verseny15
Essay on Quote I

"Thoughts without intuitions are empty, intuitions without concepts are blind."

I. Kant: *Critique of Pure Reason*, B 75

In this statement, Kant argues that useful thoughts must be based on both intuition *and* concepts. In particular, he states that

(I) lack of intuitive basis makes a thought (however rigorous and well-defined it may be) empty, that is, containing nothing useful for us

(II) lack of conceptual basis makes a thought (however intuitive it may be) blind, that is,failing to make any observation about the real world

Then, as a consequence of these, any thought must have both an intuitive basis and a conceptual basis to contain any useful information about the real world.

These two statements and their consequence are fundamentally right.
But Kant's real message isn't only that. His intended message is that we should focus our attention on intuitive concepts (or, somewhat equivalently, conceptual intuition).

This is an instance of the Enlightenment-era optimism about reason and knowledge. Also, a thought without intuition loosely corresponds to the concept of an *a priori* analytical statement in Kant's thought, also outlined in the *Critique of Pure Reason.*

An *a priori* analytical statement is a statement that can be made without knowledge of the concrete, real world *a posteriori* experience, and is true by virtue of meaning. A classical example is
"All bachelors are unmarried males.".
This lacks any real information and is just a play on words and concepts.

Intuitions without concepts is like the mirror image of this. These loosely correspond to *a posteriori* synthetic statements,stated without using our inherent *a priori* way of organising knowledge. An example of this would be
"This thing is similar in some way to the grass."
This sentence fails to communicate that the pointed thing is green, because it doesn't use the concept of green.

According to Kant both types of sentences are quite useless, and he calls for the search of a priori synthetic sentences as a way of metaphysics. His dismissal of thoughts without intuitions and intuitions without concepts is similar.

But, I must argue, being empty, or being blind does not make a thought useless. My reasoning is based on two propositions, each of which I intend to illustrate and try to prove.

(Proposition A) Even an "empty" (that is, non-intuitive) thought may be an organising principle or a stepping stone to many other non-empty thoughts.
(Proposition B) Even a "blind" thought can give us useful advice in many real-world situations.

(Proposition A) says that highly abstract statements can have very concrete, and thus, intuitive consequences.

The question of intuition in abstract thought is well illustrated by an example from the realm of mathematics: the Brouwer fixed-point theorem.

L. E. J. Brouwer was a Dutch mathematician in the twentieth century. Perhaps not by coincidence, he is generally credited with founding the Intuitionist school of thought in the philosophy of mathematics. Intuitionism is essentially extreme constructivism. It states that theaim of mathematics should be to make intuitive statements. Brouwer rejected the Axiom of Choice in his philosophy. With this, he avoided some counter-intuitive results such as the Banach-Tarski paradox, stating that a sphere could be cut in five parts and reassembled as two spheres.

His famous theorem can be worded in two radically different sounding, but equivalent ways:

(T/a) If a man stirs his coffee, there will be a point in the coffee that is not moving.

(T/b) Any continous mapping from an n-dimensional ball to itself has a fixed point.

We can see that statement (T/a) is using ordinary language and is also very intuitive: almost everyone can easily imagine a man stirring his coffee. And if one stirs the coffee in reality, he can easily see find the stationary point.

Statement (T/b), however, is not intuitive at all, and many people would have a problem understanding it. Most people do not know what an n-dimensional ball and a continous mapping is.

If a man sees Statement (T/b), his first thought might be
"This is some mathematician's toy problem that doesn't mean anything to me".

But he is wrong, because Statement (T/b) can be applied to our world very well. It is the man who fails to see the connection between the abstract and the concrete. Of course, normal people (that is, almost everyone maybe excluding Paul Erdős), see their cup of coffee as coffee, and not as an instance of the 3-dimensional ball. This is simply because abstraction is rarely, if ever, required in our everyday life.

Intuition is clearly much more useful in daily life than abstraction. (it is exactly this usefulness that will prove my Proposition B later)

However, a skeptic of mathematics could still say that (T/b) is just a reformulation of an everyday observation in needlessly complex language. He might say that abstraction is just distancing such a simple law from the everyday experience and presenting it as a law "from above".

But as the ancient greek thinkers realised, the possibility of proofs is the greatest strength of abstract reasoning.

(T/b) is superior to (T/a) because it can be proved, unlike everyday observations, which can be observed again and again, but never become completely proven.

(This is like David Hume's argument that one cannot know if the sun will rise tomorrow:
one cannot prove statements about the future based on observations in the past.)

What really supports (Proposition A) is that the proof of (T/b) is even more abstract than (T/b) itself. The shortest (around two or three sentences long) and most elegant proof uses the concept of homomorphisms and singular homology groups.

This proof itself is indeed very elegant, but even mathematicians don't know how to imagine a singular homology group, which have almost nothing to do with intuiton.

Despite having no intuitive meaning, singular homology is a very useful organising principle of abstract knowledge. According to Kant, it is an empty theory, but it has a very visible everyday consequence.

All this shows that some "empty" statements, notably abstract mathematical statements, lead to intuitive, common-sense results. These results are visible in the real world, can be confirmed by experiments, and can be used by engineers to construct real, concrete, and useful machines.

Thus, we should accept Proposition A: abstract statements *do* have concrete consequences.

(Backhausz Tibor)

Kant says intuitions without concepts are blind. This is in accordance with his other views, for example, he states that ethics is not defined by moral intuition, but by general laws describing how to act properly, the most important of which is the *Categorical Imperative*.

The analogy of blindness is a good one. Intuitions are try to grasp aspects of reality without trying to examine the underlying causes and concepts.

People using intuition only are like hunters shooting with eyes closed, hoping to hit a partial truth sooner or later, sometimes praying not to shoot their own legs.
The paradox is that these people are remarkably successful.

In Kant's view, their mind is entirely blind, and as a consequence they must be unsuccessful in real life. He would predict these people fail badly.

But we have many examples that people can live and work on an acceptable level without introducing well-defined concepts.

Example I. Consider a primitive tribe and their treatment of the sick. Their theoretical, conceptual knowledge of illness is very poor, almost nothing: they attribute sickness to “bad spirits”, and trying to cure it with exorcism. This is because they have no concept of bacteria or virii, only a vague and often ill-defined concept of spirits and ghosts.

But by their intuition and instinct, they know that the sick need help, and they take care of their needs, like in the enlightened society, maybe more so.

Despite their "blindness" to concepts and reason, they intuitively "know" that touching a sick person is definitely not a good idea.

Some might dismiss this type of intuition as an instinct,

a) developed by the blind forces of evolution

b) given to people by a benevolent creator to mitigate the effects of sickness
(why this creator gave people sickness in the first place remains a difficult question)

To highlight that intuition is more than evolutionary or God-given instinct, I have two more examples.

Example II. Consider a modern mother advising her daughter not to marry criminals.

In general, this seems to be a good advice, but it is not based on well-defined concepts because the word "criminal" is very ambigous in modern society.

People usually know who is a criminal and who is not, but most of them can't give a single definition of being a criminal. It is something they just feel about a person, judging on an *ad hoc* basis, maybe following unwritten societal norms.

A murderer in prison is obviously considered a criminal, but is anyone sentenced by penal law a criminal as well? What about people who were convicted by a judicial mistake, or in a false trial?

What about those who should be convicted, but they are too rich, too influential and have too good lawyers?

Does even minor tax evasion make someone equal in status to a murderer?

If not, Al Capone wouldn’t be a criminal, because of all his crimes, only tax evasion was proved in court.

But despite not deing able to tell who is a criminal in general, judging on an intuitive, *ad hoc* basis is often useful. Most people just let lawyers, judges, and philosophers to worry about the definition of criminal.

As a piece of advice, “Don’t marry a criminal” lacks conceptual basis, but has a usable intuitive basis. It is a “shot in the dark” regarding who is a criminal, but it is very useful in our world.

Thus, while "don't marry a criminal" is a "blind" piece of advice, it is very useful because the daughter will intuitively feel who is a criminal and who is not.

Example III. If I recall correctly, this happened in the Supreme Court of the United States.
The case in question required that the court define what is pornography and what is not. The court, composed of intelligent and theoretical-minded persons, couldn't give a precise definition, but stated that any sane person would recognise pornography if seen, and thus a definition is unnecessary.

All these examples illustrate that som intuitions using ill-defined concept are very useful in our everyday life. Thus, we should accept Proposition B.

With Propositions A and B accepted, we can draw a conclusion.

Although thoughts without intuitions contain nothing that we can directly apply in the world, they are not to be dismissed as useless, because these are useful organising principles, as shown by Propostion A.

By Proposition B, we shall not be afraid to use intuition if we do not find applicable concepts. Intuition remains to be the key of practical problem solving, working in most cases, but also failing in some.