

Thinking Skills and Scientific Attitude

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Abstract

To describe man as a thinking animal is to outline his essence, particularly thinking in ideas. This qualification is critical as a result of it's a minimum of controversial and discursive thinking isn't the sole kind of thinking attainable. It's widely acknowledged that a number of the best achievements of man square measure the product of the methodology. In most contexts of life we have a tendency to square measure known upon to use, important and inventive thinking in some complicated combination. At a similar time, it should be found out that in sensible terms its thinking that has larger significance. The methodology is an extension and a refinement of the standard, rational technique of effort reliable information. The essence of scientific temper consists in an angle of systematic, constructive and open-ended skepticism. It is refinement and systematic application of our important thinking. We will be same to be displaying scientific temper if we have a tendency to put in force asking whether or not a given belief or plan is freed from logical contradiction, whether or not there's sufficient proof in support of it and whether or not it fits in with the bulk of the beliefs regarding reality that we have a tendency to concede to be true.

Keywords: thinking, active thinking, reactive thinking, educationists, scientific attitude

Introduction

In the maximum amount thinking is usually conscious thinking, we would even say that thought is the terribly antithesis of instincts. It cannot be assumed that the capability to assume is uniformly gifted in each member of the species to an additional or less equal degree. There's no reason to assume that the school for thought cannot be cultivated or improved by aware effort. The question then is, what specifically should be concerned in thinking and the way we will have a tendency to improve our capability for this school that represents our terribly essence.

Thinking

Strangely enough, except maybe among psychologists and psychological feature scientists like those involved with the event of computing there doesn't appear an excessive amount of concern regarding what specifically is concerned in "thinking". Nor there appear to be abundant awaked concern with the attainable ways that can improve our ability to assume. This latter reality is even additional stunning since, given the position of the capability for thought; one would assume that the first and specific objective of education would be to boost that capability for thinking; one would assume that the first and specific objective of education would be to boost that capability.

Types of Thinking

1. Active Thinking

When we attempt to prepare acquainted things in new patterns, after we attempt to produce to form or construct one thing new, in drawback resolution of all kind, etc. this could be conferred upon to create a call or reach a conclusion regarding one thing that's already there.

2. Reactive Thinking

We use reactive thinking after we square measure conferred by others and need to gauge them. This we will decision important thinking.

However, we have a tendency to keep in mind that this classification doesn't imply that the 2 square measure severable or that there's such a factor as pure ability or pure important thinking.

Scientific temper

Scientific temper is to embrace the logical disposition in our overall way to deal with things. A comparative declaration can be made about our demeanor to scientific temper. It is commonly concurred that having a logical mentality is a basic element of being an illuminated individual. Scarcely, any idea is given to the inquiry whether causing the understudies to remember a couple of hypotheses of science and convincing them to precisely make an insincere effort of rehashing a few examinations (fairly in the soul of strict custom) can remember the scientific temper for them. No exertion is made to enable the understudies to comprehend what establishes the logical technique, what is its proper application, what are its impediments, etc.

Indeed when we talk about reasoning it is basic reasoning we have as a main priority. Given its significance, the inquiry is the manner by which to build up this capacity and show individuals how to apply it. At the point when we ponder this issue we understand that there is a nearby connection between basic reasoning and what we call scientific temper.

Quintessence of science

Despite the fact that in our speech we utilize the term 'science' to allude to numerous things. Carefully, science is neither an assortment of information nor a lot of hypotheses nor even a lot of clarifications of characteristic marvels. Science is basically a strategy. It is a strategy for showing up at information, or all the more precisely, a technique for approving hypotheses. A group of information or a hypothesis or a clarification is logical just to the extent that it is tried or confirmed by the techniques of the logical strategy.

Scientific Method

It might be said, scientific strategy is certifiably not a unique kind of technique imagined by or applied distinctly by researchers. The scientific strategy is only this reasonable technique, applied in a thorough design. All in all, the scientific technique comprises of two fundamental advances:

1. Constructing a conceivable image of the object of our examination by making some lucid guesses about the structure of the wonder we are contemplating.
2. Finding ways – through precise perception and investigation to affirm whether the image we have built is right.

The fundamental prerequisite of the initial step is that the supposition we make about the idea of the item we are considering, this is to state the speculation we build, ought not be irrational or self-opposing, and ought not quite far, go through and through against sensibly entrenched laws of nature.

The necessity of the second step of the scientific strategy is that we should make the conditions under which the shortcoming of our theory, assuming any, is unavoidably uncovered. Our powerlessness to invalidate the speculation would be the proportion of its nearness to truth, and gives the premise of its acknowledgment as a legitimate hypothesis.

Significance of scientific temper in deduction

The significance of this methodology is that it establishes the most ideal way we know to recognize reasonable and genuine convictions from one viewpoint and deceptions and silly notions on the other. This methodology encourages us to acknowledge convictions not based on the simple glory or authority of their sources however based on their inborn vicinity to truth. We have no choice except for to receive this methodology at whatever point we wish to oppose the mistreatment of strict doctrines or dug in odd notions.

Having said this, there's one important point that has to be mentioned. While scientific temper is, a really important thing, we must also remember that there's nothing whatsoever which is amenable to universal application. There will always be areas that fall outside the scope of anyone method of enquiry, problems that lie beyond the facility of anyone particular technique. Therefore, true scientific temper consists also in recognizing the boundaries of the methodology. There are many issues in life, many puzzles, many existential questions, and lots of paradoxes that tease our understanding, which cannot be tackled with the assistance of the methodology. In such cases, wisdom lies in humbly accepting the constraints of science and seeking some broader principles of rationality for evaluating beliefs.

Need of critical ability

The critical attitude is required for exposing the hollowness and therefore the falsity of the intellectual jargon, pompously obscure, indefensible theoretical edifices and pretentious intellectual fashions, especially those imported from abroad. Every discipline, every field of specialization develops its own theoretical, conceptual apparatus. The techniques and also the phraseology associated with that apparatus would often be technical and inaccessible to the layman. This makes it possible for the less scrupulous members of the intellectual class to resort to a pretentious virtuosity within the use of that apparatus sometimes to paddle falsehoods on behalf of vested interests, sometimes to lend glamour to the banality of their intellectual goods and not infrequently to merely hide their substantive incompetence from the lay public. Given this fact, the educated citizen must equip himself to not be intimidated by the complex jargon and also the esoteric looking techniques brandished by the 'expert' and to gauge his arguments and conclusions within the light of basic principles of logic and observable evidence.

Similarly, critical ability is required for seeing through the exploitative ideologies and also the hegemonic campaigns of propaganda and disinformation.

Role of educationists

Therefore it's necessary for teaching community to pay some more attention to the current matter. To mention this, however by no means to imply that, teachers and other educationists don't know anything about thinking or science. Through an informal observation of their own thought process, most of them would have gained a reasonably good idea on what's involved in "thinking". Similarly, it'd be totally wrong to imply that the majority teachers don't know the fundamental of science. Surely, they might have formed a reasonably good idea about the way science operates from their own knowledge of science. But, to possess a concept about these items isn't the identical as possessing a definite understanding of them in such some way that it can form the premise for systematic effort to bring its benefits to the scholars.

Not only creative thinking skill which should be taught in the school, scientific attitudes should be also improved during the learning process (Davies et al., 2013; Duran & Dökme, 2016; Genç, 2015). Since those two skills are included in 21st-century skills that are totally important in facing big challenges in the globalization era (Bellanca & Brandt, 2010; Jenkins, Clinton, Purushotma, Robison, & Weigel, 2009; Kaur, 2013).

Conclusion

Everywhere – barring exception - education seems to be designed to impart information and exercise our memory rather than enhance our ability to think. As a consequence, some rudiments of science are made a part of even the most elementary educational curriculum. It is worth reminding ourselves, therefore, that what follows is not an attempt to impart what was supposed to be new facts about thinking skills and scientific temper as much as to present in an explicit and somewhat systematic form those very insights which we all possess about these topics but did not have occasion to articulate earlier, so as to be able to use those insights on our pedagogic projects. It would be more meaningful to speak of a 'primarily creative' or 'primarily critical' form of thinking, with the clear understanding that each would have a significant role to play in the other. When we come across a new phenomenon that we do not understand, the rational way to go about trying to understand it is to tentatively assume a particular explanation for it and then try to verify that explanation in scientific or sensible manner. The truth is that we need the critical attitude and the scientific spirit equally for dealing with several contemporary sources of falsehood, confusion and intellectual corruption. To be scientific is to refuse to take anything on faith except as a point of departure; to insist on relevant evidence before accepting a belief.

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