

Editorial charter of IJTO

The primary purpose of the Journal of Thinking Objectively (IJTO) is to publish peer-reviewed research papers of archival value, which advances the understanding and practice of:

1. Thinking objectively which striving for truth and the scientific method [2]: Thinking subjectively [1] comes naturally; thinking objectively doesn't — it's an acquired skill. David Kelley explains why it is worth the trouble to improve on. I extracted this page from the introduction of his book, *The Art of Reasoning* about anything in topic in computing in general and software engineering in particular, . This article is a companion to *The Scientific Method*.
2. Thinking [1]: In a broad sense, the word "thinking" [1] refers to anything that goes on in our minds. As long as you are conscious, there is always something going on up there. In this sense, you can't help thinking. In a narrower sense, however, thinking is a particular kind of mental activity, the kind involved in solving a problem, planning an action, studying for a test, defending your position on a controversial issue. This is still a pretty broad concept, but we have excluded some things. In the first place, we can distinguish thinking from feeling. Thinking is a cognitive process we use in the attempt to gain knowledge or to understand something, as distinct from our emotional responses to things. This distinction does not mean, as people too often assume, that someone with strong emotions is necessarily illogical or that a logical person must be unemotional. On the contrary, there is no reason we cannot have both: clear logical minds and passionate feelings. But thinking and feeling do have different roles to play, different jobs to do, in our mental lives. Secondly, thinking is purposive. It differs from activities such as daydreaming and fantasizing in which we simply let our minds wander where they will. Thinking is something we have to do, usually with some degree of effort. And because it aims at a goal, it is something that can be done with varying degrees of success. You may or may not succeed in solving a problem, forming a plan, grasping something you read, proving your case. In this way too, it differs from daydreaming, where the concepts of success and failure don't really apply. Thinking is a skill. It's a skill that everyone has in some degree, but it's also a skill that everyone can improve.
3. Thinking Skills [1]: How can we improve this skill? [1] It's analogous to a game of chess. We need to learn the rules and strategies of the game. And we need to practice the moves that implement those rules and strategies. With thinking, there are certain standards that tell us when we have achieved a clear understanding of some subject or succeeded in proving a case. These standards are the subject matter of logic, and our first task is to learn what they are. Our second task is to practice applying these standards to a variety of examples drawn from everyday life. The more practice we get, the more effectively we can incorporate the standards of logic into our habits of thought. When we engage in thought, our goal is normally to find out something. We are trying to answer a question, solve a problem, prove a conclusion, learn a body of material. In many cases, we can't acquire knowledge by direct observation. We have to do some reasoning, putting two and two together, making inferences, drawing conclusions from the information we already have. The core of logic has always been the study of inference. There are different kinds of inferences and rules for evaluating and distinguishing the good from the bad ones. Logic won't give you answers, but it will give you a method to follow for making decisions and backing them up. It will show you how to break an issue down into sub-issues, how to decide what evidence is appropriate to a particular issue. It will give you standards for deciding what sort of evidence is appropriate to a particular issue. And it will give you standards for determining how much weight to give a piece of evidence. Logic can also help us develop other, more subtle skills. Most of us have been in discussions that were frustrating because they kept going around in circles. That often happens when people "talk past each other" — when they are not really addressing the same issue. If the disputants could identify their differences, they would at least know where they agree. Another area of logic is concepts and definitions. People often talk past each other when they use words with different meanings. Logic won't guarantee success, but it can give us a method to follow, and the method will pay immediate dividends in terms of clarity and precision of our thinking.
4. Objectively [1]: Objectivity [1] means staying in touch with the facts. It means guiding our thought processes by a concern for truth. To some extent, objectivity is a matter of choice: the choice not to indulge in wishful thinking, not to let bias or prejudice distort our judgment, and so forth. But there's more to it than that. Objectivity also involves a skill. Even with the best will in the world, we can't really be objective unless we know how to follow and evaluate the arguments we hear, how to isolate the relevant issues clearly, how to avoid ambiguity and vagueness in the words we use. The essence of objectivity is the ability to step back from our train of thought and examine it critically. This is a virtue because it is the only way to avoid jumping to conclusions, the only way to check the results of our thinking, the only way to make sure that we are in touch with the facts. The results of our thinking cannot be any better than the process by which we arrive at them. There is no Book of Life with answers in the back where we can see whether we got it right. Good thinking is a self-directed, self-correcting process and you are the only one who can take responsibility for steering your own mind in the right direction. Objectivity [1] also has a social aspect. It means not only presenting your own ideas logically, but also listening to what others have to say. Objectivity does not require that you be neutral, nonpartisan, or indifferent to the issue. It does require that you try to look at the matter from the other person's perspective. Even if your view is right, it is rare that any single perspective reveals the whole truth. Objectivity requires that you give a fair hearing to the evidence and arguments for the other side. Even if you reject them in the end, knowing why you reject them will give you a better understanding of your own position. Another aspect of objectivity is especially important in communicating with others. In order to get our ideas across successfully, we have to take account of the other person's context. A point so obvious to me that it hardly seems worth mentioning may not be obvious to someone else, and if I fail to mention it, he may not understand what I am saying. Objectivity is the ability to step back from our own thinking, so that we can see it critically, through the eyes of someone who does not share our outlook, our preferences, our idiosyncrasies. All that we can reasonably ask of our audience is the ability to follow our logical connections. In this respect, logic, language, is a shared framework without which we could not communicate. Objective versus Subjective [2, 3]: objective 1. existing as

an object or fact, independent of the mind; real 2. concerned with the realities of the thing dealt with rather than the thoughts of the artist, writer, etc. 3. without bias or prejudice

subjective of or resulting from the feelings of the person thinking; not objective; personal

scale: objective 9 8 7 6 5 4 3 2 1 0 1 2 3 4 5 6 7 8 9 subjective The topics are listed n the IJTO keywords at: <http://www.ijto.org/keywords> are open and it is related to any area of computing and you may explore thinking objectively in any topic in computing. The IJTO will accept a wide range of original, unpublished materials from all prospective authors. The IJTO will be published in an electronic form over web, rather than in print form. Floating an e journal will not only save money, but also allow us to publish articles of any length. Consequently, authors can send us articles of any length, but with a high quality tag. All articles submitted must be concise and well documented. Verbose articles are liable to be returned for further revision by the author (Please check the Paper Category -- <http://www.ijto.org/paper-category>) The IJTO Editors, Editorial Board Members, Reviewers, and Staff are committed to work closely with the author to get their papers to the level to be accepted. We value each submission. The IJTO will provide coaching in writing if needed. A coaching process will be posted soon. References: [1] http://usbible.com/Reality/thinking_objectively.htm[2] http://instruct.westvalley.edu/lafave/subjective_objective.html [3] <http://www.reciprocity.org/Reciprocity/r0/Day1.html>