InFocus

thoughts from a member of the Editorial Board

How We Know and What It Means

By Jon A. Schmidt, P.E., SECB

Canadian philosopher Bernard Lonergan (1904-1984) first introduced and expounded his cognitional theory and its pervasive corollaries in *Insight: A Study of Human Understanding* (1957). His thesis was that we innately seek, legitimately gain, and properly apply knowledge by means of four conscious operations:

1) Experience – Being *attentive* in examining the data presented.
2) Understanding – Being *intelligent* in envisaging possible explanations.
3) Judgment – Being *reasonable* in evaluating which is most likely.
4) Decision – Being *responsible* in electing how to proceed accordingly.

These "transcendental precepts" (TPs) are not commandments or even guidelines; rather, they represent distinct levels of awareness and function that are inherent, to some degree, in every one of us. We carry them out by sequentially asking ourselves four respective types of questions:

1) Descriptive – What do I observe? How do I feel?
2) Interpretive – What is it? How and why is it so?
3) Reflective – Is it really so? Do I have it right?
4) Deliberative – What should I do? Would it be worthwhile?

Becoming familiar with the TPs, and then following them with greater care, helps us to grasp insights that may be classified into several progressive categories:

- Conjectural – Postulating a plausible account of a given state of affairs.
- Conditional – Ascertaining the circumstances under which it would obtain.
- Confirming – Determining whether those exigencies are indeed satisfied.
- Contextual – Identifying next steps that are compatible with the actual situation.

The inevitability and universal efficacy of this process of "self-appropriation" is evident from a few key attributes:

- Self-affirmation – Simply discovering and implementing the TPs serves to substantiate them; a fundamental outcome is the indisputable conclusion that I exist as a knower.
- Self-justification – Anyone who tries to revise or deny the TPs in a manner that merits serious consideration must utilize them in the attempt; such an argument is self-refuting.
- Self-correction – The TPs constantly prompt additional questions; they relentlessly drive us to refine well-founded "positions" and renounce poorly grounded "counter-positions."

This epistemological method has significant metaphysical, ethical, and social implications:

- Reality – i.e., being – is nothing more or less than everything that could, in principle, come to be known by practicing the TPs *indefinitely* and *exhaustively*. My confidence in the truth of what I know increases as the number of pertinent questions that remain unanswered decreases.
- Values can come to be known in much the same fashion as facts, and an exemplary lifestyle is characterized by practicing the TPs *intentionally* and *explicitly*. Neglecting the TPs is intrinsically wrong – e.g., studied ignorance or behavior that is manifestly incongruent with what I know.
- Communities collect and share what has come to be known to their members by practicing the TPs *interactively* and *expertly*. Much of what I know has been imparted to me by others, whom I have deemed – using the TP's – to be reliable and trustworthy in the relevant domains.

The philosophical system that emerges from all of this seems to incorporate the most cogent aspects of the major alternatives, while avoiding their most conspicuous shortcomings:

- Naive realism and empiricism recognize that knowledge is derived from attentive experience, but confine it to "taking a look" at what is "already *out there* now." Because of this, they fail to discriminate between immediacy and meaning, rendering problematic any claim regarding something that cannot be directly encountered, such as a past event, another mind, or a subatomic particle.
- Idealism and rationalism endorse the indispensable role of abstract thinking in formulating concepts and assessing their validity. However, by focusing on what is "already *in here* now," they downplay the need to ensure that intelligent understanding and reasonable judgment are verified in the concrete world, which is as it is largely prior to and independent of any human knowledge.
- By contrast, *critical* realism engages both the external and internal realms, and leads to genuine *objectivity* as the natural result of authentic *subjectivity*. Faithfully adhering to the TP's as the paradigm for pursuing, acquiring, and employing knowledge is an effective way to guard against lapsing into *uncritical* approaches, including the extremes of dogmatism and relativism.▪

Your Turn — Do Lonergan's ideas, as summarized and adapted here, have any bearing on our profession? The scientific method of proposing hypotheses and testing them with experiments obviously incorporates the "transcendental precepts" quite rigorously; can the same be said of the engineering method? Please submit your responses and see what others have had to say by clicking on the "Your Turn" button at **www.STRUCTUREmag.org**.

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