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AN ANALYSIS OF THE IMPLICATIONS AND REFERENCE OF THE WORD "INTELLIGENCE "

C. E. TUTHILL

The meaning of the word "intelligence" is seen to vary from one context to another. The term "multiordinal" has been applied by Korzybski to refer to words the meaning of which is indicated by the context and depends upon the order of abstraction involved. That the meaning of the word "intelligence" is many-valued or multiordinal may be seen from some of the following quotations taken from the writings of leading men in the field.

Freeman states:

I conceive intelligence to be a somewhat more inclusive capacity than is implied when it is used as a name for our present tests. For this reason, it seems to me that it would be better to use a term of somewhat narrower connotation to designate these tests. The mental capacity designated by the term intelligence seems to me to include, besides the elements which are usually measured by our tests, certain other types of capacity which they measure scarcely at all.

Even when intelligence is broken up into a discrete series of components, the components are none too descriptive, and vary, as might be expected, from one author to another. Binet states that intelligence involves comprehension, invention, direction, and censorship; Stoddard and Wellman state that it is characterized by difficulty, complexity, abstractness, economy, adaptiveness to a goal, social value, and the emergence of originals; Haggerty goes all the way, and states that intelligence is a practical concept of connoting a group of complex mental processes traditionally defined in systematic psychologies as sensation, perception, association, memory, imagination, discrimination, judgment and reasoning.

It may be noted that the definitions usually given are stated in words which are on a relatively high order of abstraction — definitions such as "the capacity to acquire capacity," "the power of abstract thinking," "the ability to deal with novel data," "the power of good responses from the point of view of truth," or "the ability to act effectively under given conditions." In connection with these may be added Aristotle's definition, that it is "the power to conceive universal ideas."

Horace B. English, in his *Student's Dictionary*, states flatly:

Although the early mental testers often had definitions of intelligence as guiding principles, their tests were not in fact based consistently on them. No definition of general intelligence meets with wide acceptance today. Instead of defining it, we may indicate where it is to be found. It is the capacities or group of capacities in which man most characteristically excels the infra-human animals, in which the normal man most excels the sub-normal, in which the adult excels the child, and in which the man of more or less all-round genius excels the average. No single one of these criteria is adequate; they are to be taken as together identifying "intelligence."

Spearman, somewhat more despairingly, states:

The reason is now evident enough why all search for the meaning of "intelligence" has, even with the greatest of modern psychologists, always ended in failure. It is simply that, in point of fact, this word in its ordinary present-day usage does not possess any definite meaning. It can readily be made to comprise, no doubt, anything that was classically attributed to the "intellect." But commonly it is stretched to an undetermined distance further downwards. Neither its utterers nor its hearers appear to have behind it any clear idea whatever.

In view of some of these statements, it is hardly necessary to go further into the literature to point out that the term has no meaning that is generally accepted.

Considering the endless arguments over the nature of "intelligence," whether "intelligence" changes with age, whether "intelligence" changes with the environment, etc., what then is to be done? Are we talking about the same thing? What are we talking about?

Our objective is to eliminate this argument — or at least reduce it to a practical minimum. Three solutions may be offered.

First, eliminate the word entirely — forbid its use, and the use of all other words equally abstract that are used in its stead. This is perhaps the most drastic solution of all — in a few rare instances this might be useful if not necessary. However the difficulty of carrying out this solution need hardly be emphasized.

In the second place, it would be possible to rigidly define the term, and allow only that particular usage of the term to be applied in the discussion. Occasionally this is done, where, for instance, the word is defined in terms of the Stanford Binet IQ, and used synonymously with it. However, it is obvious that in many discussions the word is used in some senses as implying more than the Stanford Binet IQ. This particular solution, although it appears at first glance to be the ideal solution, is seen to have a very restricted usage when it is actually applied.

Although these past two solutions might appear to be the only two, actually there is a third. It will be remembered that the word "intelligence" was described as multiordinal, that is, as having a number of different meanings, on various levels of abstraction. One form of confusion consists in the use of a multiordinal term as if it were single-valued, that is, disregarding the different orders of abstraction in which, respectively, the term has different meanings. A controversy regarding "intelligence" in which this identification occurs is obviously verbal rather than empirical. Any solution to the problem which implies that the term is single-valued, or that it may be used (by initial definition) as single-valued is hardly a solution, but a disregard of the implicit multiordinality of the word. Actually, this solution peculiarly ignores the whole problem. To define a multiordinal term once and for all is only to exhibit a delusion and an ignorance regarding the fundamental framework and usage of language.

It is necessary, then, to be aware that there are levels of abstraction, that the term may be used on various levels, and that any confusion or disagreement as to the total context, may be due to a confusion or identification of levels on which the word may be used. When any confusion arises, it is necessary to postpone argument until the term "intelligence" (or any other) is reduced to its descriptive equivalent. The term must be defined and described descriptively rather than inferentially. The descriptive level is, roughly, the level on which differences are recognized, while on the inferential level similarities are emphasized, different absolute individuals being identified (regarded as being "alike") through a process of classification on the basis of similar (never identical) particulars.

Thus it is necessary, in dealing with semantic or linguistic problems, to have a clear idea of the language framework on which the verbal behavior is based. That a word may be used on one level of abstraction or another, but that its meaning, to be absolutely clear, must be reduced to its descriptive equivalent before any semantic or evaluative reactions are justified, are facts which are generally not recognized. Though apparently simple, the actual carrying into practice of the implications of these facts would do much to clear up the verbal muddle which can exist around the word "intelligence," and would be a solution to similar problems.

I might close with a few examples: Is a college professor intelligent? Is a man who has a million dollars and no schooling intelligent? Is Hitler intelligent? Is Townsend intelligent? Is a Ph.D.

intelligent? When one considers the fact that the word involved cannot be considered, in any way, to be single-valued the absurdity and actual meaninglessness of the above questions may be seen to be apparent.

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