

Philosophy and the Integration of Knowledge

What is synthetic or integrative thinking? Of course, to integrate is to bring together to unify, to tie together or connect, to make a whole out of parts. Perhaps we are most familiar with racial integration or with psychological integration; but we can also speak of integrating ideas or concepts or knowledge. We can find broader ways of thinking that connect and make meaningful what otherwise seem fragmented or unconnected ideas or concepts or knowledge.

No doubt there are many possible levels of integration. Take an ordinary case first. When faced with some confusing idea or experience or concept, we can work toward an understanding or clarification of the confusing item. We can make the idea or experience or concept meaningful, clear, intelligible, and this process is one of integrating the confusing item into our overall understanding of things. We have to place or fit the item into a larger framework of intelligibility. This process may be as simple as defining an unfamiliar concept in terms of familiar concepts. Consider another example illustrating a higher level of integration. If scientists become aware of some new physical phenomenon, they will work to fit that fact (or set of facts) into a theoretical framework unifying that fact with our previous knowledge about physics. In such a case, they are integrating new material into an established subject.

Our course works toward the highest level of integration or synthesis: integration of theoretical material from the natural sciences and social sciences to the humanities and fine arts. That is, our course works for an integration of the entire culture or the entire spectrum of knowledge. An example of integrative thought on this level might help. Let's look briefly at

some religious theory, political theory, and chemical theory from the early modern era of the 1500s and 1600s.

The Protestant Reformation of the 1500s was a rejection of the religious authority of the Pope and the hierarchical structure of the Catholic Church. Protestants argued that the authority to interpret the Bible ought to be shifted to the level of the worshippers--or to a level of an institutional church more responsive to the worshippers. This idea lies behind the emphasis on the "priesthood of the believer", for example. Protestantism held that the authority to interpret religious matters should rest more or less in the hands of ordinary religious people.

By the 1600s, the movement to strip political authority from kings was well under way. Locke's Second Treatise on Government is a classic account of how political authority resides instead in the lower levels of the State, namely, in the people. Instead of the State being conceived of somewhat like a organism whose parts serve the whole, a new conception of the State emerged: the State as a community of the parts, the people, designed to serve and protect those parts. The people could constitute or dismantle a particular government or an entire political system. People were the basic political units.

Robert Boyle, English chemist of the 1600s, was the first to articulate a modern conception of chemistry. The new modern concern in chemistry was to found a "science of discovering the composition of 'mixt' and 'compounded' bodies in such a way that we can produce them at will and foretell their mutual interactions."¹ Boyle developed "the [modern] conception of the chemical element: a substance 'perfectly homogeneous' and not, so far as we know, capable of further *simplification*."² It was Boyle's (and others') work to found the science

1 □ William P.D. Wightman, The Growth of Scientific Ideas (New Haven: Yale University Press, 1964), p.171.

2 □ Ibid.

of chemistry on this theory of chemical elements that led to the atomic theory of chemistry still accepted today. Substances were taken to be composed of amounts of one or more chemical elements. In other words, the elements were the basic substances, out of which everything else was formed. Elements were the basic chemical units.

Given this tripartite example, we want to ask if there are any ideas or concepts that could help to integrate these diverse cultural developments. Quite possibly we could find a number of integrating ideas or concepts. One fairly obvious one is the concept of atomism. People were thought of as the religious atoms and as the political atoms; and chemical elements were thought of as the chemical atoms. According to the extensionalistic atomism¹ that arose in early modernity, the most basic reality is at the level of the "atom", whatever the subject. The larger wholes that seem to be a part of our world--a church, a State, or a chair--are composed of and rely on their smallest parts or units or "atoms". The parts are the basic reality, and their identity is not affected by their relationships with other parts. Any whole is simply a compound or collection of its parts. The behavior of a whole is a function only of its parts and the law-like behavior of those parts. One could understand and appropriately organize a subject matter by treating the wholes as composed of parts and coming to understand the parts and their laws of behavior. Commitment to extensionalistic atomism leads us to understand a subject analytically, in a bottom-up manner, by looking to the parts that comprise something and that account for its

1 Extensionalism is the doctrine that all relationships that something stands in are "external".

An "external" relationship is one that does not affect the identity of a thing. If we could eliminate a relationship X has to Y, and not have affected the nature of X, then that relationship is external to X. E.g., a computer stands in a spatial relationship with my desk, but we could eliminate (or change) that relationship without my computer changing or ceasing to be a computer. In atomism, all relationships (eg, spatial, causal) that an atom stands in, eg, to other atoms, are external. The atoms remain the same whatever their relationships to each other and to other things.

An "internal" relationship, on the other hand, is a relationship that is "internal" to the identity of a thing. If we eliminate or change the relationship that X stands in to Y, we have changed the nature of X. E.g., there is a relationship between your identity and your belief system. If your belief system were to change radically enough, it would change your identity.

nature and its behavior. In political theory, religious theory, and chemical theory of the early modern era, the idea of atomism governed or organized thought.

So, in synthetic or integrative thinking we are looking for ideas and concepts that help to organize or that govern material that might ordinarily seem unrelated and therefore fragmented. As I have pointed out, we search for organizing and governing ideas in lived experience as well as in theoretical thought within a given discipline. Our course employs this mode of thinking to integrate all the disparate subjects under consideration. Furthermore, our course tries to find *any* ideas and concepts that seem to have integrating power, whether or not the ideas and concepts are genuinely philosophical. (This course should not be thought of as any kind of ordinary philosophy course.) Nor does our course simply follow already established integrative thought backed by the credentials of professional scholars. In this course, the teacher leads students in a creative and intellectually responsibly search using the combined intellectual powers of teachers and students. Of course, some ideas and concepts that we settle on have only limited integrating power, and some connections that we are able to forge surely would not stand the test of powerful and sustained critical scrutiny. Nevertheless, this course will help you learn how to engage in integrative thought, how to think broadly and synthetically in a fruitful and responsible manner.

While one might learn integrative thinking by remaining on its lower levels, our intellectual needs and curiosity push us toward higher and higher levels. Indeed, to restrict integrative thinking to lower non-philosophical levels constrains one's thought and stifles one's intellectual powers. One learns integrative thinking best by working toward a defensible integration of all knowledge. During this work, one confronts ideas and concepts that are genuinely philosophical. At the highest level of organizing and governing ideas in a culture, we

find epistemological and metaphysical assumptions and their corollary ideas. We find, in other words, the basic commitments of a world view.

This result should not surprise us. We operate within a more or less coherent conceptual system, a system of concepts and assumptions and presuppositions, that determines in advance what form our knowledge and even our experience will take. For example, we would not explain the movement of some object by referring to the action of a ghost. It is not that it is false that a ghost moved the object; rather, it is not even a possibility that a ghost moved the object. Ghosts are not sanctioned under our world view. The concept of a ghost is a superstition, i.e., a pseudo-concept. All our knowledge and thought and experience takes place within a more or less coherent framework of thought. Any apparent knowledge claim must fit into that framework of thought, that conceptual system, or, as in the case of the ghost-explanation, be excluded from the realm of real possibility. Even knowledge generated in different disciplines must fit within this most comprehensive framework of thought; all knowledge must fit together on this highest philosophical level. So, when we carry out this highest kind of integration, eventually we run up against the framework of ideas, the world view, within which we think and have knowledge.

In the example offered earlier, commitment to atomism and extensionality in the early modern era followed from modernity's basic epistemological commitment to only a scientific empiricism.¹ The modern approach to knowledge was first worked out in natural science; it relied on sensory experience for facts about particulars, data suitable to support general laws and theory. This approach naturally aims to find the most fundamental particulars and to establish the most fundamental facts. Furthermore, the alternative to atomism is holism, in which the whole is more than the sum of its parts and can direct its parts. Holism, though, seems to carry

1 Empiricism is the doctrine that knowledge can be discovered only through experience.

with it a commitment to teleology and teleological causality.¹ Sensory perception alone could not back the metaphysical commitments of holism, and early modern thought systematically rejected them. This brand of empiricist commitment is still dominant in the culture; it is the primary epistemological plank in our modern Western world view. (And, of course, it is a reason why we have no logical room for ghosts in our experience and knowledge.)

Our course, therefore, relies on and explores philosophical thought essentially and not incidentally. Philosophy has an essential role to play in the integration of knowledge or culture. Its role is not an exercise in the history of ideas. A central task of philosophy is to elicit and critically assess ways of thought that inform our age and our lives, up to and including the dominant world view of our culture. Unfortunately, many philosophers these days have a truncated conception of philosophy that does not acknowledge philosophy's rightful role in integrative thought, and both higher education and philosophical education suffer because of this misconception of the philosophical enterprise.

This course teases out our basic philosophical commitments, both the ones our culture acknowledges and the ones it denies. While our course does not examine those commitments in the rigorous and single-minded manner of a philosophy course, it does examine how those commitments affect the specialized disciplines in similar ways. Our course shows how common intellectual forces have shaped the distinct areas of the culture. These forces include common philosophical commitments that exert a powerful force on the whole of the culture. Without a grasp of those intellectual forces, one will have difficulty understanding why the culture and its

¹ Teleology is the doctrine that there are real value requirements in the world. Anything that we take to be real must be part of the causal realm, that is, must stand in causal relationships with other real things. So, if there are values, then they must play a causal role in the world. For example, because something ought to occur, it is caused to occur. Consider what happens when the human heart loses blood due to clogged arteries. Under certain conditions, the heart will grow new arteries. Why? Seemingly because the heart **needs** blood, it **ought** to have blood, and therefore that "*ought*" **causes** the arteries to grow. Thus, teleological causality.

different sectors develop as they do.