

An historical perspective of how breakthrough innovators come to know

Patriarchs of contemporary innovation: Socrates & Hegel

How dialectic and the reconciliation of dichotomies provide perspective on the knowing characteristic of innovation



Anathema! Ok, I got that out of my system. “Why ‘Anathema!’?” you might ask. Well, the 19th-century German philosopher Georg Wilhelm Friedrich Hegel is recognized as having had significant influence on Karl Marx, revolutionary socialist and author of The Communist Manifesto. So, how does someone like Hegel make it onto my list of “Patriarchs of contemporary innovation” when innovation is inextricably tied to capitalism? Let’s find out.

The conflict rages on

I introduced the tribes of Newton and Goethe in Essay 18 as a means of illustrating the contemporary distinction on the essentials of how innovators come to know what to do. Like the “tastes great; less filling” beer commercials, theirs was a win-lose view of the world; only one could be right. Like Robin Williams’ character admonishing Matt Damon’s in his “Your move, chief” breakthrough moment monologue in the film *Good Will Hunting*, the children of Goethe were admonishing the offspring of Newton for not experiencing life intimately while knowing all the facts. Both more or less held an either-or view of the world.

Can we all get along?

In contrast to one side prevailing over the other, one means of seeking resolution between such competing views is to permit them to co-exist (in tension or dynamically) or to split the difference – that is, to find a way of compromise or balance where each side gives in until some middle ground is reached. While having the potential to lead to a mutually satisfactory outcome, this often leaves both parties wanting.

This is illustrated marvelously with a fictional negotiation between two (now former) friends, one of whom holds two oranges while the other has none. As the friend with none

increasingly badgers the other with two oranges to share, the interaction quickly degenerates into an argument. Frustrated and fed-up, the one with two oranges seeks premature resolution by compromising – giving the orange-less friend one of their two oranges and storming away with the other. Only after-the-fact do we learn that one seeks to squeeze the fruit for its juice while the other seeks to scrape the peel, using its zest as a means to flavor a cake. Had they intimately understood the other, each would have had twice as much, and their friendship would have remained intact.

The path toward two becoming one

So, here we are, moving slowly from conflict toward resolution. Yet, can we really get there step-by-step or must we make a discontinuous leap somewhere along the way? I argue on behalf of the latter. While step-wise often seems to be the best we can hope for, I believe that the underlying conflict represented by two opposing views cannot be optimally negotiated away by mutual, premature compromise or efficiently held in sustained tension. I hold this view because an ongoing expenditure of energy is required to sustain either of these approaches. As long as a dichotomy of conflicting perspectives persists, some amount of straining is required to hold things together, and this straining represents a clearly suboptimal situation.

It is in the mind of an individual that competing insights are most powerfully resolved into one, qualitatively-improved, new insight – and from where breakthrough innovation emerges.

I believe that there is a better way, that what we need is the conflict eliminated, not accommodated. And, I see this as a giant leap to resolution, not one small step from dichotomy.

Enter dialectic

The classical philosophers of ancient Greece employed what is known as dialectic to resolve opposing views. “(D)ialectic is a form of reasoning based upon dialogue of arguments and counter-arguments, advocating propositions (theses) and counter-propositions (antitheses). The outcome ... might be the refutation of a proposition, or of a (counter-proposition), or a combination of the opposing assertions, or a qualitative improvement of the dialogue.”ⁱ

Socrates is the exemplar of the ancient world when it comes to dialectic. Socratic dialog as a means of advancing an argument is a clear example of dialectic as reasoning in ➤

search of truth. Interestingly, in contrast to dialectic, rhetoric seeks to persuade another. As I see it, the posture of dialectic is cooperation seeking truth while that of rhetoric is competition. I have many times experienced the palpable difference when an interaction shifts from one to the other.

The modern equivalent of Socrates when it comes to dialectic is Hegel, known for being perhaps the most obscure, abstract, confusing and difficult philosophers to read and understand. While experts differ in their interpretation of Hegel's work – perhaps because of its abstract nature – what we need to know in the context of this essay is that he also is considered the modern exemplar when it comes to dialectic. In his case, dialectic is the resolution of what, at least on the surface, appear to be irresolvable dichotomies using the formula: thesis-antithesis-synthesis, where synthesis represents the resolution.

What I suggest, then, is that a “qualitative improvement of the dialog” is precisely what is required to resolve the Newton-Goethe dichotomy. To accomplish this feat, we need people working as one in spite of differences. We need real reconciliation, not negotiated truce. And the dialectic approaches of Socrates and Hegel provide the example.

Implications for breakthrough innovation

Bain encourages a form of such reconciliation with their BothBrain® Innovation.ⁱⁱ They suggest – I believe correctly – that combining the creative with the analytic transforms innovation, citing senior-executive-pair examples such as Howard Schultz and Orin Smith (Starbucks), Bill Bowerman and Phil Knight (Nike), and Steve Jobs and Tim Cook (Apple).

Similarly, my friend and colleague, David Goldberg, considered the importance of pairwork collaboration a few years ago and found that – with the right pairing choices – such collaboration could yield a twenty-fold improvement of productivity over that of an individual working alone.ⁱⁱⁱ In the referenced paper, Dave identified six elements that contributed to the strength of such collaborations:

1. Complementary strengths, skills and traits
2. Personal compatibility
3. Dialectic creativity
4. Coordination costs
5. Motivational leveling
6. Sociocultural negotiation in miniature

So, clearly, pairwork presents the potential for great benefit, especially since larger collections of people – that is,

teams – typically add only marginal diversity while increasing the challenges associated with compatibility, coordination and communication.

Yet, what we observed in our Serial Innovator research is something remarkable and strikingly different than what can be accomplished in pairs or teams of more ordinary individuals. The “connecting of dots” that I have referenced in these essays only occurs in the mind of one individual. While clearly benefitting from the compatible insights and the contributions of others, the real, non-linear, creative action takes place locally. Regardless of the presence of each of the elements contributing to pairwork identified in the list above, without one of the pair having a mind that powerfully sees the whole, breakthrough innovation is unattainable.

Similarly, in *The Opposable Mind*,^{iv} Roger Martin speaks of “what distinguishes a brilliant leader from a conventional one.” His observation is that it is their skill at “integrative thinking – the ability to hold two opposing ideas in their minds at once, and then reach a synthesis that contains elements of both but improves on each.”

It is in the mind of an individual that competing insights are most powerfully resolved into one, qualitatively-improved, new insight – and from where breakthrough innovation emerges. ■

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ⁱ Summarized from the Wikipedia entry <http://en.wikipedia.org/wiki/Dialectic>

ⁱⁱ See <http://www.bain.com/consulting-services/strategy/bothbrain-innovation.aspx>

ⁱⁱⁱ David E. Goldberg, “The Importance of Pairwork in Interdisciplinary and Educational Initiatives,” presented at the 39th ASEE/IEEE Frontiers in Education Conference, held October 18 - 21, 2009 in San Antonio, TX.

^{iv} Roger Martin, *The Opposable Mind*, (Boston, MA: Harvard Business School Press, 2007).

“On the Epistemology of Innovation: How Breakthrough Innovators Connect the Dots” is a series of brief, occasional essays addressed to executives, managers, and technologists responsible for innovation in industry. Its purpose is to challenge readers to reflect broadly and deeply on the practice of innovation – in particular on how innovators come to know what to do today – in order to succeed commercially in the future. Essays are available without charge at the University of Illinois' digital archive at <https://www.ideals.illinois.edu/handle/2142/27667>. The discussion group at <http://epistemology-of-innovation.com> is a place to provide feedback and dialog with the author and others regarding these essays, as well as to register to receive notice of new essays as they are issued.