

Introduction

We usually think of intelligence as the ability that defines a human being. If you have it, you're human; if you don't, you're not. We wonder if there is *intelligent* life on other planets. We measure our intelligence by an IQ—how far above or below average a person's intellectual ability is.

Still, people's intelligence can specialize. Artists produce art, while scientists verify hypotheses. Philosophers propose theories about living well, while historians describe how well certain peoples lived. The practical-minded analyze practical problems while the contemplative-minded rest in awesome surrender to wherever love will take them.

However, what fewer people recognize is that the specializations of human intelligence have a history. Many of the ways we use our intelligence today were entirely unknown to our distant ancestors. Certain intellectual revolutions took place that opened up entirely new ways of thinking. Today we distinguish five modes of thinking. But the further back we go, the fewer specializations were available to the human mind.

A first mode is characterized by the practical and imaginal intelligence we see in pre-historic cultures and in all children in every culture today. Each of four subsequent modes emerged as people raised new kinds of questions that demanded revolutionary methods of applying their native intelligence. Each revolution was essentially specialization of functions in the intelligence of the people affected. These specializations are also referred to as *differentiations*, in the sense that the same mind can function in different manners. What follows is a sketch of these five modes and four revolutions in how our intelligence differentiated into distinct functions. ¹

Modes and Revolutions in Thinking

1. Know-How and Stories

The very earliest humans developed shelters, spears, language, art, myths, and religion. Thinking was mainly through practical know-how and stories. Practical know-how is necessary for maintaining health,

¹ See Lonergan, Bernard, "Sacralization and Secularization," *Philosophical and Theological Papers: 1965-1980*, v. 17 of the Collected Works of Bernard Lonergan, eds. R. Doran and R. Croken (Toronto: University of Toronto Press, 2004), 259-281, at 278. Originally delivered at Trinity College, Toronto, November 1973. I have abbreviated the terminology for the developments in modes of thought.

security, efficiency, and safety. Stories are necessary for knowing "Who we are and what we do." What these cultures and children of all cultures count on are stories about the earth, death, invisible forces and beings, one's ancestors, good behavior, and wrongdoing.

2. Universal Truth

In both religion and philosophy, there emerged the idea that every known thing is part of a larger, universal design. In religion, monotheism emerged among the Hebrews in the years 1200-700 BC.² This belief that there really is only one God carried with it the assumption that God's will and God's design are behind absolutely every created reality. Preachers speak of God as creator, all powerful all wise, and all benevolent. Leading works here are Genesis, Isaiah, and Wisdom literature.

In philosophy, the Greeks in the years 800-200 BC taught that certain ideas like justice, truth, virtue and rights apply to every culture. Thinking now asks about the order of the entire universe, both created and divine, and thinkers develop beliefs and theories that focus on truth. Philosophers speak of a common human nature and of natural rights—claims by individuals on society that belong to all humans by nature. Leading figures are Socrates, Plato, and Aristotle.

3. Modern Natural Science

With the emergence of the natural sciences in the 1600s and 1700s, thinking now moves beyond what *authorities* say and beyond what we can *logically deduce* from what we know. The new specialization of thinking seeks to *understand how* nature functions by examining *evidence*.

Thus, the goal of modern natural science is not to establish some fixed truth about the natural world but to propose the most plausible explanations of evidence. From this ideal there emerged the natural sciences of physics, chemistry, and biology. Scientists ask, "What theories best explain the evidence we see?" They rely on a new method of thinking which involves a process that moves from gathering data to formulating hypotheses to verifying that the hypotheses explains the data. Leading figures here are Johannes Kepler (d. 1630), Galileo Galilei (d. 1642), and Isaac Newton (d. 1727).

2 For nearly a millennium, Hebrew faith was henotheist (Gk: one god): the belief in one god among many gods, each of whom has designs for special functions, places, and times. This was replaced by a monotheist faith (Latin-Greek: one god): the belief that there actually is only one God—who designs are the cause of everything.

4. Modern Human Studies: Human Sciences and Scholarship.

Beginning in the 1800s, the focus on evidence and plausibility in the natural sciences also shows up in the revolutionary developments in two branches of *human studies*: the *human sciences*, which study the general laws and correlations that explain how we humans function, and *scholarship*, which studies unique events in specific individuals or communities—phenomena that cannot be explained by appeals to laws or correlations.

The human sciences—such as modern psychology, sociology, and cultural anthropology³—explain general laws and correlations discernable in the workings common to many individual psyches or communities. Like the natural sciences, its findings are always open to revision since new data may appear and biases of prior investigators may come to light.

Where science explains what *common* in human psyches and communities, scholarship explains what makes persons, groups, and historical movements *unique*. Scholarship includes modern biography, literary studies, and historical accounts. All three support their findings by appealing to evidence. (a) Modern biographers aim to present objective accounts of an individual's life. (b) Modern students of literature—including religious scriptures—aim reveal what authors had in mind. (c) Modern historians aim to place the lives of specific cultures within an account of larger-scale historical developments among many cultures.⁴

Like the natural sciences, the findings in scholarship are always open to revision since new data may appear and biases of prior investigators may come to light.

³ See Bernard Lonergan, "History and Historians," chapter 9 of *Method in Theology* (New York: Herder & Herder, 1972), 197-234.

⁴ Historians today distinguish *critical history* and *pre-critical history*. A critical history aims to present "What Really Happened." It is critical in the Kantian sense (*Critique of Pure Reason*, 1871) of an exploration of how the mind and heart actually function. Subsequently, it involves a *critical* awareness that evidence may be overlooked or fabricated. In precritical history, historians aimed to give a community a vivid sense of its origins and ways of living. History books described the community's past in ways that celebrated certain events and deplored others. But a fixation on celebrating and deploring easily skips over the actual events that make up a community's ragged history of successes and failures. Leading figures here are Leopold von Ranke (d. 1886), Wilhelm Dilthey (d. 1911), Edmund Husserl (d. 1938) and Martin Heidegger (d. 1976).

5. Philosophy & Theology: Critical & Transcendental Thinking

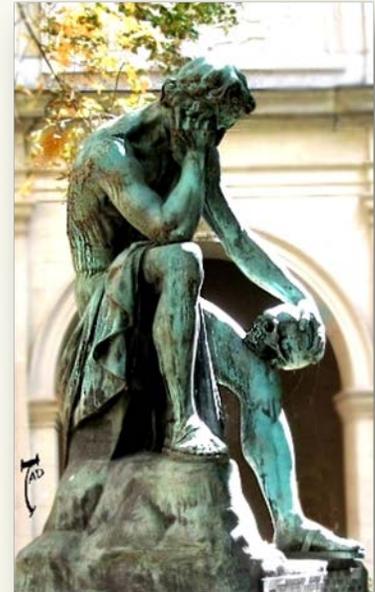
Among philosophers and theologians in the late 1900s, there emerged a further development of *critical thinking* that expanded the range of evidence beyond what is externally measurable (natural sciences), beyond the patterns of meanings and values found among many individuals and communities (human sciences) and beyond the meanings and values discernable in the texts and artifacts of specific communities (scholarship).

Here investigators look for evidence in consciousness itself to account for what we do whenever we imagine, think, feel, decide, and love. They articulate how our thinking can be *biased* and how our deciding can be *willful*, meaning that we can act against our better judgments. Biases and willfulness distort the actual course of people's lives in history. It became evident that these must be taken into account by any serious investigator in either the human science or scholarship. That being said, it remains true that many psychologists, sociologists, and cultural anthropologists today still rely mainly on the methods of the natural sciences, and many theologians still focus mainly on explaining the truths of their faith with less regard for the events that occur in the imaginations, emotions, minds, and hearts of those who embrace this faith.

Among both philosophers and theologians, the emergence of critical thinking was accompanied by an emergence of an openness to transcendent reality. Specifically, the *question* of God was being taken more seriously by philosophers, theologians, historians, anthropologists, and psychologists. While religious *answers* about divine realities have divided people, many leading thinkers recovered the classical Greek doctrine that the question, the need, even the desire for ultimate beauty, order, truth, goodness, and company belong to the consciousness of every human by nature. An awareness of what transcends ordinary human life reveals the importance of trusting the power of love to heal bias and willfulness. Thinking now focuses on both the best available critiques of error and the best way to remain open to better living. Investigators ask, "In what ways has our thinking gone wrong, and what resources are available to heal the biases and willfulness that make life worse for everyone?" Leading figures here are Bernard Lonergan (d. 1984) and Eric Voegelin (d. 1985).

I want to stress that later developments do not replace earlier modes of thinking. Rather, they each represent a differentiation of intelligence, similar to the way a company manager differentiates functions among employees. Accordingly, anyone open to learning does well to understand each differentiated of intelligence.

Each differentiation enlarges the scope of intelligence in its specific way. Today, we can find all five ways of thinking, although not equally prevalent. Everyone is familiar with the first mode—practical know-how and stories. Most know the second mode—the eternal truths brought forward by religion and/or philosophy that apply to every human being. Many know the third—especially those familiar with how modern science tests hypotheses through experiments. A few know the fourth—those who see the importance of unbiased factual accuracy among experts in the human sciences and scholarship. Fewer still know the fifth—a method of critical and transcendental thinking in all human studies that (a) uncovers in the dynamics of human consciousness the real sources of progress and decline in the past, (b) promotes what can improve people’s wellbeing everywhere, and (c) regards the question of God as unavoidable by people seeking to live authentically.



An ever-present problem is how people with less differentiated intelligence can understand people with more differentiated intelligence. Two people may have the same intellectual capacity—the same IQ—but not have the same differentiations of intelligence. If one has not considered questions that are important to the other, misunderstanding arises. People with “good common sense” but no familiarity with the experimental approach of science will put butter on a burn because that’s what Grandma said to do; had it occurred to them to check the evidence, they would discover that burns heal faster in fresh air. Sociologists who conduct surveys on people’s attitudes toward immigration but who lack critical thinking would overlook the possibility that some respondents are willfully lying.

While misunderstandings arise because people have more or less intelligence, they also arise because not everyone has advanced through these four differentiations of intelligence that actually occurred in history. To demonstrate how important this problem is, I will give four examples. One is a myth about common sense; another is the confusion regarding

evolution vs. creation; a third is the premium placed by the US government on math and science; and a fourth is the exclusion of theology in academic pursuits.

1. *The Myth of Common Sense*

Common sense is a first emergence of intelligence, not only in history but in all children. What is common about common sense is its *purpose, goal, specialty, and process*. Its purpose is to enable people to know how to act and what to say in a variety of situations. Its goal is to master as many practical problems as possible. It specializes in what is practical, immediate, and palpable. It proceeds by people getting insight into practical solutions to concrete problems.

However, the *content* of common sense is common only among people of the same culture. Different cultures have different standards about how to live. Is it common sense that the citizens of any country should own their own home?⁵ Should families feel responsible for taking care of their sick elderly at home? What shame is there if the wife has a job and the husband raises the kids and does the housework? Is it common sense to avoid superstitious habits? Why wouldn't anyone of common sense remove their shoes when entering a house? When are thank-you notes expected? Why do many French use a bidet and few Americans do? Anyone who has visited a foreign country feels this difference in common sense immediately even if they are fluent in that country's language.

At a more serious level, common sense is vulnerable to the myth of its own superiority. Many assume that common sense practicality is all anyone really needs to live a moral and productive life, and that common sense sufficiently qualifies a person to run for political office.

Ordinarily, those who accept the myth that common sense is the superior way of being intelligent are not opposed to science, philosophy, historical studies, ethics, theology, and human studies; they are simply unaware that these are specializations of intelligence. They may recognize and use language about science, history, economics, and critical thinking, but few differentiate these specialized modes in their own understanding. They are unable to assess the findings of science unless they see it working in mechanical/electrical devices. They cannot determine whether moral standards objectively apply to all people or are simply the conventions of certain cultures. They may enjoy a Hallmark TV dramatization of the courtship of Prince William of Wales and Catherine Middleton without ever

⁵ Consider these percentage differences in home ownership rates: Palestine 84; Israel 71; US 68; France 55; Germany 42.

wondering, "But what really happened?" They may wholeheartedly accept God as the answer to everything while being wholly oblivious of the questions. They typically accept what certain psychologists, sociologists, and economists say about better living and lack all suspicion that these professionals are biased in their minds and methods.

Here are a few examples of commonsense blunders:

- We enforce Western style democracy on non-western countries without any reference to history. Such are the efforts of the French to democratize Viet Nam, of the English to democratize India, and more recently of Allied powers to democratize Iraq and Libya.
- Psychologists tolerate their clients' obsessions with buying things, without pressuring them to stop, despite theories derived from the science of psychology that promote challenging clients on their self-destructive behaviors.
- Some government officials promote spending more money now to keep the economy going, while some economists promote first investing in new companies that will improve goods and services available to more people later. Societies that pursue spending and investing simultaneously fail to understand why conditions of production and finance sometimes favor spending and sometimes investing. Lacking this understanding they unwittingly press the economy's brake and the accelerator simultaneously.

A revolution here would begin with a simple realization: Common sense is not sufficient for improving life. It would expand to the degree that schools pass on to students the various specializations of intelligence that their forebears worked long and hard to establish for their descendants, including these very students.

2. *Creation vs Evolution*

The familiar argument about creation and evolution goes like this: Genesis says God created the universe and the first humans in a week. Other biblical documents suggest dates by which the age of the universe could be set at about 6,000 years. And since Genesis is inspired by God, who is complete truth, these accounts must be true. But science says the universe appeared in a Big Bang about 18,000,000,000 years ago and anatomically modern humans evolved from ape-like ancestors about 150,000 years ago. The biblical and the scientific accounts cannot both be true.

However, the ideal that respected accounts of events must be factually true in every detail did not appear until the emergence of critical history about 150 years ago. In the Bible, the word *true* normally refers not to detailed accounts of objective facts but to persons or words that are reliable guides about living. The authors of Genesis aimed to present the Hebrew belief that there is one God, that God created everything, that sex was originally good, that God did not intend our minds to be cloudy, our wills to be weak, our lives to end. The only available literary vehicle for this was a descriptive narrative. It is what cultural anthropologists call *myth*—not in the negative sense of an untrue story but in the positive sense of a narrative designed to help people envision who they are and what counts in life.

Similarly, the assumption that science establishes truth is based on a fundamental misunderstanding of science. Evolution is a theory; it is meant to explain the how biological species emerge. The theory is subject to change: scientists remain open to more robust theories that explain the emergence of macro-astronomical events and the sudden emergences of highly complex neurological systems. In other words, scientific theories are neither facts nor truths. They are plausible explanations of evidence.

Once we understand the difference between how the Genesis authors and modern scientists each use their intelligence, the problem of "creationism vs evolution" disappears. The narratives in Genesis are designed to *establish self-images, behaviors, and values* in story form. Its early chapters aim to convey belief in a creator God, an original goodness of the world, and a fallen human nature. In contrast, the theories of science are designed to give *plausible explanations* of how things work and how they change. The theory of evolution aims to explain, in technical terms, how new species appear. There is no contradiction between *affirming that* the one God creates every new thing for divine and loving purposes and *understanding* that a plausible explanation of *the manner* in which new things come to be is the theory of evolution. A universal recognition of this difference between affirming a truth and reaching a plausible understanding of evidence would be a step forward not only in the history of intelligence but also bridge-building between science and religion.

3. Math/Science vs Humanities

Since the mid-1960s, US leaders have stressed the importance of math and science in education. No doubt these disciplines are important. They give us ever more efficient and effective ways of communicating and producing goods and services that improve our standard of living. It is chiefly by math and science that humanity has continued to widen the field of what we can do.

But what we *can* do and what we *should* do are two different questions. In large measure, the field of what we *should* do belongs not to math and science but to the humanities. Math and science deal with what is

quantifiable. In the humanities, history, philosophy and theology deal with what is meaningful and valuable. Indeed, history reveals the dark side of math—the manipulations of the economy by the rich and powerful for their own benefit. It reveals the dark side of science—the horrors of gas chambers and nuclear weapons. Philosophy, especially one that has kept pace with historical methods and critical thinking, illuminates how bias and willfulness infect the very creativity needed to actually improve lives everywhere. It promotes the ideals of a common good, of natural rights, of the solidarity of the human race, of monetary profit as a social rather than a personal dividend, and of our native desire for ultimate beauty, order, truth, goodness and loving company. Theology



emphasizes that human resources alone are insufficient to provide for the wellbeing of all. Humans are profoundly and inescapably dependent on divine help. Without strong educational initiatives in history, philosophy, and theology, we will continue to graduate citizens excited about what *can* be done but confused and mistaken about what *should* be done. Were we to promote these differentiations of intelligence that think on the levels of history, philosophy, and theology we may expect continuing and energetic discussions on how to ensure the true welfare of people everywhere.

4. *The Exclusion of Theology*

Western nations have relied less and less on religions for guidance. Worship and prayer are private affairs. The sins of religions, particularly the promotion of inter-religious hatred, the authoritarian manner of leaders, and a rap sheet of embezzlement and sexual abuse have discredited religions as a source for human wellbeing. In the US, the "separation of church and state" has become the gospel, so to speak, for keeping religion isolated, despite the Constitution's clear intention to block only the state's interference in religion and not the right of religion to interfere in the affairs of state. Growing numbers of former religiously-affiliated people now call themselves *spiritual-but-not-religious*. Public colleges in the US that offer courses on religion stick mainly to the study of religion as a social phenomenon; they typically ignore legitimate

questions among those students who seek to understand how their own faith shapes how they might live a meaningful life.⁶

These trends are considered as evidence of *secularism*, understood as a mutual abandonment between believers and their churches, mosques, or synagogues. From the perspective of the history of intelligence, this demonstrates a failure to take seriously ultimate questions of the supernatural, and a corresponding inability to maintain an intelligible integration of cultures and theologies.

Yet philosophers, scientists, historians and critical/transcendent thinkers all agree that no question can be excluded without reason. And, surely, the theological question of God occurs: Why is there so much hatred in the world? What is it about the human heart that desires complete beauty, *order*, truth, goodness, and love? You and I did not exist 100 years ago; are we now here just by chance or are we meant? Indeed, are we meant for something permanently true, good, and loving 100 years from now? Are religions nothing but self-defining cultures or might some be the flowering of events emerging from the source and destiny of the universe?

Moreover, many people, perhaps a majority, have faith in God. They worry less about philosophical questions of God's existence or why there is evil in the world. Their questions are how to stay in awe over the mystery of everything and to stay in love with everything's giver. They rely on intelligence to understand what their faith means, how to keep it alive, where to turn for guidance. For these people, it is not enough to study religion as a phenomenon; they want to apply their intelligence to understand what the light of their faith reveals about what the entire drama of human life is all about. They want to understand what the writers of Scripture had in mind. In a culture desperate for guidance, they want to understand how they can carry out their love intelligently. Using intelligence in these ways is the specialty of theology.

It seems timely, then, for religions to promote a properly theological reflection on psychological, sociological, historical, political, economic and cultural affairs. This initiative would not be unprecedented, since integrations of theology and cultures have flourished in the past. But it would be transformative insofar as theologians ground their methods in the data of consciousness and in alignment with the recent revolutions in

⁶ Currently in public colleges, departments named *religious studies* study religions as phenomena. Religious-sponsored colleges do the same but include the study of the significance of the faith of students. Some of these colleges distinguish *religious studies* of religions as phenomena and *theological studies* of the significance of the faith of students.

the natural and human sciences, historical studies, and critical-transcendental methods brought to light by philosophy.

Conclusion

It should be evident that this brief history is based on critical and transcendental thinking. While these methods do not draw moral conclusions, they do expect that readers like you will notice the demands natural to anyone's mind and heart to become fully open to learning more, to doing better, and to widening and deepening one's being in love.