Notes on the following article

Even though I first wrote this article back in 2006, I believe this understanding is more relevant and urgently needed today than ever.

Ever since the beginning of self-conscious thought, the question either at the back or in the foreground has been, "How does thinking operate?"

Indeed, if only we knew how to actually harness the massive power of our minds—or at least stop the incessant "monkey mind," as the Zen practitioners call it, how far ahead would we be? What a boon it would be for me personally if I knew how to change the channel when the critic or the distracter or the obsessor shows up! What if I were able to stay focused on the result I was committed to accomplishing?

What if I were able to assign my mind a task to have it work on during down time?

The philosopher's stone, the crown jewel of cognitive research: What if I actually knew how to access directly the operating system of my mind? What could I do then?

What if this article suggests is the most far-reaching contribution to the area of personal cognition since Plato? The Revolutionary Theory of Question Driven Intelligence has been tested and proven effective in practice for more than two decades.

The theory is as simple as the theory of the vanishing point in architecture and its implications are as far reaching.

Robert Bystrom
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The Revolutionary Theory of Question-Driven Intelligence

By Robert Bystrom

Gaining Perspective

How can a group of people who are dedicated to creating a common result perform consistently in "the zone?" How can they combine their experience and capacity for imagination to arrive at superior solutions to complex problems predictably and quickly?

A simple discovery about the nature of the thinking process has led to a powerful breakthrough in creating what is possible for a group of people to accomplish. To understand the paradigm shifting nature of this discovery, we will examine a parallel discovery which solved one of the most baffling puzzles in the history of art: perspective.

Being an artist myself, I am aware that the persistent problem for artists historically was how to create the illusion of three-dimensional space—like the buildings on a street or a table in a room—on a two-dimensional canvas. In contrast, every art student today learns the fundamental techniques of drawing with perspective rules well enough be able easily to create realistically proportioned drawings, as illustrated above.

A Watershed Event

However, this has not always been the case. Discovering the principles for accurately depicting perspective eluded artists forever, as seen in this medieval painting of a castle, baptistery and peasants paying homage to royalty. Such flat depictions were typical throughout the world prior to the Italian Renaissance.

Prior to the middle of the 15th Century, the closest an artist could come to showing visual perspective was to paint the horizontal lines above eye level angling downward and those below eye level angling upward, and to draw nearer objects larger than those more distant, resulting in some truly bizarre effects, as in this painting by Lorenzeti (1340).

In this Russian icon from the same period, you will notice how the artist has angled the lines of the chairs to approximate three dimensions and then hid the edges of the table in order to avoid having to decide how to draw them.

A Quantum Leap

Although Da Vinci discovered and employed the basic concepts earlier in the century, it wasn't until 1460 that the Florentine architect and engineer famous for building the dome on the Cathedral of Florence, Filippo Brunelleschi, published a mathematical theory of perspective. By analyzing and experimenting with visual lines and points of perception, Brunelleschi was able to understand the mathematics behind perspective. Brunelleschi's discoveries are best illustrated with the "perspective grids" used universally today by artists, engineers and architects.
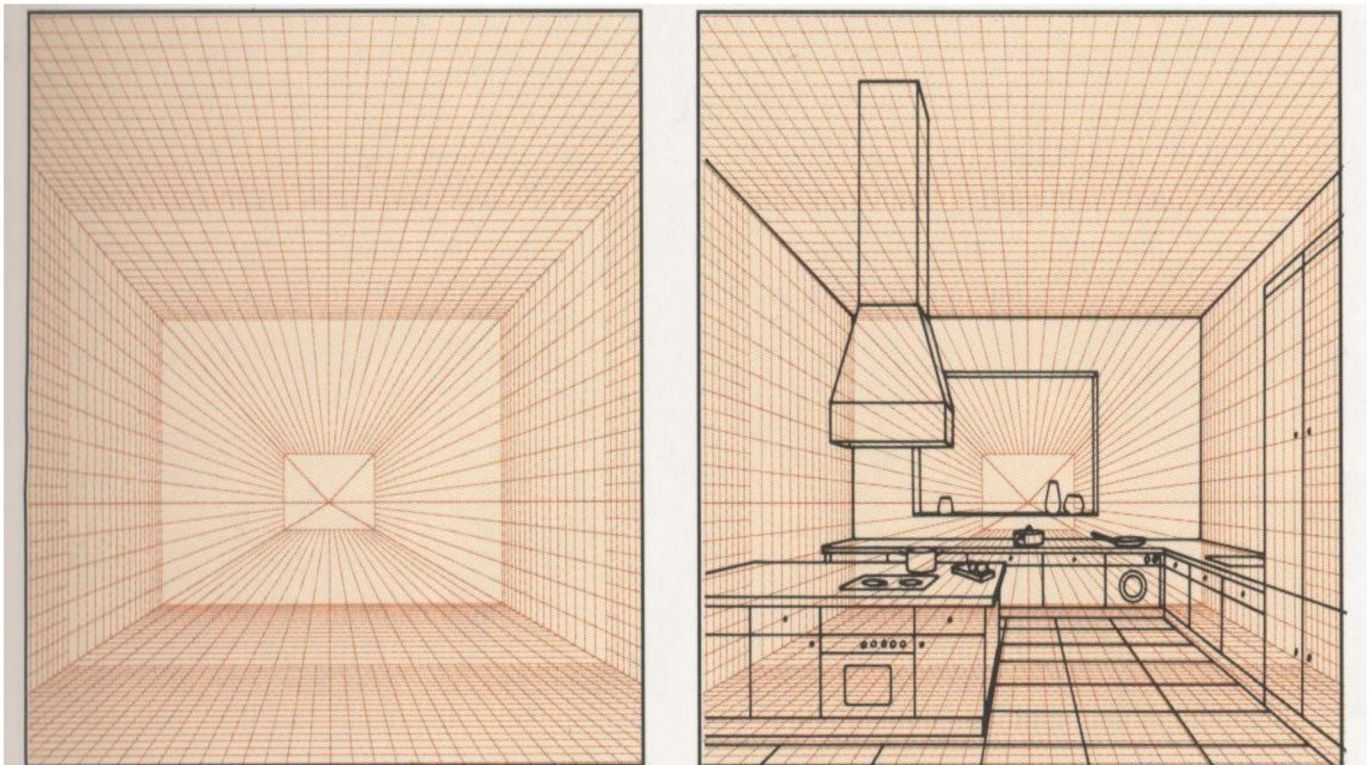
The Unimaginable Discovery of the Vanishing Point

Brunelleschi's years of experiments produced a few easily understood and easily learned rules of perspective drawing, all based on one universal principle: Parallel lines appear to meet on the horizon at infinity. The rules are so easy to understand and use, that school children today can accomplish what eluded the most accomplished artists prior to 1460. Portraying equally spaced objects such as windows, columns and fence posts or for showing depth to domes and arches are special applications of the first principle of perspective.

Why Did the Vanishing Point Elude Discovery?

Every child, even those learning geometry today is taught, "Parallel lines never meet." Brunelleschi's discovery was to end that statement with "…but they appear to!" His discovery was illogical and defied the laws of mathematics. But it works every time.

The difference made by using the rules of perspective is obvious in the paintings by two artists of comparable ability, Giotto and Uccello.

Giotto's buildings (left) appear flat and bear no consistent relationship with one another. The scale of his people relates more to their importance as subjects, than as visual objects; and actual distances are only hinted at by relative size.

The Legend of St. Francis, #10, Giotto, 1297

In contrast, nothing about the structure of Uccello's painting (below) jars the viewer's visual sensitivity. It all "holds together" and makes sense. (The realistically checkered floor is the artist showing off his facility with the new technology.)

The Selling of the Host, Paolo Uccello, 1468

Coherence, Alignment and Money

During the Renaissance, artists were primarily supported by royalty, the Church and wealthy business families such as the Medici. Within a few years of Brunelleschi's discovery, artists throughout Europe not using his rules of perspective fell out of favor because patrons strongly preferred the aesthetics of the new technology.

Knowing the rules of perspective made it possible for an artist to portray a third dimension on a two dimensional surface. It provided a way for artists to create works in which everything "worked," and all the elements were

visually more coherent and interrelated than before. This knowledge made it possible to stimulate people's imaginations in ways never known before. To citizens of the time, experiencing the new art was similar to our response to the first 3-D movies.

Brunelleschi's discoveries represented a watershed not only for art, but for the economy of artists as well. The rules of perspective not only qualitatively improved an artist's work, but catapulted artwork to a previously unimaginable stage. Every object could be shown in visual alignment with the whole. The resulting picture more closely portrayed the world as the human eye saw it.

What does that have to do with how a person thinks?

Even though Brunelleschi was a mathematician and an architect, the discovery of the vanishing point required a leap beyond what the science of the day dictated. After his discovery, an entire new discipline, the mathematics of perspective, developed.

In the same way, the discovery of question-driven intelligence is not the result of psychological or physiological investigation, but represents a leap based on the tireless investigation of inter-disciplinary thinkers.

Thinking about Thinking

What happens inside our heads is something most people do not much consider, yet has been one of life's greatest mysteries and most serious problems. Thinking is generally treated as an activity everyone knows how to do by virtue of being born, like breathing, but not considered a subject for study. We educate ourselves to improve the *content* of our mental activity, but spend little time on becoming more skilled *thinkers*.

In classrooms and boardrooms, I have heard many people describe their thinking as fragmented, disconnected and sometimes destructive of their own highest interests. Their thoughts may on occasion seem out of control and

they might consider themselves victims of a mind with a mind of its own. What they fail to understand is that they have control over their thought process through a skill few people have ever learned.

The Theory of Question-Driven Thinking

The mind and its functions are vast, perhaps infinite. No single theory or model can begin to capture its full function and capacity. This Theory of Question-Driven Thinking (QDT) is put forth as a model of the mind for the purpose of ordinary people gaining practical control of the mind's immense power via simple tools that produce consistent results.

Brunelleschi's vanishing point theory does not describe physical reality, but describes how reality *consistently appears*. In the same way, the theory of QDT does not claim to describe consciousness, but describes how thinking *consistently appears* to operate. The value of the vanishing point is as a practical tool for artists, architects and engineers. In the same way, the value of QDT is as a practical tool for people serious about tapping the capacity of their minds.

The theory of question-driven thinking asserts that **the mind is a question-answering entity and that all the operations of the mind arise in response to questions. The theory asserts questions organize the experiences of life into meanings and patterns and are active virtually all of a person's waking time.**

Skillful thinking begins when a person asks deliberate questions.

According to the theory, questions fall into two basic categories, <u>deliberate</u> and <u>default</u>.

According to the theory, intelligence occurs when a person asks *deliberate questions* and intentionally provides the mind with a task worthy of its awesome capability. Rather than an innate capacity determined by nature, the theory views intelligence as a function of a person's skill at asking

questions. Intelligence-producing questions are either "closed," i.e. gather finite information, such as How much time will I need to prepare for today's meeting? or are "open," meaning they have endless possible answers, such as "How can I make a difference to the well being of my community?" "How can we improve our guest services?" or Einstein's "What is the Universe?"

The shadow side of question-driven thinking

Since the mind always needs questions to give it direction, in the absence of deliberately posed enquiries, it must come up with its own programs. **If a person does not provide his mind with deliberate questions to work on, it has a cache of default questions to fill in.** On close examination, what most people refer to as "mental chatter" or "monkey mind" is simply the mind answering questions from the default cache, questions such as "How can I be right?" "How can I look good?" "Who will be my mother?" "What is wrong?" "How can I avoid responsibility?" "How am I better than others?" "How am I worse than others?" And so on. These are examples of questions commonly found in people's default cache.

The theory of question-driven thinking asserts that **a person can control the voice and images in the head by choosing the questions their mind is answering.** Rather than allowing default questions to decide what the voice or voices have to say, a person can decide the questions to which he is paying attention. Some East Indian teachers liken the mind to a genie who would brilliantly create whatever its master desired, as long as the orders keep coming. In the absence of a worthy task, however, the genie will devour its master. Many people understand the devouring quality of irresponsible thinking. In order for a person to take control of his mental activity, he needs to take responsibility for the questions his mind is answering.

Thinking Better

Albert Einstein said that a person's life is the sum of the questions they pursue. The implications of thought—and, therefore, life—being driven by

questions is the mental equivalent to the implications for visual art that perspective is driven by the vanishing point. Brunelleschi created a set of rules which consistently produce the desired effect of perspective. Similarly, the principles of question-driven thinking are a set of rules which consistently produce the effect of improved intelligence. Just as an artist practices to become proficient in his or her craft, an individual can practice articulating questions in order to create greater proficiency in thinking. It is a life long discipline.

Anyone who has attempted to quiet or control his or her mind for meditation or problem solving can appreciate the practical application of questions to rein in an otherwise rambling internal monologue.

How can the discovery of QDT transform group dynamics?

I have heard many people confess that their personal mental functioning is far below what they believe their innate potential is. The experience of deflated potential is multiplied in most people's experience of working with others in groups such as organizations, department meetings, community action committees, etc. Like many people, I have participated in countless meetings of every sort as a participant and leader. I have found myself wondering, how can we accomplish what we as intelligent human beings are capable of and why do we seem to be distracted and operate at the lowest common denominator when we get together in groups?

It is typical that during a project team meeting or community action committee gathering, people's minds, hungry for engagement, are only partially attending the subject at hand. This is true regardless of the subject. In addition to the topic of the meeting, the members' minds are busy answering questions from their personal cache of default questions. (When will this be over? When will I eat? What do others think about me? How can I make myself important?) The result is that group behavior is often fragmented, power struggles occur and the meeting goes off on tangents.

When the principles of question-driven thinking are applied to a group, the power of the discovery can be demonstrated unequivocally. Like a work of art, an organization needs to function from a common point of reference in order to make sense, to be coherent and aligned. **For a group of people to work effectively together, they need to think together. In order to think together, they need to work from a common set of shared questions.**

Organizational Architecture, Coherence and Alignment

How is it possible for a team to act coherently? What might alignment that look like? How can leadership create a well coordinated team which collaborates more at peak levels? What would it take for a leader to achieve coherence? Become skilled at using shared questions.

What is the question?

At a party recently, I met a woman who reminded me we had previously met when I conducted a couple of trainings for her company. She was the director of a large nursing facility in town and had been perpetually distracted by having to handle an endless string of complaints from her staff.

She told me that after they all learned how to turn problems into questions during the Segue training, her experience of managing had a radical shift. Whenever a staff person walks into her office now, the first words out of her mouth are, "What is the question?" End of frivolous complaints! Everyone is now part of her collaborative problem-solving team.

Four little words

A skilled facilitator knows that managing the questions in the room helps to keep attention focused and the meeting on track. In addition to meetings, I now encourage team leaders to think broadly in terms of the questions which their organizations and the members are answering.

I have watched this single element transform the businesses which chose to apply the simple principles of question-driven thinking.

How does a leader get started?

For training in how to apply the principles of Q-D Thinking to your life or organization, please visit www.RBystrom.com.

The Segue Collective Intelligence Process™ has been designed for applying the principles of Question-Driven Thinking to group settings and has been proven to reliably deliver exceptional results.