



The Thinker's Guide
to

Intellectual Standards:

The Words That Name Them
And the Criteria That Define Them

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The Foundation for Critical Thinking

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Humans routinely assess thinking – their own thinking, and that of others. And yet they don't necessarily use standards for thought that are reasonable, rational, sound. To think well, people need to routinely meet intellectual standards, standards of clarity, precision, accuracy, relevance, depth, logic, and so forth.

The Concept of Intellectual Standards. 13

Intellectual standards are cultivated conceptualizations that result from the proper uses of intellectual standard words in context. The term 'intellectual standards' can be analyzed by carefully considering educated uses of 'intellectual' and 'standards' and what those uses imply.

Intellectual Standard Words Form a System of Interrelated Meanings. 17

Intellectual standard words are found throughout natural languages and are regularly used by disciplined reasoners in every culture. When we study intellectual standard words, we find that many have overlapping meanings and uses, and therefore form clusters. We find that there are various nuances between and among intellectual standards. To fully understand intellectual standard terms, we must have command of their opposites. Furthermore intellectual standards can be divided into micro and macro intellectual standards, micro intellectual standards referring to those standards more "pointed" and specific (as in the standards of 'relevance' and 'accuracy'), macro intellectual standards referring to "more general" standards (as in the standards of 'reasonability' or 'soundness'), standards that presuppose one or more micro intellectual standards.

Intellectual Standards are Presupposed in Every Subject and Discipline. 34

Professionals within every subject and discipline assent (theoretically) to intellectual standards. Yet it appears that some professionals do not have a clear conception of intellectual standards and the role they play in assessing reasoning within their disciplines. A lack of explicit awareness of intellectual standards and/or pursuit of vested interests can lead to the violation of intellectual standards. Those working within the disciplines are well-advised to explicitly articulate the intellectual standards essential to reasoning well within their disciplines. We offer a few examples.

The Proper Use of Intellectual Standard Terms Requires Cultivation. 43

Cognition is natural to the human mind. But cognitive processes (like analysis, synthesis, and comparison) do not necessarily entail the meeting of intellectual standards. These processes can be done well or poorly. Because most people are not explicitly aware of intellectual standards, and because the use of intellectual standards is not natural to the mind, people often fail to meet them. Instead, egocentric and sociocentric standards are common in human life (standards that enable people to get what they want and maintain self and group- centered biases). To develop as reasoners, people need to study and practice using and meeting intellectual standards.

Other Important Distinctions and Understandings. 50

In addition to the multiplicity of intellectual standards extant in natural languages, there are a plethora of terms that presuppose one or more intellectual standards (terms such as 'integrity,' 'honesty,' 'humility'). Similarly, there are many terms that imply a failure to meet appropriate intellectual standards (terms such as 'chicanery,' 'deceitful,' 'hypocritical'). We should also be aware that words are sometimes used to imply the fulfillment of intellectual standards not justified in context. Finally, intellectual standards are best understood in connection with a substantive conception of critical thinking.

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Introduction

Man, n. *An animal so lost in rapturous contemplation of what he thinks he is as to overlook what he indubitably ought to be.*

Ambrose Bierce, *The Devil's Dictionary*, 1906

[Critical thinking is] ... the examination and test of propositions of any kind which are offered for acceptance, in order to find out whether they correspond to reality or not. The critical faculty is a product of education and training. It is a mental habit and power. It is a prime condition of human welfare that men and women should be trained in it. It is our only guarantee against delusion, deception, superstition, and misapprehension of ourselves and our earthly circumstances.

William Graham Sumner, 1906

Humans live in a world of thoughts. We accept some thoughts as true. We reject others as false. But the thoughts we perceive as true are sometimes false, unsound, or misleading. And the thoughts we perceive as false and trivial are sometimes true and significant.

The mind doesn't naturally grasp the truth. *We don't naturally see things as they are.* We don't automatically sense what is reasonable and what unreasonable. Our thought is often biased by our agendas, interests, and values. *We typically see things as we want to.* We twist reality to fit our preconceived ideas. Distorting reality is common in human life. It is a phenomenon to which we all unfortunately fall prey.

Each of us views the world through multiple lenses, often shifting them to fit our changing feelings. In addition, much of our perspective is unconscious and uncritical and has been influenced by many forces – including social, political, economic, biological, psychological, and religious influences. Social rules and taboos, religious and political ideologies, biological and psychological impulses, all play a role, often unconscious, in human thinking. Selfishness, vested interest and parochialism, are deeply influential in the intellectual and emotional lives of most people.

We need a system for intellectual intervention, a method for pre-empting bad thinking. We need to take rational command of our cognitive processes in order to rationally determine what to accept and what to reject. In short, we need *standards for thought*, standards that guide us to consistently excellent thinking – standards we can count on to keep our thinking on track, to help us mirror in our minds what is happening in reality, to reveal the truth in situations, to enable us to determine how best to live our lives.

As it happens, all modern natural languages¹ provide their users with a wide range of intellectual standard words, terms which, when appropriately used, serve as plausible guides for assessing reasoning. For example, the following words name intellectual standards in the English Language: 'clarity,' 'accuracy,' 'precision,' 'relevance,' 'depth,' 'breadth,' 'logicalness,' 'significance' and 'fairness'.² There are synonyms for them, we suggest, in every natural language (German, French, Spanish, Korean, Chinese, Turkish, and so on). The same words in French, for instance, are 'clarté,' 'exactitude,' 'précision,' 'pertinence,' 'profondeur,' 'ampleur,' 'logique,' 'signification,' 'impartialité,' and in German are: 'klarheit,' 'richtigkeit,' 'exaktheit,' 'relevanz,' 'tiefgang,' 'vernetzung,' 'logik,' 'fokussierung,' 'fairness.'

Understanding how to apply intellectual standard words appropriately to cases is essential to thinking well in every language.

In other words, to live reasonably, humans need to construct their thinking so as to be *clear, accurate, relevant, significant, logical* and so forth. They also need to *clarify* the thinking of others, to check for accuracy, logic, significance and so on. Routine use of these nine intellectual standards is essential to thinking well within every domain of human life. And these standards are part of a much broader set of intellectual standards humans need to draw upon regularly as part of their everyday life.

Our goal in this guide is to provide a conscious foundation for thinking about intellectual standards, and the words that name them. Ultimately, such consciousness will enable those proficient in the use of intellectual standard words to think more effectively in every domain and subject in which, or about which, they think. Of course, in this brief space, we can provide merely the *beginnings* of a systematic analysis of standards for thought. In doing so, we open the door to the development of a broad and integrated view of intellectual standards.

Our fundamental objective is to illuminate the importance of explicitly mastering intellectual standards, and the words that name them, with a view to improving our thinking across the multiple domains of our lives. Otherwise the quality of our thinking, and our actions, is left to chance, intuition, or some other automatic mode of functioning.

¹ Natural languages are languages used in the conduct of daily life (languages such as English, German, French, Arabic, Japanese). They are used in ordinary communication by those who share the language. Natural languages emerge from repositories of terms and phrases that have developed over thousands of years by people who share a region and who communicate with one another. Natural languages contrast with artificial languages, which are created by specialties to facilitate a domain of study or interest (such as science, psychology, mathematics, baseball, the various technologies ...). Of course, artificial languages share some terms with natural languages, but should not be confused with natural languages. Any conflict between natural and specialized languages must be settled case by case.

² These nine standards have been at the center of the work of Paul and Elder during the past decade or more. In this guide, we go beyond these nine to a general exploration of the logic of intellectual standards.

In conceptualizing intellectual standards, we hypothesize the following:

1. that intellectual standard terms are rooted in the language we use every day and are presupposed in every subject, discipline and domain of human thought.³
2. that there is a rich variety of intellectual standard terms extant in natural languages from which we can draw to discipline our thinking.⁴
3. that intellectual standards form constellations of interrelated meanings that can be placed into categories with heads such as 'clarity,' 'accuracy,' 'precision,' 'relevance,' 'importance,' and 'fairness.'
4. that there are numerous concepts (such as 'integrity,' 'empathy,' 'fairmindedness') in natural languages which, though they are not themselves intellectual standards, presuppose intellectual standards.
5. that for humans to use intellectual standard words at a high level of skill requires systematic cultivation.
6. that though every subject and discipline implicitly presupposes the need to fulfill intellectual standards, in most cases these standards need to be explicit (in order to be properly monitored).
7. that the consistent and explicit satisfaction of intellectual standards is important to commanding the quality of one's life and, more generally, to creating societies that genuinely value critical thinking.

In sum, we offer a brief analysis of some of the most important intellectual standards in the English language. We look at their opposites. We argue for their contextualization within subjects and disciplines. And, we call attention to the forces that undermine their skilled use in thinking well.

³ In speaking of "intellectual standards," it may often be more accurate to say "intellectual standard words." For purposes of simplicity and ease of reading, we often use the shorter term 'intellectual standards.' The relationship between concepts and word use is complicated. It would be difficult to understand or explain intellectual standards without using and talking about intellectual standard words. The critical analytic vocabulary of the English language, rightly used, is the key to command of intellectual standards for English speakers. The standards may go beyond present usage in that they may encompass implications of which we are not aware. But without cultivated command of intellectual standards, the foundations cannot be laid. This is a point that has been illuminated by Wittgenstein and many of those influenced by his thought. In short, when we use the term "intellectual standards," we generally mean "intellectual standard words established by educated use." Intellectual standards, as we understand them, are conceptualizations [in disciplined human minds] of possible strengths and weaknesses in thinking. They are embodied in the proper use of intellectual standard words in context.

⁴ Though we focus here on intellectual standards available in the English language, we hypothesize that similar webs of intellectual standards exist in every natural language, though perhaps with differing nuances.

Intellectual Standards

Intellectual standards are given in the uses of intellectual standard words (when properly applied in context).

Intellectual standards are necessary for cultivating the intellect and living a rational life.

Essential intellectual standards are part of a much larger set of intellectual standards that form constellations of similar meanings and are prevalent throughout natural languages.

To properly conceptualize any given intellectual standard, it is important to conceptualize its opposite.

To properly conceptualize any given intellectual standard, we must also conceptualize its nuanced differences in a variety of contexts.

Intellectual standards are presupposed in many concepts in modern natural languages.

Intellectual standards are presupposed in every subject and discipline.

By way of introduction, we will begin with some essential intellectual standards.

Some Essential Intellectual Standards

We postulate that there are at least nine intellectual standards important to conducting affairs of everyday life. These are, again, clarity, precision, accuracy, relevance, depth, breadth, logicalness, significance, and fairness. The importance of these intellectual standards is given in their indefeasibility. We suggest, in other words, that it is unintelligible to claim that any instance of reasoning is both sound and yet in violation of these standards. To see this, suppose someone were to claim that her/his reasoning is sound regarding “x,” though, at the same time, admittedly unclear, inaccurate, imprecise, irrelevant, narrow, superficial, illogical, trivial and unfair with respect to “x.” Beginning with these nine intellectual standards will help set the stage for conceptualizing intellectual standards (more broadly) and for appreciating the essential role of intellectual standards in human reasoning.

An explication of these essential intellectual standards follow:⁵

Clarity: Understandable, the meaning can be grasped; to free from confusion or ambiguity, to remove obscurities.

Clarity is a ‘gateway’ standard. If a statement is unclear, we cannot determine whether it is accurate or relevant. In fact, we cannot tell anything about it because we don’t yet know what it is saying. For example, the question “What can be done about the education system in America?” is unclear. In order to adequately address the question, we would need to have a clearer understanding of what the person asking the question is considering the “problem” to be. A clearer question might be “What can educators do to ensure that students learn the skills and abilities which help them function successfully on the job and in their daily decision-making?”

Thinking is always more or less clear. It is helpful to assume that we do not fully understand a thought except to the extent that we can elaborate, illustrate, and exemplify it. Questions that focus on clarity in thinking include:

- Could you elaborate on that point? or Do I need to elaborate on that point?
- Could you express that point in another way? or Can I express that point differently?
- Could you give me an illustration? or Should I give an illustration?
- Could you give me an example? or Should I provide an example?
- Let me state in my own words what I think you just said. Am I clear about your meaning?
- I hear you saying “_____.” Am I hearing you correctly, or have I misunderstood you?

⁵ Throughout this essay we explore a variety of intellectual standards as they are implied in the everyday use of words. However, most words in everyday use have more than one meaning and sometimes have meanings irrelevant to the assessment of intellectual quality. Be advised, therefore, that when we refer to a term as an intellectual standard or to a term presupposing intellectual standards we are referring exclusively to those uses of the word or term relevant to the proper assessment of reasoning.

Accuracy: free from errors, mistakes or distortions; true, correct.

A statement can be clear but not accurate, as in “Most dogs weigh more than 300 pounds.”

Thinking is always more or less accurate. It is useful to assume that we have not fully assessed it except to the extent that we have checked to determine whether it represents things as they really are. Questions that focus on accuracy in thinking include:

- How could we check that to see if it is true?
- How could we verify these alleged facts?
- Can we trust the accuracy of these data given the source from which they come?

Precision: exact to the necessary level of detail, specific.

A statement can be both clear and accurate, but not precise, as in “Jack is overweight.” (We don’t know how overweight Jack is, one pound or 500 pounds.)

Thinking is always more or less precise. We can probably assume we do not fully understand it except to the extent that we can specify it in detail. Questions that focus on precision in thinking include:

- Could you give me more details about that?
- Could you be more specific?
- Could you specify your allegations more fully?

Relevance: bearing upon or relating to the matter at hand; implies a close logical relationship with, and importance to, the matter under consideration.

A statement can be clear, accurate, and precise, but not relevant to the question at issue. For example, students often think that the amount of effort they put into a course should be used in raising their grade in a course. Often, however, “effort” does not measure the quality of student learning, and when this is so, effort is irrelevant to their appropriate grade.

Thinking is always capable of straying from the task, question, problem, or issue under consideration. It is useful to assume we have not fully assessed thinking except to the extent that we have considered all issues, concepts, and information relevant to it. Questions that focus on relevance in thinking include:

- I don’t see how what you said bears on the question. Could you show me how it is relevant?
- Could you explain the connection between your question and the question we are addressing?
- How does this fact bear upon the issue?
- How does this idea relate to this other idea?
- How does your question relate to the issue we are dealing with?

Depth: containing complexities and multiple interrelationships, implies thoroughness in thinking through the many variables in the situation, context, idea, question.

A statement can be clear, accurate, precise, and relevant, but superficial (that is, lack depth). For example, the statement “Just Say No,” which was used for a number of years to discourage children and teens from using drugs, is clear, accurate, precise, and relevant. Nevertheless, those who take this injunction to solve the social problem of unhealthy drug use fail to appreciate the true complexities in the problem. Their thinking is superficial at best.

Thinking can either function at the surface of things or probe beneath that surface to deeper matters and issues. We can assume we have not fully assessed a line of thinking except to the extent that we have fully considered all the important complexities inherent in it. Questions that focus on depth in thinking include:

- Is this question simple or complex? Is it easy or difficult to answer well and truly?
- What makes this a complex question?
- How are we dealing with the complexities inherent in the question?

Breadth: encompassing multiple viewpoints, comprehensive in view, wide-ranging and broadminded in perspective.

A line of reasoning may be clear, accurate, precise, relevant, and deep, but lack breadth (as in an argument from either the conservative or liberal standpoints which details the complexities in an issue, but only recognizes insights from one perspective).

Thinking can be more or less broad-minded (or narrow-minded) and breadth of thinking requires the thinker to reason insightfully within more than one point of view or frame of reference. We can assume we have not fully assessed a line of thinking except to the extent that we have determined how much breadth of thinking is required (and how much has in fact been exercised). Questions that focus on breadth in thinking include:

- What points of view are relevant to this issue?
- What relevant points of view have I ignored thus far?
- Am I failing to consider this issue from an opposing perspective because I am not open to changing my view?
- Have I entered the opposing views in good faith, or only enough to find flaws in them?
- I have looked at the question from an economic viewpoint. What is my ethical responsibility?
- I have considered a liberal position on the issue. What would conservatives say?