CHAPTER VI

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1. The Nature of Logical Structure

'Logical Structure' is the phrase which often suggests a system of logic. A proposition has a logical structure. So has a statement, a sentence, an argument or a theory. It can be seen in a system which is other than formal logic too. In any system, be it logical, philosophical or linguistic, the logic that the system follows plays an important role.

To understand the phrase otherwise, that is to say, without illustrations, it could be said that the phrase is coined by two words, 'Logical' and 'Structure', which in themselves have entered philosophical controversy. Hence it

1 There is technical difference between all these; e.g., Strawson has pointed this out in Introduction to 'Logical theory' - especially in Ch. I.
is obvious that 'logical structure', would be influenced by the meanings that those words carry. It is sufficient to understand that 'logical structure' suggests a system.

It can be further argued that "Is there a structure which is not logical? Can a structure be 'illogical'?"

In an attempt to answer these questions, it can safely be said that the word 'structure' is basically a mechanical word and hence, it suggests a machine or a model that has parts. And these parts have both, structural and functional proximity; often, the function may not be known, but even if it exhibits structural coherence, it may be considered a structure.

In the contexts that stress the concrete aspect, this coherence (or compact or a system) may be called a machine, a model or a structure. In somewhat abstract context, it may be called a thought, an individual, a whole; it may be called systems of arguments and inferences etc. in more refined contexts. In the contexts which are precise, like logic and mathematics, the combination of symbols and numbers may be termed as structure. Hence 'structure', though a word of mechanical context, has been used in other contexts too.

That structure suggests parts, is evident. One would hesitate to call the ultimate constituent, a part. For instance,
electrons are said to be such 'partless' entity. We would not call them as structures, though they are the ultimate and basic constituents of any concrete structure. To put rather naively, structure is necessarily a complex entity, not a simple one.

Logical structure however, cannot be sensibly applied to concrete structures. For instance, one cannot argue intelligently for or against the logicity of the concrete structure like a building. It sounds absurd. So, just because the word 'structure' has a concrete context originally, it does not follow that the word 'logical' which has a non-concrete context originally, becomes concrete. But since 'logical' acts as an adjective to the 'structure', it may be expected, of course only by the rules of grammar, that it qualifies the word structure.

However, philosophically speaking, the whole phrase, logical structure, has a meaning which is not restricted either to grammar or etymology. It has a wider meaning. It has everything to do with the meaning of the sentence itself, and with the fact itself which the sentence represents.

2. Levels of Analysis

In the last chapter I had mentioned that the difference between universals and particulars is due to

i. surface analysis,

ii. lack of deep analysis, and
iii. due to the range of application.

It should be repeated however, that nowhere have we formed the problem as an interrogation, that is, 'What is a universal?' 'Are there universals?' 'What are particulars?' 'How are they related to the universals?' Of course, the philosophers who posed these and similar questions have been mentioned. Since it is not within the scope of the subject under discussion, a historical approach has not been discussed, but some acquaintance with the prominent views has been taken for granted.

We shall have to decide how logical structure is related to our discussion. It will have to be examined whether the logical structure behind any word can form a standard of deciding the universality or particularity of anything. Of course, the point will arise at a later stage in the thesis; but we can hint at an important point. It is this, If we analyse the argument at hand sufficiently deep\(^2\), then we will come across some interesting result. There is no difference whatsoever at this stage between different logical structures. Logic fundamentally does not discriminate. Discrimination steps in at a later stage. It is due to many factors; some of

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2 Depth-analysis is variously called as philosophical analysis, or logical analysis. However, it is sufficient to understand that depth-analysis is the analysis of any complex into its units.
the prominent ones are the concrete structures, the function of the complex in general, and the placement of the structures in their contexts. These differences are relatively superfluous, compared to some more rigorous and deep ones. Therefore, the analysts have made a distinction between deep-level analysis and surface-level analysis.

This point shall be alluded to towards the end of this chapter. The distinction between universals and particulars will face a challenge and then the only alternative would be to succumb to the unanimity of logical structure.

A discussion still further would of course lead to the philosophy of logic, wherein some opinions may be formed over one or many 'logics'.

The question, 'What constitutes surface analysis?', is more puzzling than the question, 'What constitutes depth-analysis?' Where the latter is concerned, one has just to apply the rules that are fundamental and specific to the context, and argue rigorously.

But there are no specific rules that direct the process of surface analysis, because surface analysis is rather a vague phrase; at least depth analysis may pass for philosophical analysis (as was called by Russell) without much elaboration. At the most, surface analysis suggests an analysis which is
carried out only on the basis of some observable characteristics. Naively it can be said that it is the analysis of the characteristics that are directly available to five senses. There is no elaboration involving technicality.

Some obvious instances of surface analysis may be cited; the so-called theories of universals. They are resemblance theories, similarity theories, recurrence theories etc. These well-known theories were propounded by philosophers who were inclined to analyse the problem. Not that they are called analysts, but generally, the realists, the conceptualists and the nominalists.

It is interesting to note that surface level analysis and deep level analysis too receive their classification due to the principle of classification. It was argued earlier that the universals and particulars may be decided by the principle of classification.

However, in the situations when the principle is not so easy to notice, universals and particulars may be decided by analysis too. Since we have accepted the general dichotomy of analysis as deep-level and surface-level, it may be argued further that this classification itself might have been made on the basis of the principle of classification.

So, it comes to this: the principle of classification
may be present in deep-level and surface-level analysis; again, deep-level analysis and surface-level analysis may decide the universals and particulars too, as shall be seen shortly.

Surface-level analysis would naturally present many individuals of different types. Since, the differences prevail maximally herein. Hence the variety of individuals; and hence the particulars. (Needless to elaborate the obvious point that since when there is no obvious or available principle of classification for universal-particular dichotomy, the variety of individuals may quite conveniently be called particulars).

Now, where deep-level analysis is applied, the differences between individuals may be eliminated by analysis. When differences are reduced to the individuals that are logical symbols, (Goodman calls them ultimate constituents, but he has in mind 'the concreta'). Herein, the principle of classification is not easily available, (I will argue this point shortly), because by now, we have accepted analysis, as the reduction of propositions to logically simple elements. Where technical rules decide the process of such reduction, and where technical names other than universals and particulars are used for the logically simple elements, it is meaningless to look for a principle that would decide their universality or particularity.

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3 The difference between universal and universality, or between particular and particularity is only rhetoric. Hence, I use that phrase which is suitable.
Hence, when analysis is carried out by the standards of the depth-rules, there is no need either for universal-particular dichotomy, or even for this complex nomenclature of the principle of classification.
The principle of classification

(CONSISTENCY)

Deep-level analysis

Surface-level analysis

(Non-universals
non-particulars
or Neutral) Individuals

Instances of these

They are in

Non-concrete contexts

Concrete contexts

Contexts make up

The principle of classification

(Minimally, it is consistency; Maximally, it is

with respect to the concrete context)

With reference to the above :-

1. Non-concrete contexts have symbols or their equivalents as individuals. Concrete contexts have meaningful words as their individuals.

2. I would not use the dichotomy empirical and non-empirical contexts as may be casually used, because the empirical contexts can be non-concrete too. Co-ordinate geometry is one of the many such instances, I may cite.

We begin the analysis on the basis of the assumption that
each theory has behind it, a principle of classification. The words such as presuppositions or assumptions etc, have extensive meanings. And the analysis shows the presupposition that we began with.

So, the treatment of such type given to the problem of universals and particulars is an exercise in analysis.

We began with the principle of classification. We stop analysing when we reach it (Cf. the diagram).

But with a difference, the beginning is presupposition, the process itself is analysis (which may be described elaborately if one wishes to explore the nature of analysis), and the revelation is the principle of classification that was assumed. Even if this analytic process has cleared the shed of doubt regarding the problem being only linguistic, it has served enough.

It is obvious that not only the problem is non-linguistic, it is more so than linguistic. And this is because of the availability of the principle of classification in concrete contexts, where language plays second fiddle to meaning, sense or communication.

Of course, the problem is also linguistic, as has been studied by the nominalists. But as it has been often pointed out, the words universals and particulars loose some of their
meaning here. But a contextual analysis is again, not a linguistic or a logical analysis. In linguistic analysis, the simpler elements are individuals which are linguistic or symbolic. Whereas in the contextual analysis the simpler elements are the individuals which are the units of any system not exclusively linguistic or exclusively logical.

Depth-analysis is an example of the linguistic or logical analysis. But, it may be discussed under the principle of consistency, as a counterpart or a parallel or a branch of the dichotomy.

Contextual analysis is more general; it may include depth analysis, because there are contexts which are purely linguistic or purely logical.

But even when the contexts are non-linguistic or non-logical (I have explained this terminology earlier), depth analysis may be tried out. But then of course, the necessary steps will have to be taken in order to 'translate' the individual of the particular context, to the individual of logic or language.

It is a general understanding in philosophy that analysis
is the reduction of propositions either to reference or experience. Of course, by proposition we mean a unit of thought. There is no need to stress that proposition must be communicated through language but it is worth noting that we do not have examples of such propositions, which are expressed otherwise.

The principle of classification is a unit, and may be expressed elaborately in sentences, or it may be expressed in a word or two, as the concentration of the relevant thought.

Though the technical definitions of analysis, reduction, reference, experience, propositions, statements and sentences etc. serve purpose in their home-disciplines, they may yet be used without much hair-splitting in a contextual analysis such as this. For example, even without entering into the distinction between proposition, statements and sentences, the idea behind the contextual analysis may be conveyed.

As yet, there is no nomenclature specific to contextual analysis. And hence, the nomenclature peculiar to language analysis is used. One such example is that of individual, as a unit of a system.

In other words, the current terminology should be understood in tune with the context. It is not desirable to interpret the context in the light of a technical word, but it may be done vice versa, if so required by the context. For
example, if the word 'proposition' is used in a non-linguistic context, it must be remembered that there are problems regarding the relation between occurrences and descriptions. Hence, proposition may not be expected to satisfy the definition 'statements are made of propositions'.

Some amount of analysis has to be employed in order to understand the use of the words universals and particulars, and to find out the reason as to why so many opinions are given on the problem.

3. Surface level Analysis

It is necessary to examine the suggestion that some theories result because of surface analysis. A naive example of surface analysis is to characterise abstract nouns as universals and concrete ones as particulars. These theories are called materialistic, pluralistic or realistic.

Most schools of thought, both in Indian and Western philosophy have followed this easy and obvious course of analysis and given their theories. To recall the well-known instances, Vaiśeṣika classified Vīseṣa as concrete and Sāmānyas as abstract.

Russell gave a simple answer by calling all particulars, 'parts of the whole' in his essay 'Abstract Monism'. Though he

5 Cf. 'Logical Theory' by Strawson for elaboration, especially Ch. I.
had his own suspicions about 'there being universals' in some form.

Most other theories, such as resemblance, take into account the more or less similar characteristics of things and have given the naive bifurcation of universals and particulars on this basis. But therein, the factors considered for such titles as universals and particulars cannot be decided initially. The cases have to be examined for the similarity, recurrence or repetition of the characteristics.

Whereas for Russell, the very fact that they are the parts of the whole, the very fact the concretes may be analysed into lesser concretes is enough to call them as particulars. The abstract name which is termed on account of the resemblances, may be called universal.

Of course, for Russell, every noun in the dictionary is a universal. According to some theories, the repeated characteristic is the universal; these are the 'democratic theories' because herein, majority wins the title of universality with respect to the minority. One concrete thing is a particular. Two concrete things may be particulars, if there is a possibility of a certain characteristic being repeated in the third. Thus, the repeated characteristic is called the universal.

We need not go into the obvious immaturity of the theory. Universals and particulars then become a relative phenomenon.
Not only this, what may be called universal at one time may be called so for all times, only because the characteristics may be present in more than one (at least two) entities. Numerical counting thus becomes the criterion.

But that which may be called a particular at some time, has also the potentiality of being called universal, just because some of its characteristics may be found repeated in other numerically different entity.

Thus, on the basis of such theories which engage some sort of surface analysis, some individuals are capable of being called universals. Universals and particulars have a very thin line of no consequence, to form a mature and well-established theory.

Surface analysis has shown that the so-called distinction between universals and particulars is more conventional than final, more pragmatic than logical.

Even when the difference if any, between surface analysis and depth analysis is not very pronounced nor definite, it may be said provisionally as even those who used the term first did say that surface level analysis is not involving but simple. Some obvious characters are considered for suggesting a word as universal or particular. There is no deliberation over logical analysis. The analysis is only at the surface. That is to say, when we arrive at a unit, we do not analyse further.
This point requires some discussion. We may want to know:

i. whether a certain word is having characteristics which we may call universals, or characteristics which we may call particulars. Or

ii. are there characteristics which do not fit into our system of dichotomy, and hence, are neither universals nor particulars?

iii. Or, are there no universals and particulars in certain systems?

Let us discuss these questions in order:

1) In order to maintain that some words have characteristics which are universals, and others have characteristics that are particulars, it is necessary to accept a principle of classification. The words themselves are not universals or particulars, unless of course we have in mind the grammatical types of nouns. Common nouns like cow, dog, collective nouns like fleet, galaxy and abstract nouns like beauty, nobility have a non-definite or general interpretation unlike the proper noun Rama, Krishna; or even unlike the personal impersonal pronouns like he, she, it and they.

Obviously then, a philosophical discussion does not accept the fixed and arbitrary decision of stamping some words as universals and other words as particulars.
That there are words which are peculiar to their context, which I call their home-discipline, is not the same as saying that the words have their characteristic meaning of their own, and independent of any context. This point is differently expressed by the semantic theory. For instance, "The sentence 'Mary is happy' has a standard meaning since 'Mary' is typically used to refer to female humans and the standard sense of 'happy' is appropriate to human beings. But if a token of this type is used to make a remark about a matchbox then it has been non-significantly used. Here, there is a clash between the typical use of 'Mary' and its actual use".

Of course, while discussing the concept of context, it has been attempted to bring out that the concept of context is rather vague. But some of the difficulties, like its exact constituents, their interrelationship etc. may be avoided. This is done by introducing context in terms of its role rather than features. There are different kinds of constituents and different features relevant to the context. They vary from context to context. All relevant features of the context, whether words or things, may be expressed by using language. And hence the all-pervasiveness of linguistic context, and hence the problem of the meanings of the words. From a logical point of view, a context may be described by those set of sentences which may be

6 Cf. 'The Logic of Significance and Context', Ch. I volume I by Goddard-Routley.
specific to that context.

Obviously a word is influenced by the context, whether that of its home-discipline, or whether that of the contexts which deviate from home-discipline. Of course, the latter has introduced the word metaphor, both, in literature and philosophy.

ii) The characteristics which do not 'fit' into the universal-particular dichotomy will be difficult to exemplify. The obvious examples of course are the signs and symbols and numbers. In other words, these are the units which do not have a principle by which this universal-particular dichotomy is made possible. Calling them universals, without suggesting their counterparts particulars, or vice versa, will enforce the concepts universality and particularity. In other words, they are universals because they 'have universality' and particulars because they 'have particularity.' Now, 'having universality or particularity' does not mean anything other than their range of applicability. Universals have a wider range, particulars have a narrower range. But of course, the range of applicability is not a natural convention, but technical. The ranges are arbitrarily determined and within these ranges, the units may be given their values.

Hence, the range of applicability is not a substitute; it is not competent to replace the principle of classification.

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7 Some contexts do not recognise space and time. According to Strawson, ('Logical Theory', page 7) it is logician's temptation to ignore spatio-temporal context in order to be technical without being complicated.
Thus, there are systems in which the very basic concepts of universality and particularity are nullified, leave alone the more derivative concepts of universals and particulars. That the former two, universality and particularity are basic and the latter two, universals and particulars are derived, need not confound us. Even otherwise, the abstractions are fundamental to any theorisation. So is the case here. Throughout this essay, the point that universals and particulars have their home-discipline, has been stressed. Their usage in other disciplines has been their metaphoric use.

But even then, their application has no place whatsoever in some systems. In other words, there are characteristics which are neither universals or particulars. The nomenclature is not suitable for them.

We call these symbols characteristics nevertheless, because they are capable of being interpreted in terms of characteristics which may be called universals or particulars. Even if the symbols have their values in their system, even if they are communicated and interpreted uniformly by all parties (on basis of the accepted convention), they are not universals or particulars. They do not form the instances of any principle of classification. And universals and particulars may be decided by the principle of classification, and not by the range of applicability. The range of applicability has a specific function; that of deciding the context and determining the boundaries
within which the symbols may take their values.

iii) It follows then, that there are systems in which the labels universals and particulars cannot be used significantly.

These systems are those which do not accept linguistic contexts. Even non-linguistic contexts use the medium of language to express their point of view. (earlier, these terminology of linguistic and non-linguistic context has been made clear).

But communication is possible even without language. It is possible due to the acceptance and agreement of some convention or some rules of formal reasoning. Systems of mathematics and formal logic do not use language, but formulae. Anyone acquainted with their systems is capable of establishing communication with these.

Since universals and particulars are words of linguistic contexts, they cannot have a place in the contexts which are totally void of language.

Even the idea behind the words universals and particulars is not sufficiently reflected in the words universality and particularity. And hence, whenever these latter words are used instead, the words universals and particulars lose something of their meaning.
4. Some examples of applying Surface Level Analysis

It may be possible to trace the principle of classification in some theories. These are the theories which use the words universals and particulars directly, and not their implied connotations like general words, abstract words, sets, classes, collections and common nouns etc. In one manner or the other, universals and particulars exhibit these traces. But the classification is done on the basis of the principle of classification which, though assumed always, has never been emphasised nor stated explicitly, nor properly recognised.

A theory itself is distinguished from the other theories because of its specific principle. It is a unit, which supplies the standard or the criterion for some individuals to be called universals or particulars. However, at times this standard, the criterion, or the principle of classification itself is taken to be the universal, and its instances, as particulars. For example, Russell argued that if recurrent characteristics may be admitted as universals, or even if resemblance is admitted as a universal, there should be nothing to prevent us from admitting more.

But it is quite possible that the principle, if not easily traced, may pass for universal, as is the case in calling

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* Cf. 'Problems of Philosophy' - The World of Universals,

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resemblance a universal. But again, such an adjustment will not throw any light on the meaning of the words, nor will there be any enlightenment over the issue.

Carrying the example further, it is observed that both, resemblance, and the things which resemble (or the characteristics which resemble) are units. That they have different nature is evident. But that is irrelevant in universal-particular dichotomy. They may have different nature, but they are the 'classificants' of the one and the same principle of classification. One may not always be successful in tracing and presenting the principle of classification, as is the case here. So, the consequence of calling resemblance itself as universal, that is to say, the consequence of not being able to distinguish universal from the principle, leads to the non-traceability of the principle.

But this is an extreme position. It arises out of the crude insistence on the universal-particular dichotomy. It may be present under one principle, but it may not be present under the other.

And this is not accidental. The principle, as has been stressed, is the constituent of the context itself.

So, the nature of the principle of classification would decide its 'classificants'. In the above instance, it may be colour, size or a combination of these, in virtue of which
things resemble. It is then expected that there is no shifting of the emphasis, from one principle to the other. If a universal is taken to be colour, say red, the particular would be 'red object'. We are not expected, to analyse 'colour (red)' and 'the thing colour (object)'. It is sufficient to say that 'colour' is universal and red object is particular. Such 'classificants' (colour as universal and objects as particular) are units. Surface level analysis suffices here.

But now it is quite legitimate to question these fundamentals. One is entitled to ask further what colour is - which according to surface level analysis may be called a universal; and also, what object is, which may be called a particular.

'What is colour?' is the same as asking

(i) what is the nature of colour? and/or
(ii) what is the definition of colour?

Taking the first question, it is expected that to ask for the nature of colour is to ask for its composition. This would be a physicist's or a chemist's approach. But the philosopher would take a metaphysical approach, because he will not remain satisfied with bare facts. He is interested in conjecturing their relations, both, internal and external. And these relations which are not available to observation, form the principle starting point of philosophising. The stone is set a rolling, by the question of relation, 'How is anything
ultimately, related to the entire cosmos? Of course, this question may take different linguistic expressions, but its spirit remains the same.

That the 'relations' have yet remained enigmatic is quite clear. Relations have been discussed under various headings, the obvious ones being 'causation', 'entailment', 'implication' etc. At a later stage, there will be an occasion to consider whether relations are 'universals' and terms related, particulars. There is a view which vindicates this statement. But it is necessary to note that such a view was propounded because some questions required answers. The questions like, 'What is the ground on the basis of which we make generalisations?' And also by the suggestion that if universals too are the terms related, why not call them particulars?

Such theories and their controversies are well-known in philosophy, and so we need not repeat them here.

It may however, be stated that as a result of such a situation, relations were called universals. (e.g. the Buddhists, who accepted them as the ground for making inference, and also, for justifying the relation between one moment (particular) and the other. Of course, everything is ultimately reduced to illusion, but in order to give a provisional explanation of the world, 'universals' were called upon to serve the purpose). As Fr. Stcherbatsky observes (in his book 'Buddhist Logic' page 48, ...
(ii) Next, we may ask for the definition of colour.

It is customary in language analysis to ask for definitions. That there are various types of definition need not worry us. We shall accept clarity as our standard of good definition. And this requirement may be satisfied without going into details and technicalities. Since the approach taken is analysis, and that too, contextual analysis, only that may be selected which will be in tune with the context.

In this instance of colour then, it is possible to define colour variously. To put rather traditionally, a good definition will state the essence. What could be the essence of colour? But in this particular instance, the answer will not be as direct as it would have been in the instance 'more concrete'. It could have been easily answered that the essence of table is tableness, essence of chair is chairness, essence of a human being is humanity and so on. These concepts may be explained further with discussion on what we mean by them. But, if it is said that the essence of colour is 'colourness', it should be noted that the mode of explanation followed would not be similar to that of 'tableness' or 'chairness'. These are empirically
oriented words which may be studied from the point of view of the empirical contexts. It is possible therein to seek satisfactory definitions because they could be tested through observation and inference. They could be made available to a greater number of experts who are entitled to pass judgement on the basis of their expert information.

'Colourness' being relatively more abstract, it is not so easily available to observation. Yet, it has been accepted without much dispute that 'colourness' is due to 'non-absorption of a particular wave-length of light.' Hence, the red-colour is the non-absorption of that wave-length and absorption of the rest of the wave-lengths. Thus, basically, light is colourless but colours are seen because some surfaces, due to their structural nature, absorb only some wave-lengths of light and reflect the rest.

So, when the 'colour' is reduced to wave-lengths the situation now becomes very unusual. That is, wave-length is being called universal, and the object, which does not possess anything by way of colour is called a particular. And this bifurcation is enforced through the principle of classification: it may be understood thus, that between the objects and the colours, the colours have an abstract nature and the objects do not; and that the objects have colours. A colourless object is simply a non-significant expression in ordinary language.
But now when we see that objects have no colours, and yet, all talk about colours is based on the assumption that objects 'have' colours, the situation is baffling. The need to analyse the 'colour of the object' vanishes "with the illusion that created it" (the phrase is used in 'PHILOSOPHY' Encyclopaedia, Volume 1).

So, analysing rather deeply into the field which is also the home-discipline of that word, it is observed that such type of deep-level analysis is quite capable of disillusionment. When objects are said to have no colours, the question of their relations simply does not arise.

It may be protested and quite correctly, that the empirical fields have merely developed the sophisticated terminology to say more or less the same thing. If language is responsible for the chasm between the scientific and the non-scientific explanations, then the study of linguistic behaviour of words and language philosophy should all the more lead to the better understanding.

But it has yet not achieved this desirable aim. Perhaps that is the reason why we are inclined to think like many contemporary philosophers that the issues - most of them, cannot be brushed aside as mere linguistic riddles.

This is quite understandable. Let us think of our example. Do we, after all, respond to wave-length in the same
manner as we do to the red colour? The word 'colour' and the word 'wave-length' have different origins and different shades of meaning. 'Wave-length' is a 'dehumanised' word, colour is not. 'Wave-length' does not suggest 'capable of being seen', but 'colour' does. Hence, it would be quite normal to talk of 'colourlessness'. It has a definite suggestion to make, and this cannot be ignored, just because our depth-analysis may call it 'wave-length'.

Thus, our suggestion that the theories of universals and particulars may have to succumb to further analysis - which is not merely contextual, stands as yet. The dichotomy of 'colour' and 'object' was contextual, not scientific (in usual sense) or logical. These two approaches would demand a probing into the 'structure' of the words and things, and not their functions and implications.

5. **Structure of Words and Things**

The structure of words and structure of things may be discussed as two different issues for convenience. But here, it is desirable to treat it as a single issue. We have agreed that the things and the words are related in subtle manners. Things are represented by words, and words have designations. Recent literature is full of this issue of the relation between things and words.
We may, to begin with, take an approach which concentrates on the structure of words, and then, the structure of things. Therein, it may be investigated whether anything at their respective levels may be called universals and particulars by any standard.

We are not expected to explore the structure of an atom when we talk of things. We 'analyse' philosophically, not physically or chemically. Philosophical analysis has an all-round, synthetic approach and yet it is called analysis. It is because the underlying principle in all types of analysis is the same. It is the principle of reduction: from the relatively complex to the relatively simple, from multiplicity of the principles involved to the unity. It is an attempt to separate out the units of a system.

Analysis has been technically viewed as the reduction of the proposition to reference, or even as the reduction of the given data to experience. But even if it is so, it still remains 'the reduction to unit' procedure. Though of course, there are favourable suggestions which hint at a relationship between reference and experience. Except in the disciplines where reference is understood only conventionally or mechanically, there is no difficulty in agreeing that after all, reference is to the experience.

In philosophical analysis, it is a general agreement
that the unit arrived at will be an individual.

Methods and means adopted in various types of analysis may differ. They are specific to the discipline; for instance, chemical analysis, physical analysis, mathematical analysis, logical analysis and even philosophical analysis. Quite a lot has been said about the nature of philosophical analysis as a method in philosophy, after Wisdom's views on it.\(^9\)

We have come to the conclusion that philosophical analysis is not surface analysis, but it has depth, like other types of analysis. The failure to realize this whenever found, is due to the lack of clarity of expression. Often, ordinary linguistic expressions are disguised as philosophic expressions, like 'time is passing away', which may only mean that there are changes in environment, or still scientifically, the earth has motions, etc. Kyle's famous essay on 'Systematically misleading expressions' gives some instances to vindicate this. He said, "It is my own view that all statements, which seem to be 'about universals' are analysable in the same way, and consequently that general terms are never really the names of subjects of attributes. So, 'universals' are not objects in the way in which Mt. Everest is one, and therefore, the age-old question what sort of objects they are, is a bogus question."\(^{10}\)

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9 Cf. his article 'Is Analysis, a useful Method in Philosophy' in his book 'Philosophy and Psycho-analysis' by John Wisdom.
10 Cf. 'The Linguistic Turn' edited by Richard Rorty. P.31
Nevertheless, a plain man is not making a philosophical mistake according to Ryle. For the laymen, the best of expression is that which is easily understood, which may be said emphatically and elegantly. But philosophers who seek a logical parallel of structure to grammatical structure must be cautious. At times all his labour in minute analysis may be over nothing.

6. 'Thing' as Individual

Individual has been used to mean differently. But whereasever universals and particulars are discussed with reference to 'things', the theories have taken a realistic approach; and things which are classified as universals and things which are classified as particulars are both 'individuals'. That is, they are 'things'. Then, what is it that makes us call one universal and the other particular?

Now, there could be the following reasons.

i) That both of them differ in structure, (that is in composition, physically and chemically.

But it has been already said that by 'individual' we shall not mean this. Hence structural difference will not be considered while calling a 'thing' universal or particular.

ii) That both of them have different functions to perform. Some philosophers would call it 'a pragmatic dichotomy', or a
'functional dichotomy' or even a 'practical dichotomy'.

Often, function of a word is not to represent one thing, but many things. When this is the case then that word is called a universal.

The well-known criticisms to such a position are there. One of them is that there is no sharp line that divides 'one' and 'many'. For, shall we call 'two', 'three', as many? If yes, then even two things should be called many, and the word that represents two things should be called universal. But this is not the case, for conventionally, 'two' is not 'many'. Then how many is 'many'? The inability to answer this question lies inherently in the meaning of the quantifier 'many'.

The other criticism is that, the word universal represents a class of things. Hence it is a class name. It is also called a general name. A class is not a thing; it is not an individual in the context of thing-world. (It may be an individual in other non-concrete context, where class may be a unit itself. We are reminded of the set theory where a class may act as a member).

Hence, universal is not a thing. Only particulars are things. The invention of universals is only pragmatic. At most, we may call them general names. If so, then the dichotomy of universals and particulars has shifted its grounds. (Its ground is nothing other than the principle of classification). Its ground, in case of calling them 'things' and 'non-things', (in
calling them particulars and universals respectively) is the structure that is material. Accordingly, 'universals' are invented in order to serve some function, at least that of representing the 'particulars' elegantly and briefly. The whole context is non-linguistic. Obviously, the principle of classification will be coloured by the context. But, when universals are called general names, then the principle of classification need not be the same as in the previous classification, because the context now emphasises the linguistic aspect of the word. A general name which is general because of its linguistic or grammatical position is quite different from a general name, which is called general because of its function of representing a group of particulars. This is a very subtle point of distinction which may pass unnoticed if there is no awareness of the ground, (the principle) that gives rise to the universal-particular dichotomy.

So, when the principle of classification is non-linguistic, the argument is this; that is, it is only a 'particular' which adheres to the principle, not a universal. Because nothing whatsoever is represented by a universal, but only a suggestion towards a particular is made. It only means that at most, universals may be called class names. At times particulars may form a distinct class, and have a name to this class. And this is usually and uncritically called a universal.

In order to avoid the conclusion that universals are
class names alone, and also in order to save the dichotomy under the principle of classification it may be said that well, universals may at least represent natural classes. One may go ahead and say that they represent only natural classes. Natural classes may be called individuals too, since they may be regarded as the units of metaphysical structure of the world. Now, if universals represent such natural classes, then universals too are individuals. Thus, we may have universals which are individuals just as there are particulars which are individuals; the only difference between the two now, is the difference of their ranges of application; whereas particular has a narrow one, because it represents only one individual, the universal has a wider one because it represents many individuals.

But both of them are the instances of one and the same principle; of one and the same individual of the metaphysical context, at large.

Herein, the 'individual' which is also the universal, has a different structure than the 'individual' which is also the particular. For example, a natural class which is a universal, has complexities because it is constituted of several things (or particulars). And yet, a collection of particulars alone may not be called a universal, though it may be called a general name. Although a collection of particulars which may be called a general name may also be called a universal if and only if the
general name or the collection represents a natural class. All the confusion regarding the nature of universals, whether they are concrete or abstract is due to the lack of proper investigations into all discussion that passes under the heading of universals. Strictly speaking, universals (not as opposed to particulars), cannot be abstract; they have to be concrete, since they are the constituents of the structural world; in other words, metaphysics is their home-discipline. Nevertheless there is no hesitancy in recognising their abstract usage. Metaphoric use of universals has come to stay in philosophy, and consequently, even the suggestion that there may be types of universals.

A Note on Metaphor

Fortunately we need not enter into the literary and artistic functions of metaphors both, in literature and philosophy; it has been done quite often. Whatever we choose to take the correct definition of these two branches, metaphors have served more or less similar purpose; that of entertaining the reader, and explaining a difficult point dramatically. In this note, I propose to suggest a peculiar function of metaphor. Philosophers have rarely used a language i.e. metaphor-free.

Not that metaphors are indispensable, but somehow, they tend to creep in a language. Philosophers have often committed their theory to the mercy of some model, geometrical, logical, physical, mathematical or atomic - to cite but a few examples.
Of course, it is always the case that they have not shown any awareness to its allocation. On the contrary, their criticisms of the theories of other philosophers (obviously not their own) have been due to lack of proper study. A thorough study of others' viewpoint would reveal a model in a better light. Then alone can one legitimately seek a common ground of comparison. More often than not, there is no common ground. Often, there is a confusion. The well-known category mistake according to Carnap is due to such a confusion of modes of expression between one language strata and another. The author of 'Myth of a Metaphor', is of the opinion that metaphor too is such a mistake; it is a make-belief, which gives rise to categorical confusions when taken literally. He gives some examples. Plato's theory of Ideas is a glaring example; not only that, even scientific discovery is vitiated by metaphors. Newton's theory of gravitation uses a metaphor of 'procedure' - a deductive model. 'Procedure' is often confused with 'process'. There are also some hints to suggest that Hume's 'necessary connections' is a better replacement of cause-effect phenomenon. Causation is the result of being victimised by metaphoric language. The procedure rules are confused with process rules. But Hume too is not innocent of using metaphor-free language; he uses atomic model for linguistic explanations. Thus, we can gather that it is often the case, that metaphor is a consequence of confusion, either deliberate or otherwise. Often, true science and scientific mythology are not distinguished. With a different metaphor, a theory wears a different look. We should
However, recognise the presence of the metaphor.

However, a well-developed language system, may it be a theory, argument or a proposition, may be metaphor-free. Otherwise, even the so-called linguistic theory uses an atomic model. To use a model of one theory for another is to use the original model metaphorically. How, does such a usage diminish the expression power of the theory, or, does it suggest the complexity of the relation between the theory and the theorised?

But sometimes metaphors are astonishingly baffling. They challenge our most developed systems of language and logic. They demand an answer which we cannot give from linguistic or logical point of view. Their presence in the system, though not frequent, sometimes cannot be brushed aside as a cheap rhetoric accident. On the contrary, the metaphoric way of talking may be the only available way of expressing. This, in course of time, becomes so natural that we stop questioning their absurdity. The atomic model which the analytic school of thought uses, is such an instance.

The word 'model' itself is used metaphorically. We have in mind, a technically perfected, integral piece. This 'model' is applied to any theory which is mature, and has a set of some well-established rules.

A 'model' that is applied to logic is often mathematical. Needless to elaborate this point. We are aware of the controversy that still remains a platform of philosophic discussion. That is,
whether logic and mathematics could be equated, at least at some stage, or finally. I draw your attention to the metaphoric language I have used right now. The focus of our attention would be the word 'equated'. This word is used in a particular framework. Now, it receives an extended meaning here, which is not fully mathematical.

The word takes a meaning by neglecting some aspects of the original, and also by adding some other aspects to the original. This is due to the framework in which a word is focused. The word 'equated' here is borrowed from the mathematical model. If however, we deliberately choose not to grasp the idea conveyed by the word 'equated', i.e. the interpretation of the equation sign, then we can even adopt an analysis of the word 'equation'. Analysis of the word or sign equation, just to disprove the existence of mathematical model, will not be satisfactory. Of course one can do that. One can fill volumes with minute analysis of the word, flawlessly. But that will only prove that metaphors are not essential to any theory and that is all. It will also fail to give the insight that a metaphor gives. It will definitely not devalue a metaphor whenever it is used. Trying to avoid a metaphor to give a perfect language is not impossible. But it will be needlessly laborious and tedious. It will deprive a theory of its expression power and will also seem artificial.

There are some theories in which metaphors are not distinguishable from the very elements which constitute the
theory. Metaphors themselves become the intricate constituents. And it is this point that challenges our analysis. In such cases, analysis would lead to nowhere but circular arguments. A status other than linguistic will have to be given to metaphor. I shall discuss in brief, whether any metaphor is involved in the first principle of knowledge— to say naively, the thought, for the lack of better expression. We apply a chemical analysis to our thought. Of course, we need not seek point by point parallel, since the framework modifies the original meanings. However, the focus of discussion which is analysis, is used metaphorically. Although, there is no drastic change in the suggestion of the word, despite the change in framework. Now, we are so acquainted with the word 'analysis' that it hardly seems foreign to the linguistic framework.

No doubt that the techniques of chemical analysis and thought analysis differ widely. These techniques themselves may be metaphor-free, like the decision procedures in logic. Nevertheless, metaphor is implied in the very presupposition that the thought complex is analysable. Does thought, in itself, have a character of being analysable? Or can we analyse thought arbitrarily?

We have no other means at our disposal except the process of analysing thought—arbitrarily, that is metaphorically. Metaphors, in such cases, have suggested enough. We have come to
recognize that at times, metaphors which cannot be distinguished from constituents of a theory, question the very basis of a well-formed theory. In this instance that we took up, it questions the analyzability of thought process (which has grand consequences, like the science of logic). Whether we accept it or not, metaphors in such cases pose a challenge to our mechanical mode of thinking.

The idea that universals are natural classes, even if recognized casually is not properly emphasized in any theory. If at all it is discussed, it is done so in the naive spirit of universal-particular dichotomy in the metaphysical context. And to this of course, there may be no objection. For that matter, any context may consistently give an account of universal-particular dichotomy on the basis of the principle of classification, which may or may not be explicit. It was never stated so clearly that the word universal has a metaphysical origin, and so has the word particular (if not metaphysical at least semantical). So, if they are used elsewhere, they are done so either metaphorically, or they are explained by the standards of some principle, and thus again, their use may not have their original shade of meaning; nevertheless, it may be recognized as a standard usage by the standards of the principle of classification in that particular context. I claim this observation strictly original to the best of my knowledge.

Thus, a general name, a collection, a set or even an abstract name is not a universal unless it represents natural class.
Thus, universals are abstract in the sense that they are not 'things' like particulars. But they are not abstract in the sense that they represent natural classes. They are 'individuals' in this sense, but they are not concrete in the sense particulars (individuals) are.

Thus, our thesis so far holds the view that universals and particulars have a proximity with the range of application. They are only remotely related to the principle of classification, unless of course, we have in mind the simplest possible account of universals as natural classes. Then of course there is no need to investigate into the remote relationship to the principle of classification. This need arises only in the context that are not strictly metaphysical.

But what is a natural class?

If we are able to give a satisfactory account of natural classes, then we can grant the realist at least some ground for calling some words universals and other particulars.

If we are not able to give a satisfactory account of natural classes, then we shall have to label the words as universals and particulars arbitrarily, or as it has been already seen, on the basis of the principle of classification. The dichotomy however, is tended to be more functional than scientific. It has to be the case, because, the more logically rigorous the
analysis, less is the scope for these words to retain their conventional and technical meanings.

Most theories which did have a prominent realist approach, both in India and West, have failed to show a careful analysis of the problem. The resulting theories are rather superficially oriented to serve some function, or convenience. Even the questions which they raise subsequently, like the relation between universals and particulars become equally non-analytic and conventional. I have not been able to cite any instance of a scientific approach to the problem simply because I have not come across any, so far. Historic approaches to the problem have been taken before. (A recent example is the short book by Hilary Staniland entitled 'Universals'), but there has been no attempt to study the problem in the light of the context in which the words occur. Such a study as undertaken here was long overdue.

iii. That universals and particulars have their distinction because of the relation between object language and metalanguage.

Object language attempts to give a satisfactory account of the 'things'. Things have existence in spatio-temporal context and object language describes the 'thing' in all possible ways, from all possible viewpoints; it suggests the 'relation' of 'thing' to all possible universes of discourse. The object language may take notice of grammatical and logical rules, or, it may not do so even and still remain efficient in its function.
Often, the same word may be used both, in metalanguage and object language. But then, the rules which govern their usage may be different. The 'thing' referred to in object language may have a different function to perform. They suggest spatio-temporal existence, while those referred to by metalanguage may have a different function to perform; they do not suggest existence.

Hence, when things are thought upon as individuals, it must be so by the standards of object language. And it may be said that if we recognise such a functional labelling of language into object language and metalanguage, then it is only in object language that the words universals and particulars have meaning.

In object language individuals may be quantified. The quantifiers in object language sometimes decide the universality and particularity of the word. We have the traditional mode of classifying propositions as $\forall, \exists, I$ and $O$, where quantification is the criterion of classification. But therein, the universality and the particularity was with reference to the propositions. Propositions were called universals if the quantifier 'all' was used. (However, traditional logic did not make a distinction between singular and universal proposition). Modern logic of course has developed refined techniques and symbols to bring out differences in the nature of propositions. As far as the meaning of the quantifiers like 'all', 'some' etc. is concerned,
there are differences of opinion. There is an opinion that 'all' does not mean necessarily 'all existing individuals', but it means 'all members' in the universe of discourse. So, the rule that governs the usage of 'all' and 'some' is not the rule of existence, but the rule of grammar and logic. It is not the rule of philosophy either, since any discussion on existence would be a discussion in philosophy. It would be fortuitous to say anything about the meaning of philosophy, since we have said enough when we say that 'existence' has a home-discipline which is philosophy.

But there are some theories which make distinctions between the abstract and the concrete. They oversimplify the issue by merely stating that universal is abstract (that is, it does not have existence), and particular is concrete and has existence.

There are advocates of concrete universals, but their tendency is to make the distinction on the basis of 'all' and 'some' without elaborating and analysing their meanings. Therein, abstract universals form altogether another 'type' of universals, whereas concrete universals can have only existing instances which are the particulars. The 'type' of abstract universal has no instance, and hence, it may even be said that abstract universal is a deceptive phrase, which stands for an abstract noun at most.
But one can comment that irrespective of other differences, the one which is outstanding is this, that the word 'abstract noun' is a technical word in grammar which may stand only for some set or collection, or even for some qualities and relations. Whereas the word 'abstract universal' does not follow the rules of grammar but philosophy. And hence, it is convenient to classify it as a type of universal, rather than an abstract noun.

If we consider that universals are non-existing individuals and particulars are existing individuals, then we are led to consider that the universals have a place in metalanguage, and not in object language, because therein the names would not be referring to anything that has an existence. And it must yet have some meaning, and for this we turn to metalanguage. Object language is not entitled to give it a meaning by the standards of its very nature that it refers to objects. Object language can treat individual as 'things', not as words. And these individuals, if they are recognised as things, then they do not possess any special traits to be called universals or particulars. As we have seen, such a distinction was often due to the use of quantifiers, which is only functional and even pragmatic, since it economises the labour.

Hence, if such a distinction is made, it must have a principle of classification which in the first place classifies metalanguage and object language. As said earlier, universals
and particulars are only remotely related to the principle of classification. Their immediate relation is their range of reference or their framework or even what may be called non-technically, their context.

Again, we must mention one absurdity of this position. That is, allotting a place in metalanguage to universals (which are certainly not 'thing') and allotting a place in object language to particulars, which are 'things'. Then, by the criterion of non-existence of individual (that is, 'non-things'), all the words in object language are universals!

But this would stretch the imagination to the point of breaking it. All words cannot be universals - my entire thesis vindicates the point.

7. 'Word' as Individual

Propositions are the units of thought. A word is a unit of proposition expressed in language. Even the monosyllabic 'a' is a unit; it has the function of 'one' to perform in a sentence. Such words are called individuals.

The unit of thought however, is governed by the context, and follows the rules of the convention which are peculiar to that context.

Now, such an idea of unity is more functional than
structural. We can, for instance, call a non-hyphenated word 'grasshopper' a single unit, that is, one word, when we are sure that 'grass' and 'hopper' are two irreducible units in other context. We may also call the hyphenated word 'ink-pot' as unit. Further, even 'hydrogen sulphide' may be called a unit. It is observed that in spite of the different structural style, the words continue to function as units. These are then, individuals. Elaborately, they may be called contextual individuals.

When universals and particulars are treated as units, as words, as individuals, we must decide their contexts, which may be logical, grammatical or linguistic; they may be considered as linguistic and non-linguistic.

This point may also be put differently. Universals and particulars may be looked upon as 'words' only from the point of view of grammar, language or logic, and by the rules of grammar and logic, and not those of philosophy. In grammar, the unit is a word (which is called a part of speech) that may be able to take a grammatical position, whereas in logic, it may be a word or a symbol appropriate to the system of logic. But in philosophy, the unit is not only a word or a symbol— which it must be in order to communicate— but it must be something more than that. Not even a bare 'thing' that may be shown even by the physics or chemistry. In philosophy, 'thing' has to be
understood with all its structural, functional and communicational complexities.

In fact, there are no standard rules which govern the positions of the units, as there are grammatical, linguistic or logical rules. According to the standard rules of these disciplines, it is possible to decide the positions of the words; whether they are subject or predicate as in grammar and logic, whether they are individual descriptions or predicates as in ordinary language or even in semantics. These terms in the dichotomies have often been treated as particulars and universals respectively.

Universals and particulars being philosophical units basically, they have the difficulty in occupying a standard philosophical position, for, as said earlier, philosophy has no developed technique which is exclusively its own. That may not even be possible or desirable, taking into account the very nature of the subject. But this is a different point.

When should a word be called an individual? Should any word whatsoever be called an individual? The explanation would be this; a word which has a decided meaning only can aptly be called an individual. An 'abracadabra' cannot be called a word, and hence, not an individual. In order to be called an individual, the words should have meaning(s). The words may have both, meaning and designation; a symbol at least has designation. It may be interpreted so as to mean something that otherwise a
To say that a word has a designation is to allot it a place in the proposition or formula.

Various terminologies are used for this purpose. We have been using the words like subject and predicate since centuries and even today, we have continued to use them similarly. The precision of course has been affected by modern logic and analytic philosophy. For example the grammatical subject and the linguistic subject, e.g. 'the daughter of the dean', are different than the logical subject which may or may not coincide with these subjects, e.g. in the proposition, 'It is raining', the logical subject is not the 'it', which occupies a grammatical subject position, but the logical subject is 'the rain', and the proposition would properly read 'the rain is falling'. Of course, such a need to hunt out logical subject arises due to rhetorics. Had there been a custom of communicating in strict logical form, the need to make such distinctions would vanish along with the linguistic charm.

The point that concerns the discussion is only this: words have positions, grammatical, linguistic or logical; in brief they have a definite position in a definite context. In other words, the words are designated by some nomenclature, like subject, definite description, predicate, and so on. Hence, they are not called universals or particulars, but they are just...
recognised by their nomenclature befitting their position in
that context.

And it is with reference to these words that a decision
has to be taken; that of classifying them as universals or
particulars.

It is then advisable to hint at the principle of
classification. It is quite possible that the words will be
classified as universals and particulars under more than one
principle of classification. In such cases, the principles
themselves may be compared.

But no example of such a case would be satisfactory.
It is because, there is no definite rule which defines a
principle of classification. We have various formulations
depending on the nature of the context, and that is all.\footnote{Cf. ‘Analysis of Rules’ in ‘Models and Metaphors’. Herein,
Max Black says that to identify a rule with one of its
formulations would be a mistake. For, there is one rule,
but indefinitely many formulations of it. Talk about rule
is at times, talk about the formulation of rules.}
But this is sufficient to trace out the inclinations and the
convention, and even the reasons (in some cases) for labelling
the words as universals or particulars. There is an inclination
to label, ‘fleet’ as universal; there is a convention that
‘goodness’ is a universal; and there are logical reasons for
calling ‘all’ a universal quantifier.
3. **Conventional Usage**

One prominent shade of universals in convention is that it is a general word. Thus, there is a shift in the emphasis from the usage of singular word, to the usage of general word. If the usage of a singular word is emphasised, the problem wears a realistic shade or the conceptualistic shade, if this singular word has no referent. But, if the usage of general word is emphasised, then the problem wears a nominalistic shade. In brief then, the problem of universals has also been regarded as the problem of the behaviour of general words.

Also this, that the universal is that which conveys the similarity of meaning taken in extension and intension. Let us illustrate: the word 'red' is a universal, because it conveys the meaning and suggests the instances of real objects. It may be called a universal because the instances resemble each other more or less. The instances, it is important to note, are 'things' and not 'words' themselves. This is because the classification of words into universals and particulars, though apparently verbal, is not so. It should properly be called rather a discrimination which is semi-verbal. That is to say, both, intension and extension of the word are recognised while classifying. Thus, their meaning too is considered while calling the words universals or particulars. They may be universals and particulars in linguistic context as well as in non-linguistic context.
To make this point from the point of view of analysis it may be said that the surface analysis, which is linguistic analysis in linguistic context, admits universals and particulars. This is done by the principle of classification which may be generality of the word. The more general a word is, the more universal it is. Of course, this conventional classification must be given up, the moment surface analysis leads to depth analysis.

Obviously the grounds will be shifted, and hence the principles of classification too will be different.

Thus, unless we are able to decide without reservations, the nature of individuals in the linguistic and the non-linguistic contexts, we cannot defend any theory of universals and particulars properly. Some lacunae will be there. However, much confusion in their explanation may be sympathetically understood only if one is clear about the linguistic and the non-linguistic emphasis that a context may carry.