Science and Inspiration

(Some ideas…)

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Science is in pursuit of knowledge but neglects wisdom.

Wisdom is important.

Science studies secondary causes.

Science does not engage with primary causes nor with final causes.

A modern world view: the material world is all there is, science explains everything.

Problem: science does not explain mathematics.

Science needs mathematics, but mathematical truth is independent of scientific investigation.

Mathematics is transcendent. The three marks of transcendence are: it is primary (it does not need empirical investigation), it is necessary (it could not be otherwise), it is independent of the human mind.

Science gives rise to opinions (about the material world).

Mathematics gives rise to Truth (intelligible objects).

The natural laws, which guide processes in the material world, are mathematical objects.

How do mathematical objects cause events in the material world?

Another worldview:

There is a material, temporal world.

There is an immaterial, atemporal world.

The first is guided by the second.

Every object, every relation is in both worlds.

The human being is a compound of body and soul.

This is the architecture of creation.

Divine thought (mathematics) leads to Divine action (material world).

God's actions are not in time.

The consequences of God's action can be in time.

A scientific explanation is never in competition with Divine Action.

Newton: *Hypothesis non fingo*.

God is the primary cause and the final cause.

God, in His Greatness, admits true secondary causes.

Secondary causes are done by nature or by human will (the soul).

Both must be traced back to God.

Everything that is done is done by God (but sometimes via secondary causes).

Three origins:

1. The origin of the universe (Big Bang?) => Physics, Chemistry

2. The origin of life (on Earth?) => Biology

3. The origin of human language => Contemplation, Religion, Philosophy, Poetry, etc..

The stars seed the universe with prayer.

Another origin (suggested by Pavel): the birth of an individual mind.

Time scale:

Big bang: 13.8 billion years ago

Sun, Earth, Moon: 4.6 billion years ago

Life on Earth: at least 3.5 billion years ago

Human language: about 1 million years ago

Evolution is responsible for unfolding life.

Populations evolve.

Evolution is 1. Mutation, 2. Selection, and 3. Cooperation (!)

Mutation generates variation (diversity).

Selections acts on diversity; selection is competition.

Cooperation means helping each other.

Even if the other is a competitor.

Selection opposes cooperation.

Selection needs help if it wants to favor cooperation over defection.

There are five mechanisms for evolution of cooperation (which I proposed in 2006 in a paper in Science): direct reciprocity, indirect reciprocity, spatial selection, group selection, kin selection.

Cooperation is the master architect of complexity.

Cooperation is needed for 1. origin of life, 2. first cells, 3. genomes, 4. higher cells, 5. multicellular organism, 6. animal societies, 7. human language.

Evolution as Mutation and Selection alone is a disaster (=> two world wars, terrible selfishness).

Adding cooperation as a fundamental principle of evolution makes all the difference.

Our ancestors were those who helped others, who received help.

Working on cooperation (for 37 years now) has affected my world view.

In the human realm, Cooperation is a preparation for love.

How does science become prayer?

Beyond is a search for "life as it is", a search for the perfect life, the perfect human being (who is "everybody"). If you move *beyond* the confusion of selfishness, you see the world as it is, you see infinite beauty. You discover the Form of the Good who leads you out of the cave of shadows.

The Bhagavad Gita is a call for selfless action without attachment. It is a call for an active life, but you should not expect any (temporal) rewards.

The Buddha is a cosmic ferryman: anyone for the other shore?

Within is an exploration of the human soul. There is an infinite library of meaning. Each moment of our life has meaning. There is no meaning without a giver of meaning. Meaning comes from purpose, from final cause. God is that final cause. God is waiting for us *within* the human soul as a Lover and a Beloved. God loves us passionately (Eros). The purpose of human life is to fall in love with God.

What is Love?

What does it mean to love a human being?

What does it mean to love your enemies?

What does it mean to love God?

Love is a rational response to Beauty.

Beauty and Good are the same (for Plato and his followers).

The Form of the Good is the highest Form.

The Form of the Good is God.

God is His real properties.

When we say God is good, we mean God is Goodness.

When we say God is wise, we mean God is Wisdom.

A philosopher is a lover of Wisdom and therefore a lover of God. Philosophy is a way to lead life.

At the beginning of the middle ages, for Augustine, philosophy and theology were the same discipline.

At the end of the middle ages, for Thomas Aquinas, they had separated: for philosophy (metaphysics) God is the principle behind the subject, for theology God is the subject of inquiry. Philosophy is based on reason. Theology is based on reason and revelation.

A philosopher (or scientist) studies God through His effects. But the essence of God cannot be known philosophically (or scientifically).

As a Theologian, Aquinas can say: *Deus est ipsum esse, per se subsistens*.

The essence of God is Existence. Everything else has existence received from God. But God is His own Existence. In God alone there is no distinction between Essence and Existence.

Engagement with God is entirely rational.

Two possibilities:

1. Coming closer to God gives us more and more rational insight, which enables us to understand the world as it is, because we have moved *Beyond* confusion.

2. Coming closer God silences all the words that are *Within* us.