



## Natural language to logical language: Its scopes and limits

SK Aktar Hossain

Research Scholar, Sidho-Kanho-Birsha University, Purulia, West Bengal, India

### Abstract

Philosophers often speak of two types of language: the ordinary language i.e. the communicative and the ideal i.e. the logical language. Every ordinary language or the communicative language has the power to be adopted and to be absorbed into other languages through the words itself. Not only so, thought contained in one language is translatable into any other language. These suggest that all ordinary languages have an identical deep structure. This identical deep structure is their common logical structure. The ideal or the logical language is designed to reveal this deep logical structure of all languages, because (i) there are many drawbacks in ordinary language which become impediment of science (ii) in order to get the fixed picture of reality and (iii) the ordinary languages often fail to reveal the same. The trend to sublime from ordinary language to logical language seems to be started right from the age of Aristotle and this path has been inculcated by the modern logicians like George Boole, John Venn, Augustus De Morgan, Rudolf Carnap, Alfred North Whitehead, Bertrand Russell, Gilbert Ryle, Gottlob Frege, Early Wittgenstein etc. But this particular way of discovering the Reality has also been criticised by P.F. Strawson, Later Wittgenstein, Austin etc. This paper will be confined to the limitations of this trend only.

**Keywords:** philosophers, logical language, language

### Introduction

At the time of sending this paper my teacher remarked you must write it as soon as possible, because you know 'better late than never.' 'Better late than never' is a proverb from English language. The points are: (i) Are we to use the proverb like 'better late than never' <sup>[1]</sup> in order to make a straight description? Or, (ii) Are we to use the proverb like 'better late than never' in order to express the situation? Or, (iii) Are we to use the proverb like 'better late than never' in order to direct an imperative in some form or other? From the above mentioned three points, it is clear that a mere communication is not the only function of a language. A word or a group of words or a sentence as a whole may be used to make a description or to make an expression or to make a dictation; or to make a description and to make an expression and to make a dictation. For this reason perhaps Berkley (1685-1753) said long ago,

Besides, the communicating of ideas through words isn't the chief and only end of language, as people commonly think. Speech has other purposes as well: raising emotions, influencing behaviour, changing mental attitudes. The communication of ideas is often subservient to these other purposes, and sometimes it doesn't take place at all because the purposes can be achieved without it <sup>[2]</sup>.

Ludwig Wittgenstein(1889-1951) has also remarked in his *Philosophical Investigation*,

There are countless kinds: countless different kinds of use of what we call 'symbols', 'words', 'sentences'.

And this multiplicity is not something fixed, given once for all; but new types of language, new language-games, as we may say, come into existence, and others become obsolete and get forgotten <sup>[3]</sup>.

If this is so, then the question arises how do philosophers proceed to discover the nature of reality? Is it through the use the day to day language or through a formal language? That is why the philosophers often speak of two types of language: the ordinary language i.e. the communicative and the ideal i.e. the logical language. Every ordinary language or the communicative language has the power to be adopted and to be absorbed into other languages through the words itself. Not only so, thought contained in one language is translatable into any other language. These suggest that all ordinary languages have an identical deep structure. This identical deep structure is their common logical structure. The ideal or the logical language is designed to reveal this deep logical structure of all languages, because (i) there are many drawbacks in ordinary language which become impediment of science (ii) in order to get the fixed picture of reality and (iii) the ordinary languages often fail to reveal the same. The trend to sublime from ordinary language to logical language seems to be started right from the age of Aristotle and this path has been inculcated by the modern logicians like George Boole, John Venn, Augustus De Morgan, Rudolf Carnap, Alfred North Whitehead, Bertrand Russell, Gilbert Ryle, Gottlob Frege, Early Wittgenstein etc. But this particular way of discovering the Reality has also been criticised by P. F. Strawson, Later Wittgenstein, Austin etc. The purpose of this seminar is to show the limitations of this trend.

At the outset to understand the actual functions of language

which are used in our day to day life and also in some special subjects such as logic, mathematics, physics etc., let us peep into the functions of a sentence as it is the unit of language. A sentence, in general, has three major functions—(i) Informative, (ii) Expressive and (iii) Directive. The informative discourse of a sentence is actually concerned with the description of the worlds and as well as the reason behind this descriptions. These descriptions may be true or false. But in an expressive sentence, the feelings or the emotions are conveyed. When a poet writes a poem, he expresses his inner feelings about something. Again, when an ethical emotivists says that an ethical statement is nothing but the expression of emotion, he does not want to say that ethical statements expresses only his own feeling, but at the same time he wants to say that the audience should also express the same feelings towards a particular ethical statement. For example, when it is uttered by someone, ‘Stealing money is wrong’ that means the negative feelings towards stealing has been expressed by the speaker and the speaker also expects that the audiences should also convey the same feelings towards stealing. On the other hand, directive sentences work only when these are used for the purpose of causing or preventing overt action. Commanding and requesting are the best examples of this type of sentences. ‘Shut the door.’ for example.

The above mentioned three functions of language may be paraphrased as the three forms of the function of the language— i) Informative form, (ii) Expressive form and (iii) Directive form, although the logicians are concerned only with the first form<sup>[4]</sup>. But the problems starts as there are no fixed correlation between the functions and the forms of a sentence. These three forms are not exclusive in nature, these are inclusive. The forms or the discourses may overlap to each other. A sentence may be informative and at the same time expressive or a sentence may be informative, expressive and directive. When it is said that ‘Be a rainbow in somebody else’s cloud.’ here the sentence is used to provide the information, expression and as well as dictation. Eventually, a sentence which is in an informative form never be guaranteed to provide a fixed meaning as the same sentence can be used to afford different meanings, because in ordinary language, one word often signifies different meanings and one object is signified by different words. The sentence—‘It is the time to go to the bank.’ may be used to withdraw the currency from a bank or for an evening walk in the bank.

After tracing above mentioned functional complexity in ordinary language, some philosophers not only opined that philosophers must avoid philosophical study with the help of natural language but also put forwarded arguments to avoid philosophical study with the help of natural language. Friedrich Weismann is one of them. He has pointed out a remarkable fact about the empirical concepts. For him, most of the empirical concepts which are used in day to day communication are ‘Open texture concepts’<sup>[5]</sup>. These concepts are peculiar in nature, because these concepts have the possibility of vagueness. If something is vague then it is possible to rectify its vagueness through redefinition. But if something has a possibility to vagueness, this can never be completely rectified as this possibility arises out of its essential completeness. With the help of scientific progress, most of the essential concepts are liable to change with the

discovery of new properties of things represented by them. They have a peculiar flexibility to cover new experiences. The cat suddenly growing to a gigantic size it would still be a cat. Similarly, when a visitor of mine truthfully claiming to have talk with Bantul the great<sup>[6]</sup> is still a man. Thus the concepts of cat and man are not closed and complete. These have an open texture which implies that while the words we use is fixed but the concepts it bears is liable to change so that one word may mean one thing to one person or at one time, and a different thing to a different person or at a different time. An open texture concept has no rigid boundary.

Gilbert Ryle draws our attention towards some misleading expressions. According to him, there are some expressions which are meaningful from the perspective of ordinary i.e. non-philosophical discourse, but are not meaningful from the philosophical discourse. That’s why such expressions should be reformulated for philosophy. He says,

There are many expressions which occur in non-philosophical discourse which, though they are perfectly clearly understood by those who use them and those who hear or read them, are nevertheless couched in grammatical or syntactical forms which are in a demonstrable way improper to the states of affairs which they record (or the alleged states of affairs which they profess to record). Such expressions can be reformulated and for philosophy but not for non-philosophical discourse must be reformulated into expressions of which the syntactical form is proper to the facts recorded (or the alleged facts alleged to be recorded)<sup>[7]</sup>.

The examples of such type expressions are as follows:

- (i) All quasi-ontological statements of which the grammatical predicates appear to signify not having a specified character but having of a specified status, like ‘God exists’, ‘Mr. Pickwick is a fiction’, ‘Carnivorous cows do not exist’ etc. The logical function of a predicate is to specify character, not status. ‘Carnivorous cows do not exist’ means ‘No cows are carnivorous’ or ‘No carnivorous animal are cows.’
- (ii) Statements which are seemed to be universal are quasi Platonic statements. For example, ‘Unpunctuality is reprehensible’, ‘Virtue is its own reward’ etc. ‘Virtue is its own reward’ does not mean ‘Smith has given himself the prize. What is true here is that anyone who is virtuous is benefited thereby. Whoever is good, gains something by being good. So, the original statement was not ‘about Virtue’ but about good men, and the grammatical subject-word ‘Virtue’ meant what is meant by ‘... is virtuous’.

Bertrand Russell was also in favour of formal language. In order to clarify those sentence which are based on negative facts he made a distinction between name and description. He introduced the notion of propositional functions<sup>[8]</sup> through which the sentences which are based on negative facts could be explained if and only if these sentences were to be translated into formal language. He also said that

The proposition ‘Socrates is a man’ is no doubt equivalent to ‘Socrates is human’ but it is not the very same proposition. The ‘is’ of ‘Socrates is a human’ express the relation of subject and predicate; the ‘is’ of ‘Socrates is a man’ express identity. It is a disgrace to the human race that it has chosen to employ the same word ‘is’ for these two entirely different ideas— a disgrace which a symbol logical language of course remedies<sup>[9]</sup>.

For Russell, names are also a form of disguised description. The sentence ‘Rabindranath is the author of Gitanjali.’ is logically equivalent to a conjunction of three sentences—‘At least one person wrote Gitanjali’, ‘At most one person wrote Gitanjali’ and ‘Whoever wrote Gitanjali was Rabindranath.’ Unless and until the sentence which is in ordinary language has not been analysed into the sentences which are used in logical language, for Russell, the reality can never be discovered.

But there are some philosophers who are in the opinion that the study of philosophy with the help of formal language means the distortion of the facts. That is why P. F. Strawson preferred to study philosophy with the help of ordinary language, because for him, the ordinary language is more effective than formal language, although, at the same time, it is true that some logicians supported to study philosophy only with the help of formal language. Strawson’s argument in this regard is that the logical appraisals cannot be understood if ordinary discourse is excluded. Actually, logical appraisals, in its crude sense, are based on the application of day to day life. A linguistic rule on the boundaries of the applicability for the words is used in a particular language can indeed lead to logical appraisals<sup>[10]</sup> which no doubt transcend that particular language or any particular language. But Strawson says that it is an easy but fatal step to suppose that there are logical rules that are independent of linguistic facts. The rules of formal logic typically establish a common use for truth-functional constants, then make that use standard, and end by mandating a rigidity that is foreign to the uses of ordinary language.

In course of making analysis of the notion of inconsistency, Strawson says that the statement—‘I am six foot tall and I am not six foot tall’ cannot be regarded as inconsistent unless and until some conditions are fulfilled. It should be noted here that Strawson preferred to use the term incompatible predicate instead of inconsistency. It may be the case that I was not six foot tall due to some disease in my back bones. But after a surgery, I became six foot tall. In this case—‘I am six foot tall and I am not six foot tall’ cannot be treated as inconsistent. Again, if one person utters any one part of this statement and another person utters the rest part of the statement; then the statement—‘I am six foot tall and I am not six foot tall’ also will be failed the criteria to be inconsistent. Moreover, if the same person utters, ‘I am six foot tall’ and ‘I am not six foot tall’ in different places, then —‘I am six foot tall and I am not six foot tall’ cannot be regarded as self contradictory. Inconsistency arises only when the same person utters ‘I am six foot tall’ and ‘I am not six foot tall’ in the same time in the same place. That is why Strawson said,

When we apply a predicate to something, we implicitly

exclude from application to that thing the predicates which lie outside the boundaries of the predicate we apply, but in the same incompatibility range. By this I mean that if we go on to apply to the thing, in the same breath, one of the predicates which lie outside those boundaries, we shall be taken to have contradicted ourselves and said nothing. (This might be taken as a definition of incompatible predicates)<sup>[11]</sup>

Strawson further argued that ordinary language serves many purposes than that of formal language. When in formal logic ‘not’ is symbolized as ‘~’, ‘and’ is symbolized as ‘.’ or ‘if-then’ is symbolized as ‘⊃’ or ‘or’ is symbolize as ‘∨’, for Strawson, there is already a considerable distortion of the facts. ‘And’ can be used to (i) couple nouns—Tom and William arrived, (ii) to couple adjectives—He was hungry and thirsty, or (iii) to couple adverbs—He walked slowly and painfully; while ‘.’ can be used only to couple expressions which could appear as separate sentences. Tom and William arrived does not mean that Tom arrived and William arrived, because the first indicates together where the second implies an order of arrival. This point will be clear if another example is being taken. P.Q is equivalent to Q.P, but this does not imply that ‘He got married and he has a child’ means ‘He has a child and he got married.’ Strawson further added,

An abstract painting may be, recognizably, a painting of something. And the identification of ‘.’ with ‘and’, or with a full stop, is not a simple mistake. There is a great deal of point in comparing them. The interpretation of, and rules for, ‘.’ define a minimal linguistic operation, which we might call ‘simple conjunction’ and roughly describe as the joining together of two (or more) statements in the process of asserting them both (or all). And this is a part of what we often do with ‘and’, and with the full stop<sup>[12]</sup>.

It is true that the philosophy of language, in its broad sense, presupposed the reality can be understood through language. There are philosophers who do not admit that the reality is to be known only through the use of language. Those who believe that mystical intuition is the basis to discover the nature of reality hold that language is unsuitable for the formulation of fundamental truth. Plotinus and Bergson were the followers of this view. From this perspective, one can really apprehend truth only by some wordless union in reality; linguistic formulations give us at best only more or less distorted perspective. Moreover, from the perspective of spirituality, divine reality cannot be known through linguistic formulations, because divine reality is the matter of realization.

Admitting the presupposition that the reality can be understood through language, there are some philosophers who do not agree to give emphasis on formal language, because ‘ordinary language’ i.e. the language of every day discourse is perfectly suitable for philosophical purposes. Later Wittgenstein was the strongest supporter for ‘ordinary language’ philosophy. He said that philosophers have misused certain crucial concepts like ‘know’, ‘see’, ‘free’, ‘true’, ‘time’ etc. because they have thought that the conceptual

model is the only way to discover the reality. Here conceptual model refers to the pictures which were deeply sited in the mind for a long period. To clarify this point let us understand the concept of time as analysed by Augustine where it is supposed that time is just like a river which is flowing from the past to future. But Augustine says that it leads to a puzzle. The puzzle like this—anyone who tries to observe the flow of a river he has to be outside of the river, but in case of observing the flow of time from past to future it is not possible for anyone to go outside the time and to observe it. Moreover, the puzzle becomes too much complex when it is said that the present is a period between past and future, where there can be no past since it no longer exists and the no future since it is yet to be present. From this, it follows that present cannot have any real duration, because the past immediately impinges upon the future.

What Wittgenstein tries to say is that the above mentioned concepts are known to us. But philosophers have cast up a dust and then complain that they have failed to see it<sup>[13]</sup>.

...philosophers have departed from the ordinary use (s) of these terms without putting anything intelligible in their place that they have fallen into insoluble puzzles over whether we can know what other people are thinking or feeling, whether we ever really directly see any physical object, whether anyone ever acts freely, and whether we ever have any reason to suppose that things will happen in one way rather than another in future. According to Wittgenstein, it is the task of a philosopher who has seen this point is that of a therapist; his job is to remove the ‘conceptual cramps’ into which we have fallen<sup>[14]</sup>.

Being a linguistic phenomenologist Austin keeps believe in two tier principles—‘first word principle’ and ‘the ontological applicability principle’. The first tier principle i.e. —‘first word principle’ is directly related with the day to day life. That is why he says that the starting point of philosophical study must be ordinary language, because everyday language has a long history. It has been used for eons by people for a variety of purposes, among which the drawing of various distinctions are very important. It is a tool used in the practical business of life and, accordingly survival value. We distinguish males from females, the inanimate from animate, friends from enemies and in more sophisticated ways edges from surfaces, circle from square and so on. The lists of such distinctions are endless. The making of such distinctions are not arbitrary, but each distinction has a purpose that is connected with the mundane, ongoing activities of ordinary human beings. The essential features of the first tier principle of the world lies in the fact that ordinary language is constituted of many distinctions and these distinctions have intact forms.

On the other hand, ‘the ontological applicability principle’ is a outcome of the first word principle. It states that these distinctions are more than verbal—namely, that they pick out or discriminate actual features of the world. Thus the distinction between male and female is not simply a linguistic contrast but actually marks out divergent physical and social traits whose discrimination is important in everyday life. Of

course, some distinctions embedded in ordinary language may arise from superstition or ignorance and fail in this respect. But these are exceptions. We can thus assume, at least prima facie, that if a distinction exists—and has existed for a long time—in ordinary discourse we can expect to find its correlate in the real world.

From the discussion mentioned above it is clear that the root of formal language is, no doubt, the natural language. But there are some cases where the study of philosophy only with the help of natural language is not fruitful. Similarly, formal language has also some limitations which have already been shown.

## References

1. Although the proverb—‘Better late than never’ has been used here as an example, it may also be applicable to a word or a group of words or a sentence as a whole.
2. Berkeley, George: *The Principles of Human Knowledge*, P-8
3. Anscombe, G. E. M. (Tr.), Ludwig Wittgenstein’s Philosophical Investigation, Sec-23
4. Logicians are chiefly concerned with language used informatively-affirming or denying propositions, formulating or evaluating arguments, and so on. I. M. Copi, C. Cohen, K. McMahon Introduction to Logic, 14<sup>th</sup> Edition, Pearson, Delhi, 2013, P-65
5. Open texture is a very fundamental characteristic of most, though not of all, empirical concepts, and it is this texture which prevents us from verifying conclusively most of our empirical statements. Take any material object statement. The terms which occur in it are non-exhaustive; that means that we cannot foresee completely all possible conditions in which they are to be used; there will always remain a possibility, however faint, that we have not taken into account something or other that may be relevant to their usage; and that means that we cannot foresee completely all the possible circumstances in which the statement is true or in which it is false. There will always remain a margin of uncertainty. Friedrich Weismann: Verifiability Originally published in Proceedings of the Aristotelian Society, Supplementary Volume XIX (1945). The essay here is from the reprinted version in Antony Flew, ed., Logic and Language, the First Series (1951), P-3
6. A comic character who can do any kind of hard work in a moment as depicted by Nrayan Debnath
7. Systematically Misleading Expressions Author(s): G. Ryle Source: Proceedings of the Aristotelian Society, New Series, Vol. 32 (1931 - 1932), pp. 139-170 Published by: Blackwell Publishing on behalf of The Aristotelian Society, P-142
8. For want of the apparatus of propositional functions, many logicians have been driven to the conclusion that there are unreal objects. Bertrand Russell: Descriptions, in Robert R. Ammerman Ed. Classics of Analytic Philosophy, Tata Mc Grawhil, New Delhi, 1965, P-17
9. Bertrand Russell: Descriptions, in Robert R. Ammerman Ed. Classics of Analytic Philosophy, Tata Mc Grawhil, New Delhi, 1965, P-19
10. Words and phrases which go with ‘logical’ are

‘consistent’, ‘cogent’, ‘valid’, ‘it follows’; words and phrases which go with ‘illogical’ are ‘inconsistent’, ‘self-contradictory’, ‘invalid’, a non sequitur’. Part of our problem is to see what sort of appraisal these words are used for, to what kind of standards we appeal in using them. In Strawson, P.F.: *Introduction Logical Theory*, Methuen & Co Ltd. London, 1954, P-1

11. Strawson, P.F.: *Introduction Logical Theory*, Methuen & Co Ltd. London, 1954, P-6
12. Strawson, P.F.: *Introduction Logical Theory*, Methuen & Co Ltd. London, 1954, P-81
13. George Berkley: We have first raised a dust and then complain we cannot see.
14. Alston, William. P: *Philosophy of Language*, Prentice Hall of India Private Limited, New Delhi, 1988, P-6