General Method for Evaluating Arguments & Explanations: SCRISITCOPO Claude Gratton, Ph.D.

**Statements**: Identify each statement: (a) a group of words (sometimes expressed in a declarative sentence) (b) used to assert (claim, affirm, declare, propose) (c) what can be either true or false, either acceptable or unacceptable, or can have any degree of likelihood (probability) or any degree of acceptability.

**Conclusion**: Identify the conclusion. In an argument it’s a statement whose truth is supported by other statements (i.e., reasons). In a causal explanation it’s a statement describing an event that is caused by other events referred to in the reasons. A conclusion is the destination of one’s reasoning: knowing the destination helps us to find the best path to reach it. A conclusion gives us some clues as to what is needed to reach it logically.

**Reasons**: Identify the reasons. In arguments they are statements used to support the truth of a conclusion. In causal explanations they are statements used to present the cause of an event referred to in a conclusion.

**Interconnect**: Describe accurately how the reasons and conclusion interconnect: this is the map of the reasoning. We construct either visually or mentally the general structure of the argument or explanation, e.g., the interconnections among the statement used as the final conclusion, the statement(s) used as the intermediate conclusion(s), the statements used as reasons that work together, and the statements used as reasons that work independently of each other.

**Support**: In arguments evaluate the strength of support that the given reasons bring to the truth of a conclusion. In causal explanations evaluate the strength of the causal link between the events referred to in the reasons and the effects described in the conclusion. Here we can use various kinds of counterexamples, logics, statistics, sampling criteria, methodologies...

**Implicit**: Reasoning typically has unstated reasons and even sometimes an unexpressed conclusion. We need to be able to identify what is hidden because it can be faulty. There are two kinds of implicit assumptions, those whose insertion into an argument or an explanation render it valid; and those (discovered by means of counterexamples against the support or causal link of reasons) whose insertion does not render them valid, but in the case of arguments the insertion of the unstated reason increases the support for the truth of the conclusion, and in the case of causal explanations the insertion increases the strength of the causal link between the events described in the reasons and the effects described in the conclusion. I locate this stage here in the general method because certain counterexamples against the support of reasons help us to identify the second kind of implicit assumption.

**Truth**: Evaluate the truth of the reasons. Use observations, personal and collective experiences, statistics, appeals to experts, counterexamples, studies, etc. Note: personal experience is a starting point, not the end point of evaluation.

**Clarity**: Clarify the meaning of only the words whose vagueness or ambiguity affect either the support or truth of the reasons, or the truth of the conclusion. If vague or ambiguous words have no such effect, do not bother clarifying them. I position “clarity” at this stage because we discover what needs to be clarified after trying to assess either the support or truth of the reasons.

**Opposing (BEST) views**: Consider fairly and impartially the best opposing views and objections against your construction and evaluation of arguments and explanations. This can help you to discover weaknesses that you may have overlooked in your own reasoning or in your evaluation of other people’s reasoning. When evaluating someone’s reasoning, it is important to anticipate his/her best rational response to your criticism.

Respond open-mindedly: change your mind in the light of better reasoning.

**Perspectives**: Since most complex issues can be examined from many reasonable perspectives, it is important to consider them fairly and impartially in order to identify and address weaknesses in your own reasoning. This stage is an invitation for you to get out of your personal, cultural, regional, national, religious, political, gender, etc. boxes. This is where the impartial appeal to other disciplines, cultures, religions, philosophies, etc. come into play.

Respond open-mindedly: change your mind in the light of better reasoning.

**Overall evaluation**: For arguments: arrive at an overall evaluation of the probability of a conclusion given the preceding evaluation of the truth and support of the reasons. For explanations: arrive at an overall evaluation of the probability of the events referred to in the conclusion given the preceding evaluation of (a) the truth of the reasons and (b) the strength of the causal connection between the events described in the reasons and the effects described in the conclusion, and compare this (a) and (b) to that of alternative competing explanations of the same event; choose the explanation that has the highest probability for the effect (event) described in the conclusion.

Though these stages are presented in a linear fashion, they need not be followed sequentially. Moreover, some of them can be repeated a number of times. For instance, one can discover what needs to be clarified after constructing some counterexamples against either the truth or support of premises, provide the clarification, and then proceed with a new set of counterexamples that take into account the clarification. The acronym SCRISITCOPO captures those stages, and has been pedagogically useful.