some instances in which there is overlap.

\textsuperscript{35} The most important rules which follow upon the quality and quantity of propositions are those concerning the \textbf{distribution} of the terms. See the appendix below. For now, it needs to be known that “distribution” refers to whether the structure of the proposition refers to the entire or only a partial extension of the term’s referents.
We must be very clear about the *conditions* surrounding and contextualizing any articulated disjunctive proposition, as well as our own meaning. For instance, the statement, “Either he is conscious or not” might be clear from the context as a genuine disjunctive proposition if “consciousness” in this case clearly means “capable of doing his work” or “prepared to have a conversation”. Contrariwise, if we say, “Every person is either conscious or not”, this is not a genuine disjunction, as there may be many people who are in intermediate states of consciousness. Likewise with “awareness of …”: someone may be partly aware, say, of the *Gilets jaunes* movement, but only vaguely; predicating an “either/or” of such awareness would likewise need qualification in most cases.

While disjunctive propositions may *imply* something about the causality responsible for either term obtaining, i.e., either P or Q coming to be, it is not necessarily the case that the obtaining of one is responsible for the non-obtaining of the other, or vice versa. For instance, in the “Either a woman is pregnant (P) or she is not (non-Q)”, a woman not being pregnant (not-P) implies something about the causality of her non-pregnancy (non-Q), but only in a very limited way: the cause(s) of non-pregnancy may involve factors aside from the cause(s) of pregnancy, and vice versa.

1.3.2.2. Hypothetical
The hypothetical proposition takes the form of “if... then”. For instance, “If it rains, then the ground will be wet.” The first part of this proposition, the “if” portion, is termed the *antecedent*. The second part, the “then” portion, is termed the *consequent*. Formally, “If ___, then ___” or “If P, then Q”. The rationale behind the structure is that *if* the conditions posited by the antecedent obtain, *then* the conditions described by the consequent will follow. The most common fallacy made concerning hypothetical statements is, within the context of an argument, to assume that the occurrence of the consequence implies the occurrence of the antecedent.

Hypothetical propositions can also come with conditions of exclusivity: in other words, they may be stated “If and only if”. This changes the rules: “if and only if” statements (sometimes called “iff” statements) entail that the occurrence of the consequence does in fact require the occurrence of the antecedent, because there is one and only one cause that could be responsible for the consequent’s occurrence, namely, the stated antecedent. For instance, “If and only if God exists, can the universe exist” is an “iff” statement.
Where disjunctive propositions indicate a relationship of mutual exclusivity and may only imply a causal relation, hypothetical propositions always indicate, and often directly indicate, a relationship of causality. The causal relation may not always be obvious, even if true; particularly if there are many “links” in the chain between antecedent and consequent. For instance, the proposition, “If there is a nature, then there are moral norms” may seem obvious to those who have habitually considered the implications of a nature’s existence, or who have not necessarily considered the implications but who have grown up in a culture where such implications are taken for granted. Conversely, for those who have grown up with only a very thin notion of nature—namely, as what exists independently of human artifice—the causal relation may not be very clear at all.

In contrast, categorical propositions aim principally at the identity of their terms, i.e., what things are, either in their substances or their accidents. We therefore tend to use categorical propositions in the pursuit of definitions, disjunctive propositions when separating out one thing from another, and hypothetical propositions when inquiring into why and how things occur.

1.3.3. The Manner of Predication
Among the ways in which a predication might affect a term involves how that term signifies itself in relation to others: specifically, whether the copulative combination or disconnection—the affirmation or denial of some relation between the terms of a proposition—signifies an essential relation or an incidental one, and within those, what kind of essential or incidental relation. This signification of relations has for a long time been called the list of “predicabilia” (just as the categories are often called the “predicamenta”), and they are numbered at five:

A. Essential
1. Genus – an identifying character which is common to many other things, including more than those that are closely alike to the one identified. A classic example is “animal” said of “lion”.
2. Species – an identifying character which is common to other things that are closely alike to the one identified. Thus “lion” said of “Leo” and “Simba”.
3. Specific difference – the identifying character which distinguishes species from one another within the same genus. The classic
example is “rational” (or “intellectual”) said of human beings to distinguish them as “rational animals”.

B. Incidental

4. Property – a characteristic which follows upon the possession of a genus and specific differences but which may be omitted or removed without the essential character being lost. The classic example is “risible” said of human beings—the capacity to laugh.

5. Accident – a characteristic which may or may not be had depending upon the kind of thing in which it is possessed, but which makes no important difference as to its existence. An example would be the color of one’s hair or skin.

Important to note that what is a generic term in one context might be considered a specific term in another, and vice versa. Likewise, a property—devoid of the context in which it is said as a property—might be considered otherwise; for instance, if I say, “that is a rational plan”, “rational” becomes “accidental” rather than “proprietary”. In consequence, we recognize that while some terms are more suitable for certain modes of predication than others, and some terms may not be suitable for some modes of predication at all, the mode of predication is determined ultimately by the relation achieved through the predication (rather than as an intrinsic property of the term).

1.4. Arguments & Argumentation

Typically, no distinction is made between “arguments” and “argumentations”. Charles Peirce (who may have, ultimately, had more influence on the predicate aspects of modern logic than Frege) proposed such a distinction in his 1908 essay titled “A Neglected Argument for the Reality of God”. This distinction is between a genus and a species:16

An “Argument” is any process of thought reasonably tending to produce a definite belief. An “Argumentation” is an Argument proceeding upon definitely formulated premises.

Thus, in our natural language settings—at the dinner table, the college quad, coffee shop, social media, the bar—we tend to have arguments only, for definitely

formulating our premises ordinarily requires a degree of care unattainable in the informal setting. By contrast, in our formal writing, classroom settings, or debates, we ought to seek the production of argumentations: where we have clearly articulated the sense in which we are using our terms if need be, as well as our premises, i.e., the propositions which compose the argumentation.

There is no fixed length for any argument—they may be very short and simple or very long and complex. A classic example of a short and simple argumentation—which, considered in its prototypical structures is often called a “syllogism”—is this (in categorical form):

All human beings are mortal.

Socrates is a human being.

Therefore Socrates is mortal.\(^{37}\)

This set of **universal affirmative** categorical propositions forms a coherent whole, such that two terms—one most particular, or the **subject** term, “Socrates”, and one most universal, or the **predicate** term, “mortal”—are united by a third: “human being”. If we accept the truth of each proposition (which, as functioning in a syllogism, are termed premises), we must accept the truth of the **conclusion**. The first premise, or the premise in which the predicate term is found, is called the **major premise**; the second, or premise in which the subject term is found, is called the **minor premise**. The force of this inferential connection, where the truth of both premises leads to accepting the truth of the conclusion, is called **illation**, which will be discussed more thoroughly in the next section.

Every categorical syllogism has three terms and only three terms—that is, while argumentations can involve concatenated syllogisms, if the argumentation is valid

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\(^{37}\) This can be translated easily into a hypothetical syllogism:

If Socrates is human, then he is mortal.

Socrates is human.

Therefore he is mortal.

One could also translate into a disjunctive syllogism; but in both conditional cases, the universality is absent, and in the case of the disjunctive, the connection between humanity and mortality is only implied.
then these syllogisms will be reducible to some three-term structure: such that the conclusion of one syllogism can be represented by a term in another.\textsuperscript{x}

It was already mentioned that terms, placed into propositions, belong to positions of subject and predicate, the latter being something which is “said of” the former. In syllogisms, this is expanded: in addition to subject and predicate terms, there is a \textbf{middle} term: a term which is relatively predicated of the subject (sometimes renamed the \textbf{minor} term) and relatively the subject of the predicate (the \textbf{major} term). In the above example, “human being” is the middle term, while “Socrates” is the subject and “mortal” is the predicate. Notably, the subject is linked to the predicate by means of the middle. If we know that the middle term fits under the predicate, and the subject fits under the middle, then the illative movement of subject fitting under the predicate seems to follow naturally.\textsuperscript{xi} Yet every categorical syllogism must observe a series of rules (with no widespread conventional agreement as to their number)\textsuperscript{xii} in order to be valid.

Conditional argumentations likewise have major and minor premises. The major premise is that which contains either the disjunctive or the hypothetical proposition, while the minor affirms or denies one side of the disjunct, or the antecedent or consequent. For examples, first of a disjunctive:

\begin{quote}
It is either below freezing or it is above freezing.

It is not above freezing.

Therefore it is below freezing.
\end{quote}

Second, of a hypothetical:

\begin{quote}
If robots are truly intelligent, they will grasp the meanings of objects in themselves.

Robots do not grasp the meanings of objects in themselves.

Therefore robots are not truly intelligent.
\end{quote}

Disjunctively-constructed arguments have a narrow range, for things truly exclusive of one another are rare. Contrariwise, hypothetical arguments have a very broad range, but are easily ill-constructed, for complex terms can make drawing the inferential connections complicated. For instance, to continue off the above example:
If robots are truly intelligent, they will exceed human beings in at least some information-processing capacities.

Robots exceed human beings in at least some information-processing capacities.

Therefore robots are truly intelligent.

This is an invalid argumentation. We can never infer the truth of an antecedent (unless in an “iff” statement) from the occurrence of the consequent, for multiple causes may have the same effect. For instance, if I said, “If it rains, the ground will be wet; the ground is wet; therefore it rains”, this presumes that no other cause could make the ground wet—ignoring dew, or sprinklers, or hoses, and so on.

Yet this kind of mistake—an elementary one—is made very often. The minor premise concerning the robots is true (my computer calculates $372 \times 127 = 47,244$ far faster than I do): but its affirmation makes no claims upon the truth of the antecedent of the major premise. Such an error is easier spotted in “definitely formulated premises” than in natural language arguments—for although correlation does not necessitate causation, it may imply it. Given enough true consequents, we may begin to think they perhaps do signify something about the truth of the antecedent as causally connected.

What this requires of us is, first, to be aware of the leap in reasoning that occurs when we move from the affirmation of a consequent (or even multiple consequents) to a belief in the antecedent’s causality, and second, to challenge directly the posited antecedents that we encounter. Someone proposing that robots are truly intelligent, for instance, may mean something by “intelligence” quite different from what we mean; they may even mean nothing other than “information-processing capacity”. Such a definition, of course, tailors the meaning of the terms to strengthen the conclusion, while simultaneously enervating the meaning of human intelligence.

The difficulties we face in constructing and evaluating arguments and argumentations, therefore, are two: those of terminology and those of illation.

### 1.5. Difficulties: Terminology and Ilation

These two difficulties are none other than the difficulties characteristic of all human thinking: arriving at definitions of the intelligibility of our terms and discerning how they are related to one another. The difficulty of terminology is oriented primarily
towards objects: that is, it is a difficulty of how we signify “what is”. The difficulty of illation is oriented primarily to the mind: that is, how we discern whether to affirm or deny the composition or division of terms by means of premises.

1.5.1. Terminology
In the average conversation, we do not, for the most part, critically consider the intended nor the actually communicated meanings of the terms we employ. The pace of most conversations—at least, those carried on in person or in any other fast-exchange medium—insists upon speed in our communication, and critical consideration of the meaning of terminology takes time and patience. But the inability to pause and reflect upon what we mean in the moment does not excuse carelessness with our terminology outside those times of rapid communication, and a habit of carelessness with our language results in a great deal of miscommunication, whatever the pace.

That is, terms, insofar as they are understood, signify, and they do not necessarily signify one and the same thing to all persons, for we do not all have the same understanding. Oftentimes our intended significations are discolored by habits of sloppy use; other times, we may use the term just in the way intended, but the person with whom we are communicating nevertheless misunderstands us either because they outright lack the concept we are intending to signify (and thus do not grasp the reality we further intend to signify) or because that concept has been left either vague or malformed. For instance, the term “rational” as signifying the capacity of the mind to discursively consider “what is” may be entirely foreign to a pre-adolescent youth; or it may be vague to the entering college freshman; or it may have been reduced to the notion of “problem-solving” to the educationally-abused college senior.

If we were to identify a first necessary habit of logic, therefore, it would be the habit of critically analyzing our terminology: that is, what do we mean by the terms that we use? A second, and closely correlated habit of logic, is: how do we convey what we mean? This order might seem a backwards—the general presumption being that we think about what we mean before we speak—but the truth is that we ordinarily use terms before engaging in truly thoughtful attempts about how to convey meaning, not only in our development from childhood, but much more often than not as adults, too. In other words, we habitually approach words as pragmatic tools before we approach them as theoretical signifiers.
But these habits of terminological consideration—of thoughtfulness about the words that we use and what they convey—are not merely tools to be put to any use, nor merely an expertise to develop our linguistic capacity (that is, even thoughtful consideration of our words can be subordinated to sophistical purposes), but the foundation of a metaphysical orientation: an orientation towards the whole of truth. The truly careful use of language, then, is not ordered towards use, but towards disclosure. As Robert Sokolowski writes:18

We can use words and entertain things thoughtlessly, or we can mind what we say and what we experience. We are familiar with the difference between being thoughtful and being thoughtless, but to be familiar with the difference is not yet to think about it. Part of the work of philosophy is to say what thoughtfulness is: we are encouraged not simply to put our minds to what we say and encounter, but to explain what “minding” is. And once we begin to ask about thoughtfulness, we are led inevitably to ask about the truthfulness of things which permits thinking to come about. Thinking is not something we do entirely on our own; we are allowed to think by what our thoughts are about. Thus when philosophy tries to think about thinking, it must also talk about what solicits thinking and permits it to occur. The name for what solicits thinking and permits it to occur is “being,” and our attempt to discuss thinking will gradually move... into the question of being.

Developing a habit of thoughtfulness about the meaning and use of our language begins with understanding the structure of language itself. That grammar was once held as the foundation of all learning was not an accidental happenstance, but rather a recognition that species-specifically human learning takes root in language. Understanding the differences between nouns and verbs, adjectives and adverbs, prepositions and conjunctions, and so on, is not merely so that one might conform to a purely arbitrary standard of communication, but so that our communication may be constructed disclosively, revealing not only our intended meanings but the truth concerning the objects of those intended meanings.

The purpose of language, put otherwise, is to reveal the truth, to disclose what truly is. Consequently, to really grasp how terminology is and ought to operate, we need to get a hold of what “truth” is. This question exceeds the boundaries of logic and cannot be answered without having traversed the inquiry of metaphysics.

18 1978: Presence and Absence, xv.
1.5.2. Illation
Thus disclosing the truth remains an ever-present challenge, a difficulty to be struggled with—rather than a problem to be solved. At the heart of the difficulty is the logical relation known as illation. This Latin word—which has no proper English equivalent—is often translated, but somewhat misleadingly, as “inference”. An inference is an operation of the mind; it is something we do. But illation is what drives inference: it is the intelligible connection which allows us to see—or, perhaps more accurately, which, once seen itself, forces us to see—the relation between two things and form a belief about the nature of their relation. Most frequently, we symbolize illation by the word “therefore”; modern logicians will often use ∴ or ⅁.

Regardless of how it is symbolized, some instances of the illative relation are grasped almost intuitively, and so we do not spend much time questioning it. This is a mistake. In other words, it is easy to think that we understand illation simply because some instances of it appear self-evident. For instance:

If the fire is hot, it will burn my hand.

The fire is hot.

Therefore it will burn my hand.

Or:

Every word is significant.

“Zukunft” is a word.

Therefore “Zukunft” is significant.

The conclusion in each of these syllogisms is true (“Zukunft” is the German word for “future”); but how do we know this? Presumably, before reading this, you were aware that fire is hot and that it will burn your hand. But perhaps you were not aware that Zukunft is a German word and doubted the truth of that conclusion before reading this paragraph. Or perhaps you doubt that every word is significant. But assuming that the truths of the premises are accepted, the conclusions seem naturally to follow.

Why?

What does it mean for a conclusion to follow—to be con-sequent—from premises? What is this force that drives us to accept the truths of some conclusions? The answer
cannot be delivered and understood from within logic alone; that is, we cannot explain fully the operations of the mind from within a consideration of the operations of the mind. We need recourse to metaphysical explanation which requires understanding beyond what can be developed in so short and so introductory a book as this.

As a provisional explanation, however, we can say this: the mind seeks a resolutive cohesion. Every human intellect begins with the same principle and naturally seeks resolution of the meaning of all further experiences in life into a whole, where every part coheres with that principle. But more specifically than that, we seek to resolve into some sameness the relations between the terms about which we reason.

To spell this out a little more clearly: the mind is related to its object by means of a concept and, as we will see in section 3, by a percept. Each of these, concept and percept, falls into the general category of “sign-vehicles”. When we think of signs—you may have noticed, the terms sign and signify have been used many, many times in the foregoing—we tend to think of some action or thing that signifies; like a stop-sign that tells us to stop our cars, or a street sign that tells us where we are, or a hand gesture that tells us off, or a plume of smoke that indicates a fire, or another such along those lines. But there is no innate property of these things or actions that makes them signs; someone who has never seen a stop sign will not have the action of “stop your motor vehicle here” signified to them, nor will someone totally unfamiliar with New York City have much signified to them by a sign for 5th Avenue; and if someone does not understand the meaning of the hand gesture, it may just look like a spastic reaction; and if someone has never experienced fire before, they will not know what the plume of smoke indicates.

Rather, the significance of these “signs” requires a threefold or “triadic” relation: that is, they signify for these objects to an “interpretant”. If the “sign” directs the interpretant towards the object, then and only then has it functioned as a sign. Consequently, we call this “sign”—whether a stop-sign, a raised middle finger, a plume of smoke, and so on—a sign-vehicle, for the sign itself consists in the triadic

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39 This natural seeking, unfortunately, being the part of our nature we are all most likely to abandon when faced with its difficulties in contrast to the many pleasures we are otherwise offered.
relation, and the vehicle is what carries the signification from the object to the interpretant. In other words, if the interpretant is not directed to the object by the sign-vehicle, then the sign-relation has not been accomplished, and the vehicle has not signified. Consider a coded word spoken between two friends among a crowd of many; say, if one said, “I’ve always hated my nose,” with it understood between the friends that “nose” signifies, “Let’s sneak away from everyone else in five minutes”—this is signified only to one person; so while the word literally and to everyone signifies the most protruding feature of most faces, only to one interpretant (aside from the person uttering it) does it signify the secret message.

Thus, in seeking a resolution to an intelligible life, we desire that the relation between our minds and their sign-vehicles and the relation between sign-vehicles and their objects be somehow resolved into one cohesive whole. This is the same kind of unitive resolution we seek as the consequence of reasoning from premises. Illation is the force which drives the resolution of the relations in question: the recognition of their sameness—or, conversely, their irresolubility to something the same, and thus, the recognition of their difference.¹⁰

Only slowly, for the most part, will it dawn on us how ubiquitously permeated our lives are by the illative relation. Indeed, every proposition united by a copula—every “is”—depends ultimately upon some illation; do you accept that all words are significant? If so, you have been moved to that acceptance by an illative relation. That chocolate is better than vanilla? By an illation. That you are happy, or content, or miserable; a good friend, a sinner, a hero? Through some illative reasoning. As Thomas Aquinas writes:²¹

> “Sameness” is, notably, not the same as “identity”, at least in the sense of numerical identity. Me and my brothers are “the same” in many regards—human, male, (sometimes) bearded, oftentimes sarcastic, fans of football, etc., but—thankfully, not one of us is of the same numerical identity. That said, one would probably not need to be a very astute observer to conclude, after half an hour or so of conversation with each of us separately, with no last names involved, that we are related.

²¹ 1268: *In de anima*, lib.3, lec.5, n.14/650: Ad persuasionem autem sequitur ratio secundum ordinem illationis, quia per aliquam rationem, aliquid alicui suadetur; ergo de primo ad ultimum, quicumque habet opinionem, habet rationem.
Being persuaded follows reason according to the order of illation, for it is because of some reason that someone be persuaded of something; therefore from the first to the last, whosoever has an opinion, has a reason.

If we believe in anything, no matter how strong or weak that belief, we do so because of a reason—no matter how strong or weak the reason, no matter how aware of that belief or that reason we are. Regardless of when or where or how, an illative force drove us to accepting that belief: perhaps the illative force no more sophisticated than that of recognizing something as pleasurable, that pleasure is good, and that good is to be sought. This may not be a very good reason to do something, but it is a reason.

Yet the ubiquity of illation does not stop there. If we think for but a few moments, we may realize that nearly every word can be dissected—either because it signifies a complex object or by an operation of the mind—into many parts and therefore contains implicitly an illative relation whereby those parts are understood as united. For instance, the word “human” signifies a simple object but which can be cognitively dissected into its constituent genus and specific difference: “animal” and “possessing intellect”.

In the words of Charles Peirce, “the illative relation is the primary and paramount [logical] relation.”\textsuperscript{22} The attainment of an understanding of our own ability to understand depends upon grasping illation. But just as pursuing the challenge of terminology leads us to metaphysics, so too the difficulty of illation: for the relations sought are always, in some form or another, causal relations—and causality stands outside the boundaries of logical inquiry.

1.6. Reflecting on Signs
Few subjects can give students of philosophy more difficulty than logic. One of the great errors of modern approaches to teaching philosophy, however, has been an overemphasis on logical instruction, to the point that a logical myopia develops. The study of logic ultimately must always orient the mind back towards disclosure of the real, or else it loses its purpose.

\textsuperscript{22} 1893: “The grammatical theory of judgment and inference”, Collected Papers 2.444fn.
As such, we are greatly helped in keeping our logic grounded if we recognize that the mind operates through signs; that terms, propositions, and even arguments are all signifiers or sign-vehicles that direct the mind towards something else. That directing may be towards what is true or towards what is false, but that any of these structures have an internal integrity—that they not contradict themselves or produce something nonsensical, that is—necessarily entails that they act on the mind as sign-vehicles.

The art of logic, therefore, is the art of reflecting upon the signs that orient the human mind, and especially one’s own.\textsuperscript{XIV}

To the degree that we lack a habit of such reflection, we lack control over our thinking—and consequently we are to that degree less \textit{thinking} than we are \textit{reacting}. For signs exercise a specific kind of causality on our cognitive capacities, and unawareness of semiotic\textsuperscript{XV} causality\textsuperscript{23}—especially in our media-perfused, culturally-perfused contemporary lives—leaves us at the mercy of malicious actors, ideological movements, false narratives, and perhaps worst of all our own base and debasing desires: not only for concupiscible pleasures, but of pride, vanity, unfounded self-righteousness, and intellectual obtuseness. We cannot overcome these causes, that douse our thought in darkness, unless we first illumine the structures through which our thought itself may grow, unless we understand these signs that orient our minds. It behooves any serious person, then—not only students who pursue philosophy exclusively, and not only students of specified academic disciplines, but anyone who wishes to live a good and fully human life—to study logic; not only once, not only in a college course or an online program, but again and again; to make a habit of thinking about thinking.

\textsuperscript{23} The word “semiotic” comes from the Greek, σημεῖον, originally used in the sense of a medical symptom—a condition which indicates the underlying disease—was inducted into its present trajectory by the penultimate edition of John Locke’s \textit{Essay Concerning Humane Understanding}, where he proposed the term “semiotik” as naming one of the three great branches of human learning. Typically, we use the term “semiotic” to designate the species-specifically human ability to recognize our own use of signs as \textit{signs}; this in contrast to the term “semiosis”, which is any use of signs by any cognitive agent. See Deely 2003: \textit{Four Ages of Understanding}, 591-607 and 625-68 for more history and details of the term’s history and development and see the gloss (XIII) for an expanded explanation of how we are using the term here.
To give an example: reflect upon your agreement with the things you read. These may be news articles, opinion pieces, blogs, books, or posts on social media. Do we agree with them because they are *true* presentations, i.e., because they accurately portray reality? Or do we agree with them because they *fit* our already-believed-in positions? Do our already-believed-in positions accurately portray reality—or are we simply comfortable with them because they are familiar, because we have identified *ourselves* with those beliefs? It is an unwillingness to engage in such questioning that leads us into the grasp of ideologies: not only that one hears only the same messages from selectively curated sources—the echo chamber that has always been with us but which has been amplified by the free choice of community in the digital age—but that one, hearing those messages, does not challenge or question them; let alone consider the effects had by the media through which those messages are received.

In other words: the same capacity that enables the freedom uniquely belonging to humankind among all the creatures of earth falls victim, when misused or abused, to a unique enslavement—that which results from an uncritical absorption of the ideas we encounter through the uncritically consumed media produced in the societies and cultures we create and in which we live.
To refer to the nature of a thing therefore is to designate an inner dimension that makes the thing be what it is, serves to differentiate it from other things, and at the same time accounts for its distinctive activities and responses.

- William Wallace
*The Modeling of Nature*

The term “physics”, as has been well-documented, underwent a dramatic shift in usage after the 17th century work of René Descartes (1596—1650), who thought mathematics was a better vehicle for studying the motion of beings—or beings insofar as they are in motion—than the causality- and act/potency-based Aristotelian physics which had been the norm in philosophical studies since the 13th century. Today, consequent from this Cartesian divergence, physics is understood as the study of “matter” (i.e., what has mass while at rest), “energy” (i.e., what has the capacity to “do work”), and the interaction between them: i.e., how bodies move. Superficially, this appears similar to the Aristotelian physics of antiquity. However, these key terms—mass and energy—are understood through mathematical constructs and often lack any substantial formality as their ultimate referent. Contemporary physics, in other words, has become an abstract system of abstractions; a system often very useful for calculating possibilities, for putting scientific instruments into space, mapping the earth, transmitting wireless signals, and many other such technological advances, but a system ordered nevertheless towards planning how the world should meet our math rather than a system ordered towards disclosing how the world itself really is. Thus, although there remains a “theoretical physics”, the revelations of this
theoretical inquiry are disclosive of the most remote relevance to the things themselves.

Thus, although this mathematical physics has incredible practical value—and may yet be integrated into a full conception of the physical—we cannot afford to purchase such excellent mathematical abstraction if it comes at the cost of the ancient physics that Aristotle taught and the scholastics developed: the study of φύσις, what has been translated usually into Latin as “natura” and English as “nature”. With the English term we run the risk—because of its common use to signify the thin notion of “what is opposed to the artificial” or “what occurs independently of human interference”—we run the risk of losing the rich concept it ought to signify, the concept that Aristotle himself signified by the Greek term. For φύσις as used by Aristotle signifies not only that a thing has an existence relatively independent of anything else, but that within such an existence there is a discernible, demonstrable order, whereby we understand not only what the thing is, but also what it ought to be; what perfects or destroys it, what benefits or harms it, and so on. The Aristotelian-scholastic notion of nature, that is, grounds all theories about ordinate norms for things that go on in the world: and thus we can say that the nature of a substance is the principle of whatever may move.

To study nature as what falls under this definition requires first, an observational habit whereby our encounters with the world, all of which begin in sensation, are rendered into a meaningful context. In other words, we must adopt the position given us by logic of reflecting upon our thoughts about the world; we must not take for granted that the way in which things have appeared to us accurately represents them in all ways, for we may be deceived, either by the world or even by our own perception or conceptualization of it. This leads us to questions of motion: the reality which we perceive most ubiquitously in the world, and that reality whereby we are aware of difference, which is of crucial importance to our intellectual progress. From the observation of change or differentiation in the world we begin to understand what it is: thus we begin to see matter, form, and privation; from which we become aware of

24 That is, the practical, mathematical physics cannot oust the Aristotelian, but should be its complement.
causality—distinguishing its many kinds—and finally of the metaphysically-adjacent question of act and potency, a question which cuts across all being.

2.1. The Basic Encounter with the World

What is the world—what do we mean by this word, “world”—and how do we encounter it? “Thinking”, although it is something we do near-constantly and thus have a constant subjective encounter with it, as we saw above, is encountered as an object only by reflection. By contrast, the “world” seems something encountered in a more direct and immediate way; albeit, at the same time, foreign and often opposed to our subjectivity: something which is not me and frequently operates against me. It is the pressure against our feet when we stand, the weight of the heavy door we struggle to open, the brightness of the mid-morning sun, the biting cold of a winter’s wind, the acrid smell of boiling vinegar, the shrill cry of a shrieking child, and so on; but it is also the soothing touch of a loved one, the easing of tired muscles by hot water, the soft light of a setting sun and the warmth of its summer rays, the fragrance of flowers in spring, the harmony of birds and streams, the sweet flavors of home-baked goods, and so on. In each case, positive or negative, our subjectivity is interrupted by an intrusion from without; the relational totality made known through these interruptions—each in relation to each other, each in relation to ourselves, and all in relation to all—is what we mean by “the world”.

Often, in various fields of study, in academia, and whenever intellectual or moral dispute arises, someone or another will bring up a discussion of “objective knowledge”, or “objectivity”, or “objective truth”, or some other formulation along those lines. By this is generally meant: a perspective or portrayal of the world just as it is, without subjective interpretational interference; the attaining—albeit only ever in part—of a more-or-less “God’s eye view” of the world. Ubiquitously we hear the words “objective” and “objectivity” used in this way, especially with regard to morals and to the sciences.

But can we truly obtain such an “objectivity”? Are there means by which the world may be presented that require of us no interpretation? These are important questions that anyone pursuing a philosophical habit of critical reflection must ask.
The answer given here is a qualified but resounding “no”. I say it is qualified, for there are universal, eternal, and absolute truths that we may know. In fact, every truth is universal, eternal, and absolute: although the conditions of asserting a truth may change, such that an assertion which is true at a certain time may not be true at another time—as I am sitting down right now (and my statement of that is true), but later I will be standing. It remains true, however, that at the time of writing, I was sitting, no matter if I never sit down ever again.

Further, there are truths which exceed any particularity or physical, changeable being—truths such as mathematics, or of metaphysics, truths about the nature of the human being (though those depend upon a very special understanding as to what it means to be “human”), and so on.

But while such immutable and absolute truths are knowable, they are attained only through subjectivity. In other words, even the most profound and important eternal and absolute truths we attain are still attained through a subjective medium and therefore through a limited interpretational presentation; for there is something infinite about all truth, and we are inescapably finite creatures. We will see this more clearly in the third section, concerning the Person. For now, all we need to know is that an absolute and pure “objective” view of the world is an impossibility.

2.2. Sense Experience
This impossibility of “objectivity” stems in no small part from the root of our cognitive encounter with the world: sensation. What is it to sense? Much like thinking, we are sensing nearly all of the time—at least, when we are conscious. In fact, it is difficult to even conceive of a conscious state of being which lacks sensation; the closest we come is by artifice, through the use of sensory deprivation tanks. Sensory deprivation is attained primarily by removing the means whereby the organ senses (in the case of touch, this means surrounding the body as much as possible with water at close to the same temperature as the skin).

Sensory deprivation can also be attained, however, by overwhelming each sense with an unvarying sense object, such as the same color or the same tone. Someone who sees nothing but an unvarying blue light and hears nothing but an unvarying note will have an experience similar to someone who sees and hears nothing at all. Part of what we see from this, is that we are cognizant of sensation not merely from sensory
reception, but from reception of difference or change. Our sense experience, in other words, requires a world which not only changes but does so in a manner we can perceive.

This last word—“to perceive”—is not synonymous with “to sense”, although the two are closely related. In fact, what we often think of as sensation really is perception: for sensation is the mere reception of sensory data; perception is the operative and interpretative reception of that sensory data, such that it includes more than what is grasped by the senses alone.

Our senses grasp two things: what we call proper sensibles—the object proper to each sensory power, as light oscillating between ~400--700nm is to sight, vibrations roughly between 20-20,000hz are to hearing, etc.—and what we call common sensibles—shape, extension, quantity, rest, and motion. But perception grasps, beyond these, what have been called incidental sensibles, which could also be called perceptible relations. These include that a sensed object is dangerous, or beneficial; that it is unknown and curious, or known and banal; or that it is something enjoyed, or someone loathed, and so on.

When we think of sense experience, we tend to think of perceiving qualities of sensible objects; for our experience—in which we involve ourselves to at least some degree—involves more than mere passive reception. And it is through this kind of experience that we come to know the world: an experience of things that by movement interrupt what would be an otherwise smooth continuum of our subjective experience.

2.3. Motion as Change
But what is movement—or motion? We see it, hear it, can feel it, may even smell it—or rather, we can perceive it through all these sensory channels—we can point to it, and everyone will know (though very few will be able to explain) what you mean when you say, “That thing is moving!” To define motion is another challenge altogether. We can describe it fairly easily: as a thing going from one place to another over some extension of time—but this description takes for granted “motion”, since “going from one place to another” is nothing but a complex term used as a synonym for
“moving”.\textsuperscript{25} We can speak of it through a mathematical abstraction, such as the progression of an object through an infinite series of points—but this, too, presupposes “motion”, as “progress” is merely one kind of motion (namely, an ordered sequence).

At the heart of the philosophical investigation of motion stands—as at the heart of so many philosophical questions—the definition of motion given by Aristotle: “the actuality of a potency insofar as it is a potency”, as one translation might give it; or the “being-at-work-staying-itself of a potency, as a potency” as found in another. This definition draws on the metaphysical: the word translated as either “actuality” or “being-at-work-staying-itself” is \textit{ἐντελέχεια} (transliterated: \textit{entelecheia}), a compound which includes not only ἐν, “being”, but also τέλος, the “end” or the “completion sought”. This \textit{ἐντελέχεια} is described often in contrast to another word that frequently receives an English translation as “actuality”, \textit{ἐνέργεια} (energeia), from which we also derive our “energy”, but which is more literally translated as “being-at-work”.\textsuperscript{XVII} As we will see, the act of \textit{ἐντελέχεια} is one which is on-going (whereas \textit{ἐνέργεια} is transitory); but when the act which is on-going is the act of a potency, that act is the act of motion.

But without yet delving into the meaning or relations of act and potency, let us step back and think more carefully about how we encounter motion. For motion seems to be said in many ways; or, perhaps more accurately to our vernacular, what we mean by motion—namely, \textit{local motion} (or \textit{locomotion}), change in place—is only one of many kinds of corporeal \textit{change}. Things may also change in \textit{quality}, as when a blue thing becomes white; or in quantity, as when a thing grows or matures in size (augmentation) or shrinks (decay); or in substantial being, as at the moment of conception a new kind of being comes into existence—or at the moment of death, it goes out of existence.\textsuperscript{XVIII}

Notably, the latter three kinds of change occur through motion: a change in color comes through the change in molecules affected by a discoloring influence (be it paint or sunlight, etc.), growth and decay involve moving into or out of some relative place (as one only gets fat relative to one’s previous thinness and thus occupies a greater...

\textsuperscript{25} That is, “going from ___ to ___” is not a phrase in itself any more definitive or explained than “moving from ___ to ___.”
space than before), and even death and conception—while not movements themselves—are preceded by and issue forth into movements.\textsuperscript{26}

It is evident, even with only a provisional understanding of what “motion” is, that we are not only surrounded by it, but ourselves exist through it: we are always moving somehow, and even being in a state of relative rest—sitting, idling, sleeping, or even suffering from a disabling injury—we are essentially capable of motion (even if not factually). Not only is the world of our experience in constantly motion, then, but we are continually moving through it. Can we really understand our encounter with the world, then, if we do not understand motion?

2.4. Matter, Form, and Privation
To attain this understanding, we need to discover the principles which are responsible not only for a thing actually moving, but for a thing to be essentially capable of motion. The Aristotelian tradition of philosophy has long recognized matter and form as the causes responsible for mobile being—a theory often referred to as hylomorphism, a combination of the Greek terms ὑλή (hyle, matter) and μορφή (morphe, form)—though we here would like to introduce also the concept of privation, as a dependent but nevertheless essential principle in the existence of such being.

Before addressing these concepts individually, it is important to note that these terms are taken from commonly-observed phenomena but signify something related to but deeper than what we find in the sensible observation of those objects. We are intellectually moving beyond the sensibly given to discovering the cause of that given.

2.4.1. Matter
Perhaps nowhere is this intellectual movement beyond the sensible more difficult to make than when it comes to understanding the concept signified by “matter”. As mentioned in the introduction to this section, “matter” today is conceived as “what has mass while at rest”. More commonly, we think of this having-mass-at-rest as being “stuff”; sensible and usually tangible; the more “tangible stuff” a thing has, the

\textsuperscript{26} Substantial changes are nevertheless absolute thresholds: one may potentially move infinitely closer to life or death, but one either has life or not; one does not “partially” live in any literal sense.
more it seems to be “material”. In other words, we tend to think of matter and the material as what has solidity or weight, a relative permanence or large quantity. We use, in a wide variety of applications, analogous such predications of the terms: we talk about things that are “material” in a court case as those that have relevance; we speak about “the things that really matter” as the ones that have importance; we talk about a professor “assigning a lot of material”, when he or she gives a lot to read or otherwise examine.

As also mentioned in the section introduction, however, the scientific concept behind this more common understanding is explained only in terms of mathematical abstraction; and numerical description is a far cry from definition. Moreover, both the common and the scientific understanding of “matter” share in ancient Greek ideas: where matter or ὕλη was often understood to be the stuff out of which things were made and commonly reduced to the elements—earth, water, air, and fire—much as today, many will reduce matter to atoms or subatomic particles and their interactions. Much as we are surrounded by motion and yet cannot explain it, so too matter; only, it will turn out, motions unintelligibility is an unintelligibility to us, whereas matter’s unintelligibility is in itself.

In other words, this unintelligibility of matter, which we will further examine below in 2.5.2.6, is no accident: for even divested of its proper meaning, matter’s identity cannot be grasped from the concept of matter alone; there is nothing strictly positive that unites all the various kinds of matter that we observe, and so there is no common intelligibility to all of it, if we attempt to understand it on its own. Rather, matter is only ever a part of a being, and a part which depends upon another part for its own existence.

2.4.2. Form
Specifically, the part upon which matter depends for its existence is form. Much as the term “matter” signifies the “stuff” we observe, “form” is commonly if misleadingly taken to signify the “shape” of a thing; the limits to the stuff or the boundaries which define its extension. What does shape, as a common sensible and as the total of boundaries delimiting an object, do for our perception? It allows us to distinguish one thing from another. At even a sensory level, then, it is something formal that allows us to cognize the material: without distinction of one “matter” from another, we would never know any “matter”.

But this still only moves us partway towards what we mean by “form”: for two things
with rather different shapes can be said to have the same form and the same
“definition”. Trees, for instance, vary widely, but we know them commonly as
signified by the concept of tree. While we experience trees through our senses, what
it is that makes them trees is something we cannot grasp through sensation alone;
rather, we grasp the “treeness” by finding a “look that is disclosed in speech”, what
Plato and Aristotle signified by the term “εἰδος”. This intellectual visualization—
the disclosure of a look that is disclosed in speech or language—is a way of “seeing” the form
that cannot be seen with the eyes.

On the one hand, therefore, by the “form” we mean the intelligible reality belonging
to the thing; on the other hand, we mean not just the intelligible reality, but the very
intrinsic “structural” reality of that thing making it to be that sort of thing, which in
turn makes it intelligible. Though our grasp on the intelligible reality may be weak,
the intelligible reality and the structural reality coincide perfectly: a thing is said to be
such a thing when that intelligible reality can be discovered there. Thus, every object
which may be identified is identified insofar as we identify its form. In consequence,
there is no matter without form: so while we might say that the matter of a bedframe
is wood, “wood” yet identifies a form; if we say that the matter of water is hydrogen
and oxygen, these too are forms; if we say that the matter of an oxygen molecule is
two oxygen atoms, and the matter of an oxygen atom is 8 neutrons, 8 protons, and 8
electrons—we still have identified only forms.

Conversely, the mere presence of the requisite matter without the requisite form
does not give us the object which we would identify as the form of the parts’ union:
that is, the joists and studs and bricks and mortar of a house are not a house, and a
sperm and ovum are not a human. These parts are therefore only parts—i.e., as what
belongs to some whole—in the sense that they are not-yet-what-they-could-be,
insofar as they have not yet been formed into that whole.

2.4.3. Privation
This not-being-what-it-could-be is what commonly goes by the name of “privation”: that is, not the mere absence of a form, but “the absence of a form normally called for
by the dispositions of matter proper to the type of individual.”27 When this privation is of something which fully belongs to the nature of the being in question—as blindness is a privation of sight in a human being—we may further specify it as a deprivation. When, on the other hand, it is the absence of a form not-yet-realized but proper to the antecedently-existing parts—as the house to the joists and studs, etc., or the humanity to the sperm and ovum—we may simply retain the title of privation. I view these as, respectively, a species and a genus: that is, deprivation is a kind of privation: where privation is the absence of what is fitting, generally, deprivation is a privation of what ought to be present. It is fitting for a house to have windows, for instance, and thus one with no windows has a privation; whereas it is a property of human nature to have eyes, and so being born without them is a deprivation.

The privation of form, despite its seeming negative connotation, stands as a necessary third to matter and form in the philosophy of change: that is, change of every species is the alteration of form in some matter. Privation is therefore a necessary concomitant principle of mobile being,28 for if the form is to be changed, it must be changed from something it is to something it is not. By “matter” we signify the potency that the thing has to be otherwise; by privation we signify the otherwise for which the thing has potency.

Deprivation, likewise, allows for a change from not-being-what-it-should-be; thus, there is a great restorative good in changing the deprived matter from a state of potency to a state of actuality with regard to deprivation.28

2.4.4. Mobile Being

Provisionally, then, we can identify the distinction between matter and form as a distinction between potency and act, respectively (what this means more fully we will see below in section 2.6) and privation is the specific possibility for an act that a being

27 Deely 2001: Four Ages of Understanding, 69. “Privation” in this sense is opposed to a simple “negation”. To give a contrast, blindness in a human being is a privation, but “blindness” in a rock is simply a negation: nothing about being a rock entails that it ought to have vision, but a human ought to have functioning eyes.

28 Not everyone makes this distinction between privation and deprivation, but I think it a helpful way to consider absence and deficiency not only with regard to individuals, but also to the relationally-constituted systems in which individuals exist and operate.
is not but which it could be. A material being is one composed both from act and potency, and which stands in potency to other acts. Without these three, there could be no change.

When a being is in motion, then, it is putting in to act its capacity to be changed to some other form (namely, an accidental form of location and possibly of quantity or quality, etc., as well), and it remains in motion so long as that other form is not yet achieved. For instance: I am a being currently in the act of sitting at my desk, with the capability to walk to the kitchen. My capability to be in the kitchen is a part of my potency as a human being (unlike, say, standing on the surface of the sun, which would instantaneously immolate me). While I am walking to the kitchen, that capability itself is completely in act (ἐντελέχεια), though the form it seeks remains in privation until I arrive in the kitchen.

Examples can be brought up in abundance, and not just with respect to local motion. A child typically has the capacity to grow into adulthood—such growth or augmentation entailing not only an increase in bodily size and maturation of the organs, but also cognitive development—there being movements in both quantity and quality (much of our psychological development involving alteration of neurological and neurochemical patterns). This is a movement that takes decades and one which—particularly regarding cognitive development—may never approach the fullness towards which it is ordered and which, moreover, has no definitive stopping point. There are also countless possibilities for regression or damage in our growth as persons. In other words, we along with the rest of the natural world remain always in potency to change.

There are two ways to look at this fact of omnipresent material malleability, or two extremes towards which we might tend, and which view we have, or which we predominately tend towards, will likely depend on whether we believe the cosmos is bereft of inherent order or pervaded with it.

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29 That is, proximately. The matter in my hand could be reordered to the form of, say, a hamburger; but this would require decay, absorption into nutrients in the soil, then into grass, into a cow, and so on. So in a remote sense, “hamburger” is a privation with respect to my hand, but only presuming that matter existing under a multitude of intervening forms.
The first view, that of the **cosmological nihilist**, is this: everything being possible, no one thing exists for the sake of any other; purpose is an invention of life, the existence of life is naught but the result of incidental occurrences, and the reading of purpose into the elements of the universe nothing but a human imposition. This view grew in commonality as an unconscious background presupposition in Western civilization throughout the latter portion of the second millennium.

The second view, that of the **teleologically-observant**, is of stark contrast: out of a seemingly infinite set of possibilities, the order which has emerged in the universe gives evidence of everything being for the sake of some greater whole; we see purpose not because our minds attribute it to the world, but because the world would itself not exist as it does without purpose. This view still exists, likewise as a background presupposition (though perhaps more consciously than its nihilistic counterpart) for those who have grown up in nearly any great religious tradition, or who have adopted one.

One may also come to either of these two views through some philosophical reflection, although one rests in the former—the cosmological nihilist view—only from a cessation of philosophical inquiry. That is, it may appear at times as though the universe lacks innate purpose, continued reflection on this question reveals that as an impossibility: for the determination of a seeming infinite set of possibilities to any determined set of actualities—even if those themselves remain open to an infinity of possibilities—already indicates a purposiveness in the actuality of the universe. XXII

### 2.5. Causality

Recognizing this ubiquitous purposiveness, however, requires a richly-developed understanding of causality; an understanding developed in the Aristotelian-Scholastic tradition but abandoned in the clockwork-like beliefs about the physical universe that attended the mechanical advances in the Renaissance and Enlightenment, perhaps best evidenced in the weak causal understanding found in David Hume—an understanding adopted by many after him.30 That is, despite the advances in physical science that followed the so-called “Scientific Revolution”—

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30 See Gloss XXIII.
advances which followed primarily from improvements in mathematics and its application—the notion of “cause” was reduced to a shadow of its former self: rather than signifying a plurality of ways in which one thing might be responsible for another, it came to mean nothing else than one thing preceding another in time, such that the occurrence of the first resulted in the occurrence of the latter.

But the term “cause” signifies the central concern of any inquiry concerned with discovery, and this reduction to chronological sequence narrows the range of inquiry to a shadow of its former breadth. For, even when it is believed that we cannot truly know the nature of the relation between something denominated a cause and something denominated an effect, it is still believed that we can discern the existence of that relation; and it is further believed that all systematic knowledge, whether philosophical or scientific, consists in the discovery of those relations—which may be categorized as possible, probable, necessary, etc. Do we not need, to understand the wealth of knowledge contained in these relations, an equally-rich analysis of their causal nature?

Unfortunately, the meaning and kinds of causality are not themselves clear objects of understanding, especially in the enervated philosophical environment inherited from the moderns. That is, “cause” is said frequently without sufficient specification as to how something is a cause; and what it means “to be a cause” is uncritically presumed as understood without careful investigation. When most people say “X caused Y”, in other words, they have nothing more than a vague grasp on what the word “caused” means—and indicate nothing more, therefore, than a chronological sequence. We must work diligently, therefore, to reveal not only the more widely-known schema of causality formally introduced by Aristotle (the traditional four causes), but also the development it received up through later scholasticism, and strive to understand this categorization of causality in our contemporary context.

2.5.1. Cause in General

A “cause” is that which makes something to be. This simple statement hides great complexity, for something can be said to “be” in many ways: as a reality, as a possibility, as a goal, and so on. Yet often, as just mentioned, the tendency in hearing the word “cause” is to think of one event, preceding a second event in time, that produces or results in the second event by its action; and so on. This deeply-engrained tendency to think this way—being the way that the term has uncritically been used for centuries in our society and probably for most if not all of our lives
individually—not only narrows our understanding of causation, but fundamentally mistakes the nature of a cause, for it restricts “cause” to something entirely other than the locus of the effect. In other words, this “succession of events” understanding of causality does not identify the causal action. Rather, it gives a description of entities involved in a relation which is left not only undefined but also non-descript.

In contrast, if we understand clearly what is meant by saying that a cause is anything which makes something to be, then it should be seen that all causation occurs in that something, i.e., all causation occurs where the effect is manifested. Neither the cue ball nor the cue ball’s motion are the cause of the eight-ball moving; rather, the cue ball hitting the eight ball is the cause—an action which occurs in the eight ball (hitting—being hit), and which can only occur because of the eight ball already existing with determinate properties. Given a different set of properties—e.g., if it were made of lead instead of plastic and resin composites—the eight ball probably would not move much, if at all; it would, at any rate, take a great deal more force. But this does not mean that the cue ball has no involvement in the causal process; on the contrary, it is really related to the eight ball, and its own properties—weight, velocity, spin—partially determine what sort of effect it will have when it hits.

Nevertheless, the recipient of an action can only be affected insofar as its own properties allow; light illumines the eyes of the seeing and the blind alike, but the latter perceive no visible wavelengths; and two persons might see the same painting, but only one be moved by its beauty, for the other is hard of heart or bereft of aesthetic sensibility.

What makes something—an item, an event, an action, etc.—a cause is the actuality of its relation to the effect. Until the cue ball hits the eight ball its relation to it as cause to effect is only potential and therefore it is not a cause of any effect in that eight ball. A consequence of this is that the cause-effect relationship is simultaneous. One thing is a cause of another only so long as its effect is continuing; and so while causation occurs in time, it does not occur over time. For as long as the eight ball continues moving after being hit, the cue ball is the cause of that motion (even though the cue ball is no longer touching it), and for as long as it continues in whatever determination the cue ball caused, the cue ball remains a cause in some sense. If, for instance, the eight ball is hit lightly, moving only a short distance and stopping, the cue ball is still a cause of the eight ball “being there,” where it stopped, even though
the cue ball no longer has an active physical relationship altering the condition or status of the eight ball (e.g., it is no longer a cause of the eight ball moving, since the eight ball has ceased moving).

But it is a mistake with profound consequences to think that this kind of relation (between Thing Z and Thing Y in Event Alpha) is the only kind of cause. There are necessarily other factors at play in each Thing and each Event beyond the local motion action of Z on Y, and if we want to understand causality, we need to examine these factors. Conventionally, outside the aberrant tradition of modern philosophy, causality has been divided into four distinct kinds: efficient, formal, material, and final. While this fourfold division holds generally, however, the complex nature of the relations between beings requires a deepened investigation.

2.5.2. Taxonomy of Causes
It therefore behooves us to lay out a taxonomy of all the different kinds of causes: that is, we need an organized approach to their different kinds in order to later see how they relate one to another, and how they operate.

Prior to the conventional quartet of efficient, formal, material, and final, the most basic division of causality is between external and internal causation. An external causation is any cause where the party responsible for the effect is outside the locus of the effect—for instance, the cue ball which hits the eight ball or the artist who paints the portrait (efficient causes), or the hamburger that makes us hungry (a final cause). Internal causation occurs, naturally, when the party responsible for the effect is within the locus of the effect—as the properties of the eight ball which allow it to move when hit by the cue ball, or the texture of the canvas which allows it to capture the paint transferred by the brush (each a combination of matter and form). External causation subdivides into four categories, and internal causation into three:

External causation:
1. Efficient or agent cause;
2. Exemplar cause;
3. Objective or specificative cause;
4. External final or system-purpose cause.

Internal causation:
1. Formal cause;
2. Material cause;
3. Internal final or individual-purpose cause.

Despite this division, we should keep in mind that the causal relations we observe almost always involve a simultaneous multitude of causations, both external and internal, and usually external causes need internal causes in order to have any causal power at all—that is, causal relations, like all relations, require **fundaments and termini**, places from which they begin and at which they end. Moreover, these relations are often **highly complex** while nevertheless aiming at some **unity**.

In consequence, we should not understand causation as a concatenation or amalgamation of entirely distinct causal relations but must look to their confluence in producing a single but often multifaceted effect. We often cannot understand, in other words, the action of one causal relation without considering others. Nevertheless, the distinctions between kinds of causal relations are real—such that we frequently have one without many of the others or have them chronologically ordered across different originating instances in time (as an exemplar precedes many others, for instance)—and therefore I will explain these causations one by one before summarizing their potential for unity in action.

### 2.5.2.1. Efficient or Agent Cause

This is the kind of causation we ascribe to the cue ball: the external cause which, while remaining itself, produces some effect in something else. This is perhaps the easiest kind of causality to grasp, for it is—in intention, if not in essence—the kind of causality retained in modern philosophy: one thing in existence, acting in a certain way, that it affects something else. It receives the name **efficient causation**, broadly, as it is what most immediately and obviously produces some **effect**.

Note, however, that the cue ball, as well as the pool cue, are themselves a subdivision of efficient causation: that is, they are **instruments of efficient causation**. Instruments effect causation on behalf of an **agent**. Hammers, screwdrivers, drumsticks, keyboards, gas pedals—there are countless examples of instruments of efficient causation which we employ on a daily basis, including our “smart” technologies like phones and the ever-expanding “internet of things”. Anything which is itself used to bring about the effect in some **other**, but which does not “cause
itself” to move thus, can be seen as such an instrument. Whatever, or rather whoever, does the using is the source of the properly efficient causation—the billiards player, the handyman, the musician, the typist, the driver, etc.

The term “agent” is usually reserved for the proper source of an efficient causal relation, which is always some living being. Plants and less-complex organisms can be efficient causes typically only within their immediate reach, for, lacking perceptual faculties and much in the way of locomotive power, they can only operate on something which comes within reach of their organism (e.g., the conversion of carbon dioxide into oxygen). Animals, on the other hand, exhibit a greater degree of freedom through their sensitive capacities. A bird is certainly the efficient cause of its own nest, just as a beaver is of its dam, and so on.

Human beings, however, have the greatest degree of freedom among living things and therefore the greatest causal capacity: we not only effect the things around us within the limits of our natural physical abilities, but extend ourselves through technology and culture across both distance and time, and can therefore re-shape the world itself albeit to a limited extent. Moreover, we exhibit an awareness of our agent causality in a far greater degree than does any animal; such that we take on, through our agency, explicit moral responsibility. Understanding how we may directly affect the things in the world around us—including not only inanimate objects but plants, animals, and other human beings—such that we are responsible not only for taking care of ourselves but for treating those beings according to an inherent worth (and thus not abusing them) follows directly from the nature of our intelligence, as we will see in part three on the person below.

Both instruments and agents are involved in efficient causation because they are responsible for the actual existence of the effect: that is, they do not (in their efficiency) determine what the effect is, but that it is at all. As a consequence, there is no perfect agent cause within the world, for everything within the world is dependent in its existence upon some other, and thereby lacking some degree of independence; though agents and instruments are truly in part responsible for the existence of other things, they are responsible not as making them to exist simply speaking, but to make them exist in a certain regard. In other words, all finite efficient causality is qualified efficient causality. This fact has implications for the question of
creation and the possibility of the divine, but this is a topic we will not broach in this book.

2.5.2.2. Exemplar Cause
Exemplar causation exists in some, or at the very least on the basis of some mind. It is the way an animal perceives how to ambush its prey, an artist conceives of the project, or an architect of the blueprint. All planning takes this form. That we may, by some art, transfer an exemplar to an external medium—as the blueprint may be drawn up and printed—still requires some mind for its exemplar causality to come into being; the blueprint of itself exercises no exemplar causality.  

Simply formulating or conceiving the plan in one’s mind, however, does not make it causal. Exemplars become causal only when they direct or shape the actions taken in attempt to realize the plan in actuality. So long as the plan is being enacted, exemplar causation is occurring. So long as it is merely being formulated or considered, it exercises no actual causation. Insofar as the product conforms to the exemplar, as the building while it is under construction, and once constructed, is an effect of the exemplar.

Additionally, such causation is considered a kind of formal causation because it contributes to the effect of what its effect is. While easiest to conceive of exemplar causation in terms of structural plans, such as those of an architect, exemplar causation also plays an important role also in language and other performances: the good orator employs exemplar causation with a view to the effect of language, semantically and syntactically, on an audience, as does the choreographer for a dance, a play, or an action sequence in a film. We could also consider the code of genetic inheritance a kind of exemplar cause; though, given the number of variables involved in that code’s enaction, the developed animal creature is seldom an exact observant of the exemplar.

Moreover, all social engineering is an attempt at exemplar causality. Attempts to introduce into society any plan or structure—such as the experiments of planned

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31 It does, however, exercise an objective or specifying causality, a causality discussed in the next section.
governments that developed in the 18th and following centuries, as well as attempts to propagandize social causes and facilitate adoption of moral positions—require some exemplarity in order to be enacted, however vague. The greater the number of variables involved in any object which is to receive an exemplar cause, however, the more things can “go wrong” and result in a failure of meeting the exemplar’s ideal.\textsuperscript{xxvi}

2.5.2.3. Objective or Specificative Cause\textsuperscript{32}  
Objective causation exists in the object of a sign-mediated relation.\textsuperscript{xxvii} This causation exists as a property of the object itself, notably, and not as a property of the relation it causes, even though its causal action occurs \textit{through} that relation. In other words, that we see the color red when we look at a stop-sign is a property of the pigment in the sign, such that—under normal conditions—it reflects light in the wavelength range of somewhere between 635-700nm. What makes something an object is its active relation to a cognitive subject; in other words, an object is only ever an object when some agent is thinking of or about it, either in perceptual or intellectual thought.

Objective causation is the way in which an object determines the subject as related to the object as \textit{this} rather than as \textit{that}. Therefore, it is also called specificative causation: a growling dog, for instance, specifies the dog as hostile to its audience, while a wagging tail specifies it as positively-disposed to its audience. This is the kind of causation whereby a thing shows itself as some “what” to a cognitive being. Consequently, it is also considered a kind of formal causation, in that its effect is a cognition of what, albeit not a formal causation which changes the being of the recipient \textit{in its own structure of being}; at least, not immediately or directly in the same manner that an efficient cause alters the being of the recipient.\textsuperscript{xxviii}

Notably, one and the same thing can specify a multitude of different cognitive powers differently. If we have the right experience of it, we can know that even though a stick partially submerged in water appears to our eyes as though it is bent, in truth it is straight (a judgment of intellect); or that a baseball pitch which appears to the eyes

\textsuperscript{32} It is recommended to read Gloss VI before reading this section, as the meaning of the term “object” is one of consistent confusion in the history of philosophy; properly understanding it is indispensable to understanding objective causation.
to be coming straight towards the catcher will, in truth, drop just before it reaches home plate (a judgment of perception). Likewise, something can be apparent to perception as desirable—sex, food, revenge, etc.—which is known to the intellect to be undesirable. A lot of tension in our lives is generated by such conflicting objective specifications.

Very important, therefore, is recognizing that a thing may cause a specification which is not truly representative of the reality itself. All lies and deceptions rely upon the possibility of objective causation to specify falsely. Examples of camouflage and mimicry abound in both the plant and animal universes, and falsehood pervades human communication, verbal and otherwise. Consider the promise made with no intention to uphold it; the flirtatious waitress looking to increase her tip; deceitful images of an online purchase; even the cinematographic effects which make it appear as though the characters are on a mountain in Tibet, when in fact they are in a studio in Hollywood—and countless other instances. Not all of these deceptive portrayals are lies, necessarily, and some deceptive portrayals may be put to good use; but objective or specificative causation can be easily abused.

Objective causation’s effect is twofold: not only does it immediately attune the subject towards the object in a specific manner, but it has a potential habituating consequence; for all things capable of being cognitively attuned in one way or another are capable also of taking cognitive habits. Put more simply, the more we encounter something appearing a certain way, the more accustomed we are to thinking of it in the way that it appears. Thus, objective causation not only affects a cognition of “what”, it also thereby potentially shapes the “what” of the cognizing mind. We will get a better sense of this habitual-formation when we examine the different cognitive faculties in part three.

2.5.2.4. Final or System-Purpose Cause
Final causation is the purpose, the reason why, some effect occurs. This kind of causation can occur independently of any of the individuals involved; in such a case, 

33 Or, for that matter, a thing may specify in a way which is not cohesive with the good of the whole situation, but only a partial good.
the purpose belongs to the system\textsuperscript{34} in which the individuals are involved, and thus is considered an \textit{external} causation. The purpose of a military's existence, for instance, is to protect a country or region, or to serve in aggressive action. The purpose of each individual soldier might be different. Without the system-purpose (which may have started with an individual but which comes to persist outside of that individual), the military would never have come into existence in the first place. When there is a system-purpose at work, therefore, it causally precedes both exemplar and efficient causation whenever they are all together in operation.

This kind of causation is also exhibited in sub-human activity, as in locust swarm behaviors or bacterial quorum signaling. Primarily, however, we encounter it in our own lives in cultural or societal behaviors, wherever a multitude of individuals participate in a common or coordinated activity for a purpose which does not belong to any of the individuals themselves. That is, individuals might \textit{share} that purpose, but that individual's purpose is not responsible for the common or coordinated activity of the whole group. We see this in military action, government projects, large workgroups, students and teachers participating in college or university courses, mob action, and political movements, to name just a few examples.

As will be seen also with individual-purpose causation, system-purpose causations can be nested, one within another; such that what is a proximate final cause is itself intermediate as a means to a further final cause, and even of an immediate system having for its final cause something subordinated to the final cause of an extended system. For instance, the battalion may have for its proximate goal the capture of a town, which is an attempted means to the army winning the war, which itself is subordinate to a government's pursuit of peace or domination.

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\textsuperscript{34} “System” is a powerful but loaded term which may be easily misunderstood. Properly speaking, systems are the results of agent causation. There are non-agent-caused (seen aside from any potential divine action) systematic-appearing structures in the universe—as when we talk of “solar systems”—but these are systems only as we have conceptualized them. Living beings, contrariwise, are perfused by systems—with the more deliberative such arrangements, such as armies, being more properly called “systems”, and the less deliberative, such as the digestive process, being less so properly called. Nevertheless, insofar as there is an approach to independent, self-generated deliberation and purposive ordination, there is an approach towards being genuinely systematic.
Notably, the system-purpose may exist without resulting in an attainment of the end. The army may have victory as its final cause, but the individuals desert, surrender, or otherwise give up on acting for the end—perhaps because of a violent demise. A digestive system may experience deficiency in one of its organs and thereby fail to digest. A genetic anomaly may short-circuit the swarm of locusts. This does not eradicate the final purpose of the system, but only shows that it exists somehow independently of the individuals which are or ought to be affected by it, and thus may not be attained—just as an exemplar cause may fail in being realized due to a large number of variables which fail to receive the intended formality.xxix

2.5.2.5. Formal Cause
All of the previous means of causation exist outside of the locus of effect and therefore themselves come into existence before the causal interaction; i.e., that which is the cause has an existence independent of its quality as a cause. Here, however, we encounter something which has its own existence coextensively with the effect of its causation: the internal formal causation (which might also be called “structural-ordering causation”). This is the thing as it specifically exists in and of itself, as this kind rather than that kind. Unlike the objective causation which specifies through a relation of one to another, the internal formal or structural ordering causation specifies from “within” a subject.

We often indicate formal causation with the use of adjectives: by saying that a thing is spherical, rectangular; hard, soft; she is intelligent, he is slow. But formal causation extends beyond identification of the properties possessed by things and comprises also the very nature of the things themselves: James is a human, Morley is a dog, Whisper is a horse. While we may come to know the natures through experience of the properties, those properties themselves follow as consequences of the nature: such that, usually, the order of our coming-to-know is inverse with the order of a thing’s existential dependencies. We can say, therefore, that there is a kind of hierarchy within the organization of internal structural-ordering causations: at the base of all organic beings there is always some fundamental formal or structural-ordering causation which gives order to a whole, and this is what we call its nature, essence, quiddity, or substantial form. More about this will be said below in 2.6.
Yet as we saw already—with regard to the interactivity of matter and form in the question of nature—whatever a thing is, even if it is the most inert, far-removed-from-organic matter, it is what it is by virtue of some form. Thus, the form is the principle not only for living beings’ natures, but for non-living beings’ properties and possibilities.

Thus it is through internal formal causation that a thing is given its basic organizing principle, such that parts of that thing can be replaced and it remains the same thing, of the same nature—as the replacement of the cells in our body does not change what the body is, because their replacement does not change the form of our being, so long as the replacement of cells does not interrupt the ability to perform the actions towards which the internal formal causation is ordered, i.e., so long as we remain human. Hence designating this kind of causation a structural-ordering: for it is not structure as such, but an ordering of the parts as belonging to a whole which in consequence gives not only the whole but also the parts a partially-determinate structure, as being of one kind rather than any other.

2.5.2.6. Material Cause
The tendency in hearing the word “material” is to think of the “stuff” out of which something is made: the chair is wooden, the saw is iron, the fabric is cotton. This tendency follows naturally inasmuch as our thinking is always in terms of forms. What is meant by material causation, however, is not the what giving structure to a thing, nor the stuff of the thing, but rather the ways in which a thing is disposed to be otherwise than it currently is. What we mean by “cotton” is itself a formal cause which results in a being that is poorly-disposed to be made into a saw, while iron is better-disposed, though cotton is apt to be made into comfortable clothing while iron undergarments tend to chafe.

In other words, material causation is a thing's potential to be affected by attempts to introduce a new formal causation. “Cotton” as a whole is not the material cause, but the potencies of cotton to be otherwise than it currently is—a property of the whole as a consequence of what the form leaves undetermined—is the material cause.

All things in the sensibly observable or perceptible universe exist with their own material causation; even if not being actually affected at a given moment, that causation persists, inasmuch as the potential to be otherwise persists. Knowledge of an individual thing’s formal causation and its material causation often go hand-in-
hand. Maple wood, for a simple example, is a very hard wood and therefore difficult to saw. In a more complex example, someone with chronic traumatic encephalopathy (CTE) is poorly disposed to remember dates and times for appointments, for the regions in their brain in which that kind of information was habitually encoded has ceased to function properly.

That said, knowledge of the material causation at work in a being is not incidental to understanding the thing; for to know what a thing is often entails knowing how it could be otherwise. We discover much about a being by discovering its limits—the terminal granted through its form.

2.5.2.7. Final or Individual-Purpose Cause
Unlike the external system-purpose final causation, internal final causation—or individual-purpose causation—belongs strictly to the individual in which it is found. It is the purpose or goal which motivates the actions and behaviors of the individual. Much like material causation, individual-purpose causation is always present; even if the individual is not actively pursuing its individual goals, at least some of those goals are at work upon the individual. Individual-purpose does not need to be consciously nor continuously recognized in order for it to produce an effect. Plants, for instance, are all under the effect of individual-purpose causation without having any awareness of it: they grow, seek nutrients, and adapt to their physical surroundings not simply because of a concatenation of prior events, but because their internal formal structure is ordered to seek reproductive possibilities. Likewise, when we are walking to the store or to get the mail, we need not think about our purpose at every step; our minds may wander, our attentions may drift. Sometimes, we are taken over by this drifting and lose our purpose: who has not walked into a room and looked around in confusion, having forgotten why?

The more complex the being, however, the more complex its potential for its actions to be driven by individual-purpose causation. We may forget our purpose walking into another room because we are consumed with resolving some problem or difficulty of far greater weight than whatever drove us into the room; or perhaps we went into the room in search of an aid in pursuit of that resolution (as someone may be looking, say, for a book or notes, or perhaps solace in the form of quiet, prayer, a friend, a family member, etc.). We may struggle to reconcile individual-purposes desired by different faculties which are at odds with one another: as my physical
appetite may want a delicious but unhealthy dinner, while my intellectual desire yearns for greater fitness and thus suggests a healthier alternative.

Thus, the object of internal final causation may be itself something external to the individual (and is always external somehow to the powers by which it is objectivized)—as food, the removal of shackles, a prized possession—but the objectivization of that pursued good belongs strictly to the individual. Moreover, the external quality of the pursued good is incidental to an object’s role in final causation, as something internal and already-possessed may also be a final cause: as the feeling of contentment, or the contemplation of a truth. These are still objects of desire, even when possessed—the difference being that the desire is to continue possessing the object, rather than to acquire it.

Internal final causation effects every living being. With increasing degrees of cognitive awareness comes increasing degrees of complexification in the pursuit of internal individual purpose; that is, we may undergo a multitude of individual-purpose causations, simultaneously and perhaps even exclusively of one another; we may find ourselves torn between different goals, different goods—pursuing one in one moment and another the next. Every individual-purpose causation requires the existence of an internal structural causation as its corollary. Put in simple language: a thing’s what is necessarily related to its why, and vice versa. Thus, a cohesion of the formal causes at work in one’s being is necessary for pursuit of one’s goals. If we have disordered internal forms, forms at odds with one another, we impede our progress towards our goals.

2.5.3. Causal Relations
As may be clear already, internal causations are all intimately related: every material cause, in order actually to be anything at all, must be “structured” by an internal formal causation, and an internal formal causation is what it is—that is, a structural-ordering causation—because it is for the sake of being-towards some internal final causation. To give a clear example, the atoms composing our organs are what they are only because they are structured by the form of those organs, which are what they are—organs of a body—only because that body (and therefore those organs) is structured by the form of the human being in the first place. But the form of the human being is what it is for the sake of attaining some natural end. Some hold this end to be merely animal, and thus consist in reproduction of the species; others would
hold it to be something more elevated, and thus consist in virtuous living; some would hold it to be spiritually determined, and thus consist in the attainment of heaven (or some similar state of beatitude). Others still would see these various goals as possibly subordinated one to another.

A crucial element for understanding the truth of internal causal relations is noting the infinite variety of possible relations: that is, internal formal causation, as a structural-ordering of the substantial whole, while often of the same kind between one and another individual—such that two human beings are equally human by their internal formal causation—is only one of myriad other causations at work on the distinctly-designated matter; various other forms, “accidental forms”, intervene in the actualization of the individual. Thus the actuality of properties following upon natures may vary widely from individual to individual, and likewise the potencies. Human beings are all equally human, for instance, but they are not all equally capable of the same things: some may become smarter, some faster, some more compassionate, and this “becoming” is determined not only by “nurture” and by the choices individuals make, but also in part by the various “natural” causations at work on the matter which is present: factors determining our genes, brains, muscles, and so on.

This variation between individuals occurs, moreover, within a field of external causal relations which may not only situate the individual in a variety of environments, but which may also alter the internal orientation of the individual as well. In other words, the individual is constituted internally by a complex web of relations, which itself relates externally to an even more complex web that conversely affects that internal web. The greater the complexity of the internal web, the exponentially-greater the internal-external dynamic. In consequence, the more complex the structure of our psychology, the more complicated our relations with the world may become, and the more we may differ from one another as individuals. Where two dogs may relate to their environment differently from one another, the potential degree of difference between any two dogs is far smaller than the potential degree of difference between any two humans; typically speaking, a domesticated dog in China will be much more alike to a domesticated dog in the United States than a person reared in Chinese culture is to someone raised on all things American—and wild dogs in both countries, especially of similar breeds, will be more alike to each other than the domesticated dogs.
This internal-external dynamic indicates not only the potential commonalities and differentiations following internal formal causes, but also the variability following upon specificative causation: because of to the wide range of possible specifications opened up by the range of our cognitive abilities—i.e., that we may grasp objects of various kinds—we may form a wide range of cognitively-specified habits, i.e., ways in which we may be specified by our environments. We are constituted, in other words, such that we may be specifically-determined sensorially, perceptually, and intellectually, and consequent to these specifications, we are further specified in our appetitive reactions to the objects perceived and understood. For example, we may have perceptual habits of immodest vision—looking at women as objects of sexual pursuit rather than as persons which comes to us almost by second nature due to the ubiquitous presentation of women in this fashion (scantily clad, provocatively posed, etc.)—which in turn produces appetitive habits of lust. But we may also form, simultaneously, intellectual habits of reflection on our own behavior, evaluating whether or not it is in accord with a true good—a habit formed, perhaps, by taking a philosophy course, where a professor and a book (such as Aristotle’s Nicomachean Ethics, or the Prima secundae of Aquinas’ Summa Theologiae) present such reflection as an object to us—and thereby form an intellectual desire to cease these immodest perceptual and perceptually-appetitive habits.

These specificative determinations differ from efficiently caused determinations, which alter the formal causation at work in the recipient of their actions (even if only minorly, in incidental attributes of the recipient). That is, an efficient cause changes the form of the thing on which it has an effect—either by an accidental form or the substantial form. Conversely, the specificative cause alters the attunement of that on which it has an effect; it results in a change of relation, but not of anything in the substantial constitution of the individual. This change may in the long run or in extraordinary circumstances, cause a change in the habit of the individual (and thus incidentally its constitution); but this is to draw out a change in the being’s constitution, rather than to induce such a change.

Both efficient and specificative causations may fall consequent to some exemplar causation, which forms a plan which it then attempts to project into others, either by alterations of material and thus structural-ordering, formal causation (i.e., by efficient causality) or by attuning the cognitive capacities of the recipient (i.e., by specificative causality). For instance, the exemplar cause of plans for a model airplane will specify how the parts ought to be arrayed together, and thus through an efficient cause (the
model-builder), induce the formal cause (a model) into the material (the parts). Conversely, the exemplar cause of moral normalization in a society, say, of a particular sexual behavior, may portray relationships of people so-engaged as normal, ordinary, healthy, and happiness-inducing in entertainment media: that is, by attuning the perceptual and thus implicitly the intellectual faculties of the audience to a portrayal of that behavior where it appears beneficial for all involved; or perhaps which portrays the persons involved in a light sympathetic to persons not involved in that sort of behavior.

Notably, the various factors affecting our internal causations—whether formal, material, or the habituated results of extrinsic specification—thereby have an effect on the relation to our individual final causes. That is, we may by habituated become either better attuned or deviant in our ordination; we may be towards things which are for our human good or away from them, towards lesser goods. Of particular importance are the objective causes whereby our perception and thinking becomes habituated; if we do not exercise careful, critical reflection on the objects to which our attention is turned and by which it is shaped, we run the risk of being determined to think or behave in certain ways without our even having awareness of it.

Often obscured in the external causations at work, is the final system-purpose causation. Such a causality is most evident in hive-minded creatures, such as ants or bees, locusts, or in bacterial quorum-signaling; as well as from the outside of a cultural movement. But this kind of causation is far more pervasive than we ordinarily would recognize, due to prejudicial views about the physical universe having a kind of chaotic and disordered nature—i.e., that creeping “background cosmological nihilism”. Moreover, in our human cultures, bad actors may attempt to “hijack” the system-purpose of a culture: turning it towards, say, relativistic or otherwise-pleasure-centric modalities of daily living; towards “virtues” which are at odds with the true human good.

Nevertheless, the careful observer cannot but begin to detect the patterns of order which pervade even the least-ordered of beings in the universe, and which defy even the most disordered of societies. Such a recognition may help us to bring all the other causes into focus, not merely for what they do, but for what they ought to do.
2.6. Act, Potency and Nature
In discussing motion above, we introduced the concepts of act and potency. Our first experience of actuality and potency comes through this experience of motion: not only the motion of things observed, but of and through ourselves, as we too live in a constant state of motion, of which we are almost always at least implicitly aware. In every such motion, some cause—or rather, a collection of causes—contracts a being’s potencies to a determinate act. In so doing, it opens or closes other potencies of the being: if I am standing in the kitchen, I am now in potency to returning to my desk; but if I am standing in my kitchen, I need to return to my desk before I can type at my computer. If I move to North Sentinel Island, I will not be able to access the internet—at least, not without a satellite-connected device.

It would be a mistake, however, to believe that all change from potency to act entails a motion. We experience many relations which evoke change without requiring motion. For example, a father is engaged in an actual relationship of responsibility for his child as soon as there is knowledge that the child is conceived; while conceiving and being aware of conceiving both require motion, the change from being potentially responsible for a child to actually responsible for a child is immediate; the responsibility does not need to cross space or time to come into existence. Speaking of knowledge, we can also see quite clearly that actually understanding, while it involves a motion (some neurological activity), is in principle something without motion as it is something immediate. I am immediately moved from potentiality understanding to actually understanding as soon as I begin to think of something; the relation between self, as knower, and object, as known, occurs as soon as the concept arises in the mind. Likewise with the acquisition of knowledge; the moment of intellectual insight which results in the formation of a universal concept is immediate; the intellect goes from a state of potentiality to a state of actuality, although the process of reasoning through to that knowledge will unfold, invariably, over time, as the percepts must be analyzed and considered from various “angles”, as it were—as will be explained in parts 3.3.2. and 3.3.3 below.

Thus we see that act and potency are at once as different as are their instances, but at the same time each is unified in a central meaning which abstracts from every

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35 And is already in a sense responsible for that possibility as soon as he has had sex with a woman.
instance. When we talk about the act of a dog, the act of a human, an act of mercy, an act of creation, an act of running or an act of thinking, we are differentiating one and the same notion while maintaining its sameness; and we realize that sameness in those differentiations. The act of a dog chasing its tail and an act of a judge in granting mercy to a criminal are very different from one another, but we mean nevertheless something the same in calling each an “act”; likewise, the potency of a plant to bloom and the potency of a child to learn. In other words, act and potency are analogical concepts, rather than univocal.

We already say this above, in the distinction between the Greek terms of ενέργεια and ἐντελέχεια, between the transitory being-at-work and the lasting being-at-work-staying-itself. Both are actual, but their actualities are not one and the same.

In order to understand mobile being, we must understand the hierarchical and therefore asymmetrical correlativity of the involved principles: that is, we must understand potency in and through its subordinate relation to act, act in and through its superior relation to potency, lower acts in subservience of higher and higher as orienting lower; and all this, too, in relation to privation as both the possibility for failure and the possibility for improvement. Thus, a starting point for understanding mobile being is substantial form: for this is the primary act whereby every finite being exists and as such is the foundation which gives a being its fundamental orientation (i.e., its internal final cause); it is the primary, defining cause of a thing’s internally-given structure and is a kind of ἐντελέχεια that results in a plurality of ἐνέργειαι themselves potentially ordered towards a further ἐντελέχεια, i.e., a fulfillment of the order given by the substantial form.

As aforementioned, a substantial form may be talked about in a number of ways: 1) definitionally, as the intelligibility of the thing—what it is known as and by—often called the quiddity; 2) as that through which a thing has actual existence, for which reason it is called essence; 3) as that which orders the thing to certain operations as

36 For this reason, they extend beyond the domain of physics: for the ultimate of act cannot be experienced in the finite, corporeal world; nor, for that matter, can the ultimate of potency. Pure actuality and pure potency alike are objects of which we can conceive only indirectly: we cannot fully understand that which we cannot find adequately instantiated somehow or another in finite existence. This is the unique debility of our cognitive lives: there are some truths upon which we may touch but will always exceed our natural grasp.
proper and perfective of it, for which orientation it has traditionally been called *nature*; and 4) as that which gives it a determinate kind of existence, i.e., a *form*.

Substantial form, understood as nature and thus as the orienting principle of a being, is not only the “first” act of a being chronologically—e.g., as an act present at the moment of animal conception—but is present throughout all that being’s actions and operations. This fundamental orienting structure—to be always orienting that being of which it is the principle of actuality—cannot be reduced to the biological, chemical, or even atomic and subatomic parts at work in it; for in such terms, the thing cannot be adequately expressed. For example, one cannot define the substantial form or essence of water as “H₂O”: neither a hydrogen molecule nor an oxygen atom, nor even their juxtaposition adequately define the act of being water. Neither has the same properties or potencies as does water, and water has different properties and potencies from each. If one were to try drinking oxygen or even a concoction of hydrogen and oxygen not ionically bonded, one would be disappointed. In other words, the *act* of hydrogen and the *act* of oxygen each differ from the *act* of water; and we know this largely by examining the *potencies* of each.

In uncomplicated or relatively-simple inanimate substances, such as water or a stone, identifying something as a proper *operation* sounds misleading: water and rocks do not really do anything all their own, but only play roles as parts in greater wholes. Considered in themselves, their “operations” are simply to be what they are, and to persist in existing with whatever properties and “accidental” categories they happen to have. Yet the proper context of water’s existence, or of a rock’s, is not in isolation from all the rest of creation, but as parts of a cosmological system. Water by itself may lack a proper operation, but it is a necessity for the operations of living bodies on earth; rocks may not move, but their solidity allows us to move. Thus, considering these things in isolation from their natural contexts indicates a lack of order, while a broader consideration of them, a consideration of them together with the environmental wholes in which they are found, reveals a tightly-woven web of purposive existence. Looked at as a whole, we cannot but find a *teleological structure*—an edifice wrought by concatenated and nested final causes, both internal and external—throughout the whole universe, a continual pursuit of ἐντελέχεια. This becomes especially evident when we look at the world as inhabited by living beings, for which the completeness of their activity consist not simply in being in the right context, but performing the right actions within that context; as plants and animals
seek to reproduce their species and humans, further, seek truth, understanding, and happiness.³⁷

What we discover throughout these and other such examinations is that the potency embodied by matter exists always for the sake of the realization of some form, some act: potencies are revealed when they are made into actualities.

Any philosophical study of nature which eschews this teleological pervasion, or which denies it, fails to study nature as it properly exists. This necessity of the teleological consideration, however, does not comprise only the natural, physical bodies observed in the world around us, but extends into our understanding of ourselves: which falls within the study of nature, but as the highest being within nature, extends into new realms of inquiry: in studying the person, that is, we must consider not only the principles whereby we discover and understand the world, but also those which guide thought.

³⁷ I expand on these themes in 2015: “Wojtyla: Nature, Person, and Teleology” in Hittinger and Wagner, eds., Thomas Aquinas: The Teacher of Humanity, 68-84. One should also carefully consider the work of William Wallace and Yves Simon in this regard.
The human capacity for truth is the opposite of autonomy. It is a step into the open, a step towards freedom, where the existent reveals itself as itself.

- Robert Spaemann

*Persons: The Difference between ‘Someone’ and ‘Something’*

Considered from the perspectives of physics, the human person stands out from the world, for alone among all mobile beings, humans essentially possess the capacity for logical thinking: that is, the capacity for reflecting upon our own cognition. It is this capacity for reflection—itself borne of a unique capacity for realizing truths irreducible to our subjective concerns, the operation belonging to the faculty we call the intellect—that allows for our ever-complexifying cultures and personal identities.

But what is it to have a personal identity; what does it mean to be a person? The history of the term—which has evolved from the ancient Latin word identifying the mask of an actor (itself possibly derived from a similar Etruscan or Greek word), to the Roman citizen (as legally opposed to the non-citizen), to Boethius’ definition as “an individual substance of a rational nature”, to Aquinas’ interpretation of that definition, into the Renaissance and Enlightenment into today where it again becomes appropriated as a legal term principally associated with rights—is complex, fascinating, and illuminating. Throughout all the changes it has seen, however, one constant of the word has been the signification of something more or other than just human nature: “to be a person” include a signification that “to be human” does not.
What this “something” is remains today a topic of dispute, though not frequently of debate; that is, much of the contemporary discussion takes the shape of assertion without argumentation. 

“Being a person”—or more accurately, “being myself who is presumed an accurate portrayal of what constitutes a person”—stands perhaps at the heart of all concepts today taken for granted and never questioned. When pressed as to what this means, most individuals cannot do more than stutter a few notions about the capacity to have feelings or emotions, think private thoughts, or make choices; to be, somehow, self-determining—and by this, they mean mostly their own ability to pursue what they desire.

Absent from or obscured within this vague but common concept of the personal self are the elements which make it possible: namely, the faculties proper to a human being and the inherent determinations which follow from their possession. Behind this disconnect stands a complex problem of bad philosophy having diffused itself into Western culture over centuries: bad philosophies of dualism, idealism, materialism, and reductionism which, despite often being explicitly rejected nevertheless have wormed their way deep into the Western psyche.

It might be objected that we should not spend our time attempting to disentangle these faulty ideas, but rather focus on the truth of human personhood; and indeed, we need first to at least begin a discovery of such a truth. Yet unexamined bad ideas are like a cancer always threatening metastatic corruption, which must be cut out wherever it has spread by keen and continual self-reflection.

Without such a habit, we risk allowing these notions to influence our thinking about—among other important issues—what it means to be a human person without our even being aware of it. As aforementioned, we are most “thoughtful” when we are in control of our thinking; and being influenced unawares divests us of self-control.

We should begin, therefore, in our investigation of the meaning of “person” with a wariness of any thought that suggests too profound a distance or too arbitrary a connection between human nature and human personhood: for such a thought suggests dividing up being into irreconcilable parts; it suggests setting person against nature. We see this antagonism not only in extreme cases such as the postgender ideology which entirely disregards (or obscures by delusion) the relation between sexual biology and gender, but more subtly in all attempts at disproportionate self-mastery—in all attempts to subjugate despotically the body and its appetites or
perceptions, to impose on the “lower self” the desires of the “higher”, for this all-too-frequently results in a reduction of the self to a part.

What it is to be a person, however—if it is to be something both more than what is signified by the concept of human nature alone and simultaneously not to be opposed to that nature—would reasonably be the whole self: such that when speaking of “my body” or “my desires”, “my health” or “my self” in any sense—or even “my family” and “my wife”, “my husband” and “my parents”, such relations having a constitutive role in our lives—we are predicating not the ownership of a possession but the ownership of identity.

3.1. The Nexus of Thought and World
It is within this identity—which does not have a static permanence but rather a plastic potential, which is to say “finitely and slowly malleable”—that we find thought and world to meet and interact; where the world shapes thought and thought unveils the world.

The defining characteristic of modern philosophy, the pernicious influence of which has subtly perfused countless habits of Western thought into the 21st century, is its presumption of fundamental differences in being: differences of thought from thing or of mind from world, of nature from culture, and of individual identity from biological nature. Much of the back-and-forth dispute between modern philosophers concerned the attempts to bridge these gaps. But how does one join two things that are held as profoundly different? Only by discovering and understanding something which they have in common; if they have nothing in common—if they are truly different in every possible way—then they cannot even be understood in their difference from one another. Apples and oranges both are fruits, both have colors, both have shapes and sizes and weights, and so on; humans and cats are both mammals, with external senses and feet and the capacity to move, and so on.

38 All of which begins with the presumed truth of Descartes and all following him, that our “ideas” or “concepts” are the direct and immediate objects of our thought, whereby we know the "extramental things” only by knowing their similitudes in the mind.
There must, then, be a commonality between these presupposed differences (all of which stem from that first separation of thought and thing). But what is it, and how do we discover it? Certainly, thought and thing share in “being”; but of itself, this such a claim is relatively unhelpful—especially if we do not really know what we mean by “being”, a question that can be answered sufficiently only in the study of metaphysics. While the leap to metaphysics may be tempting, we would lose essential discoveries by skipping over a thorough-investigation of the person; for it is only by considering ourselves, as that wherein “being” is experienced, that we can understand the structures through which it is experienced, and thus understand what it is that is being experienced.

So, in other words, if we are to understand how it is that thought and world interact, we must understand the nexus at which they interact; if we are to understand how we know the world, and how we can know it better, we must understand the means through which it is known.

3.2. Composite Being: Bodily Matter because of Formal Soul
In the discussion of nature above, we outlined that matter exists not only because the internal formal cause is necessary to give the merely potential matter existence, but that matter exists for the sake of the formal cause: that the pliability of matter to receive different form, to change, and to grow, serves the purposes of both the form which inhabits it and the forms of the universe as a whole.

When we are considering the relationship between the matter of the human body and the form by which that matter exists, therefore, we have to think about the potencies the body has as subservient to the form of the person. This form has traditionally been called the soul, although this term has had its significance clouded over the centuries: for the distinctive capacity of the human soul—as involving operations which “transcend” the bodily—more or less “took over” the concept. In other words, the concept of the human soul as a spiritual soul has resulted in a compacting of the two

__39__ As Heidegger rightly said, the presuppositions that “being” is a concept most universal, indefinable, and/or self-evident inhibit our understanding of what “being” actually is, or signifies, if we take these presuppositions as sufficient. Cf. 1927: Sein und Zeit, 3-4/22-24.
terms; such that by the term “soul”, for many, is evoked the concept of a "spirit"—which itself is a term clouded over by various misuses.

These confusions are not new, however. Thinkers of various ages (such as Plato and Descartes), in developing this concept of the soul as a spiritual force distinct from matter, have subsequently identified the human person with the soul, and relegated the body to a mere instrument of the individual. But this is untenable: for it would make human beings not merely composite but divided.\[^{xxxv}\]

To recover the original sense of the term—for which there is no legitimate alternative, to the best of my knowledge (phrases like élan vital, life force, or even “central organizing principle”, falling somewhat short of the mark)—it is helpful to recover its historical roots. The English term “soul” is taken, ultimately, from the German Seele, a translation of the Latin anima, itself a translation of the Greek ψυχή, psyche. Though used before him, Aristotle developed a systematic way of understanding this term, both giving a definition—the basic organizing principle of a body potentially having life\[^{40}\]—and positing three grades of soul: vegetative, animal, and human, with some commonalities among all three but with clear and distinct differences untraversable by individuals; that is, an individual having a plant soul can never become an animal, and an individual having an animal soul can never ascend to being human.

With the discoveries made since Aristotle’s time, including not only the well-supported theories of evolution but simply discovering a wider range of life than was known before methods of investigation improved, we now recognize that there are many degrees possible between plant an animal and animal and human; but nevertheless, the division stands, for there are distinguishing capacities possessed by each grade that are not shared by lower kinds of beings. Crystals may “grow”, but this is not through an internal principle of nutrition; and some plants may move and may even be said to “sense” in a way, but none of them perceive and interpret the objects around them, unlike animals; and while some animals are ostensibly better problem-solvers than many humans, they nevertheless cannot ever understand their objects as beings.

\[^{40}\] Cf. Aristotle c.330BC: Περὶ Ψυχῆς (On the Soul), 412a-b.

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To return, however, to Aristotle’s definition, we can understand it more clearly if we break it into two parts: the basic organizing principle and a body potentially having life. What does it mean for something to be a basic organizing principle? A principle (ἀρχή, arche), is a beginning: not just chronologically, but in sustenance, as well. A foundation, for instance, is a principle of any edifice; it is not only that on which you build, but that on which your building continues to rest. Lose your foundation and the rest of the building will crumble; lose the soul, and the body will decay.

To say that the soul is an “organizing” principle, therefore, is almost redundant—except that it makes explicit the fact that the principle remains a constant active force, exercising continual causation on the parts of the whole which it governs. That it is basic means no other (internal) principle determines its mode of being, but rather, it is the base, the deepest fundament.

Contrariwise, what does it mean to be a body potentially having life? First, this indicates that the ensouled (or “ensoulable”) body is qualified against other bodies: namely, those that do not potentially have life. A rock is not disposed to become alive; poke it, jab it, shoot it with electricity, pour water on it, smack it around, insult it and its entire family, and it will never be the kind of thing that responds to you. Compare this to the human body—or, indeed, nearly any mammalian body and many others as well—which not only will respond in all manner of ways, but can evidently “come back to life” provided life has not been absent from it for very long. That is, the particular disposition of the human body is such that it may, given the right conditions, have life. While this life may comprise electrical signals in the brain, beating of the heart, and extend itself into sensation, motion of the limbs, etc., it is irreducible to any of these actions; it is a whole greater than not only any of the parts, but also of their sum.

Thus, the ψυχή, the anima, the soul, as the basic organizing principle of life is that irreducible whole which comprises, orders, and determines the being of all the parts.

3.3. Faculties of the Human Soul
The differentiation of human beings from all other animals, therefore, is found not in our possession of a soul, but of a soul possessed of specific cognitive faculties. By a “faculty” (or “power”), we mean an innate ability to perform an operation or a related
set of operations. For instance, the human intellect is a faculty; as are sight and all the senses, the ability to move one’s muscles, and even the ability to have desires.

In the Thomistic tradition, the faculties of the human soul are usually divided in two different ways: first, according to those that are held in common with plants (vegetative faculties), with other, lesser animals (animal or perceptual faculties), and those that are specific to the human being (intellectual faculties); and second, following things as specific to the human being, as divided into apprehensive and appetitive faculties.\(^{41}\) Apprehensive faculties are cognitive abilities to receive and interpret the meaning of what has been received; appetitive powers are post-cognitive abilities to desire something that has been received and interpreted.\(^{42}\)

The vegetative faculties, a genus of faculties at least some of which are shared by all living things, include the functions of augmentation or growth, nutrition or maintenance, and reproduction or generation; one could further subdivide these into a multitude of other operations or quasi-faculties, but the basic tripartite division gives a sufficient framework for our purposes. These faculties operate below the level of consciousness, such that while we may influence them consciously (as by exercising, we may learn to control our breathing and heart-rate better), but this only indirectly. It is a common mistake, however, to distance the “self” from these unconscious faculties—which is a mistake not exclusively belonging to those who identify the “self” with the “soul” but finds adherents also in those who reduce the “self” to “consciousness”.

We see a similar mistake made, at times, with the perceptual faculties held in common with other animals: these faculties, including not only sensation but especially perception—these too, have often been considered as less of an integral part of our humanity and more of a means or tool that may facilitate our operations in the world, or even as hindrances to our “spiritual” well-being. But sensation and perception are not merely appendages to our intellectual capacities: rather, they are

\(^{41}\) Cf. 1266-68: ST Ia, q.77-80.
\(^{42}\) By metaphorical analogy, we speak of appetites in non-cognitive beings (plants and the inanimate); more properly, these things are said to have dispositions or inclinations, rather than appetites.
themselves integral to it and moreover elevated by it; an elevation which envelopes also the vegetative faculties.\textsuperscript{43}

3.3.1. Sensation

Our facultative properties of sensation, broadly considered, apprehend two different kinds of objects: first, what are called the \textit{proper sensibles}, i.e., the things grasped by one and only one sensory faculty; second, the \textit{common sensibles}, which are objects grasped by a plurality of senses.\textsuperscript{44} For instances, “shape” is an object which can be grasped through any of the senses; in addition, extension, volume, discrete quantity, rest, and motion are considered common.\textsuperscript{45}

- **Sight**: the proper sensible of sight is light (generally, between wavelengths of 390-700nm), which includes color, i.e., the refraction of light according to different wavelengths. The organ of sight, the eye, can be damaged or deficient, leading to an inability to sense certain wavelengths of color, thereby resulting in an abnormal and (compared to the “average” sight for creatures in that species) deficient sensitive faculty.
- **Hearing**: the proper sensible of hearing is vibration of a specific range of frequencies (generally, between 20-20,000hz). Different frequencies are interrupted or disturbed by different obstacles, such that lower frequencies reach our ears through most solid objects better than mid-range and solid frequencies.
- **Smell**: The proper sensible of smell is odiferous evaporated molecules. The nasal passages collect and orient these molecules to cilia, where they bind, triggering an encoded neuron. Many factors, such as temperature, can affect not only the emanation of these particles but their ability to bind to the cilia.

\textsuperscript{43} Thus, the often-mentioned but seldom well-understood concept of human dignity, as extending not only to the conscious, “spiritual” aspects of the person, but enveloping the whole of the human: including those “unconscious” aspects over which we have no direct control.

\textsuperscript{44} Cf. 1266-68: \textit{ST} Ia, q.78, a.3, c. & ad.2.

\textsuperscript{45} Notably, however, while the particular sense enables us to grasp the common sensible, the recognition of the common sense is \textit{always by inference}. We do not taste extension, for instance, but may through taste recognize that an object is extended.
- **Taste**: The proper sensible of taste is any chemical capable of instigating a protein change in the wall of the taste-bud nerve cells. Conventionally, these are classed as savory, sweet, sour, salty, and bitter, with research suggesting there may also be distinct receptors for fatty and metallic flavors, as well.

- **Touch**: The proper sensible of touch, if it is to be reduced to this classification, is whatever causes feedback in a sensory organ. In this general sense, touch underlies all the senses, inasmuch as contact between the sensible and the organ is required. More specifically, we use “touch” to refer to tactile feedback and the immediate bodily inferences from proprioception. In other words: solidity, texture, temperature, and balance.

These sensory faculties collectively form the point of contact between the person and the world, though their operation alone does not result in a nexus of person and world; that is, something more is required. Sensation, though a *sine qua non* of our specifically-human experience, and while it provides all the initial material of our experience, itself does very little for the *actuality* of that experience.

### 3.3.2. Perception

Indeed, often, what we think of as *sensations* are really *perceptions.* In other words, we seldom experience *pure reception* of sensory objects, but we are almost always interpreting the objects; in other words, blending the sensations into evaluations of the sensory objects. For instance, I do not see a color and then later interpret it to be “gray”, “flat”, and “solid”, but I see the wall—which I see because it is gray; I do not smell an odor and later interpret it to be “citrusy”, “piney”, and “bitter”, but I smell a beer, the scents of which I may later distinguish—but which I smell because of those aromas. That is, in our perceptions, we are always striving to interpret the whole—which may include distinguishing its sensory parts—but we do not begin our perceptions with the parts.

Our faculty to correlate the disparate proper sensible objects received through each of the various channels of sensation—e.g., sight and smell—has been called the *sensus communis*, but which is poorly translated into English by the phrase “common sense”—since this has quite a different meaning in conventional English usage—and so we prefer to call it the **integrating sense**: that is, the sense responsible for the incipient moment of perception, which collates the various sensible objects, proper
and common alike, into the matter for perceptual objects. In other words, we have a faculty which forms, from the many different sensible objects, one whole perceptual object—and it is this object, the perceptual one, of which we are first and immediately aware. So while our awareness begins with sensation—insofar as we need to sense first in order to have something to be aware of—our awareness of objects begins with perception.

All perception entails an abstraction, i.e., the separation of meaning from the physical presence of the sensible objects. Put otherwise, we can “carry away” the meaning of a perceived object even in its absence. In this way, we deal with perceptual objects despite their lack of sensory presence. A sensation affects us only so long as that sensory object is acting upon our sensory organs; but a perception remains. In order to distinguish between the separable meaning gained through perception and the physically-sensed object itself, we speak, respectively, of incidental sensibles, that is, things perceived through the sensible but not sensed themselves, and sensibles-in-themselves, which are both proper and common sensibles alike.

The organ of perception is the brain. Because the operations and the organ are both so complex, however, it is difficult to identify consistent neurological patterns correlating to the operations here discussed. While some neurological studies have shown consistent correlations between certain operations and activity in specific regions of the brain, others have shown an ability of the brain to re-map itself slowly (consequent, e.g., to brain damage), and others have shown that more systems and more complexity may be involved than early experiments have suggested.

- **Integrating sense:** the object of the integrating sense is the sensible whole—that is, not just this or that proper or common sensible, but what is revealed by those sensibles as a source of them—or what we could call the integral sensible. Importantly, this integrity is relative: some wholes are more clearly united than others, and the parts of some wholes are themselves wholes, and may be revealed as such in a different context. In other words, the integral

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46 One could classify the integrating sense as either belonging in common with external sensation, or with the perceptive faculties. Because it is the beginning of perception, we have located it with the perceptual faculties.
sensible can be more than just a single “thing”, but might be a whole context of things, as I sense not merely the individual things in the room as wholes, but the room in which they are found as a certain incidental whole as well. When my attention shifts, and I focus on one particular thing in the room, the “wholeness” of the room fades to the background, and instead I focus on the whole, say, of my coffee mug—wherein I can distinguish specific aspects, such as its handle, or its shade of blue, the glossy finish which reflects off its circular rim, etc.

- **Sensory retention**: the medievals named this faculty the *vis imaginativa*—but, like *sensus communis*, this is not well-translated by its cognate English term (the “power” or “faculty of imagination”). To present the idea more clearly, we call this faculty the *sensory retention*, i.e., the power which retains the sensible objects as they are grasped by the external sense faculties and unified in the integrating sense, but as abstracted from their here and now condition, so that the sensible aspects perceived are preserved for future operations—for instance some sensible whole, as a fire, but as potentially distinguishable, as into the redness, heat, brightness, and flickering of the flame; or of the firelit-cave, and into the dimness, smokiness (which might include the motion of smoke, the acrid odor, the haziness of the visible medium, etc.), and the coldness of the cave. This kind of retention is de-contextualized: as we may retain sensory impressions without necessarily retaining when and where or how they were experienced. In other words, I can think about a shade of blue previously experienced without thinking of any particular instance in which I saw that shade of blue.

- **Pattern retention**: the medievals termed this *vis memorativa*, which is much closer to its English cognate in meaning, but which we find it helpful to further specify (since “memory” has both for us and for the medievals, a more general use), and so we have named it the faculty of *pattern retention*. This is the faculty through which we preserve the abstracted patterns of some sensible context: that is, how, where, when, and all the various relations through which the experience is constituted, including its interpretation at the level of

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47 Which I have also in some contexts referred to as the “recollective retention”.

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perceptual intelligence, that cannot be reduced to the proper, common, and integrated sensible objects. In other words, the faculty of pattern retention preserves perceptual memories. These memories can be concerned with the experience of either specific objects or of the objective contexts in which specific objects occur (and likely both, in almost all cases), for both are retained within patterns. For instance, I can recall the various sensible objects—colors, shapes, sounds, etc.—that were experienced while checking out at a store, including the wry amusement I myself had at the mixture of apathy and surliness in the clerk’s mannerisms.

Perceptual memories are more difficult to retain with precision than simple sensory perceptions, as we tend towards focus on specific objects or specific aspects of those objects and minimize the importance of the overall context of their appearance, resulting in a selective retention. In the example of the store-checkout given just above, my own retentive focus was on the clerk’s facial expressions and movements—the way he bagged, the slight rolling of his eyes when he offered a mail-in rebate—and not on, say, the impulse-buy items, magazines, color of the floor, etc.

Habituation—either from repeated experiences in the same or similar perceptually-contextualized circumstances, or from some learned behavior of misremembering some experience—can amplify this selective retention or even turn it from selective to distortive. For instance, an abused wife may come to retain specific instances of abusive behavior as being genuinely her fault or a traumatized child may form a false memory in place of a real one.

• Cogitative faculty: while sensory retention and pattern retention are faculties characterized by passive reception, the faculty of cogitation (considered apart from the intellect) actively performs a multitude of operations, all of which have the common purpose of seeking the animal's operative good within the context of its environment. Though this faculty is shared in common between humans and non-human animals, its facility is much improved in human beings through the “proximity” of its operations to those of the intellect. Thus, the animal faculty is termed the estimative rather than the cogitative; for its operations are much simpler in nature than those of human beings, being
confined to evaluating perceptual objects to estimate whether or not they are beneficial or harmful to the animal.\textsuperscript{XLII}

The species-specifically human cogitative faculty is responsible for \textit{collating} our sensations and experiences—that is, putting them into operational orders so that we may subsequently perform specific tasks, which may involve drawing upon the sensory and pattern retentions, and may result in fictive planning or intellectually-intended recollection, etc.—and, especially within the genus of collative operations, for \textit{evaluating} the objects of our experience: that is, determining whether they are beneficial to oneself, harmful to oneself, or neutral for one’s interests (+/-/ø); as well as that \textit{this} perceptual object is more or less beneficial, etc., than \textit{that} perceptual object (i.e., the comparison of percepts).

Subsequent to evaluation, the cogitative faculty is responsible also for operations of \textit{execution}: that is, putting into practice what has been deemed positive or negative by the evaluative operation. The most important of these executive operations—which could also be understood as operational performance (any action taken as a consequence of immanent perceptual operations—including further immanent perceptual operations)—are inhibitory control (restraint against a desire), attentional control (or focus upon a task), and the application of percepts to the constitution of further perceptually-based actions (either immanent or transitive).

In other words, broadly stated, the cogitative faculty is responsible for acting on the perception of objects. It is the “decision-maker” for how we respond to the things that we perceive. When we combine this with intellectual faculties, it becomes a kind of translational faculty, as well, in that it enacts in the perceptual sphere what is discovered in the intellectual.

While this is only a snapshot of the complex operations of the perceptual faculties, it suffices for opening questions about what perception is for the human person.\textsuperscript{XLIII} The first question is: what is perception really \textit{doing}? That is, how does it fundamentally differ from mere sensation? To give a probing answer—that is, an answer which should arouse many other questions—we can say that perception turns the objects of sensation into objects of a \textbf{self-referential meaning}, or that it turns the environment
of experience into a referentially-meaningful context. In other words, through perception we not only receive the objects of sensation but engage them as objects potentially meaningful in reference to ourselves. This self-referential meaning stems from the evaluation of an object’s potential benefit, harm, or neutrality (+/-/ø).

Another of these questions is this: how malleable are our perceptual faculties? That is, how easily, and by what means, can they be changed? Are they always “truth-oriented”—that is, oriented towards disclosing for us how things really, truly are? Or might our perceptual faculties have a kind of plasticity—an ability to be molded by their experiences? Does this plasticity open our perceptual faculties to possible abuses? That is, can we form bad habits of perception that divert us from understanding the truth of objects?

The perceptual faculties of the human person have, for too long, been a subject of philosophical neglect. This neglect comes despite—I would argue—the fact that most of our struggles with both morality and with understanding result largely from uncritically allowing the formation of bad perceptual habits. That is, our minds are attenuated to picturing—both imaginatively and recollectively—objects which dissuade us from the pursuits of truth and goodness, and instead encourage our searches for comfort and pleasure.

Would our lives not be better if we not only practiced thinking rightly, but perceiving rightly, too? The difficulty here is that we seldom examine and therefore seldom recognize how our perceptual habits are being formed. This lack of critical self-awareness follows especially inasmuch as we might recognize the negative or positive effects of the content of what we encounter—whether our media of consumption exhort good or bad tendencies—but seldom recognize the structural effects of the media themselves: how television and social media, for instance, give us illusory snapshots of idealized lives, such that our perceptual faculties, rather than bending

48 That is, quantitatively the most of our struggles stem from these bad habits: the little struggles that, together, make surmounting the big struggles, struggles of will and intellect, much harder to overcome. Often we are unaware of these bad perceptual habits; which makes them that much harder to fix.
towards discovery of the truth, instead bend towards imagining a “better” life than the one we presently have.

3.3.3. Intellection
Just as sensible objects implicitly carry potential perceptual objects, so too perceptual objects implicitly carry potential intellectual objects, which can be grasped by beings with the intellective property. This property is the faculty which transposes the content of the object from a context of referential meaning to a context of intelligible meaning: which is to say, meaning as independent of the object’s practical, actionable relation to the individual—that evaluation of +/-—and instead as it belongs to the object as an entity existing in itself; that is, as a thing having an existence and a mode of existence in its own right. In other words, the key difference between having and not having an intellect, is that in its absence an animal can only consider objects strictly as they are related to the animal itself; whereas having the intellect, we may consider the object as a thing in its own right.

This ability to grasp intelligible meaning is the capacity which enables all specifically human inquiry—both the “hard” and “natural” sciences (e.g., chemistry, biology, astrophysics) which discover new phenomena, new facts, new data, as well as the “philosophical” or “common reasoning” sciences (e.g., philosophy properly speaking, history, literature, etc.), where we attempt refinement of our means for grasping intelligible meaning—and human artistry, where we attempt to show meaning to an audience as it exists “submerged” in particular instances.

Just as in the perceptual faculties, here too we find a multitude of operations which attain their proper fulfillment in recursive, habit-forming patterns. That is, intellection is not an amalgamation of data or a computational process—i.e., a linear building-up of information inside our minds—but a continual activity of attempting to resolve the objects of experience into intelligible meanings, whereby those experienced objects can, in turn, be understood.

Just as the sensible object becomes perceptual through discovery of its referential meaning, so too a perceptual object or percept becomes intellectual through discovery of its intelligible meaning, resulting in a concept. The history of “concepts” has seen a lot of confusion, chief among which is that many people have considered them as the terminal objects of our understanding. Making this mistake—one which runs consistently throughout all modern philosophy, from Descartes and Locke until
Hegel and right up through many of the ultramodern philosophers of the contemporary analytic tradition—undermines all understanding of human cognition, for it displaces intelligible meaning, removing it from the object itself and placing it into the mind; it leaves the world unintelligible and us with an unbridgeable gap between our understanding and the supposed object of our understanding.

Put simply, if we believe that we know our ideas directly, and only know the world indirectly by a comparison or relating between our known ideas and the sensed world, then we condemn ourselves to never really knowing the world or being sure that we can. Following this path is an endless spiral towards solipsism.49

With the intellectual concept as means of knowing the intelligible meaning of things in the world comes a reorientation of the whole person: that is, whereas the percept orients us towards consideration of its object in order that we may pursue an operational good, the concept orients us towards consideration of the object in its own right, as a thing having its own being—such that we may see the good not only of operations for us to perform with respect to our own benefit, but so that we may see the good of the thing in and for and of itself. We might therefore see “the good”, and not simply “the good for me”.

We call this operation—the formation of the concept whereby we are immediately and directly referred back to the intelligible meaning of the object—simple intellectual discovery. Simple intellectual discovery consists in grasping that the concept’s object has a meaning which belongs to it—such that the concept grounds a relation between the human knower and the object known—and not simply to the referential context, as in perception. This meaning, the object of the intellect properly speaking, is first grasped dimly and without explicit distinction. The simplest and earliest of intellectual discoveries concern substantial things and their evident properties: clearly perceived objects which have evident and distinguishing sensible characteristics. Young children can intellectually grasp these things more easily than other objects, and yet they begin always with vaguest generalizations about their objects, such that, as we can note in their use of language, they mistake specific terms with generic meanings (calling all animals “dogs”, for instance, or all men “dada”), i.e., an encounter of an object’s meaning without a clear and resolute definition of that

49 I.e., the belief that one’s own mind alone is assured to exist—all else being doubtful.
meaning. The children do not think all animals are dogs, or all men their fathers, but rather do not yet know what it is that makes some animals dogs and not others, or what it means for a man to be one’s father. Nevertheless, even this linguistic confusion shows that the children have grasped something about the object-as-thing, as they seem to be able to distinguish at least some genera (e.g., they don’t typically call men “dogs” or dogs “daddy”; except, perhaps, as a form of play).

Simple intellectual discovery occurs not only in the minds of young children, however, but occurs whenever someone experiences a new intellectual realization, regardless of age. Whenever we acquire a knowledge of “what” something is (as opposed to recognizing something as belonging to some “what” we already know), such that we can subsequently express that “what” through any linguistic articulation, we have performed an operation of simple intellectual discovery. In other words, we have discovered some intelligible meaning. Often, the results of these intellectual discoveries are taken for granted and not further explored.

Although the simple discovery of meaning is itself never incorrect as such (as there is nothing incorrect when I say, “Blue-spotted floating elephants”), when that meaning is re-introduced into a context of reference it may nevertheless be incorrectly referred (as if I were to say, “The ground is covered in blue-spotted floating elephants all the time” and not mean this in any metaphorical sense). This re-introduction of the concept into a referential context, such that the concept is the means whereby we are oriented towards knowledge of an object, is called a first intention.⁵⁰

Beyond the operation of simple intellectual discovery is the process we call intellectual discernment. This operation is instigated by an act of reflecting upon one’s own conceptual activity, a reflection that we call a second intention. That is, whereas first intentions are orientations of the knower towards the known, second intentions are orientations of the knower towards the relationship between itself and the known.⁵¹ While discovery unreflectively appropriates an apparent meaning as

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⁵⁰ The Latin word intendere, “to intend”, means not just “what we plan to do”, but rather, “to be towards”. This might be a planned action, or it may simply be an orientation of the mind. In the case of “first” and “second” intentions, it is the latter.

⁵¹ It is a matter rather too complex to be entered into fully here—though we have hinted at it repeatedly—but concepts are in themselves not knowable to us directly; we know them only
belonging to the object, discernment examines the revelation of this meaning itself, thereby opening the discovered object to interpretation. Simple discovery, which grasps the meaning as independent of the self, enables the elaboration necessary to rendering that meaning explicit, but the rendering explicit follows from intellectual discernment. This explicit rendering is especially true of distinctions not only of sensible appearance or relational context, but of essential being: that is, what a being is in order for it to be at all, the substantial form at the heart of every finite being’s existence.

Moreover, this movement is what is meant by “thinking critically”. To think critically about something, then, is to discern what oneself knows of it and what one does not. Without this process, we would never refine our knowledge. In other words, the reflective operation of intellectual discernment is the operation through which we engage in logic: it is the operation of deliberate, controlled intellectual recursion, the operation which attempts to move us out of the mindset of taking for granted that we sufficiently know what we think we know, and examining it critically to help us know it better.

Like the cogitative faculty of perception, the intellect also collates its concepts. Because of the relative simplicity of its object, which has none of the variable particularity belonging to the conditions of materiality, the intellect does not need multiple faculties to perform its collative operations but performs the operations all on its own—though, as we will see, it always involves the perceptual faculties, too.

In addition to discovering them and reflecting upon them, the intellect composes and divides its concepts, both as they are conceived in simple intellectual discovery or through the process of intellectual discernment. To compose is to put together, in some way; as we might have concepts derived from experience of dogs, birds, and lizards—such as that they are self-moving, take in nutrition, and possess perceptual faculties—all of which go together in forming or refining the general concept of “animal” (what we call conceptual composition or conceptual elaboration); or as when we make the judgment that “The dog is running”, we are composing the notions of “dog” with “running” (as opposed to “walking”, “ambling”, or “trotting”—through a reflection on the relationship between ourselves and the objects known. There is no power of “direct introspection” such that we can examine our concepts in themselves.
judgmental composition or judgmental elaboration). To divide is to separate; as when we separate out the notion of “self-moving” from that of dogs, birds, and lizards (abstraction by division), or exclude the separated notion of “intellectual” from that of “rabbit” (conceptual division or conceptual exclusion); or as when we make the judgment, “The man is not happy”, where we divide the notion of “man”—as specifically applied to this man—from the notion of “happy” (judgmental division). The result of judgments—which we verbally express by means of propositions—can often be resolved into conceptual elaborations (as when we make judgments about what things are, either in their essential being or in their properties).

It is through these collative operations that the intellect can come to hold a false belief. This might be in the incorrect composition of a singular elaborated concept (conceptual composition), in the false synthesis of two concepts which are not truly related to one another (judgmental composition), the incorrect exclusion of a notion from a concept (conceptual division), or in the false division of two notions which do factually belong together (judgmental division). These conceptual falsehoods can be highly complex, involving many nested errors, and can occur at any point in intellectual proceedings.

That is, intellectual operations have two causal directions: what we can call an “upward” motion, whereby the intellect attains the properties necessary for it to return with understanding, in a “downward” motion back to the object. The “upward” motion is necessary for knowledge, but knowledge—the union of knower to known—is accomplished only through the “downward” motion.

In the “upward” motion, there are three causal relations to consider. The first is the specificative causation of the object itself, as it is presented through the perceptual faculties. This “gives” the object in a way that the intellect can, as an efficient cause, “unveil” the intelligible meaning of the object. Through this unveiling, the intellect

52 I.e., what a thing is in order for it to be at all.
53 I.e., what follows in the absence of interruption from their essences, but which they can be without, in the occasion of some interruption, and yet retain their essential mode of being. For instance, the genetic defect of Trisomy 18 interrupts the proper proportion of chromosomes—resulting in a myriad of symptoms—without stripping the person of his or her essential humanity.
54 See Gloss XLVI for examples.
receives a formal cause—an incipient concept—which the intellect (efficiently) elaborates by operations of collation into formal concepts (formal causes). Because the concept is elaborated upon by such collations, this may result either in false compositions or in true compositions which include meanings not explicitly present in the givenness derived from the percept.

From these elaborated formal concepts, the “downward” motion can begin. The principal operation of this motion is that of judgment: where one composes or divides two notions and assents or dissents from the truth of their composition (i.e., that they truly are composed or divided from one another in reality). In order that such a judgment may be made, the discovery of the intellect—the intelligible meaning—must be applied to some percept. Only with such an application can a judgment be made: that is, we need an instance, an example, understood to somehow instantiate or resemble that intelligible meaning which has been discovered. This follows inasmuch as the proportionate object of the intellect is not intelligible meaning simply speaking, but the intelligible meaning of corporeal beings. In order that one may assent or dissent from some belief about the reality of an intelligible meaning, therefore, there needs to be a return to the source of that intelligible meaning, the thing having the kind of existence (the “what”) indicated by the concept.

Consequent to this return, one may exercise operations of intellectual discernment, through a second intention, which considers the relation itself between the concept and the object. This operation results in the formation of a second concept, which is a concept of that relation, and can be used to further clarify the objects of first intentions.

Although human beings generally have an awareness of their objects as irreducible to their own experience of them, this awareness is usually implicit and naïve. One may even believe, abstractly, that the objects of our experience exist for us only insofar as we experience them; but pragmatically, human beings do not physically operate this way. The experience of resistance—of there being a thing behind the appearance of an object which pushes back against our physical operations and against our psychological desires—is too ubiquitous and can be denied only in words.

That said, explicit awareness of our intellectual operations requires second intentions. Simple intellectual discovery can be carried on without self-control, and therefore without self-awareness, as a “taking-in-stride” of what is presented through the
perceptual faculties. If there are problematic habituations in the perceptual faculties, therefore, there will be problematic applications of intelligible meaning to perceptually-presented objects.

As an example, the frequent anthropomorphizing of non-human animals in fictional media—an objective specification that has habituated the percept of animals commonly formed—has led to the uncritical application of linguistic concepts to the interpretation of animal behavior. In other words, it is very common today for people to view and speak of animal behavior as though the animals are “thinking” about their situations as a human being would. Recursively, this diminishes the perceptually-grasped distinctiveness of the human being, and thereby weakens the intellectual grasp of that distinctiveness as well. We saw this mentioned above, in the discussion of causal relations, in that if an object is consistently and ubiquitously portrayed in a certain fashion, we may not even notice that we are being attuned to consider it “normal”, even if it is not. This could be anthropomorphized non-human animals, a sexual behavior, homogenization of the genders, de-humanization of people of a certain ethnicity, or the demonization of adherents of a certain religion, political viewpoint, or intellectual tradition.

With a critical turn, however, it can be seen that the composite notion of “linguistic thinking” in no way applies to what animals are doing—just as we might realize that certain sexual behaviors are physically and/or psychologically harmful, that Jews are human beings, or that being a Muslim, Christian, Buddhist, Conservative, Progressive, Protestant, Aristotelian, or analytical philosopher does not necessitate that one is evil. To return to the example of anthropomorphized animals: our linguistically-structured thought is not, contrary to common conception, the syntactical articulation of a private language which subsequently becomes public, but rather “speaking silently” (and thus “thinking out-loud” is a phrase which inverts the true order). Since animals do not articulate linguistically (but only verbalize environmentally-educed reactions), to ascribe linguistic thought to them is an erroneous meaning. In other words, the way in which we think about things is through attaching meanings to percepts: prominently, to audible and visible appearances of words.

To see this, we had to examine what is meant by “linguistic”—which is consideration of the kind of second intentions. By placing this concept’s relation into our awareness, we are granted a control over how we apply that concept, and can thereby prevent
erroneous such applications, even in the event that there is a habituated perceptual flaw. Oftentimes, we must be induced to these considerations by an external source who recognizes the erroneous application of meaning and can draw our attention to it: a teacher, professor, friend, parent, and so on.

Without this elevation of intellectual awareness, we tend towards taking it for granted that the perceptual habituations by which we are captivated deliver true meanings to us. Unfortunately, many of the environments in which we live today—pervaded as they are by fabricated illusions—result in a perverse perceptual framework; not the least of which perversity consists in an unwillingness to upset one’s perceptually-mediated habits, especially by anything so troubling as truth. That is: our common perceptual habits, so easily formed in a technologized society that discourages labor and struggle, have inured us to avoid challenge and seek the easily-satisfied appetites of lower desires.

3.3.4. Appetites
Defined most generally, an appetite is any capacity to seek the attainment of a goal: either, therefore, seeking unity with an object (desire—or unitive desire), seeking the avoidance of some object (aversion—that is, desire for a negation), or seeking the elimination of an obstacle (opposition—which is contingent upon some prior desire or aversion). We differentiate appetites from one another according to how their objects differ from one another. This differentiation of objects is a result of apprehension, for appetite always follows apprehension: that which has not been apprehended (and judged, moreover) cannot be desired. This apprehension can be intellectual, perceptual, through habituated-sensation, or even as genetically-transferred from one generation to the next (i.e., what are commonly named “instinctual” desires). Since apprehension can be vague, so too can desire (e.g., apprehending oneself to be hungry, one can desire food without specificity as to the kind: who has not stood, looking into their pantry or refrigerator, hoping to find the exact but as-yet-unknown item desired—or at least a close enough approximation?).

3.3.4.1. Perceptual Appetites
The appetites following perceptive apprehension follow specifically from the judgments of the evaluative operation of the cogitative power. That is, an object is judged beneficial (+) and arouses a desire for unity or judged harmful (−) and arouses an aversion, while no appetitive movement follows the judgment of something as neutral [Ø], except perhaps to seek or avoid something else. Because aversion is a
desire for a negation (i.e., a desire “not-something”), we call the faculty producing operations of both “desire for” and “aversion to” the perceptual desiring appetite (what the scholastics called the “concupiscible appetite”). We may desire unity-with or separation-from an object without acting on that desire due to an interest in a competing appetite. For instance, someone may have an aversion to eating salad, but does not follow that aversion because of a competing desire to be healthy; or someone might find two foods appetizing, but one more appetizing than the other.

These desires and aversions, pursued consistently, result in habits: such that the faculty of pattern retention retains the judgment of benefit or harm and by association the desire or aversion as well as any pleasure or pain caused by their pursuit. The experiences of pleasure and pain, since they occur always in a dynamic temporal context, entail complex associations—a specific source of pain can become desired for its associated pleasure(s), and a specific source of pleasure can become an object of aversion because of its associated pain(s).

In contrast to the perceptual desiring appetite, we also have a perceptual appetite that consists in seeking neither unity with nor avoidance of an object, but its removal or destruction. This follows when an apprehended object is judged to be harmful because it interferes with seeking an object judged desirable. Whereas objects of aversion are harmful because they are sources of pain, the harm of this appetite’s objects consists specifically in their frustration of the pursuit of a benefit. This appetite the scholastics called the “irascible appetite”, but which we name the perceptual oppositional appetite, for it incites opposition against threats to one’s desired goods. One and the same object can be judged both an object of aversion and an object of opposition.

Both perceptual appetites (desiring and oppositional) are highly malleable in principle, but often deeply-entrenched in fact. That is, there is a nearly-limitless range of objects which can be desired or opposed, though the fact that a specific object is desired or opposed—beyond general categories such as food, sex, physical threats

55 Because the novelty of an object may be a part of its desirability, when the novelty fades, so too may the desire or aversion. Novelty and familiarity are conditions of the subjective cognitive apparatus which are involved in judgments as part of the recursive process. They enter substantially into more general patterns of apprehension and evaluation by which more particular instances are judged.
and other objects of desire or opposition according to our biological/evolutionarily-adapted dispositions—typically requires many preceding experiences producing the disposition of desire or opposition. Single instances in which there is an extreme reaction evoked, either of pleasure or pain, may result in a deep appetitive impression—what we might call “irrational” likes or fears. Typically, however, many incidents are required to produce a strong disposition. Strong dispositions—profound aversions to sounds or images, powerful attraction to a particular sexual activity, or hatred of an individual—are noticeable for their disruption of our ordinary activity. Weak dispositions—irritation at a pitch of voice, preference for certain physical attributes in a romantic partner, laziness in posture—by contrast, may influence our operations with or without our explicit awareness of them.

That the dispositions of our perceptual desiring appetite are not reinforced ad infinitum, despite a consistency in the objects themselves, results from novelty being an element in an object’s relation to us. The more our pleasure or pain is derived from the object’s novelty, the shorter the duration of the object’s effect upon us. The more one is attracted to novelty itself, as an element within objects, the more inclined that person will be towards discovering new pleasures and quick to discard those previously experienced; just as novelty (or aspects of novelty) may be distasteful, i.e., an object of avoidance, and so we may be inclined to avoid new experiences.

Our perceptual appetites, ordinarily if unconsciously, operate not only following from perceptual apprehension—although their objects are perceptual objects—but also under the influence of intellective apprehension. This influence is evident in the just-mentioned instance of novelty: that is, one may believe that novelty, understood conceptually (even if only dimly), and therefore by an act of intellect, is itself desirable, which in turn affects one’s perceptual appetites. Conversely, one may judge that novelty is nice, but not essential, and strive to discover interest that lies below the level merely of what is “new”. The perceptual and the intellectual appetites may (and often do) come into conflict with one another; and so now let us further examine the nature of the intellectual appetite.

3.3.4.2. Intellectual Appetites
Unlike the perceptual appetite, which desires or opposes in accord with the apparent benefit or harm of the object in its relation to the individual, the intellectual appetite seeks its objects insofar as they are understood to be good or evil in themselves. This includes but is not limited to the benefit or harm that objects pose in immediate
relations to the individual: for it is true that some things will harm us, and false that some others will, despite whatever the perceptual faculties may incline us to believe. Consequently, the intellectual appetite can appropriate goods or evils as belonging to oneself even though they bear no weight for those immediate relations: such as causes concerning violence, racism, or other forms of oppression, even when those suffering are personally unknown to the individual. We may—to borrow an idea from Martin Luther King Jr.’s 1963 “Letter from Birmingham Jail”—recognize injustice anywhere, and appropriate the cause against it, even if we ourselves do not suffer its consequences.

Intellectual judgment of “good” or “evil” entails a judgment that the good or evil belongs to the object itself, and not to its effect on the individual making that judgment—at least, not exclusively or primarily to its effect. In other words, this judgment ascribes the goodness or badness to the intelligible meaning of the object, which might include its positive or negative effects on the self but does not reduce to those effects. Since simple intellectual discovery results frequently in conflation of the perceptual and the intellectual meaning—the meanings of personal reference and intelligible meaning—we need intellectual discernment and critical awareness to sort out the perceptual-relational meaning of the object from its intelligible-in-itself meaning in order to discover what really is good or bad about an object. Put more simply, sometimes we judge a thing to be good or bad simply because we have experienced it as good or bad for ourselves. Sometimes these judgments are true, but very often they are false.

The ability to discern the intelligible-in-itself meaning of the object, as good, however, grants the intellectual appetite its object in distinction from the perceptual—that is, where the perceptual appetites are concerned only with apparent goods and evils (i.e., proximate benefits and harms), the intellectual appetite is concerned with the true good. Contrariwise, because the intellect is not limited in the objects it may consider, unlike the perceptual cognitive faculties which are constrained by the particularity of idiosyncratic relations, the intellect may incorrectly judge a true good to be good independent of the context wherein its goodness is completed—often with deleterious effects. Having grasped the true good of, say, sex or social power, one might judge these goods irrespective of context and therefore to be pursued over and above all else. Or one might grasp the true evil of murder and come to believe it is to be avoided at all costs—losing the sense of proportion which one ought to maintain in enacting preventative measures.
This enables complex appetites to arise, consisting in elements both intellectual and perceptual. These complex appetites can be either complementary or in conflict: as someone may, for instances of conflict, have a perceptually-driven appetite for sexual intercourse with someone whom the intellect deems intercourse with to be an evil; or a perceptually-driven appetite for slothful behavior, while the intellect judges such idleness to be wrong. Conversely, we frequently experience a perceptual aversion to foods we intellectually recognize as good, or to exercise, or any number of healthful activities. Complementary instances would occur when we, for instance, have a sexual desire we judge rightly-ordered, when we consume a legitimately believed-to-be-deserved culinary treat (as opposed to “rationalized” such beliefs, where we find some intelligible meaning that justifies our behavior—“I worked out today!”), even though this requires ignoring other intelligible meanings which point out that it is wrong—“This treat contains twice as many calories as I burned...”) or enjoy a rest, some form of entertainment, and so on.

Characteristic of intellectual appetite, however, is that any movement which follows from intellectual apprehension of some good requires a free choice. This follows inasmuch as the meaning which the intellect apprehends includes but does not reduce to the instances in which that meaning is found. In judging health a good to be pursued, one is free to choose its pursuit in diet, exercise, both, or even in practiced self-delusion (“I don’t need to exercise”, “I will cut calories tomorrow”, etc.). One can choose what is known intellectually to be a lesser good in favor of what appears to be a greater good to perception. This happens frequently with a weak intellectual grasp, a strong perceptual preference, or both. When the intellectual and the perceptual appetites are in opposition, the person is said to be either in possession of or lacking self-control; when they are united and simultaneously pursue the same goods as they are known by the intellect (for the most part), the person is said to be virtuous; when the intellect acts entirely subservient to the desires of perception, the person is (for the most part) said to be vicious.

3.4. Truth about the Good
In consequence, to be virtuous, human beings need not only the truth and the good, but the truth about the good; and, that, moreover, this is not only a need, but the proper and proportionate object of our nature as human beings. By the disclosive power of our intellects, which grasps the intelligible meaning of the object, we may
grasp not only what appears as good to or for us, as dictated by the context of reference, but what is good independent of that context of reference. This elevates our awareness from the immediate and apparent practical good to the true good. Oftentimes, the two are not one and the same. Something may be truly judged of benefit not only in the moment, but for the whole good of our lives, and yet not be truly good. Allow illustration through a few examples.

First, there are obvious cases where what is immediately deemed good by mere perceptual evaluation does not do us good in the long run: as temptation to sexual intercourse with a stranger, or to gluttonous consumption; to excessive smoking or drinking or to the use of hard drugs; in general, to the pursuit of easy pleasures. Non-human animals, notably, are capable of learning (albeit much more slowly) that such pursuits are a net negative for them. This, however, is not what is meant by “the truth about the good”. This is adapting to the true good, but not grasping the truth about it. Nevertheless, both humans and non-humans in such cases do fail to grasp the true good; that is, they commonly suffer from a shortsightedness as to the practical fallout of their actions, but human beings also fail to grasp a good proper to their capabilities.

We can see this more clearly in a second case. “David” was not a “bad” person... at least, so he was fond of claiming. He lived his whole life avoiding injustices against his fellow human beings—so he thought—did well for himself and his family financially, had a satisfying career, never divorced; his children were well-educated and sent to good colleges that promised to provide good futures. His wife was generally happy with their marriage, and so was he; this marital “success” he attributed in part to two brief affairs that both ended amicably, and which remained a secret to everyone not involved. That he was able to gain sexual satisfaction at times of boredom with his wife allowed him, he reasoned, to continue loving her.

His job he very occasionally felt he had not really earned, but only very rarely. His first big step up the corporate ladder came in his mid-30’s, when he discovered a small error in an account, where a major client—a mega-corporation itself—was being routinely overcharged a relatively small amount (over several years), while his own company was receiving the proper amount each time. He reported this to his boss, who held charge of the account. When his boss told him it must have been a “clerical error” and that he should shred the “mistaken reports”, he told his boss that he was glad to work for such a rewarding company. A promotion came soon after. David never felt that anyone was done real harm—the client had billions in annual revenue,
and the amount lost was so relatively small that no one even noticed. Plus, he liked his boss generally. If he and his boss both benefitted, and the damage was insignificant, who cares?

He also gave somewhat generously to his community, both financially and with his time, donating and volunteering. The net benefit versus harm of his actions, he reasoned, had him firmly on the positive side of things.

From the standpoint of classical moral reasoning, there are obvious problems with David’s utilitarian calculations: ends justifying the means, pleasure and pain being used as metrics, and, for those who believe in an afterlife, the ultimate comeuppance for his actions. But setting these aside for now (rather than treating them as a priori moral criteria, including the question of whether there is an afterlife) what principally undermines David’s moral justifications can be discovered by a process of critical reasoning about the true good. That is: are the benefits he received and that he was thereby able to bestow on others true goods or merely apparent goods?

To answer this, we first need to recognize that even an apparent good must contain some true good; it has to be good in a certain respect in order to be desirable at all (which is, after all, what we most generally mean by "good"). What appears good and what is truly good may be one and the same. But by “the appearance of good”, we mean something judged so on an uncritical basis, where the desirability is not questioned. Why do we want the things we want? Take financial security, for instance. Life without it has great anxiety: how one will pay for the necessities of life, worry that every dollar spent rather than saved is a dollar wasted, the knowledge that a single misfortune could empty your accounts and leave you searching for a lifeline. We want financial security in the same way that a sick person wants health: without it, we seek it and oftentimes little else. It is a true good; but it is a good as a means to further goods. Health of its own is good only because of what else it allows us to attain, both bodily and mentally.

So take a more complex good from David’s life: sex. Clearly, sex has occurred in his life in at least two different contexts: within the bond of marriage, where it resulted at least occasionally in procreative results; and adulterously, where it presumably did not. Perhaps he and his wife did not intend to have children, but at the very least they did not take extensive or careful measures to contracept. Perhaps having children was, if not their explicit intention when having intercourse, a part of their general
intention to form a family. That is, he and his wife may have at the very least engaged in sexual intercourse with the intent of it bringing them together, making them closer with one another, and not merely to satisfy certain desires or to work off some lust. But his intention of having sex in his affairs was clearly not within the context of forming a family—except, perhaps, at a far remove: the justification that a limited pursuit of sex outside of marriage would maintain the marriage itself.

But this justification is to reduce sex to the scratching of an itch. To ignore—whether deliberately or through an unconscious appropriation of societal messaging (“it’s just sex”—the *causality* at work and in question which roots profound consequences in every act of sexual liaison is not atypical, but it is inexcusable in a time and culture with unprecedented availability of time and opportunity for pursuing these kinds of questions. Such opportunity and indeed necessity to question the underlying causality is true also of the means whereby we acquire financial stability, or any apparent good; that is, we must question not only how we may attain it, and whether it is something desired, but whether that desire fits into an overall pattern of good.

So, for instance with regard to David’s affairs, the question is not whether his affairs helped maintain contentment with his marriage, but whether by removing sex from the context of marriage (or even more generally, commitment) someone does a disservice not only to oneself but also to the others involved. By having sex with another woman, does a husband take something away from his wife? Does he, by not enduring a period of sexual dissatisfaction, give something to his wife? Does he deprive *himself* of some greater good? Does he not commit an act with the other woman that by its very nature implies a more-than-physical union (the perceptual faculties almost invariably habituate themselves accordingly), a union he has no intention of maintaining? Does the good of sexual pleasure require a *greater framework* for its good to be true and not merely apparent?

One might ask these questions but cease asking upon discovering an answer, however poor it is, which allows acts of infidelity. David might tell himself that marriage is a mental and emotional rather than physical relation, for example; or that the “greater framework” for our goods consists in a calculation of pleasures and pains—though when pressed, he could explain neither *why* the physical is excluded from the marital relationship nor *what* pleasure and pain themselves really are, let alone how they determine a *true* good. Only by drilling down past the “fitting” answers—that is, the answers that fit our pre-conceptions or habituated perceptual
inclinations—and into the total causal framework, reflectively evaluating our own total conceptual architecture (including the perceptual), can we begin to discover the true good.

This emphasis on the intelligibility of the true good may be taken in the wrong direction, however, a direction of angelism or spiritualism: that is, insisting that we as human beings live by a set of absolute and invariable laws, as though we were absolute and unvarying creatures. Such a belief holds up a picture of the human being unfitting to the true nature, for, despite our ability to discover unvarying truth, the only way in which that truth can have its good realized in the context of our lives is if it is referred back to the varying context in which it is discovered. For instance, it is true that unicorns are single-horned animals; but this truth, of itself, does not direct us to the good if we do not refer it back to the fictionality of unicorns. For us to do anything good with the knowledge that unicorns are single-horned animals, we must incorporate that knowledge into the context of its fictionality—else it is knowledge to no end beyond itself, and not subordinated in its proper relationship to a higher, fuller, more complete good. Likewise, it is true that abortion kills a living human being; but this truth may be taken amiss if we do not refer it back to the actual context of abortion’s practice, in which most who receive an abortion have—for one reason or another—not recognized that truth themselves (or have had it distorted, as, for example, by an arbitrary but supposed “real” distinction between “human being” and “human person”), to a degree which at least mitigates (though seldom fully exonerates) their fault. Moreover, the very notion of truth as the correct relation between a mind and a reality having intelligibility independently of that mind has been obstructed by emotivism, by ideologies, by relativism, and in general by a culture more inclined to creating illusions than to disclosive, revelatory thinking.

In other words, for beings of our kind—possessing an intellect capable of understanding immutable truths but only ever in and through the context of mutable corporeality—the intelligible meanings we discover comprise also the referential meanings of our perceptual existence. We could invert this and say that the referential meaning is assumed into the intelligible meaning. Among all the questions we ought to be asking in building our habit of philosophical reflection, that habit of critical appraisal of our own understanding, the question of how intelligible and referential meanings intersect has a certain preeminence: the preeminence recognized both by Aristotle and Thomas Aquinas in naming prudence the most important of natural virtues.
The virtue of prudence is in itself a complicated topic, requiring a background investigation of the nature and order of human action. Briefly defined, prudence is right reason—entailing operations both intellectual and perceptual—concerning things to be done, i.e., actions that we or other human beings ought to take. Thus, prudence is thinking in the right way about what ought to be done, and how we ought to do it. It is the virtue that allows us to bear well the burden of moral responsibility, for it is the virtue whereby we direct our agency. Without realizing the truth about the good, however, even the greatest cleverness about how to accomplish things in our worlds amounts to nothing more than being a highly-sophisticated and therefore more devious sub-human animal.

3.5. Personhood
What does it mean, however, to be a person? On the one hand, there is our nature and the faculties through which it is structured that give us a fundamental orientation towards truth, towards the proper and proportionate human good, and especially towards the truth about that good. But, on the other hand, there is clearly something more; as mentioned at the top of this section, “person” in all its various uses over the millennia has signified something more than simply being human or having a human nature. There is an experiential dynamism at work: in other words, our personhood comprises not only our essence and its necessary properties, but also in some sense everything that happens to us and everything that we ourselves do.

We recognize this implicitly whenever someone speaks about the experiences that “made me the person I am today”. All too often, these experiences are considered without respect to the underlying faculties which enable us to have those experiences, however; especially if we do not recognize that those experiences may result in distortions of the order given us by those faculties. Sometimes, that failure of recognition takes the form of denying there is any essential continuity between the two sides, the natural and the experiential: as though what “really” matters for one’s personhood is the experiential alone. Contrariwise, it is nearly as big a mistake to deny that the experiential matters, and that one needs only follow a rigid path as determined by the natural faculties—a rigidity which cannot, in fact, be inferred from those faculties themselves given their natural indeterminacy.

Moreover, we tend only to think of the big, obvious experiences in life: traumas and challenges, important persons like parents and siblings, mentors and bullies, teachers
and friends, the books we read and the theories we entertain. We do not, that is, think often of the little, habitual things as shaping us into the persons we are today. Yet it may well be that a daily television habit, or a frequent use of certain internet-mediated means for socializing or shopping or researching, may have just as much of an impact on our identities as any teacher or book: for our experience of being-ourselves consists not only at the levels of explicit conscious reflection, but includes all the various unseen factors that shape that conscious reflection as well. Thus, not only our experiences, but also our habits, operations, and faculties play a role in determining our experiential totality.

3.5.1. Consciousness
What is consciousness? This question, not a prominent concern in scholasticism, has a great importance for understanding what it means to be a human person: for it has thwarted every reductionistic attempt, heretofore, to restrict all human experience to nothing more than the result of a merely mechanical function. In other words, the experience of consciousness cannot be well-explained away by appeal to material interactions.

Much philosophical speculation about the nature of consciousness, however, has dawdled over how it is possible, with only vague and unhelpful discussions of what it is. For, much as with knowledge and thought, consciousness is the most intimate of experiences and therefore among the most difficult to conceptualize. I believe, however, we can summarily (and accurately) describe consciousness as consisting in three elements: immediacy, or the presence of one’s self to oneself; reflexion, the formative push and pull of the world on the self and the self against the world; and totality, the ultimate coalescence of our actions and of other things’ actions on ourselves into an identity. While all animals experience these three elements to some degree, only human beings have an explicit awareness of the self as a self, and thereby the horizons of totality are expanded over those had by other animals by several orders of magnitude.

The result of this threefold consideration of consciousness allows us to see it as a phenomenon of our experience related to but distinct from our cognitive activity: for cognition is fundamentally structured by a towardness, by being concerned with some object—that is, by its intentions. While the experience of cognition is folded into the totalizing aspect of our consciousness, the immediacy aspect precedes any cognitive action; not chronologically, necessarily, but in the sense that we must first be a self.
that is capable of experiencing in order to experience the self as cognizing.\textsuperscript{56} Thus, understanding the structural possibilities of immediacy is essential to fully understanding what it means for a human being to have consciousness: for it is within these structures that consciousness can happen. We have already examined these structures, albeit nascently, in our consideration of sensation, perception, intellection, and the attendant appetites.

In sum, the consciousness of a human being entails not only the experience of subjectivity—of being a cognitive subject that knows and desires—but through the same capacity that allows us \textit{logical} thinking, aware of ourselves as selves; such that we can conceive of what it means to be a self, and with that, take on a responsibility for the self.

\textbf{3.5.2. Lived Experience}

This “being-a-self” is the basis for what has been described since the time of Husserl as “lived experience”\textsuperscript{XLIX}, a term of great worth which has been malicious appropriated by those who would deny the validity of universal conclusions arrived at by thinking—in other words, who claim that the \textit{intelligible content} of experience holds no water against the \textit{living} of experience. This is patently untrue, but with a clarity that comes only if one has first realized that our nature as human beings is oriented by and towards the operations of the intellect.

Nevertheless, it is a worthwhile endeavor to reclaim the significance of lived experience: for it is in being one who experiences that we realize our agency and therefore our responsibility. Such realization requires deliberate, conscious reflection—thinking about what has happened to us, what we have done, and \textbf{who} we are—but this all follows the living of those experiences, which living has both a chronological and an ontological priority. Our actual experience in the world does not consist in operations of pure theoretical speculation; we experience things first and foremost in their \textit{unintelligibility} to us. This includes our own living experience: despite its familiarity, it, too, has its own existence only dimly illumined. It is through deliberate, purposive, intellectual reflection upon our experience—just as we must reflect upon the world independent of ourselves to realize its true nature—that we

\textsuperscript{56} For a much more in-depth analysis of consciousness, see Kemple 2018: “Elaboration of the Intellectual Sign” in \textit{The American Journal of Semiotics}, 34.1/2 (Summer), 99-105.
may develop an understanding of ourselves and subsequently the habits of self-control, from which we may grow in virtue; that, having realized the truth about ourselves intellectually, we may bring it to being in action.\textsuperscript{1}

Of critical importance is that we recognize our lived experience is not merely something that happens within us—as though the exclusive property of a purely “inward” world—but that the living of experience occurs in relation to and with and through the world. In other words, our relationships with beings other than ourselves form an inexorable dimension of our lived experience not only insofar as they produce certain effects in us, as though wholly-extrinsic contributors to our personalities, but rather actively form parts of the wholes of who we are. While we do not live others’ experiences, as such, our own lived experience does include our relations with others, especially those deepest and most intimate relationships: relationships of family, deep friendships, and intimate, romantic loves—which, rightly lived, fecundate into further familial relationships.\textsuperscript{1}

This inextricable being-in-relation, if anything, throws into sharper contrast how we discover our capacity for self-determination, and thus, our responsibility for our lives. Some relations are entirely out of our control: we cannot choose to be born to different parents, to grow up in a different locale, to select our genetic inheritances, and so on. In a strictly quantitative sense, these are but a few of the factors that determine the opportunities for our lives; but qualitatively speaking, few things will have a greater impact on the foundations of our lives—and yet, these crucially-important factors are not of our choosing.

Nevertheless, how we respond to all of these unchosen, profoundly-important relations—as well as all those that are more contingent, both the ones out of our control (like what our parents determine for us as children, e.g., schools and teachers, wardrobe, what sports or activities they allow or encourage us to pursue; or what circumstances make inevitable, e.g., by location and time) and those within it (like with whom we become and maintain friendships, how we treat members of the same and the opposite sex, etc.)—this is within our control, at least once we have reached the age whereby we can consciously reflect upon ourselves.

This conscious control is no less a part of our lived experience than those things which happen to us; and, indeed, it reveals something more important: namely, our responsibility, the fact that in being intellectual agents, we alone can answer for the
choices we may. This is a reality which, while it may be explained through the words of another, cannot be grasped fully or even sufficiently without having experienced it.

3.5.3. Recursive Formation of the Person
We tend to think of time and our existence within it as a linear progression along a singular axis, as an unstoppable sequence of moments, such that the present is always slipping away into the past and becoming the future. But this is untrue.

That is: if we granted the mechanical hypothesis, that we are nothing but a fortuitously-arranged structure of matter, then it would be true; except that, if the mechanical hypothesis were true, all of our experience, including our experiences which we regard as “past”, would be illusions, as, indeed, would be all of our personal—that is, lived—experience. In fact, the very notion or feeling of one’s self as a self would be an illusion. As Robert Spaemann puts this, “Materialist monism is counter-intuitive in all its variations, since it must explain the self-understanding of experience as a self-misunderstanding, and so it must carry the whole burden of proof.”

The material, mechanical reductionist ends up with an inverted solipsism. Where the ordinary solipsist believes that nothing outside of the self is really real (or, functionally the same, that nothing outside of the self is at all knowable), the inverted solipsist believes that only thing not really real is the self, at least not as this personal identity we have imagined. You can argue with neither the ordinary solipsist nor the inverted; only point out that everything they say or do is incongruent with their beliefs.

Conversely, if our experiences are true—in the sense that they are constituted through real relations whereby we are changed through our cognitive reception of the world—then this means our experiences of the past, too, are true, albeit subject to faults of interpretation and lapses in remembrance. Even, in a sense, our anticipation of experience of the future is true, though far more vague and uncertain than that of the past. What this means about our existence within time, however, is that while the

58 Proponents of such a view (or one very comparable) would be Daniel Dennett or Derek Parfit (to a lesser extent).
59 If so inclined, one might repeatedly slap the ordinary solipsist and reply to his protest that “it’s all just in your head”, and doing likewise to the inverted, reply that “yes, but you’re not anyone.”
motions through which our experience of time is determined continue on unabated by any of our actions, we ourselves do not have a strictly linear experience. We may return through the intentions of our recollection to objects as encountered in the past with fresh insight, which in turn changes our bearing towards the future. Who has not roused in him- or herself some greater anger by dwelling on a past insult? Who does not nourish the hoped-for union of marriage by recalling the signs of sacrifice and love that preceded it?

Who we are and who we will become takes root in who we were and have been, not merely as an amalgamation of material consequences, but into the always-active-dynamism of a coalescent personal identity. This identity, then, is formed in a recursive process which involves repetition but is never mere repetition; it is the continual recurrence of the very slightly—and only on rare occasion vastly different—same. Today is much like yesterday, and while a day three months from now will be quite different from today, it will be very much like that same day was a year prior. The same is true for us; we may vary day by day but slightly, for the most part, with greater undulations from month to month and even year to year. The great moments that truly change our lives are rare; death and trauma, the reward of faith or the pain of its loss, or the dark night of the soul where belief receives no response; the discovery of a great love and emptiness at its loss, or at the realization of its falsehood despite all appearances to the contrary—these come on but a few handfuls of our lives’ tens-of-thousands of days.

These great moments are invariably a result of something outside our control—one can only avoid death for so long, and while we may choose to love, we do not make the persons for whom we feel it, nor do we make them lovable—though what we do in the interim of their occurrences does determine our bearing when they come; how we receive them, how we react, how we understand, and what we do next. What are we doing in that continual recurrence of the very-slightly-different? Do we challenge our intellects? Do we not merely restrain our bad habits, but mold an inclination for good ones? Do we—for that matter—think about which habits are good and which

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60 This being somewhat different for those who live in turbulent times and places; such as amidst a war, which is why we find stories set in conflict to be so compelling. Even then, we find ourselves attending to short periods in exaggerated view; a life truly filled with grand moments is found exhausting.
bad, or what it means for habits to be good or bad? Do we think about these habits not merely as possessions of ourselves as individuals but as conduits for our inexorable relationality?

“To be free one must be able to do what one wills; but to be able to do what one wills, one must know what one wills.”61 Indeed—and if we will to be persons (how could we not?), we must first know what it is we are truly willing. We must understand ourselves as the nexus of thought and world, and so must first understand thought and world.

Inconclusion

Only if I exist in a world in which history, or the demands of nature, or the needs of my fellow human beings, or the duties of citizenship, or the call of God, or something else of this order matters crucially, can I define an identity for myself that is not trivial.

- Charles Taylor

The Ethics of Authenticity

Yes; I cheekily call this the inconclusion, that is, the lack of a conclusion. For this really is only the beginning, the tiniest of dents in the life of a philosophical habit. Reaching this point in the book only to be told you have only just begun should not be a discouragement; it may be a cliché, but the first step truly is the hardest. You have taken it. That is not to say the subsequent steps will be much easier, but they may at the very least be less daunting, for it is my hope that, having reached this inconclusive ending, you have hope that there is meaning, and truth, and purpose that can be realized, even in a world—culturally speaking—that seeks to undermine belief in an ordered, deliberate universe.

So, what is the next step? Perhaps it is to pick up another book that opens the mind to philosophical inquiry (say, something written by Plato or Aristotle). Perhaps it is to take a break and decompress, to process the ideas which you have been reading. Perhaps it is to examine more carefully, or for the first time, the Glosses that attend the thoughts presented above and see if they answer any questions you may have, or—even while answering—raise new ones. Perhaps, having reached the end of the
book, you may now better understand the beginning. Or maybe you would like to find others with whom you can share in philosophical reflection.

Whatever the next step may be—the only permanently wrong step, I would suggest, is the one which goes backwards and away from the philosophical—the path will likely not be a straight one. As stated in the introduction, philosophy is never a linear pursuit. Our discoveries in natural philosophy depend upon truths not ascertained until metaphysics, and our pursuit of metaphysics requires that we attain something of ethics, which itself demands an understanding of physics; all of which needs logic.

Moreover, this endless, recursive pursuit (for logic's final validity, so to speak, depends upon metaphysics) is although not a selfish pursuit, nevertheless one intimately aimed at the good of the human person—of the self as more than merely a self, but rather as a relational being living with and among other human persons. Philosophy lived in ivory towers and basement libraries is an undead philosophy, one that fails to meet its real purpose: the continual discovery and pursuit of what truly matters in a complete human existence.

That is to say: so long as we live there are and always will be more questions, always further philosophical difficulties, always struggles in our lives to which philosophical inquiry and thus philosophical habit are salient virtues. This endlessness is not the everlasting abyss of hopelessness, or the lack of any final solution, but only the ever-unfolding pursuit of an infinite truth, of reaching for an ever higher, ever greater good.
I. This idea of recursive progress in intellectual proceeding is found in Thomas Aquinas, but often implicitly and with great confusion, especially among Thomists. The most important text where Aquinas discusses resolution (the via resolutionis), as it is being used here, is in the very first paragraph of the corpus in i.1256-59: Quaestiones disputatae de veritate, q.1, a.1:

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<td>Just as it is necessary in treating of demonstrable things to make a reduction to some principle which is known in itself to the intellect, so too in investigating “what” anything is; otherwise, each kind of knowledge would regress infinitely, and thus every science and cognition of things would perish.</td>
<td>sicut in demonstrabilibus oportet fieri reductionem in aliqua principia per se intellectui nota, ita investigando quid est unumquodque; alias utroboque in infinitum iretur, et sic periret omnino scientia et cognition rerum.</td>
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Aquinas goes on to explain the distinctions of predicates—both the categories and the transcendentals—and implies their resolution into “being as first known”. There are a lot of complexities involved in tracing the course of this resolution—such as distinguishing precisely “each kind of knowledge” (i.e., “science”, which proceeds through demonstrations, and “cognition of things”, a more general kind which attempts grasping things without necessarily including formal argumentation)—which I attempt in my 2017: Ens Primum Cognitum in Thomas Aquinas and the Tradition, 241-46. Neither my book nor Aquinas’ De veritate are texts for beginners (mine was my doctoral dissertation and written specifically for the goal of advancing Thomism’s thinking, and therefore was written for experienced Thomists), but the diligent student could certainly profit from encountering the De veritate sooner or later, and it is to be hoped from encountering my dissertation at some point. While I cannot give an unbiased recommendation of my own toils, Aquinas’ De veritate
contains some of the richest passages ever written on knowledge and goodness and is well-worth turning to time and again.

By no small consequence, a recursive process is found also in Charles Peirce and Martin Heidegger. This parallel of recursive approaches (between the latter two) is found in my 2019: *Intersection of Semiotics and Phenomenology: Peirce and Heidegger in Dialogue*.

**II.** Though he wrote no original systematic treatise on logic, preferring instead to confine his remarks primarily to commentaries on Aristotle and others—as might be expected, given that most of his writings were theological even if perfused with philosophical insight—Thomas Aquinas grants logic a very high importance in q.6 of the *tertia pars* of his *Super Boethium de Trinitate*:

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<td>To the third it must be said that we begin in the process of learning from that which is most easily done, unless something else is required by necessity. For sometimes it is necessary in learning to begin not with that which is easier, but with that from which the cognition of subsequent cognition depends. And for this reason it is necessary in learning to begin with logic, not because it is easier than other sciences—for it has the greatest difficulty, since it is concerned with second intentions—but because the other sciences depend upon it, insofar as it teaches the mode of proceeding which is followed in every science; and it is necessary first to know the mode of a science before that science itself, as Aristotle says in <em>Metaphysics II</em>.</td>
<td>Ad tertium dicendum quod in addiscendo incipimus ab eo quod est magis facile, nisi necessitas aliud requirat. Quandoque enim necessarium est in addiscendo incipere non ab eo quod est facilius, sed ab eo, a cuius cognitione sequentium cognitio dependet. Et hac ratione oportet in addiscendo a logica incipere, non quia ipsa sit facilior ceteris scientiis, habet enim maximam difficultatem, cum sit de secundo intellectis, sed quia aliae scientiae ab ipsa dependent, in quantum ipsa docet modum procedendi in omnibus scientiis. Oportet autem primo scire modum scientiae quam scientiam ipsam, ut dicitur in II metaphysicae.</td>
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To put this otherwise: we cannot have any science—philosophical or empirical, which two branches were not distinguished from one another in Aquinas’ time—unless we have logic, and ignorance of it will lead to error in the conduct of those sciences. Thus, even though logic is the most difficult of sciences, “since it is concerned with second intentions”, it is necessary for all sciences, since science operates through the mind. An illogical mind is an unscientific one; hence, all minds engaged in pursuits of science—philosophical or otherwise—should be trained in logic.

III. The idea that there exists a “private language” which we have internally in our minds and which receives expression only incidentally in verbal articulations was quite popular in the 20th century, and persists still in many so-called “analytic” philosophers. One of the early proponents of this idea, Ludwig Wittgenstein, later set about unveiling its fallacy. The entirety of his posthumously published (in 1953) Philosophische Untersuchungen (Philosophical Investigations) is ordered to questioning whether there exists a kind of intellectual meaning-realm which exists antecedently to our verbal articulations, beginning with the way it is presented by St. Augustine of Hippo.

One finds similar exposure of the fallacy of “private language” in the work of Robert Sokolowski, particularly in his 1978: Presence and Absence and 2008: Phenomenology of the Human Person. In the latter, especially, Sokolowski draws explicit attention to the publicness of the structure of our species-specifically human linguistic encounters. Thus, the first part of the book, “The Form of Thinking”, explains how through syntax we are connected into an intersubjective—and, I would add, suprasubjective—realm of discourse through our linguistic appropriations and expositions.

IV. Besides any “common sense” reasons for believing that “thinking” is an interior, private pursuit, a great deal of the intellectual tradition of the Western world has reinforced this notion—including what is found not only in Plato and non-Christian Platonists, but also in St. Augustine of Hippo, who in his De Magistro (On the Teacher, translated by J.H.S. Burleigh) writes (389AD: xii, §40):

> when we have to do with things which we behold with the mind, that is, with the intelligence and with reason, we speak of things which we look upon directly in the inner light of truth which illumines the inner man and is inwardly enjoyed. There again if my hearer sees these things himself with his inward eye, he comes to know
what I say, not as a result of my words but as a result of his own contemplation. Even when I speak what is true and he sees what is true, it is not I who teach him. He is taught not by my words but by the things themselves which inwardly God has made manifest to him.

That is, Augustine saw the complete accomplishment of any act of human intellectual understanding not as the product of a dynamic interaction between persons and things, but rather a divine illumination which unveiled to the “inner person” the intelligible nature of the sensible reality existing extra animam. The text of the De Magistro is a curious one, for Augustine spends the majority of it showing how we are informed by signs, especially by those employed by other human beings—teachers—but in the final pages he shifts the claim: stating that what we are shown by our teachers are merely signifiers which if and only if we have received a divine illumination we may then recognize for their proper signification.

V. These three structures are one set of names for a linguistic or verbal kind of sign. Charles Sanders Peirce, over the course of his career, assigned various names to these kinds of signs, which, although they are ordinarily encountered in language, are intimately ingrained in the signification of a fundamental trichotomic (principally threefold) structure of reality. Among the more mature classifications for these signs that Peirce gave was a tenfold possible organization (1903: “Nomenclature and Divisions of Triadic Relations as Far as They Are Determined”, EP.2: 294-96):

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This complex and perhaps intimidating structure demonstrates how difficult it can be to adequately classify our logical means. The rough equivalents to terms and propositions in Peirce’s schema are rhemes and dicents. “Iconic”, “indexical”, and “symbolic” identify the kind of sign a thing is: an icon is a sign by its likeness, an index by pointing, and a symbol by generality. “Qualisignificative”, “sinsignificative”, and “legisignificative” specify the manner of signification: a qualisign signifies by appearing alike to, a sinsign is an individual event or occurrence which directs towards, and a legisign is a law or rule which signifies by a necessity.

Every qualisign is by necessity both rhematic (a term) and iconic (by a likeness), whereas a legisign, for instance, can be a rheme, a dicent, or an argument; it can be indexical or iconic, etc., etc.

My point in bringing this extremely complex and nuanced method of classification up here is neither to scare anyone off nor to teach the complex theories of signs found in Charles Peirce, but to point out the complexity behind our every use of language; there are countless nuances which influence both our own understanding and our attempts to convey our understanding to others of which we are seldom precisely aware. I certainly recommend a study of semiotics for those who are interested—semiotics being nothing other than the natural later development of the doctrine of logic, comprising also a kind of “speculative grammar” and “speculative rhetoric” in addition to the treatment of formal argumentative validity.

VI. One of the most persistent errors in the history of philosophy has been to consider the concept itself as the direct and terminal object of our knowledge (i.e., the “ideas in our heads/minds”). This error underlies all modern philosophy, and seems a presumption never questioned by any of its practitioners. That concepts are signs—and thus means of knowledge rather than the “content” of knowledge—is the consistent teaching of Aristotle, Thomas Aquinas, Scotus, and all the scholastics following them. Charles Peirce revived the notion, and the phenomenologies of Husserl and Heidegger both picked it up, as well as the resurgent Thomism which followed in the wake of Pope Leo XIII’s Aeternis Patris.

Much of the confusion stemmed from the works of late Latin scholasticism, in which a distinction was posited between the “formal concept” and the “objective concept”,
the first referring to the concept as a sign in the mind whereby it was directed towards the latter, as the “what is meant by” of a concept. This, however, blurs the nature of the “formal concept” and suggests a kind of replication or duplication; as though the conceptual sign is a kind of copy, as though it is something looked at in itself rather than something “looked-through”.

Against this idealist thinking, consider Aquinas (1266-68: ST Ia, q.85, a.2, c.):

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<td>And therefore it must be said that the intelligible species is itself related to the intellect as that on the basis of which [ut quo] the intellect understands. Which is made clear thus: since the intellect has a twofold action, as is said in Aristotle’s <em>Metaphysics</em> XI: one which remains in the agent (as to see and to understand) and the other which transitions into things exterior (as to heat and to cut); each of which is made according to some form. And just as the form according to which provenates an action tending into an exterior thing is a similitude in the object of the action, as the heat in the heated thing is a similitude of the heart, similarly the form according to which provenates an action remaining in the agent is a similitude of the object. Whence, the similitude of the visible thing is that according to which the sight sees; and the similitude of the thing in the intellect, which is the intelligible species, is the form according to which the intellect understands. But because the intellect reflects upon itself, according to which reflection it understands itself to understand and the species by which it</td>
<td>Et ideo dicendum est quod species intelligibilis se habet ad intellectum ut quo intelligit intellectus. Quod sic patet. Cum enim sit duplex actio, sicut dicitur IX Metaphys., una quae manet in agente, ut videre et intelligere, altera quae transit in rem exteriorum, ut calefacere et secare; utraque fit secundum aliquam formam. Et sicut forma secundum quam provenit actio tendens in rem exteriorum, est similitudo obiecti actionis, ut calor calefacentis est similitudo calefacti; similiter forma secundum quam provenit actio manens in agente, est similitudo obiecti. Unde similitudo rei visibilis est secundum quam visus videt; et similitudo rei intellectae, quae est species intelligibilis, est forma secundum quam intellectus intelligit. Sed quia intellectus supra seipsum reflectitur, secundum eandem reflectionem intelligit et suum intelligere, et speciem qua intelligit. Et sic</td>
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understands. And thus the intellective species is that which is understood secondarily. But that which is understood primarily is the thing of which the intelligible species is a similitude.

At first blush, the language here may deceive: the intelligible species—a synonym for the concept—is referred to as a “similitudo”, a similitude. Yet the similarity should not be misunderstood (as by e.g., Sokolowski in 2008: Phenomenology of the Human Person, 294-96); for the similarity is in specification, not in appearance or being. In other words, the similarity is a similarity of form alone. Aquinas makes this quite clear: that we know the intelligible species itself only indirectly, through a reflection (and as John Poinsot would later make abundantly clear, that reflection itself only hits upon the relation between the concept and its object; there is no direct insight into the concept itself, even with reflection, for our knowledge is only ever actual with some phantasm; cf. Aquinas 1266-68: ST Iq, q.84, a.7; Poinsot 1631: Cursus Philosophicus: Artis Logicae Prima Pars, lib.1, c.4, 12b49-13a19; cf. 1632: TDS, 324-26).

For more on the notion of the intelligible species as an ut quo or id in quo, see Maritain 1959: The Degrees of Knowledge, 387-417; Deely 2007: Intentionality and Semiotics, 59-75; and Kemple 2017: Ens Primum Cognitum in Thomas Aquinas and the Tradition, 54-68, and 124-35.

VII. A longstanding tendency has been to privilege categorematic terms over the syncategorematic; for the syncategorematic signify relations, while the categorematic describe substances, and relations are ontologically dependent upon substances. In other words, for a relation to exist, there must be substance(s). However, this primacy of substance can be misleading: for no finite substance exists without relations, and relations are ontologically irreducible to the substances or accidents they relate. The realization of relation's importance—as something “equiprimordial” with substance (in the 1970 words of Joseph Ratzinger)—was not clear until the late 20th century.

This lack of clarity is clearest, perhaps, in Aristotle's treatment of "relatives" in the Categories (c.7, 6a36-8b24). There, Aristotle notes that the relativity of things is not
identifiable with the things themselves (8b15-21 [Bekker numbers, found in the margins—or sometimes in-text—of all good editions of Aristotle]):

Now the head, the hand, and such things are substances, and it is possible to know their essential character definitely, but it does not necessarily follow that we should know that to which they are related. It is not possible to know forthwith whose head or hand is meant. Thus these are not relatives, and, this being the case, it would be true to say that no substance is relative in character.

What is exemplified in this passage is what Aristotle spends the entire chapter discussing: how things are related. But he never hits precisely upon the question of relation itself. As he says (8a33-34), “the fact that a thing is explained with reference to something else does not make it essentially relative”, but what does make something “essentially relative” Aristotle admits he does not answer (8b21-24):

It is perhaps a difficult matter, in such cases, to make a positive statement without more exhaustive examination, but to have raised questions with regard to details is not without advantage.

It is just these sorts of questions that were taken up by the short-lived (because executed) Roman interpreter and translator of Aristotle, Boethius (c.AD 480-524). Though best known for his De consolatione philosophiae, written while imprisoned for treason, as well as for his Quomodo trinitas unus Deus ac non tres dii, “In what manner the Trinity is one God and not Three Gods”—or, as it is usually translated and abbreviated, On the Trinity—Boethius also translated and wrote a commentary on Aristotle’s Categories. Here, he expressed a terminological difference between the relativity we cannot but help ascribe to certain substances or accidents and what relativity is in its own right: the difference between relatio secundum dici and relatio secundum esse, as he articulated it. These terms (taken up by Aquinas—among other places—in the Summa theologiae, Ia, q.13, a.7, ad.1) were later rendered into English as “transcendental” and “ontological” relation, respectively, for the first refers to a sense of relativity which transcends any one particular category—such that something which is a quality or a posture, for instance, is understood through its relation to something else, and even a substance can be understood as a relative (as a “father” is a substance but designated by relation to children)—and the second refers to the relation itself as irreducible to the things related (cf. Deely 2001: Four
Ages of Understanding, 226-32). Thus we have certain terms which are implicitly relational, such as “head”, though it designates a kind of substantial thing (or part of a substantial thing) and is a categorematic term, always implies relation to a body, even if only metaphorically—just as “father” and “mother”, “enemy” and “lover” all designate a thing insofar as it is related; but there are also other terms which are explicitly relational and only implicitly indicate something substantial, such as “paternity” or “friendship”, “love” or “justice”, or all syncategorematic terms, such as prepositions (“to”, “for”, “about”, etc.).

There is a further complication in signifying the relativum secundum dici found with inflected languages (such as Latin, Greek, or German), in that the various functions performed by different case endings (such as the accusative or ablative) have a syncategorematic signification attached to a categorematic term.

VIII. We may also divide propositions into enunciations and judgments. The latter term has often been used to signify the full range of propositions, but somewhat misleadingly: that is, it seems to pertain to a judgment that the person making one assents to a judgment that the person making one assents to the composition or separation that is affirmed or denied within the proposition. But such assent is not necessary: that is, we may propose without assenting to the proposed composition or division, or affirmation or denial. These kinds of propositions, which came to be called enunciations, play an important role in the dialectic carried on both privately by an individual and publicly in the discourse in which we commonly engage as a culture.

To give an example: I enunciate to myself as a possibility that human beings’ intellectual capacity is not distinct in kind from other animals, but I do not assent to this; to the contrary, I judge that it is indeed distinct in kind. I may also publicly enunciate—in a presentation or a conversation, say—the propositions of thinkers other than myself, with whom I disagree (and therefore propositions to which I do not assent): for instance, in saying that human beings’ intellectual capacity is of the same kind and only a higher degree than that found in other animals.

We find the clearest articulation of this distinction, between enunciation and judgment, to be made in John Poinsot, who gives more specificity to the two terms than does Thomas Aquinas himself; that is, Aquinas seems at times to make the
distinction and at other times to not (see c.1252/6a: In Sent., lib.1, d.4, q.2, a.1, c.; ibid., d.8, q.2, a.3, c.; ibid., d.19, q.5, a.3, ad.5; ibid., lib.4, d.38, q.1, a.1, qc.1, ad.1; 1271: ST la-IIae, q.53, a.1, c.; a text which seems explicitly to militate against Poinsot’s interpretation of the enunciation—or at least, of the term *enunciatio*—as suspending judgment of existence is to be found in 1266-68: ST la, q.14, a.14, both in the corpus and in ad.2). To quote Poinsot (1631: *Artis Logicae Prima Pars*, q.d., q.5, a.1 [R.I: 145b 23-29]): “Ratio enuntiationis in communi consistit in hoc, quod sit oratio perfecta exprimens obiectum complex, circa quod potest ferri iudicium, ex quo consequitur, quod significat verum vel falsum” – “The intelligible meaning of enunciation in common consists in this, that it is a complete oration expressing a complex object, concerning which a judgment can be made, and from which it follows that the enunciation signifies the true or the false.”

IX. These four kinds of propositions are often placed into what has been called the “square of opposition” (see the following figure), which demonstrates the various relationships between the kinds of statements: those of contraries, contradictories, subordination (or subalternation), and superordination (or superalternation). If one universal contrary is true, the other must be false, but both can also be false; if one particular contrary is false, the other must be true, but both can also be true. If one contradictory is true, the other must be false, while if one is false, the other must be true. If a superordinate (universal) is true, its subordinate is true, while if a subordinate is false, its superordinate is false—but not vice versa.
X. For example:

1) All B are C
   All A are B
   Therefore all A are C (X)

2) All A are C
   No D is C
   Therefore no D is A (Y)

3) E is D
   Therefore Y
   Therefore not X

Every sign directs the mind to an object.
Every word is a sign.
Therefore every word directs the mind to an object.

No nonsense sounds direct the mind to an object.
Therefore no nonsense sounds are words.

“Shicksnazzurtur” is a nonsense sound.
Therefore “Shicksnazzurtur” is not a word.
Therefore “Shicksnazzurtur” does not direct the mind to an object.
As you can likely tell, there are some elisions in reasoning here (particularly in the third syllogism) where the Y and X statements are imported from the previous syllogisms—e.g., the conclusion from Syllogism 2 is implied between the first premise and first conclusion, as a second premise, in Syllogism 3—and as you can further likely tell, the concatenation of syllogisms can very quickly become very complicated. One may easily lose the thread of argumentation. This is one reason why the habit of logical thinking is more important than learning argumentative validity by rote; for the habit allows understanding the elisions and the complications without needing to draw out every last term and premise. Conversely, by a practice of uncovering the hidden terms and premises, we develop and improve the habit—just as by the practice of good grammar (with occasional revisitation) through explicit awareness of the rules and principles dictating reasoned use of the language we may write without needing a grammar reference, so too by explicit awareness of logical rules we may argue without needing a textbook.

XI. This “fitting” of one under the other follows from a property of propositions: namely, their distribution. Succinctly explained, a term is distributed when it is used so as to refer to all of its members, and undistributed when it is not. Distribution follows four rules:

1. Universal propositions always distribute their subject terms.
2. Particular propositions never distribute their subject terms.
3. Affirmative propositions never distribute their predicate terms.
4. Negative propositions always distribute their predicate terms.

So, for examples, then:

1. [S: All women] are [P: human beings] ... [S – distributed | P – undistributed]
2. [S: No lunches] are [P: given freely] ... [S – distributed | P – distributed]
3. [S: Some men] are [P: weak willed] ... [S – undistributed | P – undistributed]
4. [S: Some snakes] are [P: venomous] ... [S – undistributed | P – distributed]

XII. I have encountered lists of as many as 12 and as few as 5, but the enumeration I find most helpful, particularly for beginners, is that given in Scott Sullivan’s 2008: An Introduction to Traditional Logic: Classical Reasoning for Contemporary Minds, 130, which I have summarized here:
1. Only three terms: major [predicate], middle, and minor [subject].
2. The terms can never be broader in the conclusion than they are in the premises.
3. The middle term must never be in the conclusion.
4. The middle term must be distributed at least once.
5. From two negative premises, nothing follows.
6. When both premises are affirmative, the conclusion cannot be negative.
7. The conclusion always follows the “inferior” premise (particular and/or negative).
8. From two particular premises, nothing follows.

Among the most frequent mistakes made in ordinary reasoning is failing to distribute the middle term. Much like the invalid argumentation we see with disjunctive propositions—where an affirmation of the consequent is used to justify an inference of the antecedent—an undistributed middle is taken to justify an inclusion or exclusion which does not follow. To give a formalized instance:

- All citizens of the United States speak English without an accent.
- Some people in this bar are speaking English without an accent.
- Therefore some people in this bar are citizens of the United States.

While it is clear how this is wrong—“speaking English without an accent” being an undistributed middle term (and, moreover, an untrue claim)—such errors are more difficult to observe in common language. An undistributed middle in natural conversation is unlikely to be so clearly the middle term of a syllogistic argumentation. If we develop the habits of thinking through these rules, however, including the rules for distribution, we will often notice people causally conducting this kind of faulty reasoning in normal language.

XIII. That is, we typically speak from the standpoint of a “pre-philosophical attitude“. This is the attitude in which most of us spend most of our lives (even obsessive philosophers spending much if not most of their time in this attitude); the attitude wherein we are not thinking about what things mean or our understanding of these things, but in a pragmatic context of immediate goal-attainment: the attitude we take when making our morning coffee, or a bowl of soup, while reading a novel or watching a movie, the attitude taken while commuting to work or school or the gym. That said, it is from this attitude that even our philosophical speculations and
linguistic analyses begin. As Sokolowski writes (2008: *Phenomenology of the Human Person*, 304):

Categorial or syntactic structure makes it possible for us to rise from sensibility to reasoning and understanding. Philosophers have developed special words to name the various intellectual activities, such as *apprehension* and *judgment*. These words are used metaphorically at first. In the case of these particular terms, the original uses signify not mental activities but the bodily action of grasping something and the juridical action of declaring someone to be innocent or guilty. As time goes on and the philosophical problems become routine, the words take on the character of technical terms and we forget that they had a metaphorical beginning. We assume that they name obviously verifiable things, things that we can simply point out. We begin to think that the words have been devised in response to entities that we directly experience in our ordinary worldly involvements, as *apple* is devised to name an apple. In fact, the pre-philosophical overtone of such philosophical words is never entirely lost. Our access to a philosophical understanding of what it is to understand always remains closely tied to our pre-philosophical thinking, and all the words used in philosophy retain to some extent their pre-philosophical and pre-metaphorical significance. Philosophical language, furthermore, needs always to be revivified; we need to go back to the original meanings of the words and show how the words are tilted to function within the new stance introduced by philosophy. Attention to such linguistic transpositions makes us more aware of the distinctive character of philosophical thinking, which is always balanced on the edge of our more ordinary discourse.

For this reason—balance on the edge of ordinary discourse—we must take careful pains to distinguish, elucidate, and define our technical philosophical terminology, and keep it from slipping into mundane presumptions of meaning. This is not a problem which may receive a final solution, but a difficulty with which we must continually struggle. See Sokolowksi 2000: *Introduction to Phenomenology*, 42-65 for more on the natural and phenomenological (or what we might call “philosophical”) attitudes.

**XIV.** The serious neophyte inquirer into the signs directing the mind can do no better than to consider, at length, the work of Aristotle: particularly those short treatises often grouped under the name of *The Organon*, i.e., the tools for the mind: *The Categories*, *On Interpretation*, the *Prior* and *Posterior Analytics*, the *Topics*, and *Sophistical Refutations*. Subsequently, one should become familiar with the
contributions of the Scholastic thinkers who began what John Deely has termed the *proto-semiotic* development: especially St. Augustine of Hippo, in his *De magistro* and *De doctrina Christiana*, Thomas Aquinas in his *Summa Theologiae prima pars*, q.79-87 and *Quaestiones dopsutatae de veritate* (among a myriad of other texts), the Conimbricenses and John Poinsot, particularly in his *Tractatus de Signis* edited and translated by John Deely. The final step is into the murky oeuvre of Charles Sanders Peirce, whose disordered, scattered works written in the late 19th and early 20th centuries are the raw material of an on-going semiotic development.

**XV.** The terms *semiosis*, *semiosic*, and *semiotic* are undoubtedly unusual for the lay person (and unusual to many even within philosophy and the academy). The most common use of the term “semiotics” in the past century has come from a European school of thinking that is really better termed “semiology” (see Deely 2001: *Four Ages of Understanding*, 669-88 for a dressing down of this problem). In contrast, a lesser-known but much richer tradition has grown up out of the work of Charles Peirce, with its roots in scholastic thought of the 13th and 14th centuries. Recovery and advancement of this tradition became the goal of John Deely for much of his career, particularly recovering the deeply-important thought of John Poinsot (1589-1644), a Thomist so devoted he is often given the epithet “John of St. Thomas”, whose *Cursus Philosophicus* was the source material of Deely’s edited and translated *Tractatus de Signis*, originally published in 1985 and re-released in an updated second edition in 2013. By drawing on this *proto-semiotic* tradition, and by a careful albeit incomplete analysis of Peirce’s approach to the question of signs, Deely came to offer the following distinction between *semiosic* and *semiotic* (2010: *Semiotic Animal*, 99-100)

> Of all living things we can say that they are semiosic creatures, creatures which grow and develop through the manipulation of sign-vehicles and the involvement in sign-processes, semiosis. If this is true of all the living, a-fortiori it is true of all animals: every animal is a semiosic animal, able to survive and thrive only thanks to whatever semiosic competence it is able to manage.

> What, then, distinguishes the human being among the other animals? It is not by any means semiosis, as we have seen. What distinguishes the human being among the animals on earth is quite simply, yet was never fully grasped before modern times had reached the state of Latin times in the age of Galileo. While every animal of necessity *makes us* of signs, yet because signs themselves consist in relations, and
because every relation, real or unreal, is as relation—as a suprasubjective orientation towards something other than the one oriented, be that “other” purely objective or subjective as well—invisible to sense (and hence can be directly understood in its difference from related objects or things, but can never be directly perceived as such), what distinguishes the human being from the other animals is that only human animals come to realize that there are signs distinct from and superordinate to every particular thing that serves to constitute an individual (including the material structure of an individual sign-vehicle) in its distinctness from its surroundings.

While this is certainly an eyeful, or a mindful, and a lot to take in all at once (it is a rather precisely-made distinction, we might say), the core point is relatively simple: non-human animals are capable of using signs (i.e., engaging in semiosis), even verbal and symbolic signs, but have no awareness of signs as such. The corollary of this is that humans are capable of recognizing the being of things as existing independently of the signification of them—and, as far as we known, only humans are capable of this—which means that human beings alone are capable of recognizing the being of signs, signs as such.

XVI. As Descartes wrote to his friend, Marin Mersenne on 28 January 1641, concerning the publication of his *Meditationes de Prima Philosophiae*, 96/298:

I will tell you, between us, that these six meditations contain all the foundations of my physics. But it will not do to say this, if you please; for those who favor Aristotle would perhaps find it more difficult to approve of them. And I hope that those who read them will accustom themselves insensibly to my principles, and will recognize the truth before noticing that they destroy those of Aristotle.

Thus, in public, Descartes often claimed for himself a continuity with Aristotle, while in private, he acknowledged his own system to (if accepted) “destroy” that of the Stagirite. This radical rupture resulted not only in ignorance of Aristotle and the scholastics, but the success of the mathematical, mechanistic thinking endorsed by Descartes. As Wallace writes (1996: *Modeling Nature*, 406), “In 1687 practically the entire scientific community, in England as on the Continent, had become captive to Descartes’ mechanical philosophy.” Much more can be found on this break and its consequences in Frederick Copleston’s 1963: *History of Philosophy*, vol.4, 64-89; E.A. Burtt’s 1952: *Metaphysical Foundations of Modern Science* as a whole but especially, referring to Descartes, 105-24; and Yves Simon’s 1970: *Great Dialogue of Nature and...*
Space, 37-44, which gives a very lucid explanation of Descartes’ ignorance and rejection of the Aristotelian concept of physics.

XVII. These translations—of ενέργεια as “being-at-work” and ἐντελέχεια as “being-at-work-staying itself”—come from the translations of Joe Sachs. Sachs was a student of Jacob Klein, himself a student of Martin Heidegger, who insisted that we need to dig back past the Latinized translations of Aristotle in order to re-capture the meaning of his original Greek terms. This tradition which Sachs inherited let him to de-construct the etymological form of many Greek words, including ενέργεια and ἐντελέχεια.


An ultimate idea, not definable by anything deeper or clearer, but grasped directly from examples, at a glance or by analogy (1048a 38-39). Activity comes to sight first as motion, but Aristotle’s central thought is that all being is being-at-work, and that anything inert would cease to be. The primary sense of the word belongs to activities that are not motions; examples of these are seeing, knowing, and happiness, each understood as an ongoing state that is incomplete at every instant, but the human being that can experience them is similarly a being-at-work, constituted by metabolism. Since the end and the completion of any genuine being is its being-at-work, the meaning of the word converges (1047a 30-31, 1050a22-24) with that of the following:

Namely, ἐντελέχεια (ibid, li-lii):

A fusion of the idea of completeness with that of continuity or persistence. Aristotle invest the word by combining ἐντελέξεις enteles (complete, full-grown) with ἔχειν echein (= ἔξις hexis, to be a certain way by the continuing effort of holding on in that condition), while at the same time punning on ἐνδελέχεια (persistence) by inserting τέλος telos (completion). This is a three-ring circus of a word, at the heart of everything in Aristotle’s thinking, including the definition of motion. Its power to carry meaning depends on the working together of all the things Aristotle has packed into it. Some commentators explain it as meaning being-at-a-end, which misses the point entirely, and it is usually translated as “actuality,” a word that refers to anything, however trivial, incidental, transient, or static, that happens to be the case, so that everything is lost in translation, just at the spot where understanding could begin.
These translations help us to see the meaning behind Aristotle’s phrases, a meaning which may be obscured by translation through Latin. By returning to the original Greek etymology, Sachs unveils that—while “act” and “potency” remain valuable terms, not only for the tradition but even for understanding Aristotle—there are more nuances in the Aristotelian conception. In particular, we must struggle with the meaning of “ἐντελέχεια” as central to the definition of motion.

In addition to translating Aristotle (including the Physics, Metaphysics, Ethics, and On the Soul along with On Memory and Recollection), Sachs has written commentaries in each book explaining the overall approach to his translations, understanding Aristotle, and—in the case of the Physics—a book-by-book commentary (broken up by relevant groups of chapters). These commentaries from a translator are of invaluable merit; especially for those who do not read Greek, but even for those who do. Sachs’ insight into the meaning of key Aristotelian terms and concepts is a great boon for anyone seeking to think deeply about what the Philosopher meant in his most opaque passages.

This includes the definition of motion which Descartes so blithely dismissed (cf. Simon 1970: The Great Dialogue of Nature and Space, 38). On this topic in particular, Sachs has written a very informative article available for free online at the Internet Encyclopedia of Philosophy <https://www.iep.utm.edu/aris-mot/>.

XVIII. For more on motion and change, the key text to read is Aristotle’s c.348BC Φυσικὴ ἀκρόασις (the Physics), Book III, c.1-3 (200b12-202b29). We find the initial distinction of the kinds of motion or change in the first of these chapters (200b 30):

Being in relation to something is attributed to what exceeds or falls short, or to what acts and what is acted upon, or generally to what moves (something) and what is moved: for what moves is a mover of something moved, and what is moved is moved by something moving it, and there is no motion apart from things. For what changes always changes either in thinghood [Sach’s translation for ὄνομα, generally rendered in Latin as substantia and English as “substance”], or in amount [quantity], or in quality, or in place, and there is nothing to take hold of which is common to these, and is neither, in our manner of speaking, a this, nor a this much, nor an of-this-kind, nor any of the other kinds of being: so that neither motion nor change will be anything apart from the things named, since there is, in fact, nothing other than the things named. Now each of these may belong to anything in two ways: a this may be a form
or its deprivation, an of-this-kind either (say) white or black, or a this-much either complete or incomplete. In the same way, then, also, a change of place may be either up or down, of something either light or heavy. Therefore, there are just so many kinds of motion and of change as there are of being.

A distinction having been made in each kind of being between the fully active and what is only potentially, the being-at-work-staying-itself of whatever is potentially, just as such is motion: of the alterable, as alterable, it is alteration, of what can grow and its opposite, what can shrink (since no name is common to the two), it is growth and shrinkage, of the generable and destructible it is coming-to-be and passing away, and of the movable in place it is change of place.

While the translation may seem awkward and clumsy (I recommend reading it out loud) compared to more sophisticated, Latin-mediated translations, the point becomes clearer once the meaning of the words is grasped. One may also profit by considering the commentary of Aquinas on these passages (i.1268-71: In physicorum, lib.3, lec.1-2).

XIX. This phrase, “the look that is disclosed in speech”, is Joe Sachs’ interpretative translation of the Greek term εἶδος (eidos, commonly translated as “idea”). This interpretative translation goes back to the frequent use of the term in Plato, for whom the ideas were what was actually known, as opposed to their images, which were merely pale facsimiles. The “idea”, however, is not something which can be seen as such; the eyes are able to grasp only the image. In order to disclose an idea, we must do so through language.

The classic locus for this notion—the theory of ideas (sometimes called, a bit misleadingly, the theory of forms) in Plato is found in in many places, including the Meno 71-81 (Stephanus numbers, i.e., those one finds in the margins of all good editions of Plato), 85-86, the Symposium, 210-11 and especially Books VI-VII of The Republic, in which Plato lays out, through the mouthpiece of Socrates, the idea of the “divided line”, which portrays the objects and actions of cognition in an ascending order, which can be represented thus:
This discussion is further carried out with respect to the sun and the idea of the good: such that the role the sun plays in illuminating corporeal things and images, the good plays in illuminating ideas and mathematical objects. Notably, for Plato the ideas are separate “substances”, the really-real, which we know directly by the intellect’s escape from the world of corporeality. Conversely, for Aristotle, the ideas are the intelligibility of things in the world, which we know through our species-specifically human linguistic capacity—or, perhaps to put it more clearly, through the same capacity that allows us a linguistic ability.

XX. This relationship between dependent matter and the form upon which it depends—a causal relationship which still today is poorly understood—is found in Aristotle’s c.348BC: Φυσική άκρόασις (Physics), book II, c.1. This chapter, like much
of Aristotle, is dense with a subtle philosophical insight that may not immediately appear obvious. In book I, he dealt with the various opinions of previous philosophers which had been put forward regarding “nature”, both summarizing and refuting them succinctly. Now in the first chapter of book II, he begins anew—which requires not only giving a definition for “nature”, both as the general concept and as what it means for each thing to have a nature (i.e., an internal source of motion and rest constituting a thing as an independent individual which is always-underlying whatever else might happen to that thing, so long as it continues to be that thing), but also for explaining the principles of that nature. Here, he revives one more opinion of a predecessor, as a common opinion (which is echoed still today) which is partially correct (193a 10—28):

Now to some it seems that nature or the thinghood of things [i.e., their substantiality or independence] by nature is the first thing present in each which is unarranged as far as it itself is concerned; thus the nature of a bed would be wood, and of a statue, bronze. And Antiphon says that a sign of this is that if someone were to bury a bed, and what rotted had the power to put up a sprout, it would not become a bed but wood, since what belongs to it by accident is the arrangement according to convention and art, while the thinghood of it is that which remains continuously even while it is undergoing these things. And if each of these things is in the same case in relation to something else (as bronze or gold to water, and bones or wood to earth, and similarly with anything else at all), that would be the nature and thinghood of them. On account of which, some say fire, some earth, some air, some water, some say some of these, and some all of these to be the nature of things that are. For whatever from among these anyone supposes to be such, whether one of them or more, this one or this many he declares to be all thinghood, while everything else is an attribute or condition or disposition of these; and whatever is among these he declares to be eternal (since for them there could be no change out of themselves), while the other things come into being and pass away an unlimited number of times.

To quickly gloss this passage: Antiphon proposes that matter is the substance of things. For what remains when a form is destroyed? The matter; it therefore seems enduring, lasting, and thus in a sense “underlying”. Everything else—whether the wood is a tree, or a bed, or a spear—is an arrangement of the matter. We hear this echoed in today’s materialists, who hold that atoms, subatomic particles, and/or fields of force are what endures, what lasts, and that their arrangement into
molecules, celestial bodies, earth, plants, and animals is incidental: just a happenstance.

Aristotle does not immediately counter this. Indeed, he does not directly counter it at all. But as he goes on in the following paragraph, it is clearly treated as inadequate (193a 28-193b 7):

In one way then, nature is spoken of thus, as the first material underlying each of the things that have in themselves a source of motion and change, but in another way as the form, or the look that is disclosed in speech. For just as art is said of what is according to art or artful, so also nature is said of what is according to nature and natural. We would not yet say anything to be according to art if it is only potentially a bed and does not yet have the look of a bed, nor that it is art, and similarly not in the case of things composed by nature. For what is potentially flesh or bone does not yet have its own nature, until it takes on the look that is disclosed in speech, that by means of which we define when we say what flesh or bone is, and not until then is it by nature. So in this other way, nature would be, of the things having in themselves a source of motion, the form or look, which is not separate other than in speech. (What comes from these, such as a human being, is not nature but by nature.)

There are many things of which we ought to take notice in this passage, but we will focus on just one: namely, is the role played by form. Whether a thing is by art or is by nature, it becomes that thing when it “takes on the look that is disclosed in speech”. The top and legs of a table are not yet a table when disassembled, nor is the lumber, nor is the uncut tree. Conversely, whatever matter might exist, exists either within a thing having a nature or it does not. It is a controversial point of Aristotelian scholarship whether inorganic matter can properly be said to have a form. Without delving into the details, my opinion is that yes, it can, although we must understand that the ενέργεια of that form is very “thin” compared to the “rich” ενέργεια found in living beings (since it has no “end” of itself, but only as a part within a system; and thus no proper ἐντελέχεια— but this is a more advanced question that requires insights deliverable only through metaphysics). Regardless, all matter is what it is by virtue of a form, a μορφή that is the internal principle identifiable with the intelligible εἴδος, the “look that is disclosed in speech”.

Aristotle goes on to make this even clearer (193b 8-19):
And this form or look is nature more than the material is. For each thing is meant when it is fully at work, more than when it is potentially. Moreover, a human being comes about from a human being, but not a bed from a bed. On this account, they say that not the shape but the wood is the nature, since if it were to sprout, it would become not a bed but wood. But if, therefore, this is nature, then also the form is nature, for from a human being comes a human being. And still further, the nature spoken of as coming into being is a road into nature. For it is not like the process of medicine, which is meant to be a road not into the medical art but into health, for it is necessary that the medical process be from the medical art and not into it. But not thus is nature related to nature, but the growing thing, insofar as it grows, does proceed from something into something. What then is it that grows? Not the from-which, but the to-which. Therefore nature is the form.

What we should note first, here, is the callback to the example used by Antiphon: the growth of some wooded substance (a tree) from the burying of rotted wood. Why is it a tree that grows and not a bed? Obviously, a bed is what it is by virtue of art; there is no artisan in the earth, and so no one to put art into the buried, rotting matter. Conversely, it is nature that makes things grow: as human beings come from human beings—and any animal by another animal—just as it is ordinarily the case that trees come from trees.

Aristotle further sets this up by contrast with the medical art: for in that case, the knowledge of medicine is the principle whereby health is affected in a body. Thus, the use of medicine does not produce the medical art, but something else; just as the carpenter’s art does not produce carpentry in another, but a bed. Conversely, in any case of a thing coming-into-being by nature, the chief principle is not the “from-which” (in the case of the tree from a bed, the matter) but rather the “to-which”, i.e., the form, the principle making it to be the kind of thing that it is. So even in the perdurance of the matter from the rotted bed into the tree, it is a form that is at work, holding it together, making it to be the kind of thing that it is. Even if the bed were to continue to rot, and simply dissolve into the earth, becoming reduced to mineral parts, those mineral parts would themselves be what they are by virtue of some form.

XXI. Aquinas makes abundantly clear the necessity of a triad of principles to explain natural change or motion in his early work, De principiis naturae (c.1252/56), c.2, where he writes:
There are three principles of nature: namely, matter, form, and privation. Of these one, namely form, is that towards which generation occurs, while the other two are on the side of that by which generation occurs. Hence, matter and privation are the same with regard to their subject but differ in intelligible rationale; for it is the same bronze that is unshaped before the advent of the form, but from one intelligible rationale it is bronze, and in the other it is unshaped. Thus, privation is not said to be a principle through itself, but incidentally, because it coincides with matter.

Sunt igitur tria principia naturae, scilicet materia, forma, et privatio; quorum alterum, scilicet forma, est id ad quod est generatio; alia duo sunt ex parte eius ex quo est generatio. Unde materia et privatio sunt idem subiecto, sed differunt ratione; illud enim idem quod est aes est infiguratum ante adventum formae; sed ex alia ratione dicitur aes, et ex alia infiguratum. Undo privation dicitur esse principium non per se, sed per accidens, quia scilicet concidit cum materia.

Thus, privation is truly a principle, but a dependent one; it is a corollary of matter, as being what is in potency to forms other than the form by which it is currently informed. What this shows, moreover, is that the constitution of a material being in its actual environment—and not just in abstract thought about it—derives not only from its own internal principles but the relation of those internal principles to external principles as well. When we go on to think about this in light of the full taxonomy of causes, we should see the great importance of external formal causes in our species-specifically human lives, then.

Aristotle likewise noted this in his Φυσικὴ ἀκρόασις (Physics), book II, c.1, 193b 20-22: “But form and nature are meant in two ways, for [de]privation is a sort of form. But whether in the case of a simple coming-into-being there is or is not a [de]privation and an opposite, must be looked into later.”

John Deely (2001: Four Ages of Understanding, 67-70) proposed the name “trialism” for an explanation of change in contrast to the monistic and dualistic theories (as well as to the more standard Aristotelian term, “hylomorphism”, or as it is sometimes spelled, “hylemorphism”). I believe this term is perhaps too vague to accurately signify the threefold structure of change. Central to the explanation Deely gives of
the system, however, is that being implicitly “calls out the parts” (to steal a felicitous term of Charles Peirce’s) for the sake of bringing them together in a greater whole. Where there is a privation, that is, implicitly the actuality opposed to it has a greater being than the privation itself; there is implied an order and a purposiveness in all beings having a privation, and thus a perfectibility not only of the individuals but also of the universe as a whole.

XXII. Among the most popular arguments against the existence of God is the imperfection of the universe: the argument that not only are our lives on earth messy—at times through no fault of our own as either individuals or even as a species, as when a hurricane decimates our town or a plague sweeps the country, depriving us of health, security, loved ones, employment, food, etc.—but in fact the whole universe appears messy: continually subject to destructions, calamities, every integrity of every life, every system, every organized whole being under threat at every moment.

But this, in fact, is the strangest and least-reflective sort of anthropocentrism: the kind that insists the universe should not only be centered around human beings, but centered around the desires of human beings—as though our desires were an infallible guide for what ought to happen, when our own history is a clear and obvious argument that our desires are anything but infallible. That such an argument would occur to any mind speaks of either habitual self-indulgence (or an attitude which would so indulge, in other circumstances) or vague and confused theoretical beliefs concerning “justice” and “goodness”. At the core of such confusion is a belief that, if there is a Creator God, that God owes to us a certain debt—that by being created, we are owed anything at all is refuted by Aquinas in his c.1259/65: *Summa contra Gentiles*, lib.2, c.28-29.

Rather, if there is any “justice” in God’s act of creation, it is a “justice” of “propriety”: not that the creation attains a certain standard of desirability for the creatures within it, but that the creation is fitting to the goodness of the creator (c.1259/65: *SCG*, 2.28, n.13). Thus there is a kind of consequent justice: in that, having created a universe, the whole of the universe ought to be structured such that what is right can occur for each part; each part ought to be fitting disposed to the others; and each part of each
individual ought to be fitting disposed to the whole of which it is a part (c.1259/65: SCG, 2.29, n. 17):

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<td>This necessity which is from what is posterior in being although prior in nature, is not an absolute necessity, but conditional; that is [the kind of necessity we see in situations such as], “if this ought to happen, then it is necessary this first come to be.” According to this kind of necessity, it follows that there is found a threefold debt in the production of creatures. First, from the whole of things in the universe there arises a conditional indebtedness to every part, which is required for the perfection of the universe. For if the universe is made by the will of God, it ought to be made such that He should make the sun and the moon, and such things without which the universe would not be able to be. Second, there arises a conditional indebtedness from one creature to another; as, if animals and plants are made by the will of God to be, it is suitable that He should make the heavenly bodies, by which such things are conserved; and if He willed humans to be, it is necessary to make the plants and the animals, and other such things of this kind which humans require for a perfected existence; although these and other such things were made by God from His pure will. Third, a conditional indebtedness arises for the sake of every creature from its parts, properties, and</td>
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<td>Necessitas autem quae est a posteriori in esse licet sit prius natura, non est absoluta necessitas, sed conditionalis: ut, si hoc debeat fieri, necesse est hoc prius esse. Secundum igitur hanc necessitatem in creaturarum productione debitum inventur tripliciter. Primo, ut sumatur conditionatum debitum a tota rerum universitate ad quamlibet eius partem quae ad perfectionem requiritur universi. Si enim tale universum fieri Deus voluit, debitum fuit ut solem et lunam faceret, et huiusmodi sine quibus universum esse non potest. Secundo, ut sumatur conditionis debitum ex una creatura ad aliam: ut, si animalia et plantas Deus esse voluit, debitum fuit ut caelestia corpora faceret, ex quibus conservantur; et si hominem esse voluit, oportuit facere plantas et animalia, et alia huiusmodi quibus homo indiget ad esse perfectum; quamvis et haec et illa ex mera Deus fecerit voluntate. Tertio, ut in unaquaque creatura summatur conditionale debitum ex suis partibus et proprietatibus et accidentibus, ex quibus dependet</td>
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accidents, on which the creature depends as to its existence or as to some perfection thereof; as, supposed that God willed to man humans, there occurs a debt from this supposition that He conjoin the soul and the body, and supply the senses, and other such aids, both intrinsic and extrinsic. In all such matters, if they are rightly considered, God is not said to owe the creature anything, but rather to the fulfillment of His own disposition.

creatura quantum ad esse vel quantum ad aliquam sui perfectionem: sicut, supposito quod Deus hominem facere vellet, debitum ex hac suppositione fuit ut animam et corpus in eo coniungeret, et sensus, et alia huiusmodi adiumenta, tam intrinseca quam extrinseca, ei praebetur. In quibus omnibus, si recte attenditur, Deus creaturae debitor non dicitur, sed suae dispositioni implendae.

Now it may seem, to the unbeliever—or to the anti-believer who has adopted the jaded position—that this makes God cruel; that the ordination of parts in a universe rife with suffering and chaos as part of God’s will reveals a malicious God. This, again, is to view the universe through the anthropocentric lens of desire. To denounce all suffering and pain and disorder as evidence of an evil God (or the absence of a God) is to view these occurrences from a myopic point of view, and not with a consideration of the whole universe.

While a full consideration of these topics could only be engaged in a study of metaphysics—the principles being beyond our ken here—it is recommended for those interested in the topic (the perfusion of the universe with purpose) to read c.1259/65: SCG, lib.2, c.45, especially n.7-9, and 1266-68: ST Ia, q.47-48.

XXIII. It is the denial of this concern of scientific inquiry for causal relations which characterized the scientific short-sightedness of later Modern philosophy, most notably beginning with Hume; for although Locke had introduced scepticism of our ability to know the external world through empirical means (denominating “substance” as a kind of “I know not what”), Hume explicitly threw into doubt the human ability to know the causal connection between any two things (1748: *An Enquiry Concerning Human Understanding*, 41):
When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find, that the one does actually, in fact, follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the outward senses. The mind feels no sentiment or inward impression from this succession of objects: Consequently, there is not, in any single, particular instance of cause and effect, any thing which can suggest the idea of power or necessary connexion.

And again (46):

philosophers, who carry their scrutiny a little father, immediately perceive, that, even in the most familiar events, the energy of the cause is an unintelligible as in the most unusual, and that we learn only by experience the frequent conjunction of objects, without ever being able to comprehend any thing like connexion between them.

In other words, according to Hume, we are incapable of discovering any object which itself would be such a thing as a causal relation; this is the deepest root of the purest nominalism, and if accepted would reduce all science to nothing more than a cognitive disposition towards subjectively-calculated probabilities (William Wallace 1996: Modeling Nature, 259):

...Hume brought into question the key notion of causal efficacy or causal influence, the necessary connection between cause and effect implied in the traditional concept of causality. But he still wished to retain causal terminology, and so he proposed to reformulate the causal relation in different terms—giving rise to his new concept of “causation.” In causation two components, temporal priority of cause over effect and constant conjunction between the two, replace the classical idea of causal efficacy. And, where previously there was thought to be an ontological link between cause and effect, Hume now proposed to replace this by a psychological link. For him, a causal sequence is one in which, upon appearance of an event of type A, we are led to anticipate an event of type B. Solely on the basis of such anticipation are we able to label A-events “causes” and B-events “effects.” So, subjectively, the causal relation resides in our anticipation of what is going to occur when we see an event of the first type; objectively, nothing more than temporal priority and constant conjunction are required to characterize the relationship between two types of event.
Implicit in this characterization of “causation” as the psychologically-produced explanation for observed conjunctions of events is the reduction of causality to a single relation of chronologically-sequent agent or efficient cause and recipient or material cause: antecedent A and whatever A acts upon to cause consequent B. As Deely puts this (1994: New Beginnings, 164): “not only was causality [for the moderns] conceived exclusively in terms of efficient causality, but the notion of efficient causality itself was transformed from the idea of one being dependent on another being in its production to the idea of one being accompanying or following upon another being in our experience—that is to say, to an association of ideas in the mind.” Such a reduction occurs in the wake of, if not outright ignorance of Aristotle’s treatment of causality, at least in ignorance of the meaning of Aristotle’s treatment (see, e.g., c.348BC Φυσικὴ ἀκρόασις [The Physics], II.1-3, 192b8-195b29; c.348-30BC Τὰ μετὰ τὰ φυσικά [The Metaphysics], V.2, 1013a23-1014a25), a treatment developed and expanded upon in the scholastic tradition (see, e.g., Poinsot 1632: Tractatus de Signis, 193-203; Deely 1994: New Beginnings, 157-62, 168-78 and 2001: Four Ages of Understanding, 632-34. Cf. also William Wallace 1972: Causality and Scientific Explanation, especially 1-24).

XXIV. Norris Clarke makes this point clear in his One and the Many: A Contemporary Thomistic Metaphysics (2001), where he gives five “basic axioms” of efficient causality (189-94, with some annotations, additions, and adumbrations of my own):

1. Actio est in passio, i.e., the action of the cause takes place in the effect as from the cause. Unless the cause renders some effect actual in the recipient of the effect, then no causation has taken place. It is not the concatenation of sequenced events, but the real relation between the cause and the effect.

2. Cause and effect are simultaneous, that is, the cause as causing (the act of causing) and its effect must be simultaneous—although the cause as existing being not yet causing can of course be prior to its effect. In other words, following from the reality of the effect of the cause being in the effect, the action of causation does not occur at a specific point in time, but for the duration that the cause is having its effect.

3. Causing as such does not imply that the cause changes or loses anything. I.e., to cause is not necessarily for the cause to exchange quantitatively-measurable energy with the effect. While such energy-loss is necessitated in all causal relations of finite being upon finite being, intentional causality (a kind of causation which will be discussed throughout the book) need not lose anything in order to cause a change.
4. *Causal power as such is not directly observable by our external senses.* This is a truth which Hume recognized, but, having a reductive epistemology, believed to entail that causality as an ontological event is indiscernible. Rather, we must infer the existence of a cause—as something separate from those things it causes—by an intellectual movement (even though, strictly speaking, the causal relation often is a part of our *indirect* observation through perceptual powers).

5. *No effect can be greater than its cause.* This principle, as old as Aristotle, follows not simply from laws of conservation but from a kind of metaphysical necessity: that *ex nihilo, nihil fit*; from nothing, nothing is made.

**XXV.** This reservation of the term “agent” to living beings is not universal among all authors; however, the Latin root, *agens*, connotes an interiority to the instigation of action by its contrast to *possibilis* as what requires something other to bring it to action; and in the non-living corporeal universe, all action is re-action, i.e., the result of activated possibility. Consider this, from William Wallace, who extends the term “agent” beyond living things, but cautiously (1996: *Modeling Nature*, 13):

Man is a powerful agent who acts, directly and indirectly, on the substances around him, appropriating them and transforming them in countless ways to suit his needs and desires.

Similar instances can be adduced in the animal and plant kingdoms. Beavers build dams, birds their nests, and spiders their webs, and in all these natural activities they use or affect objects with other natures to the benefit of themselves and their species. Animals give birth to young and plants bear seeds, thus serving as agents for bringing new organisms into the world. And through the balance of nature, fauna and flora convert chemical substances and direct solar energies to provide food and nutriment for a wide range of species. All living organisms, in their life processes, are so many agents that interact with their environment and produce changes in other living things in the course of their development.

At the level of the nonliving, on the other hand, agencies are not so easy to identify and on this account have been poorly understood for centuries. Again the chemical revolution has led to remarkable insights into the ways elements interact with each other to form compounds, how minerals are formed in the bowels of the earth. Chemicals have affinities, and given the proper circumstances these manifest themselves as abilities to enter into combination with other substances, thus affecting them and in many instances giving rise to new natures. Although such
reactions can be studied and realized in the laboratory, they are natural processes that are initiated by the agents and reagents that enter into them.

Lying behind this discussion is a complex difficulty concerning *semiosis*: that is, the use of signs. For one thing to make use of another seems a characteristic of life. What does it mean, however, “to make use of”? Jesper Hoffmeyer (1993: *Signs of Meaning in the Universe* and 2010: “Semiotics of Nature” in Cobley, ed., *The Routledge Companion to Semiotics*, 29-42) employs the term “semiotic freedom”, which we would define (removing one and replacing another word from Hoffmeyer’s definition in 2010: 34) as “the capacity of a system (a cell, organism, species, etc.) to distinguish relevant parameters in its surroundings or its own interior states and use them to discover signification and meaning.” This capacity for distinction of relevant parameters seems to be requisite to the concept of an agent, as one which from itself acts. In a very limited sense, there is a kind of ephemeral and nascent semiosis which belongs to *systems* of non-living beings, but this is a story too complex for our purposes here (see Kemple 2019: *The Intersection of Phenomenology and Semiotics*, 4.2.3 and 5.1.2).

**XXVI.** In the age of mass-technologies—that is, technological means having effects on large numbers of people, especially simultaneously or in very short time-frames, as for instance, social networking platforms—we see the shortcomings of attempted exemplar causation in society. It had a profound effect, for instance, in the early days of print-constituted nationalism (i.e., where the newspapers were able to deliver centralizing opinions and curation of news so as to awake and reinforce nationalist consciousness). The result was obedience to an unknown: and thus Nazism and the Bolshevik Revolution. But attempts at socially-engineering to meet ideal exemplar causes still have effects today, of a more fragmentary and psychologically-disastrous nature. Consider, for instance, the various problems had with “fake news” and unintended usage of digital media, such as illegal weapon, drug, and sex trafficking, and the various abuses of identity and personal information theft; stalking; harassment, etc. Again, the larger the number of variables which must align within the plan, the more difficult it is to enact an exemplar cause; and the variables today are only growing more numerable.
XXVII. To understand this more fully, we must understand the nature of a sign. Oftentimes, a sign is mistaken as being that thing which signifies something else to us, as the red octagonal shape with the white word “stop” on it, or a word, a gesture, and so on. In truth, these are indispensable elements of a sign, but not the sign itself: for if a sign is that which directs the mind to something other than itself, but these things do not always actually accomplish that directing, then clearly they are not definitionally signs in and of themselves. As such, we refer to these intermediaries as “sign-vehicles”: for if they convey to some mind (or as Charles Peirce called it, an “interpretant”—believing that a mind was usually but not necessarily involved in this process) the awareness of the object—such that the mind is by the vehicle directed back towards the object somehow—then and only then do they function as “signs”. In other words, the sign itself consists not in the thing which so directs the mind, but in the accomplished relation of cognitive awareness.

No author has written as much on this topic—at least in recent years—as John Deely. He makes this point abundantly clear in his 1982: Introducing Semiotic, 1994: The Human Use of Signs: or, Elements of Anthroposemiotics, his 2007: Intentionality and Semiotics, his 2009: Purely Objective Reality, and his 2010: Semiotic Animal, among others.

Thus, when we talk of a “sign-mediated relation”, we are talking of a triadic relation whereby the vehicle, bearing (either by stipulation, convention, or nature) some significance of the object, results in actually directing some mind back towards that object. A sign-relation is always partial with respect to the whole being of the object which is in itself potentially perceptible or intelligible: that is, there is no sign-relation which results in the mind fully grasping the nature of the object in its entirety, in any of its possible dimensions. Moreover, these sign-relations may be deceitful; as the sign-vehicle may portray the object as otherwise than it really is, as in the case of camouflage, a lie, or an illusion.

XXVIII. This kind of causality has been little recognized in any tradition outside of late scholasticism, though it could be argued as prominently present in the work of St. Thomas Aquinas, even if it does not receive this precise name. As Aquinas writes (1266-68: ST Ia, q.77, a.3, c.):
The rationale of act is diversified according to the diverse rationales of objects. For every action is of an active or of a passive power. The object is related to the act of a passive power as the principle and moving cause of it: as color, insofar as it moves sight, is the principle of vision. The object is related to an active power, however, as the terminus and end of it, as the object of the augmentative virtue is a certain perfection, which is the end of augmentation.

One might be confused by the terminology of the object in relation to a passive power as the “moving cause” (*causa movens*)—for to move seems to be an effect of an efficient cause.

However, the specificative causation is in truth both unique from the traditional classifications of causality—efficient, formal, material, and final—and ubiquitous, appearing both throughout nature and culture. John Deely describes it as (1994: *New Beginnings*, 161): “the ‘causality’, that is to say, the dependency in being, that knowledge as such has on the upon the object known. The object *specifies* the knowledge as being of this rather than of that.” There is a potential equivocation in the idea of specificative causality insofar as, in the stimulative capacity of the object, i.e., “moving” or “stimulating” its recipient may be understood after the fashion of an efficient cause, where the change results in a different formal constitution for the recipient in its own being. Rather, (Poinsot 1632: *Tractatus de Signis*, 169):

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<td>The rationale of act is diversified according to the diverse rationales of objects. For every action is of an active or of a passive power. The object is related to the act of a passive power as the principle and moving cause of it: as color, insofar as it moves sight, is the principle of vision. The object is related to an active power, however, as the terminus and end of it, as the object of the augmentative virtue is a certain perfection, which is the end of augmentation.</td>
<td>Ratio autem actus diversificatur secundum diversam rationem obiecti. Omnis enim actio vel est potentiae activae, vel passivae. Obiectum autem comparatur ad actum potentiae passivae, sicut principium et causa movens, color enim inquantum movet visum, est principium visionis. Ad actum autem potentiae activae comparatur obiectum ut terminus et finis, sicut augmentativa virtutis obiectum est quantum perfectum, quod est finis augmenti.</td>
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<td>we distinguish between something stimulating through the mode of exercise and through the mode of specification. The first mode pertains to an efficient</td>
<td>distinguimus motivum per modum exercitii et per modum specificationis, et illud primum pertinent ad causam efficientem,</td>
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cause, the second one to a formal object. And this follows from the passages cited from St. Thomas concerning the preceding conclusion. For there St. Thomas perspicuously teaches that a stimulus object specifies a passive power and is related to it as a moving principle, and so is prior to its specificate in the process of defining. Therefore an object in the rationale of a stimulus has the true rationale of an object and not of productive efficiency; for something effecting insofar as it is effecting respects the existence of the thing which it produces, not the specification nor the principles of definition, while St. Thomas nevertheless says, especially in the passage already cited from his Commentary on Book II of Aristotle’s treatise On the Soul, reading 6, that “objects are prior to the operations of the soul in the way of defining,” and he had been speaking of terminative and of stimulus objects alike. The rationale of being a stimulus, therefore, does not denote efficiency in an object, but is contained within the limits of an objective form, that is, of something specificative.

Our conclusion is confirmed finally by the fact that a passive power, insofar as it is such, is specifiable by something extrinsic, since indeed a passive power is ordered on the basis of the kind of thing it is to that external specificative, and therefore its specific character, the kind of thing that it


Ac denique confirmatur, quia potentia passive in quantum talis ab aliquo extrinsecus specificabilis est, si quidem ex specie sua ordinatur ad illud, atque adeo species eius non est omnino absoluta in se et independens ab omni extrinseco.
is, is not entirely absolute in itself and independent of every extrinsic factor.

In other words, the causal force of the stimulative object consists in the specification of a passive power in its being-towards something else. This may alter the being-in-itself of the possessor of the passive power—the cognitive agent, that is—but in a strictly extrinsic manner, i.e., through an external relation of the individual towards the object. Any intrinsic alteration is through the agent’s own activity subsequent to the stimulative object’s activity, as part of the recursive process of interpretation. The agent may have little control over this alteration, as in the case of interpretations grounded in or determined through genetic dispositions or, specifically for humans, when occurring at an age prior to any self-mastery or ability to exercise one’s will. In other cases, the agent may have little control through deeply-entrenched habit, as the addict may be easily triggered through certain specifications—while, nevertheless, retaining some degree of control, even if only the control to question one’s own actions.

Understanding the way in which stimulative objects specify us is critical in understanding how we are shaped by the media of our environments; for the specifications of which we are not aware are ones over which we have little-to-no control and are often the specifications that have the most profound determination for our cognitive habits. Cf. Deely 2001: *Four Ages of Understanding*, 472, 565, and 630-33.

**XXIX.** Extrinsic final or system-purpose causation is better recognized than specificative causation—that is, more people will recognize that goals of a system have an effect on individuals within it than will recognize that objects have a non-efficient specificative effect on individuals—but despite this it is little better understood. For one, the metaphysics of purpose are often ignored or dismissed. That potency is for the sake of actuality, and actuality is *per ipsum* superior to potentiality may be recognized, but often only insofar as it applies to substances and not to relations or patterns of relations. This superiority of act over potency is not merely an abstract law, however, which would require some cognitive ability to participate, but a basic ontological truth determining the being of all that exists—
including relations and patterns of relations. That is, not only do substantial beings and their accidents (what we call esse in, being-in; either in itself, as a substance, or in another, as an accident) inherently possess a final causal orientation towards greater actuality, but so too the relative beings (esse ad, being-towards, which is neither in another nor in itself) by which those substantial beings are comprised; including the relativity of what belongs to the substantial (i.e., what is in itself substantial but in that substantiality includes orientation towards another; cf. Deely 2007: Intentionality and Semiotics, 115-36). Thus, for instance, we can see Koichiro Matsuno correctly identifying the ubiquity of final causality but mistaking its nature (2012: “Causality”, in Favareau, Coby, and Kull, eds., A More Developed Sign, 55):

“Final causality” has earned a bad name because of a misplaced emphasis made by both its proponents and its detractors so far. Yet final causality obtains its legitimacy in the act of preserving the class identity of each participating material element, while remaining indifferent to preserving each individual identity of the element. Thus, although the atomic physicist can detect the individual identity of each carbon atom, the biological cell keeps recognizing the class identity of each participating carbon atom even if it is replaced by another atom of the similar kind. Preserving such ‘class identity’ serves as a final cause directed toward the participating individual atoms and molecules though it is not tenable to observe the act of final cause as preserving the individual identity of the participating elementary body, because of the involvement of self-referential complications.

It is true that final causality preserves the class identity of each participating material element within any composite structure, whether that be a substantial or a strictly-extrinsically-relational composite; however, this is incidental to the final causation at work, which preserves that class identity only for the sake of some greater act. Thus, when parts cease to serve their usefulness for the attainment of some greater actuality, they tend to wither away—especially in organic wholes. Even John Deely—who went so far as to challenge the presupposition held throughout much of the semiotics community that there is a kind of nascent or virtual semiosis at the level of the inorganic—tends to see final causality only in terms of cognitive agents (1994: New Beginnings 159 and 2001: Four Ages of Understanding 632):

An extrinsic dependency in outcome obtains in the case of one individual using something else to achieve the user’s ends. Thus the production of artifacts of whatever kind, all works of art or technology, exhibit a dependency of this kind:
acorns grow on trees through a process of intrinsic final causality, but forks as eating implements come into being only through manufacture, an external agency which shapes them according to a plan of the agent.

...an extrinsic final causality to explain an end intended by an intelligent agent but not itself part of the material used to achieve that end (as a fork is made for eating, although it is not the fork that will do the eating; or a dam is made by a beaver for a series of goals).

What Deely misses here, as does Matsuno, is that an extrinsically-established final cause need not determine the behavior or even the nature of the individual precisely as it is in itself, but only as it is part of the larger system to which it belongs. In other words, so long as it performs its function within the system, it need not give a whit about the purpose of that system in order to undergo the effect of that system’s final cause. Thus, a system-purpose causation does not even need an intelligent agent, although the fact of its existence nevertheless implies one as the most likely of explanations that there would exist—as even a possibility—individual units which might potentially be coordinated within a system. Nevertheless, we would say that there is a kind of “intelligence” determining the system; such that none of the parts possess one, but the system as a whole which comprises the parts is governed by a pattern of relations which has quasi-cognitive attributes (which—since those attributes are not self-generated but derived from the properties naturally given to the parts of the system—implies the existence of an intelligent creator).

XXX. The “problem of evolution” raised considerable disquiet to a theory of “internal formal causation”: that is, how can there be stable substantial forms if the universe and especially life within the universe has an evolutionary nature? This objection, however, is a short-sighted one: for, although the theory of substantial forms in terms of the intelligibility of the natures determining creatures was given a kind of surety by the theory of celestial spheres—that outside the earth are concentric crystalline spheres in which the celestial bodies are embedded and which, by their unending rotation, produce unending cyclical patterns of terrestrial life (while allowing variations to occur within each cycle, but “resetting” them as it were by their regularity)—this surety dealt only with transgenerational sameness of the forms. In its
essence, no part of the theory of substantial forms as informing individual beings relies upon the regularity of the celestial spheres.

Where the theory of substantial forms becomes problematic is if it is exaggerated: i.e., if a form is conceived of as an existentially separate framework consequently joined to likewise existentially-distinct matter; such that the properties of the being belong to the form \textit{per se} and the matter only \textit{incidentally}, rather than \textit{to the composite}. This reduction of being to form makes the intelligible \textit{what} of the form \textit{prior} to its actual mode of existence—as together with matter—and it would thus be impossible for any evolution to occur without requiring an infinity of potential forms. Rather, it must be known that the form \textit{includes} the matter \textit{definitionally} and the inherently variability attendant upon matter in the range of the intelligible \textit{what} that the form defines (cf. Aquinas 1266-68: \textit{ST} Ia, q.75, a.4, c., cited below in Gloss XXXIV). Each unity comprised by the ordination of a structural form is a \textit{relative} unity subject to change, alteration, becoming, disintegration, etc.

One of the clearer articulations given to this is found in Benedict Ashley’s essay on “Change and Process” (in Deely and Nogar, 1975: \textit{The Problem of Evolution}, 267-68 and 282):

A natural unit is one which develops from some inner characteristic; it is not put together from the outside as is an artifact or a chance aggregate. Naturalness admits of degrees. The natural units like a man, a dog, a tree (or even a crystal, a molecule, an atom when these exist separately and not in a chemical combination with other units) are the primary natural beings. All their combinations and collections and interactions are consequent on this basic existence as primary units. As we go up the evolutionary scale, things become more natural, less mechanical. The behavior of a seed as it unfolds into a plant is more natural than is the ebb and tide of the ocean. As things become more distinctly individual and inner-determined in their behavior, as they rise above the chaotic and random, their naturalness appears more clearly...

Nature is thus something which is always in process. The word “process” indicates “to go forward,” to go toward order out of chaos, toward unity out of plurality, toward regularity out of chanciness. In the term “process” (made so popular by Whitehead in his attempt to give a philosophical analysis of the modern world-view), there is an inevitable teleological implication....
To admit the perduring existence of natural units as that in which process takes place, is not, however, a fixism, since (1) these units are themselves produced and destroyed, their endurance and stability being only relative, (2) while they endure, their endurance is not static, but is always an unfolding tendency to full development. They exist only in process and through process. As soon as the process by which they are checked by counter processes, then they begin to disintegrate and are transformed into other units.

In other words, the evolutionary process is not countermanded by the relative stability of structural ordering forms, for these are themselves inherently possessed of a contingent possibility to be otherwise—including the possibility to no longer be at all—which follows from their inexorable existence along with matter.

XXXI. To many, this account of material causation may seem counterintuitive; but there is necessarily a distinction to be made between matter and material causality; or, as was often made among the scholastics, between signate (or secondary) matter, common (or intelligible) matter, and prime matter. This distinction is between matter as possessed by a form or matter as actually existing under a specific formal determination, matter as what necessarily follows upon being a specific kind of thing, and matter as a cause for a thing’s ability to be otherwise. This distinction has not always been made clear, historically, and thus demands our careful attention (Kemple 2017: Ens Primum Cognitum in Thomas Aquinas and the Tradition, 188-89):

What do we mean by “matter”? The term, ὑλή or materia, has the historical connotation of being the “stuff” to which a form is given—as wood becomes a chair, or cotton becomes a garment. More broadly, however, the term is used to represent anything “from which” or “out of which” something else is made. As what is more proximate to our mode of knowing—intellectually in union with the senses—this means that we look at the matter of what is here and now before us; that is, matter as under some determinate form which can receive others, or what is called signate matter by Thomas. As changes continually occur under our observation, however, it is realized that the full extension of what the term “matter” primarily signifies comprises more than the matter of the here and now, i.e., what is indicated by “signate matter”, for not only does the same matter perdure through the change of accidental and artificial forms, but even through substantial changes. Thus, what is primarily signified by matter shifts from the mere “stuff out of which” to the “capacity to receive change”. Advances in physics have corroborated this; while material things, as identifiably possessing this or that form, are quite frequently destroyed,
the constitutive material parts are not. The same matter existing in stars billions of years ago is still existing today—it has received practically innumerable changes and is still the “same” matter (e.g., an electron in my hand could be numerically the same electron expelled by a quasar 10 billion years ago) despite subsumption under numerous forms through its existence. And yet even that matter, among the seemingly most fundamental particles discovered today, is signate matter.

What this entails is that matter is of itself unintelligible (that is, when we think about the “wood” out of which a chair is made, even as separate from the form of the chair, we are thinking about it under the form of wood; only in thinking of the ways in which the wood could be made otherwise than wood [e.g., ash], are we thinking about it obliquely as “matter”, and thus as “common matter”; cf. Kemple 2017: Ens Primum Cognitum, 188-97 inclusive, but especially 192; Charles De Koninck 1957: “Abstraction from Matter (I)” in Laval theologique et philosophique, 13.2: 133-96, especially 158, as well as his later 1960a and 1960b articles in the same series.

XXXII. This fourfold division is taken from Aquinas’ early c.1252/56: De ente et essentia, where he draws upon the tradition of Aristotle, Boethius, and Avicenna in defining the four terms:

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<td>And because that, through which a thing is constituted in its proper genus or species, is that which is signified through the definition indicating “what” the thing is, the name “essence” is therefore changed by philosophers into the name “quiddity”. And this is what the Philosopher frequently calls 'what it is for a thing to be', that is, that through which something has the existence of a ‘what’. It is also called “form”, insofar as through “form” is signified the certitude [or determination] of each thing, as Avicenna says in book two of his Metaphysics. It is also called by another</td>
<td>Et quia illud, per quod res constituitur in proprio genere vel specie, est hoc quod significatur per diffinitionem indicantem quid est res, inde est quod nomen essentiae a philosophis in nomen quiditatis mutatur. Et hoc est quod philosophus frequenter nominat quod quid erat esse, id est hoc per quod aliquid habet esse quid. Dicitur etiam forma secundum quod per formam significatur certitudo uniuscuiusque rei, ut dicit Avicenna in II metaphysicae suae. Hoc etiam alio nomine natura dicitur accipiendo naturam secundum primum modum illorum quattuor, quos Boethius in</td>
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name, “nature”, taking “nature” according to the first of four ways given by Boethius in his book *De Duabus Naturis*, namely insofar as “nature” is said to be whatever can be grasped by a nature. For a thing is not intelligible except through its definition and essence. The Philosopher likewise says in book five of his *Metaphysics* that every substance is a nature. Nevertheless the name “nature” taken in this way seems to signify the essence of a thing, insofar as it has an ordering to the proper operation of the thing, since no thing lacks a proper operation. The name “quiddity” is taken, however, from this that through it is signified the definition. But “essence” is predicated of it insofar as through it and in it a being has existence.

This fourfold predication concerning the “essence”—adding, quiddity, form, and nature—shows that the single reality of what it is for a thing to be, in order for it to be at all (the τὸ τί ἦν εἶναι in Aristotle) cannot be understood by a single term: for we use *essence* to signify it having a being at all; we use *quiddity* to signify its relation of intelligibility to us; *form* to signify its determination or internal specification (and thus differentiation from all others), and *nature* to signify that the having-of-existence includes an order towards proper operations. In speaking of how a thing *is*, we speak not only of its *in-itselfness* but also its *regarding others*. This helps us to see that studying a thing, seeking its essence, is not merely a matter of trying to have some “insight” into the internal being of the thing itself, but must be discovered through a discursive examination of the thing in its relations to others, as well.

XXXIII. C.S. Peirce termed this tendency—to assert without argument and to believe without critical examination—the “fixation of belief by tenacity”; that is (Peirce 1877: libro de duabus naturis assignat, secundum scilicet quod natura dicitur omne illud quod intellectu quoquo modo capi potest. Non enim res est intelligibilis nisi per diffinitionem et essentiam suam. Et sic etiam philosophus dicit in V metaphysicae quod omnis substantia est natura. Tamen nomen naturae hoc modo sumptae videtur significare essentiam rei, secundum quod habet ordinem ad propriam operationem rei, cum nulla res propria operatione destituat. Quiditatis vero nomen sumitur ex hoc, quod per diffinitionem significatur. Sed essentia dicitur secundum quod per eam et in ea ens habet esse.
“The Fixation of Belief”, *EP*.1.115), “taking any answer to a question which we may fancy, and constantly reiterating it to ourselves, dwelling on all which may conduce to that belief, and learning to turn with contempt and hatred from anything which might disturb it”. Bitter social and political divides today often experience their characteristic vitriol because both sides—or at least, loud proponents of both sides—have established their beliefs through tenacity alone, or some very comparable method. For example, the cultural divides over abortion, same-sex marriage, postgenderism, and gun control find many vocal persons who have little reasoning behind their beliefs but a vociferous attachment to them. The genesis of these beliefs may be from some authority—parents, teachers, schools, media—but the fixation of the belief comes from a tenacious unwillingness to open one’s eyes to anything but what one has already accepted.

Those beliefs which an individual makes central to his or her identity may likewise be held through tenacity: religious affiliation, alma mater, home town or state, being a fan of sports team or professional athlete, musical taste, and so on. Against questioning these views, one who fixes belief through tenancy gives way to (Peirce 1877: “The Fixation of Belief”, *EP*.1.116) “the instinctive dislike of an undecided state of mind, exaggerated into a vague dread of doubt, [which] makes men cling spasmodically to the views they already take.”

It is unfortunate that there is no way to make someone give up a tenaciously-held belief: at most, we can induce them to critical reflection, but the pursuit of whatever point would engage that reflection can only be by their choice.

XXXIV. This is a takeaway from the philosophical or phenomenological project of Martin Heidegger, who, in his 1927 *Being and Time*, asserted that if we are to understand “Being” (*Sein*), we must approach it through the being (*Seiend*) for whom Being is an issue: the human being. Heidegger delimits the focus of the investigation he makes to the specific capacity of the human being to attune itself towards Being (even in opaque fashions) by designating this capacity, or the dimension of life constituted through this capacity, by the term “Dasein”. This term, literally meaning “there-being”, indicates the always-situatedness of the human individual in a context
permeated by Being. This permeation, rightly understood, can be seen as the definitive factor of human existence (1927: *Sein und Zeit*, 11-12/32):

Dasein itself has a special distinctiveness as compared with other entities, and it is worth our while to bring this to view in a provisional way...

Dasein is an entity which does not just occur among other entities. Rather it is ontically distinguished by the fact that, in its very Being, that Being is an *issue* for it. But in that case, this is a constitutive state of Dasein’s Being, and this implies that Dasein, in its Being, has a relationship towards that Being—a relationship which itself is one of Being. And this means further that there is some way in which Dasein understands itself in its Being, and that to some degree it does so explicitly. It is peculiar to this entity that with and through its Being, this Being is disclosed to it. *Understanding of Being is itself a definite characteristic of Dasein’s Being.* Dasein is ontically distinctive in that it *is* ontological.

One can easily be frustrated by the opaque use of terminology which pervades Heidegger’s oeuvre (and which is at its worst, among his early writings, in *Being and Time*; the lectures and unpublished writings of the time typically being considerably clearer). That said, there is a very important point not to be missed in this or similar passages: the distinctive attunement that human beings have towards *Sein*, Being. A student of traditional metaphysics might mistake this to mean: “to be”, the Latin *esse*, the act of existence. But this is not what Heidegger means; rather, he means the *intelligible dimension* that we encounter in the world; the truth that we may know the objects of our experience in themselves, as over and above their contexts of referentiality. That this truth has been folded into the vague concept of “being” has all-too-often resulted in its loss.

XXXV. That is, the specific composition of principles in a human being—soul and body—results in a being that is both truly a natural being of the world, existing in the world of motion and change, *and* one that operates in a way *independently* of the world of motion and change, albeit only in a very small and partial way: namely, in the positive grasp of unchanging truths (this is explained in examining the intellect and the “truth about the good”).

But the identification of the human being with the soul to the demotion of the body’s involvement results in incoherent accounts of what it is to be human. As Aquinas
writes on the question, *utrum anima sit homo, vel magis homo sit aliquid compositum ex anima et corpore*, “whether the soul is the human being, or rather is the human being something composed from soul and body?” (1266-68: *ST* Ia, q.75, a.4, c.):

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<td>In response, the following must be said: the opinion that the human being is the soul may be understood in two ways.</td>
<td>Respondeo dicendum quod animam esse hominem dupliciter potest intelligi.</td>
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| In the first way, it is said that “human in general” is the soul, but “this human” is not the soul, and rather a composite from soul and body, such as Socrates. I say this because some have posited the form alone to be the intelligible rationale of the species, but the matter to be on the part of the individual and not of the species. But this cannot be true. For that which the definition signifies belongs to the nature of the species. The definition of natural things, however, signifies not only the form, but the form and the matter. Thus matter is a part of the species in natural things—not the signate matter, which is the principle of individuation—but the common matter. Just as it belongs to the rationale of this individual human being that he or she is composed from this soul and this flesh and these bones, likewise it belongs to the rationale of human being in common that it is composed from soul and flesh and bone: for it is necessary that whatever is common to the substance of all the individuals... | Uno modo, quod homo sit anima, sed hic homo non sit anima, sed compositum ex anima et corpore, puta Socrates. Quod ideo dico, quia quidem posuerunt solam formam esse de ratione speciei, materiam vero esse partem individui, et non speciei. Quod quidem non potest esse verum. Nam ad naturam speciei pertinet id quod significat definitio. Definitio autem in rebus naturalibus non significat formam tantum, sed formam et materiam. Unde materia est pars speciei in rebus naturalibus, non quidem materia signata, quae est principium individuationis; sed materia communis. Sicut enim de ratione huius hominis est quod sit ex hac anima et his carnibus et his ossibus; ita de ratione hominis est quod sit ex anima et carnibus et ossibus. Oportet enim de substantia speciei esse quidquid est communiter de substantia omnium individuorum sub specie contentorum.
contained under a species belongs also to the substance of the species.

In the second way, the claim that the human being is the soul can be understood thus: that this soul is this human being. And this opinion can be held, if it is posited that the operation of the sensitive soul is a proper operation of that soul without the body; because, in that case, every operation attributed to the person would be attributed to the soul alone; for each thing is that which performs the operations of that thing. Whence that is a human being, which performs the operations of the human being. But it has been shown [in the previous article] that “to sense” is not an operation of the soul alone. Since, therefore, sensing is a certain operation of the human being, although not the proper operation of being human, it is manifest that the human being is not the soul alone but rather is something composed from soul and body.

Alio vero modo potest intelligi sic, quod etiam haec anima sit hic homo. Et hoc quidem sustineri posset, si ponetur quod animae sensitivae operatio esset eius propria sine corpore, quia omnes operationes quae attribuuntur homini, convenirent soli animae; illud autem est unaquaeque res, quod operatur operationes illius rei. Unde illud est homo, quod operatur operationes hominis. Ostensum est autem quod sentire non est operatio animae tantum. Cum igitur sentire sit quaedam operatio hominis, licet non propria, manifestum est quod homo non est anima tantum, sed est aliquid compositum ex anima et corpore.

It is crucial, in reading this passage, to take note of the centrality of matter to the definition of the natural species, i.e., the species which exists in the world of motion: namely, that to understand what such a thing is entails understanding the finitude of its formal structure, and therefore, its malleability: flesh and bones being not just intelligible ways of being, but rather their intelligibility is tied up with their possibility for being otherwise: a bone is what it is such that it not only holds up the flesh, but can also fail to hold up the flesh; it may break. This material malleability is part of what we human beings are.
Some would deny that there is any sensation apart from perception (e.g., Brennan 1941: Thomistic Psychology, 95: “sensations in their simple elemental form, as operations of the external senses, do not exist except as part of a more whole-making process which we term perception”), but this is to fail in recognizing what truly distinguishes the external from the internal sense faculties. For one, plants, or at least some plants, appear to have a sensitive capacity: that is, they have an interactivity with things that touch upon their own physically-extended bodies (termed “phytosemiosis” in 1981 by Martin Krampen). For another, we, and conceivably all the rest of the animals, constantly sense without perceiving—as we become aware of our having sensed but not perceived something when, without a noticed change in the sense objects themselves, we suddenly perceive an object that we had been sensing all along. I can recall an instance in graduate school where, having entered a private study room reserved for students and faculty in my program in the late evening, I found the room relatively dark and thought myself alone. After half an hour or so of studying (having headphones in), I realized quite suddenly—without any motion or sound to make me realize—that a pair of human legs were sticking out from a study carrel in the corner, which I discovered to belong to a fellow graduate student.

But simply consider at this very moment how many objects are sensitively present to you but of which you are not aware until some deliberate focus is put on them: objects in the periphery of your sight, sounds that are routine and go unnoticed, the somesthetic pressures of your clothes, the chair in which you are sitting, the shoes on your feet, the way one part of your body pulls on another (usually the least flattering bits); consider the way someone will suddenly realize that a familiar noise has stopped, or that something has turned a strange color. Were these objects not being sensed before? Or were they being sensed and only not perceived?

We often react to objects of sensation without ever consciously perceiving them—what we would call “unconscious actions”—where we react to (typically) an irritant without taking conscious notice of it, or perhaps tense-up at an on-going unpleasant noise without even realizing we are doing it. Such actions—which involve a disposition that may be the result of a perceptually-formed habit, but which may also be “innate”, i.e., somehow inborn through our genetic inheritance—are necessarily
beyond the fringe of our consciousness, as becoming aware of them brings from being “sensed” to being “perceived”. Sometimes, we do not take conscious notice of the objects because we are so habituated to our operations with them that we do not need to pay close attention to them for whatever our current purpose may be; other times, because our focus is placed elsewhere, the objects have no importance to our perceptual operations and so are not even judged as irrelevant, but not perceptually objectivized at all. I do not become aware of my chair, generally speaking, unless I find myself uncomfortable in it—and even then, at times, it may not register as an explicit object of consciousness.

XXXVII. This threefold distinction of perceptible objects (proper, common, and incidental “sensibles”) is laid out in Aristotle, c.330 BC: Περὶ Ψυχῆς (“On the Soul”), Book II, c.6 (418a 8—26):

One must speak first, for each of the senses, of the perceptible things. But the perceptible thing is meant in three ways, in two of which we say that we perceive the thing in its own right, but in one that we perceive it incidentally. Of the two, one is proper to each sense, the other common to them all. By proper I mean what does not admit of being perceived by another sense, and about which it is not possible for the sense to be deceived, as sight with color and hearing with sound and taste with flavor—touch has more than one distinct thing proper to it—but each sense distinguishes theses and is not deceived that something is a color or a sound, but only about what and where the colored or sounding thing is. Things of that sort, then, are said to be proper to each sense, but the common things are motion, rest, number, shape, and size, for things like that are proper to none of them but common to them all. For a particular motion is perceptible by both touch and sigh. A thing is said to be incidentally perceptible, for example, if the white thing is the son of Diaries, for this latter is perceived incidentally, because it is incidental to the white, that is perceived, for which reason nothing is acted upon by the incidentally perceived thing as such. But of the things perceived in their own right, the proper ones are perceptible things in the governing sense, and the thinghood of each sense is by nature directed toward them.

In other words, we perceive the proper and common sensibles alike through our external sensory organs, but we—through another organ—perceive things incidentally thereby sensed. For instance, I sense the color, size, and shape of my coffee mug (on this morning: slate gray, capable of holding roughly 12oz of liquid,
matte, slight stone-like roughness to the finish, rounded, etc.) but I perceive that it is a coffee mug, a perception incidental to the facts of its sensory qualities. Its “being a coffee mug” is not something which could reduce to any of its sensory qualities, but which must be inferred from them.

XXXVIII. As of this writing, to the best of my knowledge, no empirical studies have yet been conducted that would test specifically for any neurological correlates to the specific operations or faculties discussed in this book. Further, there may be considerable neurological variation between individuals as they perform these operations, and, indeed, such a neurological variation would only make sense: for there is considerable possible variation in the manner in which the operations may be carried out, complex relations between the operations which alter each other, and recursive effects of operations upon their respective capacities. In other words, there are a lot of different ways in which we may do more or less the same things, which means our brains may develop or operate very differently, even when we are thinking about the same objects, actions; planning, remembering; or performing perceptual operations for the sake of understanding. This wide variety should not deter us, however, from our studies, for there is considerable variation in the operative capacity of sense organs as well, despite a vastly greater simplicity in their operation.

It is also highly likely that the differences in intellectual conception, which may not even be an observable phenomenon of the brain, educe radically different neurological habits; such that not only in doing things differently do we form different neurological patterns, but likewise in thinking about things differently.

XXXIX. When we perceive through our senses, we grasp not just the proper and common sensible objects, but implicitly also the presence of a sensed object as a whole—something characterized by its specific manner of relating to the knower. Thus, we both perceive ourselves to sense and simultaneously distinguish one kind of sensible, as the audible, from another, as the visible (and of the moving from the at rest, and of the extended from the sticky). This co-present awareness of various proper and common sensibles and of some whole indicated by those sensibles—that is, the object as what is sensed through the sensibles—is perceived by the integrating
sense or sensus communis, from which the properly perceptual operations can be performed.

At the same time, the integrating sense is responsible also for pulling together what is perceived as the context of sensible objects, such that it is not simply grasping the single object, but the entire context surrounding the object that is delivered through sensation. In other words, we perceive the red-hot-bright-flickering object (a fire) as it exists in the dim-smoky-cold area (a cave), each set of parts as an object within and of an objective whole.

We can therefore name the objects of the integrating sense as the integrated or whole sensible, indifferently as to whether this is a particular whole (i.e., a unified object) or a contextual whole (i.e., a unified set of objects). The functioning of the sensus communis is confused in some Thomistic literature. Brennan (1941: Thomistic Psychology 11-12, 95-98) ascribes to it both the perceptual objectivization properly speaking and the grasp of common sensibles (extension, shape, rest, motion, and number) through the proper sensibles sensed by the proper senses (as sight senses light, hearing the auditory waves, etc.). Such a confusion likely comes from misreading texts such as c.1259/65: SCG lib.1, c.61, n.5:

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<td>When the cognizing power is higher, correspondingly the more universal is its proper object, containing a multitude under itself: thus, that which sight cognizes by accident, the integrating sense or the imagination apprehends as contained under its proper object.</td>
<td>Quanto aliqua vis cognoscitiva est altior, tanto eius proprium obiectum est universalius, plura sub se continens: unde illud quod visus cognoscit per accidens, sensus communis aut imaginatio apprehendit ut sub proprio obiecto contentum.</td>
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That is, one could misread Aquinas as saying that the common sensibles are only incidentally perceived by the proper senses and are grasped properly in the integrating sense and sensory retentive faculty. But this is not Aquinas’ assertion; rather, his distinction here is between things sensible in se and things incidentally sensible—as between “white” or “round” and “the son of Daires”, as Aristotle says. In
other words, both whiteness and roundness are things the sight can sense, but that the sensed thing is the son of Diares—or someone friendly-seeming, non-threatening, enjoyable, etc.—these are not sensed by the sight except *per accidens* as it is influenced by the **phantasm** constituted by the perceptual faculties. The common sensibles are not argued to belong to the *sensus communis* as its proper object, or as specifically falling under its proper object in a manner distinct from any other sensible (cf. 1268: *In de anima*, lib.2, lec.13, n.7-8).

Robert Pasnau (2002: *Thomas Aquinas on Human Nature*, 190-99) provides some clarity against interpretations like Brennan’s, but Pasnau’s analysis looks only at a small selection of texts—in fact, he confines his consideration almost exclusively to the *Tractatus de Homine* in the *Summa theologiae, prima pars*. Well noted by Pasnau, as by most clear-reading Thomist scholars, is that the *sensus communis* perceives not only that the exterior senses sense (c.1259/65: *SCG* 2, c.74, n.10; *ST* Ia, q.1, a.3, ad.2; q.57, a.2, c.; q.78, a.4, ad.2; q.87, a.3, ad.3), but discriminates between the objects of the five exterior senses as well (*ST* Ia, q.57, a.2, c.; q.78, a.4, ad.2), though by grasping them as all under a common character (i.1256-59: *DV*, q.15, a.1, ad.3).

Thus, the *sensus communis* is the common root of all the five senses, and is where their intentional immutations—that is, their changes by objective causation—terminate, as a single point may terminate five different lines (1268: *In de anima*, lib.3, lec.4, n.11). It is at this point that the **phantasm or percept** comes into being (1268: *Sentencia De Sensu*, t.2 [De memoria et reminiscencia], lec.2, n.9):

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<td>Something is perceived by sense in a twofold manner: in the first manner, through that immutation of the sense by the sensible, and thus the proper sensibles are cognized just as are the common sensibles by both the proper senses and the integrating sense. In the second manner, something is cognized by a secondary motion, which remains beyond the first immutation of the sense by the</td>
<td>Dupliciter autem aliquid sensu percipitur. Uno quidem modo per ipsam immutationem sensus a sensibili et sic cognoscuntur tam sensibilia propria quam etiam communia, a sensibus propriis et a sensu communi. Alio modo cognoscitur aliquid quodam secundario motu, qui reliquitur ex prima immutatione sensus a sensibili. Qui quidem motus remanet etiam</td>
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sensible. This motion remains even after the absence of the sensibles, and belongs to the simple retention, as was related in the *De Anima*. The simple retention, insofar as it appears through immutation of this second kind, is a passion of the integrating sense; thus it follows that the whole immutation of the sense, which begins from the proper senses, is terminated at the integrating sense.

In other words, the *phantasm*—which is retained in the *phantasia* or sensory retention—is produced by the *sensus communis* or integrating sense. This formation of a percept or phantasm, I believe, is processed through the integrating sense but effected by the *vis cogitativa*, the cogitative faculty.

**XL.** While this may seem a very simple function, the quantity of potential external sense perceptions is very large. For example, in the retention of a sensory experience of fire, there are contained the particular motions of the flames, the smoke, the intensity of its color or heat, the size and shape of the cave, the cracks in the walls, the audible *cracks* of the flaming logs, and so on—nearly *ad infinitum*, even in such a limited example. Additionally, some sensations may not be well preserved, or at all; or, in prolonged absence, those sensory experiences may become dim or lost entirely. The faculty of sensory retention, since it is involved in other operations of the perceptive properties, may become habituated to retain certain sense objects more strongly or prevalently, such that they are more readily evoked in specific contexts: as a designer tends to retain specific differences in color more precisely than a non-designer, and to have readier access to those distinctions.

Thus, while the faculty's proper operation may be itself rather simple (such that, were it isolated from the rest of perception, it would be a sort of “sensory data entry”), the operations in which it is typically involved are ordinarily complex, and by its involvement with them, the sensory retention's operation becomes more complicated as well: such that what we retain is usually filtered by the context,
omitting certain sensory objects from retention and highlighting others. For instance, a witness asked to recollect a criminal’s appearance (an operation which does not belong to either simple or pattern retention, but draws upon both) may vividly recall some details (“his shirt was bright red”) while only dimly others (“I think his hair was black, or maybe brown?”); or not at all; or the nature of the experience may have traumatized the witness in such a way that totally false details are imported to the recollected events.

The texts of Aquinas are often lacking in clarity when it comes to description of the vis imaginativa, or as it is sometimes called following Aristotle, phantasia. For one, Aristotle’s own treatment of the phantasia does not distinguish species of internal sense (or perceptual) faculties. In consequence, we are at danger of equivocating in interpreting its use in the texts both of Aristotle and of Aquinas. This is to be noted in, for instance, Book III of On the Soul and in Aquinas’ commentary, particularly lectio 6. Careful observation, however, will notice that Aristotle ascribes to phantasia a reception of incidental sensibles—which are of a different type than proper and common sensibles, and not contained within the proper object of any external sense power nor of the integrating sense. Thus, we find the explanation of John Poinsot—who named the whole apparatus of perceptual faculties and all the interrelated operations phantasiari—to be very helpful (1634: Cursus Philosophicus, Philosophiae Naturalis Quarta Pars, q.8, a.2; Reiser ed., Ill. 252b20-253a41, translation Deely’s):

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<td>Phantasia is used in two senses. In one way generally for every interior power forming its own objects and making them appear, in contrast with the synthetic or common sense [which coordinates and wholly depends upon the external senses] and the external senses, which likewise do not cause their objects to appear, but cognize only those aspects of things by which they are here and now affected. And so every interior power beyond the common sense has Phantasia sumitur dupliciter, uno modo communiter pro omni potential interior formante objecta sua et faciente apparere, ad distinctionem sensus communis et sensum exteriorum, qui non faciunt apperere sua objecta, sed solum cognoscunt illa, a quibus immutantur. Et sic omnis potential interior prater sensum commune habet commune nomen phantasiaem, quae ut tradit D.</td>
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English

Phantasia is used in two senses. In one way generally for every interior power forming its own objects and making them appear, in contrast with the synthetic or common sense [which coordinates and wholly depends upon the external senses] and the external senses, which likewise do not cause their objects to appear, but cognize only those aspects of things by which they are here and now affected. And so every interior power beyond the common sense has

Latin

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the general or common name of *phantsia*, which, as St. Thomas explains in his *Commentary on Aristotle’s treatise On the Soul*, Book III, reading 6, is derived from the Greek noun *phos*, which signifies what our word “light” signifies, and thence is derived from *phanos*, which is an illumination or manifestation, and *phantasia*, which is sense knowing and formed according to appearances, because it supposes necessarily objects that have already appeared in sense, and another appearance formed therefrom afterward. *In another way phantasia* is used specifically to designate the power of imagination as distinct from the estimative or evaluative power and particularly in view of the fact that this manifestation and formation of images pertains especially to the imagination, whereas another act more principally pertains to the estimative power, namely, the activity of cognizing unsensed aspects of things and evaluating them according to their utility or harm to the perceiver. . . . Therefore *phantasiari* [to perceive?] and to sense are distinguished as two types or kinds of knowing, and the one is defined in contrast with the other. And just as that stimulation [of a cognitive power] which is produced by a sensible object according to its own being must be called in general “sensation”, so that movement [of a cognitive power] which is produced not by the sensible, but by

Thomas lect. 6. cit. derivatur a nominee “phos”, quod graece nominee “phos”, quod graece significant idem quod lux, et inde derivatur “phanos”, quod est illuminatio se apparition, et “phantasia“, quae est sensus cognoscens et formatus secundum apparitions, quia necessario supponit obiecta apparuisse in sense, et exinde formatur alia apparition. Alio modo sumitur phantsia specialiter pro potential imaginativa ut distincta ab aestimativa et memoria et appellatur nomine illo generico propter penuriam vocabulorum, praesertim quia ad imaginativam maxime pertinent ipsa apparition et formation imaginum, ad aestimativam autem spectat alius actus principalior, qui est intentiones cognoscere et aestimationem facere de rebus secundum convenientiam vel disconvenientiam earum in ordine ad se. . . . Itaque phantasiari et sentire distinguuntur tamquam duo genera cognoscendi, et definitur unum, ut condistinguitor ab altero. Et sicut sentire in communi dici debet, quod est motus factus a sensibili secundum se, ita phantasiari in communi definitur, quod est motus factus non a sensibili, sed a sensu, id est ab obiecto iam cognito".
the sense, that is to say, by an object already cognized, is defined in general as *phantasiari*.

As Deely implies in his translation, the only seemingly suitable translation for *phantasiari* is “to perceive”. However, it must be noted that this translation is *inadequate*, particularly given the tendency of today to conflate perception and sensation: that is, what occurs in *phantasiari* includes a host of operations which occur independently of the presence of the sensible object from which “perception” begins; yet today, “perception” is ordinarily understood to pertain to the sensibly-present.

When we speak of the “sensory retention”, here, we are identifying specifically the *phantasia* understood as the *vis imaginativa*—that is, the specifically-distinguished part of *phantasiari* which has retention of simple sense images—*phantasmata* or uninterpreted “percepts”—as its object.

**XLI.** As Aquinas puts it in 1266-68: ST Ia, q.78, a.4, c., “To the apprehension of intentions which are not grasped through sense, the *vis aestimativa* [to which the *vis cogitativa* or cogitative faculty is the equivalent faculty in human beings] is ordained; and to the conservation of these intentions, the *vis memorativa* [translated here as the recollective retention], which is a certain storehouse for intentions of this kind” (cf. 1268: *Sententiae de Sensu*, t.2, lec.2, n.11). In other words, what the cogitative faculty does to and with and through the sensations as they are consolidated through the integrating sense into a perceptible object is retained by the pattern retention.

The faculty of pattern retention, much like the sensory retention, is typically involved in more complex operations of the perceptive faculties; in fact, without the unique receptive capacity of the cogitative faculty, the pattern retention faculty would have nothing to retain. Elsewhere, Aquinas notes that the *vis memorativa* operates together with the *vis imaginativa* and the *vis cogitativa* in the latter’s preparation of phantasms for the intellectual operation of “abstraction” (c.1259/65: *SCG* 2, c.60, n.1) and is necessary to the intellect’s continued functioning after the intelligible species has been distinguished in act, as well (c.1259/65: *SCG* 2, c.79, n.11; c.80, n.6; c.81, n.12). Moreover, by this close association with the intellect, the *vis memorativa* along with the other powers of *phantasiari* is habitually altered in its own operations (1266-
68: *ST* 1a, q.78, a.4, c.; ad.5). In other words, the retentive capacity of the power includes what the perceptual faculties experience as a consequence of their association with the intellect in its illumination of the phantasms in which intelligible species are understood. Thus, our patterned retentions are not merely retentions of the perceptual, but also of the perceptual-experienced-as-intellectual.

We can see this in the way that patients suffering from memorative disorders—dementia, Alzheimer’s, etc.—are nevertheless capable of making intellectual connections if and when they are able to overcome the deficit in their perceptual memories. Intelligible meaning remains, but the connections which allow us to think of it may suffer degradation through material deficiency.

**XLII.** Aquinas—unlike some others of his time, before his time, and even after his time—did not always underestimate the potency of non-human animals’ estimative capacity by reducing it to “instinct”: that is, to an inborn, unchanging, “pre-programmed” routine of how to deal with environmental factors. As we know now, in an endeavor accelerated by the investigative researches of evolutionary theory in the 18th and 19th centuries, courtesy of idioscopic studies and empirical observations of animal behavior, this is an illusion: while animals may appear “instinctively” to know how to operate in certain situations, this too we have discovered to be a learned behavior—a behavior learned and passed on genetically, rather than in the individual life of the particular animal. Moreover, animal behavior does adjust to new and different situations through estimative procedures that are more complex than a merely-instinctually-grounded basis for judging positive, negative, or neutral; their capacities for making these judgements do indeed develop over the course of the individual life of the particular animal.

Aquinas recognized this to at least some extent, distinguishing three levels of intelligence in animals (note the terminological issue concerning “phantasia” below - 1271/72: *Sententia Metaphysicae*, lib.1, lec.1, n.10-13):

<table>
<thead>
<tr>
<th>English</th>
<th>Latin</th>
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<td>Where Aristotle says, “from the senses”, he goes on to posit a diversity of cognition which is found in non-</td>
<td>Deinde cum dicit ex sensibus ponit diversitatem cognitionis, quae est in</td>
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<td>brutis: et tangit etiam tres gradus</td>
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human animals: and he mentions three grades of cognition in such animals. For there are some which, although they have senses, nevertheless do not have memory, which is made from the senses. For memory follows the phantasia,* which is a movement by a second act of sensation, as is related in De Anima book II. In certain animals, phantasia does not follow from the senses, and thus in those animals there cannot be memory: and animals of this kind are imperfect animals, which are immobile with regard to place, such as shellfish. Since animals are provisioned with sensitive cognition to the necessities of life and to proper operation, those animals ought to have memory which are moved to objects distant by a progressing motion: for unless within them remained through memory a preconceived intention, from which they are induced to move, they would not be able to continue to pursue their intended ends. But for immobile animals it suffices to their proper operations, accepting what is present to the senses, since they are not moved to distant objects; and therefore these animals have a certain indeterminate motion by confused imagination alone, as is said in book three of the De Anima.

From this, that certain animals have memory and certain others do not, it follows that some are prudent and cognitionis in huiusmodi animalibus. Quaedam enim sunt, quae licet sensum habeant, non tamen habent memoriam, quae ex sensu fit. Memoria enim sequitur phantasiam, quae est motus factus a sensu secundum actum, ut habetur in secundo de anima. In quibusdam vero animalibus ex sensu non fit phantasia, et sic in eis non potest esse memoria: et huiusmodi sunt animalia imperfecta, quae sunt immobilia secundum locum, ut conchilia. Cum enim animalibus cognitionis sensitiva sit provisiva ad vitae necessitatem et ad propriam operationem, animalia illa memoriam habere debent, quae moventur ad distans motu progressivo: nisi enim apud ea remaneret per memoriam intentio praeconcepta, ex qua ad motum inducuntur, motum continuare non possent quousque finem intentum consequerentur. Animalibus vero immobilibus sufficit ad proprias operaciones, praeentis sensibilis acceptio, cum ad distans non moveantur; et ideo sola imaginatione confusa habent aliquem motum indeterminatum, ut dicitur tertio de anima.

Ex hoc autem, quod quaedam animalia memoriam habent, et quaedam non habent, sequitur quod
others are not. Since prudence provides for the future from the memory of the past (accordingly, Cicero in book II of the Rhetoric posits memory, intelligence, and providence as the parts of prudence), in those animals who lack memory, prudence cannot possibly be. Those animals, which have memory, are able to have something of prudence. Yet prudence is said to be in non-human animals and in humans in different ways. For in humans there is prudence according to what from reason they deliberate what act it is right to do; whence in Nicomachean Ethics book VI, it is said that prudence is right reason concerning things to be done. But judgment of things to be done is not from the deliberation of reason but rather from a certain instinct of nature that prudence is said to be in some animals. Whence prudence in some animals of the nature of estimation concerning the fitting things to pursue and the harmful things to flee, as the lamb follows its mother and flees the wolf.

Among those animals which have memory, there are certain animals which do not have hearing, such as bees (or if there be any other such animals of this kind), although they may have prudence, nevertheless are not capable of receiving teaching, namely in the quaedam sunt prudentia et quaedam non. Cum enim prudentia ex praeteritorum memoria de futuris provideat (unde secundum Tullium in secundo rhetoricae, partes eius ponuntur memoria, intelligentia, et providentia), in illis animalibus prudentia esse non potest, qui memoria carent. Illa vero animalia, quae memoriam habent, aliquid prudentiae habere possunt. Dicitur autem prudentia aliter in brutis animalibus, et aliter hominibus inesse. In hominibus quidem est prudentia secundum quod ex ratione deliberant quid eos oporteat agere; unde dicitur sexto Ethicorum, quod prudentia est recta ratio agibilium. Iudicium autem de rebus agendis non ex rationis deliberatione, sed ex quodam naturae instinctu, prudentia in aliis animalibus dicitur. Unde prudentia in aliis animalibus est naturalis aestimatio de convenientibus prosequendis, et fugiendis nocivis, sicut agnus sequitur matrem et fugit lupum.

Inter ea vero, quae memoriam habent, quaedam habent auditum et quaedam non. Quaecumque autem auditum non habent, ut apes, vel si quod aliud huiusmodi animal est, licet prudentiam habere possint, non tamen sunt disciplinabilia, ut scilicet
sense of being able through the instruction of another to be habituated to doing or avoiding something: for this sort of instruction is particularly received through hearing: whence it is said in the book *De Sensu et Sensato*, that hearing is the sense of learning… But those animals, which have memory and hearing, are able both to learn and to be prudent.

Therefore it is clear that there are three grades of cognition in animals. The first grade is that, of which the members have neither hearing nor memory, which are neither teachable nor prudent. The second grade is that, of which the members have memory, but not hearing, which are prudent but not teachable. The third grade is that of which the members have both memory and hearing, and are prudent and teachable. A fourth mode is not possible, name that there be some animal which has hearing and does not have memory. For those senses, which apprehend their sensible through an exterior medium, among which is hearing, do not exist except in animals which are moved through a progressive motion, which are not able to exist without memory, as was said.

| per alterius instructionem possint assuescere ad aliud faciendum vel vitandum: huiusmodi enim instructio praecipue recipitur per auditum: unde dicitur in libro de sensu et sensato, quod auditus est sensus disciplinae…. Illa vero animalia, quae memoriam et auditum habent, et disciplinabilia et prudentia esse possunt. |
| Patet igitur tres esse gradus cognitionis in animalibus. Primus est eorum, quae nec auditum nec memoriam habent: unde nec disciplinabilia sunt, nec prudentia. Secundus est eorum quae habent memoriam, sed non auditum; unde sunt prudentia, et non disciplinabilia. Tertius est eorum, quae utrumque habent, et sunt prudentia et disciplinabilia. Quartus autem modus esse non potest, ut scilicet sit aliquod animal, quod habeat auditum, et non habeat memoriam. Sensus enim, qui per exterius medium suum sensibile apprehendunt, inter quos est auditus, non sunt nisi in animalibus quae moventur motu progressivo, quibus memoria deesse non potest, ut dictum est. |

*The translation of *phantasia* presents a certain challenge, here. Oftentimes, the term is used synonymously with the *vis imaginativa*; other times, with the generic sense of *imaginatione* which corresponds to the totality of interior sense or perceptual
faculties. Here, the use seems to map cleanly on to neither; for one, Aquinas states that some animals lack *phantasia* and yet are governed by an indeterminate *imaginatione*. Moreover, the *phantasia* here is said to precede memory: which is certainly true in the sense that the operations of the *vis imaginativa* precede those of the *vis memorativa*, but that preceding is incidental rather than causative, which causation seems to be in Aquinas’ mind here. Consequently, I interpret *phantasia* here to mean: the result of the operations of the *vis a estimativa/cogitativa*.

Aquinas, notably however, does still underestimate the potency of animal cognition: for while individual animals like bees seem not to learn radically new behaviors in the course of their individual lives, they do learn *as a species*—much as a system-purpose final causation can drive a multitude without being the specific goal of any one individual—through the evolutionary alteration of genes over many generations, and, moreover, individual bees do demonstrably have *memory* in their search for and reporting of food sources—so that they learn, albeit only in a very limited sense. Moreover, it is not clear that hearing is as necessary to learning as Aquinas thought: likely, this was a consequence of the technological paradigms of his time, in which the written word existed at such a premium that it was late-if-ever introduced to the education of most individuals, and most instruction was carried on orally. As has been amply demonstrated in the past centuries, someone is capable of learning without hearing and even without sight. This capacity for learning exists also in lesser animals which lack the sense of hearing, or what we would recognize as hearing—perhaps not to any great extent in their individual brains or brain-analogates, but more profoundly in their genetic lineages.

This is not, however, to lessen the capacity of the species-specifically human cogitative faculty—far from it—which is vastly improved in its functionality by close association with the operations of the intellect. We see this specifically with regard to evaluation in that benefit, harm, and neutrality are judged not only as pertaining to the immediate concerns of the evaluating animal but can extend to or even privilege concerns separate from the individual. The cogitative faculty plays an explicit role in this process of practical evaluation as conjoined to the intellect, as the intellect provides the major premise and the cogitative provides the minor premise in the practical syllogism (c.1252/56: *In Sent.*, lib.4, d.50, q.1, a.3, ad. s.c.3). For a more
detailed discussion of the cogitative faculty and its analogate in non-human animals, the estimative faculty, see Deely 1971: “Animal Intelligence and Concept-Formation” in *The Thomist*, 35: 43-93.

**XLIII.** To give more detail to the above exposition, we may identify three classes of cogitative operation. The first class is exhausted by the operation of **perceptual objectivization.** This is the operation whereby the whole sensible, collated through various sense data by the integrating sense, becomes an object for perceptually-driven operations; this is the transition from being an object of sensation to an object of perception, in other words. These **perceptual objects** are characterized, in distinction from sensible objects (proper, common, and whole), by being **referentially meaningful:** the object of perception has some meaning for the individual perceiving it; the object is not simply received, and grasped, but also subsumed into a context of judgment about its relation to the individual. Thus, we can characterize the operation of perceptual objectivization as placing the object of sensation into a context where the object's referential meaning is sought, i.e., such that it is now possible for it to receive a referential meaning.

We refer to the result of perceptual objectivization, and of all subsequent modulations of that whereby we perceive, as a **percept.** The percept is not the object itself we understand, but the means through which we understand it (just as any neurological activity is not itself what we know, but a means by which we know).

Subsequent to this operation of perceptual objectivization, there is the second class, the various operations of **collation:** that is, any operation whereby we sort the perceptual objects of our experience into an operational order. These processes produce new **complex** wholes (i.e., wholes made of many parts), the parts of which are united through the ways in which the individual handles its experience. Because these wholes are dependent upon the individual's **interpretations** of experience, these collated perceptual wholes are subject to errors of judgment.

We can further divide the operations of collation into three:

1) First, there is the **evaluative operation.** This is the judgment of the perceptual object by the individual as beneficial to itself, harmful to itself, or neutral for its interests (+/-/ø); as well as that this perceptual object is more or
less beneficial, etc., than that perceptual object (i.e., the comparison of what is made known by percepts). The judgment applies the referential meaning to the perceptual object or to the relational context of perceptual objects. This evaluation is a judgment on the referential meaning of the object. Evaluative operations can also be performed correlative with an intellectual understanding, which brings their functional importance to a distinctly-human level.

2) Second, the **memorative operation**. Calling upon both simple and pattern retention, the cogitative faculty re-produces some past experience for any number of operative reasons. One experience may evoke a trigger for memory, so that the present experience may be compared to the past, such that perceptual objects within both are subject to a further evaluative operation; the recurrence of a desire experienced previously may evoke a memory of the context of its previous satisfaction, so that the individual can attempt to satisfy the recurrent desire; and so on.

3) Third, the **fictive operation**. Again, calling upon the simple and pattern retention, the cogitation produces for itself some new configuration of objects retained from past experiences. This could be **planning** (building a dam, nest, web, etc.) or, in the case of human beings, **phantasy** or active conditions of cognitionally-constituted **delusions** (i.e., people seeing things the way they want to see them). Phantasy comprises those actions of **simple pretense** (e.g., “This [stick] is a sword”), **complex pretense** (e.g., “This sword [stick] will slay the evil wizard [my brother] and save the kingdom [the backyard]”, i.e., fictitious world building), or **illuminative analogical story-creation**, where complex pretense is altered by subordination to mimetic, allegorical, tropological (moral), or eschatological purpose for the specific purpose of illuminating truths more easily than through reference to the natural world. These specifically human fictive operations can only occur in conjunction with the intellective property, however; hence why other animals demonstrate no evidence of experiencing them.

After the operations of collation, there are, **third**, the operations of execution. These operations include any act whereby the cogitation enacts the conclusion of its
collative processes. For instance, the deer running from the wolf, having cognized its presence as a threat, is an instance of execution; likewise, the dog setting off in search of its water bowl, the bird selecting a twig for its nest, the man adding his work schedule into a calendar, and so on. The most important of these executive operations—which could also be understood as operational performance (any action taken as a consequence of immanent perceptual operations—including further immanent perceptual operations)—are inhibitory control (restraint against a desire), attentional control (or focus upon a task), and the application of percepts to the constitution of further perceptually-based actions (either immanent or transitive).

Every operation of executive follows an operation of evaluation. The operation of evaluation may be either explicitly or only implicitly present; that is, one may be actually performing a judgment about what is beneficial, negative, or neutral, or one may have become habituated to that judgment such that no new operation of evaluation is performed, but the execution follows in accord with the habit. The majority of our operations which concern the operative good in our immediate environment are primarily according to habits and therefore only implicitly evaluated (such as taking a drink of water, or coffee, or taking another potato chip from the back; or using something on which to rest our feet; adjusting a pillow, or our clothing, and so on).

In human beings, nearly all the operations of cogitation are imbued with effects derived from intellection—though often in subtle ways of which we are unaware—and, moreover, dispose the objects of perception for the operations of intellect. Indeed, we refer to this faculty as “cogitative” only in human beings; in all other animals, it is named the estimative faculty. This intellectual perfusion in human beings, however, mandates careful attention in discerning what belongs to the perceptual faculties properly speaking and what they gain from their association with intellection.

The postulated and explicated operations of the cogitative faculty here are extrapolations from the Thomistic tradition, but not found explicitly in the writings of its authors anywhere, to the best of my knowledge. That is, while there have been some extensive treatments—most notably George Klubertanz’ 1952: The Discursive Power: Sources and Doctrine of the Vis Cogitativa According to St. Thomas Aquinas,
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more recently Anthony Lisska’s 2016: *Aquinas’s Theory of Perception: An Analytic Reconstruction*, which deals with the *vis cogitativa* from c.10 onwards; as well as dissertations by Leo White (from the Catholic University of America) and Mark Barker (from the Center for Thomistic Studies at the University of St. Thomas, Houston TX)—none have seemingly provided specific delineations of cogitative operations, but contented themselves with leaving the faculty’s operations under a vague umbrella of common definition.

At various places, Aquinas describes the *vis cognitiva* as considering particular forms (c.1252/56: *In Sent.*, lib.3, d.23, q.2, a.2, qc.1, ad.3), that it provides the minor premise in the practical syllogism (c.1252/56: *In Sent.*, lib.4, d.50, q.1, a.3, ad. s.c.3), that it distinguishes and compares individual intentions (c.1259/65: *SCG* 2, c.60, n.1), or divides and composes the intentions of particulars (c.1259/65: *SCG* lib.2, c.73, n.14), that it prepares or disposes phantasms for the operations of the *intellectus agens* (c.1259/65: *SCG* lib.2, c.60, n.1; c.76, n.8; 1266-68: *ST* Ia, q.84, a.7), that it is affected by its proximity to the intellect (c.1252/56: *In Sent.*, lib.3, d.23, q.2, a.2, qc.1, ad.3; 1266-68: *ST* Ia, q.78, a.4, ad.5; 1271/72: *ST* Ila-Ilae, q.2, a.1, c.), that it perceives the “incidental sensibles” of individuals and thus as an individual of a certain kind (1268: *In de anima*, lib.2, lec.13, n.14; n.16), and finally that it collates these individual intentions (1266-68: *ST* Ia, q.78, a.4, c.; 1268: *In de anima*, lib.2, lec.13, n.14), and thereby forms an experience (together with memory; 1271/72: *Sententia Metaphysicae*, lib.1, lec.1, n.15).

From these various descriptions—along with considerations raised by other Thomistic thinkers, including Poinsot—we can fairly extrapolate a variety of operations, particularly operations in which the cogitative faculty operates through and with the other operations of *phantasian*. We have attempted to chart these in diagram at the following link (it not being very easy to include a 2-page diagram in a self-published book), which, as you can tell, shows an extraordinary complexity of relations between the various powers and their operations (which may not be exhaustive; further reflection, consideration, and attention to this complex web of perceptual facultative operations seems an important point to emphasize going forward in all of our studies):
XLIV. Perceptual operations all require a combination both of internal and external causation. As aforementioned, sensation considered simply in itself is the efficient causation of the sensible operating through its respective media on the potential receptivity of the sensory faculties; the sense organs being materially disposed to receive the forms (light, sound, etc.) issued by the sensory objects. Embedded within those sensible objects, however, is the specificative what of objective causation having a referential meaning, which can be received only by the perceptual faculties. In other words, that cogitation is capable of perceptual objectivization follows from the specificative causation the object renders through the environmental context by means of which sensation occurs. Such specificative causation is neither independent of the individual’s cognitive structure nor is it determined by that structure.

Driving the entirety of perceptive interaction is the internal final cause of the animal’s operative good: that is, the attainment of the means necessary to the maintenance of the individual’s life, as well as the lives of those with whom it is in a relationship of mutual benefit (either its own or its species’ benefit), as well as reproduction and rearing—that is, the individual good finds its fulfillment also in a subordination to the external final cause. In the case of human beings, the operative good is subordinated to a higher and more complete good; such that the human perceptual faculties find their fulfillment in a final cause which goes beyond what belongs to them properly, i.e., an external final cause.

As such, we would say that the primary external causal types, entirely external to the perceptive faculties, rendered upon perception are a) the formal objective or specificative causation and b) any external final causation to which the operations of perception are subordinated.

The occurrences of the facultative operations noted above—perceptual objectivization, collation, and execution—are each the result of the cogitative faculty exercising efficient causation. Here we have external causation but as internal to the perceptive faculties in the case of objectivization and collation, and in some cases of execution; and from within the perceptive faculties to the body in the case of execution that involves transitive action. Considered within the framework of perception, the cogitative faculty is the agent cause of all activity. In its act of
perceptual objectivization, the cogitative faculty produces in the sensory retention the retained sensible forms of perceptions and in the pattern retention the perceptible patterned forms of perceptions; such that by the external efficient causation of the cogitative faculty there results in both retentive faculties an internal formal causation.

Correlatively, each retentive faculty possesses a material causation, i.e., its potential receptivity. We may perceive things which we do not well retain, due to a deficient or limited receptive potential in the retentive faculties. Such could be due to neurological fault (e.g., brain damage) or to exclusionary habituation (as someone a bit narcissistic may perceive someone's distaste for him, but not retain that perception due to his own self-aggrandizing obsession; such that every time the event is recalled, it is misremembered with slightly less distaste on the other person's part until it is so badly misremembered that the narcissist believes the other fawned over him).

In the cases of collation (evaluation, recollection, and fiction), the cogitative faculty's efficient causation results in the formation of a new internal formal causation in one or more of the other internal perceptual faculties: that is, it produces an elaborated percept, potentially retained in the pattern retention (though perhaps ephemerally) and through which the individual's disposition towards its objects is altered. For a simple instance, the evaluation of an animal as harmful will be retained such that future encounters with that animal can evoke a memorative operation of the past evaluation; being chased by an aggressive dog may produce an instant habitual evaluation of dogs as threatening. In a more relationally-complex instance, many experiences of watching a specific television program at a specific time in a specific place can produce a strong correlated habit such that any one of the three elements can evoke the entire pattern to varying degrees of awareness.

But the operations of collation affect not only the pattern retention, but also the integrating sense: that is, in perceiving the object of sensation, it perceives not only the sensible object, but along with it the elaborations retained in pattern retention and now attendant upon the physical presence of that percept: it sees not just the dog, but the threatening-dog; not just the couch, but the couch-where-one-watches-
TV; not just the woman, but the wife (a perpect which requires intellection, as well—since the concept of “wife” cannot be produced by the cogitative faculty alone, it having a meaning irreducible to reference), and so on.

We can therefore say that the recollective retention exercises an objective or specificative causation both in the memorative operation and latently in operations of the integrating sense’s active perception; the memory recalled from the recollective retention induces a dispositional change in the cognitive individual, such that it is now otherwise disposed to that object whose pattern was retained (indifferently to the presence or absence of the object). This specificative-causation induced change can be minor (as recalling that one needs to buy stamps, or that this particular dog is one’s pet) or major (as recalling a traumatic childhood event). For as long as the cogitative faculty recalls something from the recollective retention, the resultant percept is a formal cause for the perceptual activity of the individual.

The fictive operation exercises first a formal or structural causation in the production of a perpect which the mind considers, and insofar as it is subordinated to operations of execution, an ideal or exemplar causation.

XLV. In each perceptual faculty, and within the entire relational-complex of the perceptual faculties’ operations on each other, there is a capacity to be molded, a plasticity: that is, the ability to take habits, such that some operations come more easily than others.

For instance, in the case of sensory retention, we note that in our collative operations, whether fictive, memorative, or evaluative, specific sensory objects are more likely to be associatively brought forth than others—even if the others are equally or even more fitting to the operation in question. As an example, one might associate “red” most readily when encountering the word “color” (such that an image of red pops into mind first upon hearing the word “color”), despite “green” being equally an instance of color; or someone might first associate a cheetah with “fast” even when the context is better suited by a lightning strike or a bullet train.

Seldom do we draw upon the sensory retention, however, without also drawing on our pattern retention—since we very seldom experience sensibles absent a perceptual context (the nonsense flood of impressions often encountered in dreams
being an example of one of the few cases where we might draw upon the sensory retention such that its content is radically de-contextualized—but even in recalling the dream, that sensory content has been re-contextualized, albeit often in impossible or silly ways).

Of importance in considering the plasticity of the perceptual faculties’ habituation is how the interpretative evaluations of the cogitative faculty are affected, on the one hand, by the sense faculties delivering the perceptible objects, and on the other hand by both its fictive and its memorative operations. The operations of the sense faculties produce for us sensory familiarity: that is, operating normally, they become habituated to certain sensible objects and therefore are slow to attune themselves to the salient features of unfamiliar ones. This is true also of the perceptual faculties, but because their objects are always interpreted objects, and because of the dynamic interaction of the perceptual faculties, the contexts of perceptual habituation are more complicated than those of sensation.

That is, our evaluative interpretations of perceptual objects are elaborated—worked out into more detailed, rich forms—through a complex relationship of operations, often including both the memorative and fictive. When the fictive operation becomes the dominant paradigm of evaluative interpretation, one becomes habituated to attitudes of planned domination, poetic construction, or phantastic delusion. This habituation follows from the recursive formation of perceptual operations: that is, because the faculty of pattern retention contains not only the patterns of experiences but the interpretation of patterns of experience, our pattern retaining capacity itself becomes habituated by the retention of dominant paradigms of interpretation; such that our memorative operations are themselves specified by that paradigm.

**XLVI.** As examples of each:

1) When conceptual falsity occurs through composition, this entails including in some concept a notion which does not properly belong there. A common instance of this today is ascribing linguistic capacity to non-human animals. Ultimately, this false ascription follows from a misunderstanding of what “language” is, which, in turn, results in the false composition of “linguistic” within the conceptual whole signified by, for instance, “cat” or “dolphin”.
2) When conceptual falsity occurs through exclusion, this entails denying that some notion belongs to a being despite the truth being otherwise; as, for instance, if someone excluded the distinctiveness of human intellect from the concept of “human being”, or “the capacity to feel” from animals.

3) When judgmental falsity occurs through composition, this entails joining two concepts together as though this represents their factual state when, in actual fact, it is otherwise. For instance, if I were to say, “I am standing”, though I am in fact sitting, this is representative of a false judgment, as it would be if I said, “Idaho is east of Montana.”

4) When judgmental falsity occurs through division, this entails separating two concepts as though this represents their factual state when, in actual fact, it is otherwise. For instance, if I were to say, “You are not sitting”, though you are in fact sitting, this is representative of a false judgment.

Among the difficulties of identifying falsities, of any of the four kinds, is that by necessity one cannot recognize oneself as having made one, so long as the concept is left unexamined or the proposition receives assent. Hence, the importance of developing philosophical habit.

XLVII. Karol Wojtyła, in his various writings composed before his election to the papacy, consistently taught this intimate connection between truth and goodness in the development of our action. It is worth reading a number of these passages to understand a bit of the context in which we find the idea put forward. Consider (1958: “The Role of Reason in Ethics” in Person and Community: Selected Essays, hereafter PC, 58):

> The truth concerning the good can be of both theoretical and practical significance. Reason apprehends the good in a speculative way when it defines the good’s essence and reflects upon the principles governing it.

And (1959a: “Phenomenological Basis of the Moral Norm”, in PC, 81):

> Thomas strongly emphasized the connection between goodness and truth. Truth is the essential object of reason; it is what reason properly seek sin all that it knows. The good, on the other hand, is the object of the will. Because the will is a rational appetite (appetitus rationalis), reason, which is so naturally connected with the will, must also seek the truth in whatever the will aims at, in every action of the will.
Action, in turn, is an act (actus secundus) of existence—operari sequitur esse. Thus our whole existence is continually being actualized in conjunction with truth.

(Ibid, 86):

I call a norm that which in some way generates moral values and is found to some extent directly with the birth of values, or at any rate makes the emergence of values possible in the human being in a person... For Thomas, if we recall, the most proximate source from which moral “values” (moral good and evil) “spring,” so to speak, is reason’s natural ability to know the truth in everything that the will wills, in every good that happens to be a “material” object or end of the will.

(Ibid 90-91):

For St. Thomas, the moral life consists in attaining the truth in all our action and behavior, and activity by nature always aims at some good. Consequently, the essence of the moral life is the “lived experience” of the truth of the good realized in action and the realization in that action of the good subjected to the criterion of reason and thus placed in the light of that truth. This is... the belief that the positing of norms enters into the essence and structure of all conscious and free human acts, which always have objective moral value. We, of course, “experience” this positing of norms as an essential and constitutive element of our moral actions. This experience can be understood as a reflex of consciousness, one that accompanies those actions and mirrors what is going on in our being—in our reason and will.

This view of positing norms and view of human action as essentially involving the “lived experience” of positing norms—and thus also of norms—an experience with which the moral value of an action is directly linked, is strictly connected with the Thomistic view of spiritual life in general and of the spiritual life of the human being in particular. The essence of the spiritual life based on reason is truth, especially truth in all that is an object of the will. We know that whatever is an object of the will is in some sense a good, and so the essence of the spiritual life is the truth of the good.

(Ibid 92-93):

The consciousness of value, on the other hand, arises in us when that existential good (something that exists in a determinate degree and becomes an object of action) is evaluated in a certain way, namely, is placed, so to speak, under the light of truth....
Value is essentially already a consequence of some sort of evaluation, or, to use the language of St. Thomas, of some sort of subordination of the good to the true.

And (1959b: “Human Nature as the Basis of Ethical Formation“, in PC, 97):

Morality exists because of this possibility of subordinating to the truth the relation to various goods. The human being is by nature rational, is a person, an individual of a rational nature, and so morality is something natural and necessary in the human being. A human being must subordinate to the truth the various goods with which he or she is involved in acting, thereby also subordinating this activity itself to the truth. Morality is an irrevocable aspect of human acts (actus humani).


The object of the will is the good. There are a variety of goods that we can will. The point is to will a true good. Such an act of will makes us good human beings. To be morally good, we must not only will something good, but we must also will it in a good way. If we will it in a bad way, we ourselves will become morally bad. Morality, therefore, presupposes knowledge, the truth concerning the good, but it is realized by willing, by choice, by decision. In this way, not only does our will become good or evil, but our whole person also becomes good or evil.


Personal subjectivity is the subjectivity that we experience as our own self in our own actions. This subjectivity is revealed to us in its true depth in the lived experience of moral value (good or evil), an experience always connected with the element of conscience in human actions.

(Ibid, 234):

“Do good and avoid evil” is the first principle of conscience as synderesis and also the elementary precept of all human praxis. To act in accord with this principle, I must in my conscience constantly go out beyond myself toward true good. This is the basic direction of the transcendence that is a property of the human person (proprium personae). Without this transcendence—without going beyond myself and somehow rising above myself in the direction of truth and in the direction of a good willed and chosen in the light of truth—I as a person, I as a personal subject, in a sense am not myself.
These exhortations to pursue the truth about the good, rather than the merely apparent good, stand in stark contrast to the ultramodernist—so-called because it does not really distinguish itself from philosophical modernism, but rather takes its principles to their natural conclusions in the absence of restraint by Christian sentiment—tendency which swept the 20th century: that is, the tendency of relativism or subjectivism, of denial that truth about anything, let alone the good, was accessible. While this tenet has received various sophistical obfuscations over time, it remains the prevailing narrative of those who would seek what is good-as-desired over what is good-in-truth. Once we unveil the truth, however, of the structure of the psychological faculties of the human being, it becomes impossible to deny that we are truth-oriented creatures; and that the good we seek, as consequent or realized posterior (in actual existence, albeit prior in intention) to the truth that we discover, cannot simply be a matter of eros-driven fulfillment.

XLVIII. Though much good has been written about the error opposite to materialism—that is, angelism—one of the best analyses (and its prescribed medicine) comes not from a professional philosopher, but from a literary critic and Poet Laureate, though one of great philosophical acumen; that is, from Allen Tate (1899-1979). In two essays, written sometime around 1950-51 and initially delivered as abbreviated lectures at Boston College on 10-11 February 1951, “The Angelic Imagination” and “The Symbolic Imagination”, Tate contrasts the poetic vision of Edgar Allen Poe with that of Dante Alighieri. This contrast pits the blindness of privation found in Poe against the blindness of excess in Dante; that is, the abyssal absence versus the infinitude of divine presence. Where the former wishes to see truth in pure intelligible and immutable form, he cannot, in the end, see anything; whereas the other sees, by arduous motion, something beyond what he can grasp, something which is known to be there but so great that it cannot be comprehended.

That is, Poe represents an extreme case of the perfect becoming the enemy of the good; for he seeks a perfection at odds with the nature of what belongs to humankind. Let us see what Tate writes of Poe’s approach (“The Angelic Imagination”, 420):

[Quoting Poe] “In the original unity of the first thing lies the secondary cause of all things, with the germ of their inevitable annihilation.”
This “nothingness” is a dialectical conversion, not of one symbol into its opposite by analogy, as we see it in Dante, or even in Donne, but of an abstraction into its antithesis. Thesis: the omniscient intellect of man (of Poe as man) achieves a more than angelic knowledge in comprehending the structure and purpose of the created universe. Antithesis: the final purpose of the created universe is the extinction in its own unity of the omniscient intellect of man. There is no Hegelian synthesis. After the original act of divine creation, God withdraws into his deistic aloofness, leaving the separate and local acts of creation to man. This is the sphere of secondary creations which man as angelic delegate of God is empowered to perform. Thus, says Poe at the end of Eureka, not only is every man his own God, every man is God: every man the nonspatial center into which the universe, by a reverse motion of the atoms, will contract, as into its annihilation. God destroys himself in the eventual recovery of his unity. Unity equals zero. If Poe must at last “yield himself unto Death utterly,” there is a lurid sublimity in the spectacle of his taking God along with him into a grave which is not smaller than the universe.

The key here is the “dialectical conversion” which converts an abstraction into its antithesis; if the human intellect is presupposed to be capable—of its own accord—of grasping all things in pure essential abstraction, one finds only annihilation at the end of this process, for the presupposition sets one up for the impossible. In other words, not being angelic creatures, we cannot strive after intellectual grasp of essences in the manner of an angel and come up with anything. Thus (ibid, 422 bold emphasis mine):

*The exhaustion of force as a consequence of his intellectual liberation from the sensible world*—that is my reading of Valéry as a gloss upon the angelism of Poe. The intellectual force is exhausted because in the end it has no real object. The human intellect cannot reach God as essence; only God as analogy. Analogy to what? Plainly analogy to the natural world; for there is nothing in the intellect that has not previously reached it through the sense. Had Dante arrived at the vision of God by way of sense? We must answer yes, because Dante's Triune Circle is light, which the finite intelligence can see only in what has already been seen by means of it. But Poe's center is that place—to use Dante's great figure—"where the sun is silent." *Since he refuses to see nature, he is doomed to see nothing.*

An angelic imagination, is therefore one that (“The Symbolic Imagination”, 429), “tries to disintegrate or to circumvent the image in the illusory pursuit of essence”, whereby “divine love becomes so rarefied that it loses its human paradigm, and is
dissolved in the worship of intellectual power, the surrogate of divinity that worships itself."

This stands in sharp contrast to what Tate terms the "symbolic imagination", one which does not lose its connection with the earthly, the corporeal, the physical, the here-and-now, but rather through it attempts to ascend to awareness of that which makes it possible in the first place ("The Symbolic Imagination", 433-34):

...the “distance” between us and what we see is always a distance between a concept and its object, between the human situation in which the concept arises and the realization of its full meaning... it is the distance between the knowledge of love, which resulted from the earthly love of Dante for Beatrice, and the distant “object,” or God, that had made the love in the first place possible: the distance between Beatrice and the light which had made it possible for him to see her.

That is—and this is a point which Charles Peirce, too, attempted to make clear in his later writings (especially in personal letters to Lady Victoria Welby) in his presentation of the ideas of "immediate object" (what is made known by the sign-relation) and "dynamic object" (the reality “behind” the immediate object)—between the thing as revealed to us and the thing as it is in itself there is an infinite distance, for in the thing in itself there is always more to be discovered, if for no reason other than that it is really related to a universe of things, potentially related to an infinity of possibilities, and—granting the existence of a creating God—really dependent upon an infinite actuality. The greater the object known, somewhat paradoxically, the greater the perception of the distance; for how greater than love must be that upon which love depends?

This distance remains ever untraversable in this life, however, no matter how perfect or numerous the symbols we employ in an attempt to reveal it (ibid, 438):

the symbolic structure is complicated by the action, and in the end the action prevails. That is to say, Dante is still moving. Everything that moves, says Dante the Thomist in his letter to Can Grande, has some imperfection in it because it is, in the inverse degree of its rate of motion, removed from the Unmoved Mover, the Triune Circles, God.
So long as we live in the finite existence of a mobile, earthly, bodily life, we live in remotion from the Divine; and cannot overcome that distance. This is the struggle of our lives. We want the whole good, the fullness of good, a good which cannot be lost or worried over—we know what it is that we want, but its attainment is beyond our abilities. Yet it is better to struggle to see the sun in its effects—illuminating the ground—and thereby get some incomplete grasp of what is too bright for our eyes, than it is to seek only with the eye of the mind, and stumble into the blindness of annihilation.

XLIX. Translation of Husserl’s terminology is difficult: for he makes a distinction between Erfahrung and Erlebnis, both of which receive the English translation of “experience”. The former, though, is used to signify the content of experience, as the “what is experienced”, while the latter signifies the having of an experience, the “being one who experiences”. This “being one who experiences” is almost impossible to convey successfully in any language, for, as intimated, it precedes the cognitive activity whereby we know it. It is what Maritain and Wojtyla have termed “subjectivity as subjectivity”; which, as soon as we put it into words, we put it into a framework of “objectivity”, of having conceptualized it and thereby made it an object of consideration. By an act of conceptualization, the precise character of subjectivity as subjectivity is lost.

This tension informs—consciously or not—most authors’ writings on personhood (see, for example, Maritain 1947: Existence and the Existent, 85). It is not a tension that needs resolution, but which rather pulls us on into further considerations about the nature of the self and knowledge, both of the world and of the self, especially as knowledge of the world becomes coalescently resolved into the being of the self. Cf. Kemple 2018: “Elaboration of the Intellectual Sign”, 87-130.

L. I have already mentioned and shown, above, how pivotal this notion was to Karol Wojtyla’s thought (Gloss XLVI); but the question of how we bring truth to action remains an open one—somewhat necessarily, inasmuch as action always takes the form of the particular while the truth we attain is always in the universal. The key concept which allows us to understand bringing truth to action is that of
**responsibility.** We see this intimated in the work of an early proponent of a Thomistic personalism, Jacques Maritain (1947: *Existence and the Existent*, 56-57):

In practical or ethical philosophy, with which we shall now deal, St. Thomas’s existentialism retains the same intellectualist character, in the sense that practical philosophy remains speculative in its mode (since it is philosophy), although practical by reason of its object (which is moral conduct). Here again there are natures to be known—but this time they serve to constitute norms of conduct, since practical knowledge has for its purpose to guide action. In another sense, however, we must say that in moving into the domain of ethics this existentialism becomes voluntaristic. This is clear when we consider the role which it assigns to the will (by which alone a man can be made to be good or bad, in the pure and absolute meaning of those terms) and the fact that it makes the practical judgment dependent upon the actual movement of the appetite towards the ends of the subject.

As Maritain goes on, “in ethics or practical philosophy, Thomist existentialism”—which should not be confused with what is found in Sartre or Camus, but rather emphasizes the primordiality of the act of existence all beings receive from *ipsum esse subsistens*, God, and thus the ontological priority of any act of existence over the essence which receives it—“is ordered, not to the existence exercised by things, but to the act which the liberty of the subject will bring into existence”; which is to say, to the action of the morally-responsible agent.

This dimension of responsibility is given its most significant treatment within Thomistic personalism, however, in Karol Wojtyla’s 1979 *Acting Person* (a text that received a controversial but deliberate English translation which Wojtyla supposedly oversaw himself). Part two of the text, comprising chapters three (“The Personal Structure of Self-Determination”) and four (“Self-Determination and Fulfillment”) lay out a complex picture of self-possession, self-governance, and the freedom of the will, in which responsibility comes to light. To give a snapshot (134-35):

When the analysis of the will is conducted in the abstract, that is, when it is conducted so that will is viewed as if it were an independent reality—an entity in itself—this remarkable trait of its dynamism [i.e., between the presentation of something as valuable and our response to that presentation] may easily be lost. But if we place the analysis of the will within the framework of the whole dynamic structure that is constituted by the person and based on self-governance and self-possession, then
the will is exhibited as self-determination while its relation to intentional objects is clearly seen as an active response. The ability to respond to presented values is will’s characteristic trait. In making a decision man always responds to values. In his responding there is that independence with regard to objects which does not abolish all the bonds and thus leaves a certain measure of dependence on objects. Nevertheless, it is not the objects and values that have a grasp of man; on the contrary, in his relation to them he governs himself: he is his own master.

Beyond this, we again see the notion of “truth about the good” come to prominence, as the “inner principle of decision” (135-39), whereby the will’s focus is brought to bear on some chosen good. Further on, we see Wojtyla emphasize that the obligation implied in responsibility—which is responsibility for efficacy, for being agents in the world—is truthfulness (171): “The important thing in human striving is its truthfulness – the striving must correspond to the true value of its object... We have here the obligation to refer to the object in accordance with its true value; parallel to it we see the responsibility for the object in connection with its value, or, briefly stated, the responsibility for values.”

LI. The modern and especially ultramodern conceptions of the person are atomistic in nature; that is, the “person” (if recognized at all) is recognized as an individual, whole, complete unit that stands on its own over and against the world. As Robert Spaemann writes, (1996: Persons, 182):

we can only conceive of ourself as a person if there is someone else whom we conceive as one. We do not find out first whether we understand a language, and then whether anyone else understands it, too. To be a person is to occupy a place within a field where other persons have their places.

And (ibid, 185):

‘Person’ means the occupant of a unique position in the relation field of persons; so it is one and the same moment of perception by which we notice that we ourselves occupy such positions, and that other people do, too. To take note of a human being as a person is precisely this: to take note of the a priori relational field that personality constitutes. Only in the context of this field do we discover ourselves as persons.

First, as a quick note, “a priori” here does not signify in the Kantian sense of being known prior to experience, but rather in the sense that the relational field exists
independent of and therefore prior to our explicit cognitive recognition of it. Thus, the relational field of personality is constituted by the relations themselves but does not need to be explicit recognized as such in order for personality to thereby be relationally constituted. Second, this relational field, while we may imagine it as a kind of “web” or “grid” of lines intersecting between points (the persons themselves), this reductive image must be recognized for what it is: a kind of diagram, that is, an abstraction. Properly speaking, the “relational field” is a universal perfusion of possibility, not restricted to any actual “lines” of relation, but potentially an infinity of them; the relations may take an infinity of shapes, in other words.

This follows from the essential indeterminacy of personhood; that self-determining capacity introduced by Wojtyla above (Gloss L) which allows us to choose not only how we “value” things, but how we act in response to the presented “values” (or, as Spaemann maintains [ibid, 185] with regard to persons, their “dignity”—“value” being too crass of a word). We may subordinate other persons to ourselves, and thus treat them as less than persons, or we may recognize their personhood, and treat them accordingly; this in stark contrast to non-human animal behavior (Spaemann 1996: Persons, 203):

Creatures that simply inhabit their nature live in the perpetual innocence of intentio recta, extroverted, focused on others without conceiving them as others. They identify with others in elementary oikeiosis, reach out to them and invest them with a meaning in their own life-context. Only one type of creatures is capable of a reflection on its own experience that consciously subordinates others to their contributory role in its own experience, and that is the creature which, knowing the otherness of the other and its difference from the self, turns back reflectively on itself as its own final object... Only persons can be radical egotists. But there is an alternative: building on the reflective recognition of the other as independent of one's own life-context, deliberately to will, respect, and love the other as such, and to situate one's own perspective as one among many perspectives. Persons are capable of unselfish benevolence. And the lowest and most basic level of benevolence is justice.

Our relational indeterminacy, thus, is a double-edged sword: we may be, as Spaemann says, radical egoists who demand the subservience of all other persons to the interest of the self, which is, in effect, to deny or denigrate their personhood; or
we may be unselfishly benevolent, which is not the same as merely being altruistic (a kind of self-abnegation which presupposes an essential opposition between self and other), but rather is a reflective recognition of the goods which bind and unite the relata in a common goodness. This stance recognizes the transcendentality of the good.

LII. This phrase, pilfered and modified from the “eternal recurrence of the same”, an idea buried within the annals of history—Indian and Egyptian, Pythagorean and Stoic, and revived by Friedrich Nietzsche in his repudiation of Christianity and its belief in progress towards the Divine—is a bit tongue-in-cheek, but true, nevertheless, for while it is not precisely the same which recurs, it is something very similar nonetheless; and, moreover, there are in our lives moments which are vastly different from those that came before. Perhaps these moments are very similar to those had by others, but from the perspective of the individual person, this matters very little—except that someone may empathize or find solace in a comparable account. This common pathos makes the occasion no less momentous in one’s own subjective, lived experience. If anything, it opens the door to unity between persons, which itself is an occurrence of no small consequence.

That said, the recurrence is indeed a recursion; a sweeping back over what has come before. In our species-specifically human lives, this recursion is mediated through a complex web of signification: the similarity of today to yesterday is the former’s iconic signification of the latter, containing an implicit illative connection. The endorphin release from good exercise is a sign-vehicle of (it is to be hoped) its future anticipation. That future possible occurrence, made actually present, itself becomes a sign-vehicle—of improving health, or habit, or perhaps of avoidance, distraction, etc. Picking up the same book today as one picked up yesterday, and perhaps even reading the same passages, may be not simply a mindless repetition but a the recursive deepening of one’s understanding.

The full importance of this continually-spiraling process—object, sign-vehicle, interpretant—requires a lengthy (perhaps lifelong) study. After all, it begins at conception and ends only at death; and even at these sui generis moments of beginning and end, there precede and follow antecedents and continuations of
significance. As Peirce wrote, in a brief description of his underdeveloped theory of synechism (1893: “Immortality in the Light of Synechism”, 3):

synechism recognizes that the carnal consciousness is but a small part of the man. There is, in the second place, the social consciousness, by which a man’s spirit is embodied in others, and which continues to live and breathe and have its being very much longer than superficial observers think...

Nor is this by any means, all. A man is capable of a spiritual consciousness, which constitutes him as one of the eternal verities, which is embodied in the universe as a whole.

What is a terminal movement in the life of the individual is itself a sign-vehicle for another; whether at that moment or recovered as an archeological artifact. This continuation of the spiral—the semiotic spiral being the hermeneutic advance that John Deely frequently advocated (see 2010: *Semiotic Animal*, 96-97 for one example) goes on forever, as long as there are finite beings to signify and other finite beings to interpret.

Thus, at the “end” of our investigation of the person, we have, indeed, come fully around—not in a closed circle, but only one loop in the endless spiral of our investigation, back to the notion of the sign. And what now does it signify, to us?
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