August 15, 2016

Thinking about Thinking: Part I

We are in the “dog days” of summer. The world is in turmoil. The U.S. presidential elections offer us a stark choice between a traditional establishment candidate and a populist alternative. Populism is on the rise in Europe, exhibited by the Brexit vote. Lone wolf terrorist attacks seem to occur with frightening regularity. China is threatening the U.S.-dominated maritime order of the past seven decades.

Perhaps most disconcerting is that there seems to be a steady dissonance of viewpoints. I often hear comments like, “how can a person think like that?” The internet, for all its power, has been creating virtual thought islands. Essentially, people can tailor their reading and information sources to fit their biases and rarely confront other viewpoints. And, when confronted with other viewpoints, people seem to be at a loss on how to hold a civil discussion on these differences or have the tools to understand positions that vary from their own.

Last spring, my youngest son took his first philosophy course. He was exposed to the classic thinkers in the Western canon, including Plato, Descartes, Kant, Nietzsche and others. We had long discussions about these thinkers, harkening me back to my Jesuit philosophical training of more than 30 years ago. Our talks forced me to revisit these philosophic issues with three decades of additional experiences. As I thought about these issues, I was absorbed by the relevance of these philosophic questions to our current economic, social, political and geopolitical conditions.

In this week’s report, we will take a detour from our usual analysis of specific global events to a broader analysis of knowledge. Part 1 of this report will offer a short course on the basics of knowledge, focusing on an examination of the three types of knowledge statements. We will then discuss the strengths and weaknesses of all three and how philosophers have tried to resolve the dilemmas that they posed. Next week, in Part II, we will discuss how one uses this information, concentrating on the idea that it is important to match appropriate ways of knowing to the areas we are examining.

These reports will be a bit more personal and academic than most, but given the divergence of opinion in the world now, I believe this analysis can be useful to investors approaching information and positions that differ from their own.

The Quest for Knowledge

There were thinkers and philosophers that predated Plato. Perhaps the most famous was Heraclitus, who is best known for the quote, “One cannot step into the same river twice.” For Heraclitus, the world was in a constant state of flux and thus, nothing could be known with certainty.

This notion horrified Plato. If nothing could be known with certainty, then all knowledge is tentative. This opened the potential for statements to be manipulated for nefarious reasons. The Sophists of Plato’s time

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1 The lives of Plato, Heraclitus and Aristotle ranged from 535 BC to 322 BC.
specialized in rhetoric and persuasive
political argument; in Plato’s dialogues, they
were usually portrayed as amoral
opportunists. To counter the Sophists, Plato
suggested that there were unchanging
elements in the universe, called “forms,”
which were ideal types that are the constant
essences of all that our senses perceive.
Knowing the ideal forms gave the user
knowledge that was always true. In other
words, Plato rejected mere sensory
information as the basis of knowledge
because it could change—the senses could
deceive. His famous student, Aristotle,
disagreed with this approach and argued that
knowledge began with the senses. He
proceeded to suggest that once an
observation was considered true, logic
should be employed to derive additional
truths. These two figures set the contours of
philosophical debate for most of the next
two millennia. That debate is between the
empiricists and the rationalists.

Philosophy didn’t disappear in the period
after the fall of Rome, the so-called “Dark
Ages,” but it was fairly limited. Much of
philosophic thought during this era focused
on adapting Greek philosophy to Catholic
theology. The next major phase of
philosophy came from the Modern
Philosophers. This period began with
Descartes; most historians of philosophy
suggest that Wittgenstein was the last of this
era. This era of philosophic inquiry
structured the thought of the Industrial
Revolution, the rapid development of
science, the creation of classic economics
and the evolution of democracy. In other
words, the philosophers of this era are key to
understanding much of our current world.

The Three Types of Statements
At root, these philosophers were attempting
to grapple with three types of statements.
These are:

A priori analytic: These are statements that
are always true because the subject is
contained in the predicate. The statement
“all unmarried men are bachelors” is always
true because the predicate defines the
subject. In terms of symbolic logic, these
statements are tautologies (A=A); they are
the basis of logic. In other words, if
something can be proven as true, one can
use a priori analytic statements to determine
the veracity of other statements that are
derived from a set of beliefs. A priori
(literally, from the earlier) roughly means it
is known independent of experience, without
sensory input; it is true without sensory
confirmation. These statements are the basis
of logic and can be called logical
statements.

A priori synthetic: These statements are the
most critical to knowledge because the
predicate isn’t contained in the subject. In
other words, it tells us something that is new
and true about the world without sensory
confirmation and they are known without
sensory input. These are the most important
forms of knowledge we each have—it is
these statements that people go to war over.
They are the starting point for religion and
other belief systems; one can use a priori
analytic statements to create logical
conclusions from a priori synthetic
statements. Perhaps the best way to describe
a priori synthetic statements is that they are
held as self-evident truths. If believed they
cannot be disproven; they become the
equivalent of faith statements. All of us
work from a priori synthetic beliefs, even if
they are unacknowledged. Understanding
the importance and ramifications of these
self-evident truths is critical to self-

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2 The Modern Era ran from Descartes (1596) to
Wittgenstein (1951). The Contemporary Era
overlaps the Modern Era (from 1880 to the present)
and is distinguished by the focus of analysis.
development—it is why Socrates, at his
capital trial, reportedly said, “an
unexamined life is not worth living.”

A posteriori synthetic: These are statements
in which the subject is not contained in the
predicate, but are derived from experience.
This is how we acquire information most of
the time. Through induction, which is postulating a general rule from particular
events or experiences, we can use a posteriori (literally, from the latter) information to create statements that mimic a priori synthetic statements. However, generalizing from such statements is always fraught with risk because finding one instance where the general rule is violated means the a posteriori synthetic isn’t always true. In other words, a posteriori statements are always conditional. Another term for these statements is scientifically-derived truths.

The Quest for Truth
One of the key goals of philosophy is to establish the potential existence of a priori synthetic statements and their meanings. Philosophers have used two methods to arrive at these statements. The first method comes from the rationalist philosophers, such as Descartes and Spinoza, who begin with the argument that all sensory knowledge is conditional and thus unreliable. The rationalists tried to discover self-evident truths that did not require material evidence to be true. Descartes began by using radical doubt to eliminate all that could be tainted with sensory information. He concluded that the fact that he was thinking could not be doubted and thus proved his existence. He then built his philosophy around this a priori synthetic statement.

The critical thing to understand about people who hold a rationalist position is that no amount of evidence can convince them their position is wrong! Since truth comes from a mind-derived self-evident truth and not from observation of the outside world, it would be unreasonable to refute such arguments by an appeal to outside evidence.

For example, Marxist and Austrian economics begin with a priori synthetic positions. Marxists believe that humans are essentially social animals and an economic system built on competition violates this tenant and is thus doomed to fail. Austrians believe that humans are essentially self-interested and any system that forces people to share without regard to their self-interest is doomed to fail. The key takeaway is that, by design, showing real world evidence that their position is incorrect is not going to sway a holder of this position because, by definition, one who holds an a priori synthetic premise has decided this truth is self-evident. To disagree with it means that the opponent is irrational. Rationalists rely on deduction; they can be faulted for being illogical, in that they could draw incorrect inferences from their self-evident truths, but the initial premise, the a priori synthetic self-evident truth, is beyond questioning.

The other way a priori synthetic statements can be derived is by observing the outside world and drawing conclusions from those observations. This is the path of the empiricists and relies on induction, which is observing events and deriving an a posteriori synthetic statement (a scientifically-derived truth) that, with enough regularity, can be treated as an a

3 http://classics.mit.edu/Plato/apology.html
4 A humorous take on this problem comes from The Simpson’s Movie: https://s-media-cache-ak0.pinimg.com/564x/59/ba/b3/59bab3a05d4bf04704b49060ab452754.jpg
5 I think, therefore I am, or Cogito ergo sum.
priori synthetic statement. Famous empiricists were John Locke and George Berkeley. The power of this method is that one can use evidence from experience to build a philosophic system. The weakness is that all *a posteriori* synthetic statements can be proven incorrect if contrary evidence is discovered.⁶

Essentially, empiricists try to convert *a posteriori* synthetic statements into *a priori* synthetic statements and the primary tool for doing so is the scientific method. By observing a cause and effect relationship, controlling for outside influences and continually repeating the relationship, one can then assume that this relationship is always true. From there, theories can be built to explain why the causal relationship exists.

It is in the creation of the causal narrative that theorists can get into trouble. For example, prior to Copernicus most believed the earth was the center of the universe and astronomers used mathematical models to predict the movement of planets and other heavenly bodies. However, over time, astronomers noted that the heavenly bodies didn’t move as the math would suggest they should. To compensate, they created “fixes” called “epicycles” that seemed to account for the erratic behavior of certain planets. However, Copernicus was able to show that by putting the sun as the center of the universe, the predictability improved dramatically with simpler mathematical models.⁷

**The Dilemma**

Thus, we seem to find ourselves at an impasse. Adopting a rationalist’s position gives great comfort in that one can believe their starting point is unassailable. However, it doesn’t take much time before one finds that not everyone agrees with your self-evident truth. Simply put, rationalists have certainty in their beliefs but usually confront a world where others don’t agree with their *a priori* synthetic self-evident truths.

The empiricist at least has a forum to determine the veracity of *a posteriori* synthetic statements by testing them in the observable world. On the other hand, empiricism can never offer the certainty of rationalism as there is always the possibility that contrary evidence can be found.⁸

Modern philosophy did try to resolve this dilemma. The idealist school, which included Kant, Hegel, Schopenhauer, et al., tried to argue that reality is a construct of our minds. In other words, we don’t actually perceive what is really there but how our mind filters it.⁹

Existentialism

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⁶ Nicholas Taleb has written two books from a skeptical position that raise questions about this approach. His books are mostly updated versions of that most famous skeptic, David Hume. See:

⁷ One reliability test that is often used comes from the philosopher William of Occam, a late medieval figure, who suggested that the simplest model is usually the best. This test became known as “Occam’s razor.”


⁹ This leads to two observations. First, this is the essence of the famous thought experiment, “if a tree falls in a forest and no one hears it, does it make a sound?” If you are an idealist, no. If you are an empiricist, probably. If you are a rationalist, the question doesn’t matter. The second observation is that the *Matrix* movies, where perceived “reality” is a computer image, can also be examined through these schools. An idealist would be quite comfortable with the computer-generated world,
focused on individual experience and the authenticity of what we perceive. Members of this school were Sartre, Camus, Kierkegaard, et al.

Overall, I would infer that none of the other schools were able to resolve this dilemma and they all eventually concluded that \textit{a priori} synthetic statements didn’t exist or, if they did, they were so personal as to only be self-evident to the perceiver, outside of a few specific instances.\(^\text{10}\) Once the world becomes self-contained to a single person, there is little that can be described as knowledge. Unfortunately, jettisoning \textit{a priori} synthetic statements increases the risk of sliding into nihilism and solipsism.

\textbf{Next Week}

Next week, we will focus on how this information is useful for navigating the current political and social environment. Secondly, we will use this analysis to frame how it can assist in investing.

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August 15, 2016
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\(^{10}\) Kant would argue that space and time were \textit{a priori} synthetic but only because that’s how our minds work. In his opinion, all minds work that way. However, beyond these two categories, everything else was \textit{a posteriori} synthetic.