



Institute for Advanced Physics

Two Types of Empiriological People

by Anthony Rizzi

Our empiriological¹ culture tends to create two types of errors in people. This, in turn, creates two types of people, one for each type of error.² Each of these groups is anti-truth in its primal mindset, even though some in each category might actually use and defend the word truth! Both groups are unaware of the foundation of their positions and, if confronted with a clear exposition of their actual lived beliefs and thoughts, would be alarmed and likely deny that they hold them!

¹ The empiriological method is the paradigm for understanding today and *it is in fact the modern scientific method* though its nature is currently understood by only relatively few. It's core is clearly defined and discussed for the first time in A. Rizzi, *Kid's Introduction to Physics and Beyond*, IAPpress, Baton Rouge, 2012 (KIP), and *The Science Before Science: A Guide to Thinking in the 21st Century*, IAPpress, Baton Rouge, 2004 (SBS) and *What is Science? Physics and Culture* (Feb 2019) at iapweb.org/iapmagazine.htm; see also textbooks at iapweb.org/store. The empiriological method looks at the world primarily through the property of quantity using a system of rules and symbols, such as equations, to organize information and make predictions about the world. The most profound form of the empiriological method is the empiriometric method, which utilizes equations. It is the study of the empirical (empirio) world, the physical world, through a system of logic (logical).

² This is not an exhaustive division. There is an even deeper, more complete classification that is not discussed here. In it there are those that accept the current scientific direction, and those that resist it. Note, the relative character of the positions; the second group is only defined relative to the first group; all may be accepting of some or all of tenets previously or presently ensconced by scientism. All of us are born into and share the core elements of scientism which is the fruit of our equation-alone physics at the base of our thinking. See footnote 1 for references giving more explanation of this situation.

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On the one hand, the first group tends to act as if all intellectual problems are superficial and can be resolved by sayings and metaphors. No proof or clear reasoned argument is needed. To this group, getting to truth is an easy affair. Shockingly, "truth" is, to some large extent, just a word they use. It's not even a word they use much if at all unless prompted. People in this group think that certain things, even important ones, are *obviously* right, so to defend them you can just use loose metaphors to take you and your audience to where you want to go. On this side, people tend to grossly overestimate the ease with which man's intellect can get to truth and tend to think anyone who doesn't think what they think just has a bad will, i.e. is bad, (sinning).³ This first view is very common outside the hard sciences.

In this first category, you will have some who will say if asked: "Yes, I know there is truth and think it can indeed be attained." But, follow up discussion on what is meant by this usually reveals that their words express a stance that they wish they could have but don't actually have. Moreover, it usually simultaneously reveals that their statement is really, at some deep level, disappointingly, a non-understood parroting of words.

³ Thus, for the first group, you need apply only minimal intellectual work to understand the truth that the opposition has and even to understand the truth you yourself have. Work, for this group, is mostly needed only to properly direct political and social power.

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Those in the second group, which consists of people who tend to think empiriological science is the first and only way of knowing, think all problems are so hard that only very specialized people can really understand the issues and even those people can never be certain of anything. These people largely accept the modern philosophical idealism that arises out of the empiriological-only thinking. In this view, anyone who claims to have the truth, especially truth that others disagree with, is simplistic, naive and wrong. This side has a real cynical streak, one that makes them feel like they are objective and others are not! They are objective because they claim to doubt everything and, perhaps especially, because they do not trust anyone. Ironically, the *first group sometimes also holds this position*, sometimes simultaneously with the other position! How? partly by being habituated to ignoring contradictions and partly because "faith" is a panacea for all their unsolved problems. In particular, when a member of the first group is confronted with someone who holds things not on his "list of things one should hold and do," (i.e., someone holds things not in his "faith"), he often thinks and feels that there is no way this someone could know those things; after all they're not on the list! Moreover, he will often think there is no way to convince this someone of the truth of the things that are on his own list. This often leads him to attribute bad motivation, as opposed to bad thinking, to those who advocate persistently for ideas opposed to items on his list. This switch to the second position (even while sometimes asserting the objectivity of truth) is facilitated by the fact that their positions are, at some real level, superficial (though they are blithely unaware of it), as these positions are indeed more like a list

of things that they are attached to than truths they understand and know. And, that list is usually vague in many areas and generally leans toward parroting words which they do not truly understand because they have not done the requisite work to attain that understanding. In this case, the first group guy can become a better skeptic than some of the skeptics in group two. In defending his list, he is willing to deny the existence of truth and/or its attainability even while he is saying he believes in it.

Of course, neither the first or second view is correct. The correct view is that man can know the truth, but it is not easy. Man is not pure intellect; he has a body. In other words, everything man knows comes through what he knows through the senses. This, in turn, means that it is *quite of bit of work for him to come to truth with clarity and without admixture of error, even serious error*. Indeed, it is quite a bit of work *under knowledgeable teachers and virtually impossible without them*. He must start from the basic knowledge of the physical world (basic physics) and build to understand man and God! He must move from sense knowledge of things like "yellow" and "square" to God! No sane person talks to a baby about the Trinity, but says: Johnny this is yellow...put the square peg in the square hole...etc...⁴

Since the core of man's nature is to grow in truth, it is a task that he absolutely needs to do. And, since learning from the ground up, as he must, is a very difficult and precarious task, he needs others. Growing in truth requires each of us to put himself under teachers (authorities) to be successful. These

⁴ For a fuller understanding of these deep points see KIP and SBS (cf. footnote 1) and articles at www.iapweb.org/iapmagazine.htm

need to be teachers that really know, not ones who half know in a confused way.

Because all of our thinking starts with what we know through the senses, the study of physical things, physics, is the first science. It is the first thing we need to know in order to think about anything. And, because our physics (the physics that we inherit from our culture) is very advanced at this point and is equation-centered, i.e. is empiriometric, only someone who knows modern physics at a deep level and someone who knows the proper starting physics principles can teach people what they need to know. The Institute for Advanced Physics is the only organization that has the expertise to do this and stands ready to help.

Anthony Rizzi, Ph.D., Director of the Institute for Advanced Physics, gained worldwide recognition in theoretical physics by solving an 80-year old problem in Einstein's theory; has physics degrees from MIT and Princeton University; has been senior scientist for Cal-Tech's Laser Interferometer Gravitational-wave Observatory (LIGO), which won the Nobel Prize in physics 2017 and taught graduate courses at LSU; worked on the Manned Mars Craft and the Mars Observer spacecraft; received the NASA Award, as well as, a Martin Marietta New Technology Award.

He is author of The Science Before Science: A Guide to Thinking in the 21st Century and A Kid's Introduction to Physics (and Beyond); he has been interviewed in many media outlets. In addition to his professional articles, Dr. Rizzi authored the ground breaking texts Physics for Realists-Mechanics and Physics for Realists-Electricity and Magnetism (both recommended by the journal of the American Association of Physics Teachers) and, recently, Physics for Realists-Quantum Mechanics. He has recently made groundbreaking discoveries in quantum mechanics.

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