Chapter I

GRAMMAR OF FORMAL LANGUAGE

This chapter considers the nature of grammar and ontology in the philosophy of Frege, Carnap and Russell. It has three divisions: the first investigates the Fregean logical grammar, the second, the Carnapian formal grammar and the final one, Russell's attempt to construct an ideal language of logical atomism. It shows how in their respective philosophies grammar reveals the structure of reality.

1. FREGÉ’S PHILOSOPHICAL LOGIC

Frege was not a philosopher specific, but his enduring enthusiasm over mathematics and logic eventually paved way for a new conception of philosophical logic, which in turn became a corner stone in the new way of philosophizing. If we ask what is his greatest contribution to the philosophy, the answer definitely refers to his work in philosophical logic. For example, the introduction of the quantifier for expressing generality caused the sharp break between modern logic and traditional logic.
It looks so amazing that a philosopher severely restricted in scope, being confined to philosophical logic and philosophy of mathematics, has been placed as the trend-setter in contemporary philosophy. What made him place himself as the father of analytic philosophy is the invincible stress he has given on logic to answer the basic questions of philosophy; indeed, it was nothing but logic that was everything for him. Dummett characteristically pointed out this fact as "from the time of Descartes until very recently the first question of philosophy was what we can know and how we can justify our claim to this knowledge, and the fundamental philosophical problem was how far scepticism can be refuted and how far it must be admitted. Frege was the first philosopher after Descartes totally to reject this perspective, and in this he looked beyond Descartes to Aristotle and the scholastics. For Frege, as for them, logic was the beginning of philosophy, if we do not get logic right, we shall get nothing else right."

Frege wanted to devise a logical system, in which proofs are completely formalised. The appeal to intuition can be avoided in asserting the correctness of the proofs, if proofs were to be formalised. As a consequence of his attempt to provide a logical system in order to account mathematics led him to look into the structural features of language. He used the same canon of logic to reveal the structure of language. The assumption is based on his conviction that, as in the case of mathematics, language has an underlying structure which can be made explicit logically. He felt that the subtler and elaborate

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theories of scholastic logicians had failed to give a coherent account of a fundamental feature of language—the expression of generality. Actually his attempt to develop a quantifier-variable notation determined his orientation towards the philosophy of language.

Frege's construal of formal logic and hence the philosophical logic, which determined his philosophical conception, would be essential in our endeavour to look into the nature of contemporary philosophical language.

Frege's Construal of Logic:

As a mathematician Frege's principal motive and purpose had been to provide a secure and rigorous formulation for the proofs of arithmetics. Realization of this goal needed a new and improved logical notation. His thesis is that arithmetic can be founded in logic. But in order to do that logic should be equipped well, therefore his relentless effort in devising a rigorous logic. The system of logic he developed consists of special notations such as the notion of 'assertible content,' 'negation,' 'conditional proposition,' the 'universal quantifier and identity,' for expressing certain basic logical ideas.

In traditional logic a predicate is understood as something that ascribes a certain property to a subject. However, what we mean by a 'subject' can be better understood if we think of it on the analogy of what in mathematics is called the 'argument' of the function. Thus the combination of a 'function' and its 'argument,' when treated in this broadened logical sense, can now be thought of as having a truth-value. Frege showed how, in carrying out the analysis of internal logical structure of a
the notion of quantities and the variables they bind in order to, thereby, express the concept of generality.

As pointed out earlier, Frege's creative contributions to logic have a range of application that extend beyond his original interest in upholding the logical thesis. In understanding the formal structure of propositions--their logical interconnections among themselves, together with an analysis of their internal parts and components, Frege made use of the logic which he developed. It is a logic that can be employed regardless of the subject matter to which it is applied. The general rules and forms of logic can be used to express the structural features of the discourse, whatever be the subject matter. The logical notations are being used to extract the logical form of the discourse and to guide one in achieving precision of thought.

In clarifying the use of logical symbolism for expressing interrelations among propositions and the internal structural components of the proposition, Frege found necessary to work out his philosophy. This consisted in developing a theory of meaning, philosophy of language, and system of philosophical logic.

Frege lays down three basic principles of philosophy of logic in his work *The Foundations of Arithmetics* he writes:

> In the enquiry that follows, I have kept three fundamental principles: always to separate sharply the psychological from the logical, the subjective from the objective;

> Never to ask for meaning of a word in isolation, but only in the context of a proposition: never to lose sight of the
distinction between concept and object\(^2\)

As far as concerned the first fundamental principle Frege strongly opposed psychologism, the view that deals with certain subjective, inner process of the mind. Frege was a realist in the technical sense of the terms, who believed in the objective existence of concepts, notation and objects. He maintained that an understanding of the nature of meaning requires that we be able to examine certain objective features to be found in the use of language. Thus for Frege concepts are special types of objective entities; concepts-words are linguistic expressions that report these concepts. In the same way objects are entities in the world designated by special linguistic expressions called 'proper names', whereas concepts-words refer to concepts, relation expressions to relations. He studied how various types of linguistic expressions might contribute to a logically perspicuous use of language in sentences and logical connections of such sentences with one another. It is in this context of language--use not in the domain of psychological processes--that Frege would carry out his investigations into the nature of language.

The second principle quoted above is of fundamental importance which tells us that the basic unit of language use is the sentence. The fundamental move in the use of language is that one constructs and uses sentences to say something. The understanding of individual words can be successfully achieved when we see them as contributing to the formation and use of sentences. For Frege the major use of sentences is that in which

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we use it to make an assertion to say something that is either true or false. Hence the understanding of the meaning of words is to be found in the link they have to our being able to specify ultimately the truth or falsity of sentence of which they are constituents. The meaning of words is bound up with the way in which they contribute to and help to determine the truth- and falsity conditions of the sentence in which they figure. Another way of making this point is to say that Frege’s approach to a philosophy of language was a semantical one. The question he was principally concerned with is what distinctions of logical type need to be made among linguistic expressions in a logically purified language, where we wish to use that language to convey the truth and avoid falsity. In a broad sense semantics is precisely that aspect of the study of language that concerns itself with matters of reference and truth. It studies the semantic roles of various types of expression in the formation and use of sentences of varying degrees of complexity. It evaluates their contribution to the determination of the truth or falsity of the sentence of which these expressions are constituent parts.

Concept and Object:

A central theme in Frege’s philosophy is the importance for logic of taking the sentence as a whole as the basic item to be analyzed. It is the thought conveyed by a whole sentence of which, when asserted, we can ask whether it is true or false and so having possible cognitive significance. Frege writes “I call a thought something for which the question of truth arises. The thought is the sense of the sentence without wishing to say as
well that the sense of every sentence is a thought. The thought in itself immaterial, cloth itself in the material garment of a sentence and thereby becomes comprehensible to us. We say a sentence expresses a thought. The task of logic, in starting with whole sentences, is to examine the types of component out of which a sentence is constructed. It is important, to see the underlying logical role of these items and not to be misled by superficial grammatical similarities or dissimilarities. The disentangling of these logical components was accomplished by Frege in a path-breaking way.

As contrasted with superficial grammatical distinction between subject and predicate that underlay much of traditional logic, Frege distinguished between the linguistic expressions of concept-words and proper names. To accomplish this he showed the great importance of making a useful comparison between the idea of a mathematical function and its argument on the one hand, and the logical idea of a concept in application to an object on the other hand. In the light of this distinction he was able to point the way for using the important idea of quantifiers in expressing generality where this is found in certain types of sentences.

Another underlying theme in Frege's analysis has to do with the notion of assertion. A sentence can be, need not be, asserted. The sense of the sentence as a whole Frege calls a thought (a proposition). We can understand the thought expressed by the sentence without asserting it. Insofar as the sentence is understood as expressing a thought, it has an assertible

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content, it would make sense to ask whether it is either true or false. To assert this sentence is to use it to make an actual truth-claim: one is prepared to claim that the sentence is true. And to assert this sentence is to use the sentence with an assertoric force.

With the background of how we are to think of the relations of 'function', 'argument,' and 'value' in a mathematical context, Frege proceeds to exploit these distinctions for general logical or philosophical purposes. He shows how we can apply these distinctions to deal with not only expressions having to do with number, but also how parallel distinctions among 'function,' 'argument,' and 'value' can be made in the logical analysis of language-use in which are to be found descriptions or assertible sentences having to do with various types of subject matter.

Consider the sentence 'Socrates is a philosopher.' Frege suggests that the sentence can be considered, for logical purpose, as made up of a functional part and an argument part. One way of analysing the sentence is to consider the expression '---- is a philosopher,' where we have to put in place of the name 'Socrates' a blank while retaining the rest of the sentence. Having done this we can treat the entire expression '---- is a philosopher' as a function. Frege calls this kind of function a concept. The expression 'is a philosopher' stands for a concept. When we plug in the name of 'Socrates' in the argument place of this linguistic expression we obtain a complete sentence. For this complete linguistic expression we can now ask whether it is true or false. Truth and Falsity are the possible truth-values, for the sentence as a whole. For the
sentence 'Socrates is a philosopher' we obtain, a truth-value 'True'. Similarly for the complete sentence 'Plato is a philosopher,' 'Aristotle is a philosopher,' where 'Plato' and 'Aristotle' are the expressions in the argument-places for the same function obtain the truth-value truth. However, when we put in the numerical '4' or 'The Eiffel Tower' we obtain sentences whose truth-value is 'the False'.

The expression '--- is a philosopher' is the incomplete or unsaturated part of a sentence which, when supplemented by the name or other designation for an object, yields a complete sentence whose truth-value can be determined. This unsaturated part Frege calls a concept-word. According to him, in order for the entire sentence to be capable of determination as true or false, the concept-word it contains must be given a clear and determinate meaning, and the expression used as an argument-sign must designate some object, some individual entity.

A concept-word is a linguistic expression, it stands for a concept; it serves as a predicate. However, a concept is, for Frege, is something objective, not itself part of language. At the same time concept is not someone's idea, a mental occurrence or psychological event. That same object has a certain property -- falls under a certain concept -- either is or is not the case, objectively. To say 'Socrates is a philosopher' is to say something about Socrates--that he has the property of being a philosopher or falls under the concept 'philosopher'. The apprehension of a concept is a psychological matter! However, the concept apprehended and the relations it bears to objects or other concepts is not a matter for psychological investigation.

A concept-word is the predicative part of a sentence. As a
predicate, a concept-word is to be understood in a logical rather than a psychological sense: it belongs to the use of the language as analyzed and reconstituted to show its basic logical components. A concept word needs to be distinguished from those expressions such as proper names that designate individual objects. A concept-word or predicative expression is incomplete or unsaturated, whereas the expression designating an object is complete or saturated. It follows from this that the name of an object could never serve, as such and by itself, as the predicative part of a sentence.

Consider the sentence 'The morning star is a planet.' Following Frege, we can say the expression 'the morning star' names an object, where as the expression 'is a planet' is predicative and conveys a concept. Whenever we have a situation of this sort—where a sentence attaches a predicate expression to the name of an individual object—we can say the object falls under the concept. 'The object falls under a concept' is Frege's way of expressing what is traditionally described by saying 'an individual has a property' or 'the universal is exemplified in the individual.' What is meant by the use of this phrase 'to fall under a concept' is that it holds for the relation between an individual object and a concept. It is only of concepts that we can say that some individual object falls under that concept.

Sense-Reference Distinction and Assertion

Frege makes some striking additions to his philosophy of logic which mainly help to keep the overall coherence of the system. Among them the celebrated distinction, sense and reference, stands out. He insisted that two proper names may
have different senses but the same meaning (reference). The same object is the bearer of both names, although the criterion for identifying an object as the bearer of the one name differs from that for identifying it as the bearer of the other. Frege held that this is applicable not only in the case of complex proper names but also true of proper names which are logically simple. The possibility to understand how an identity statement may be true and also informative is given by acknowledging that names with the same meaning may have different senses. The sense-reference distinction helped Frege to clarify the notion of 'concept'; he used 'concept' to apply not to the sense of a predicate but to the entity which the predicate means.

The existence of anything that is meant by an incomplete expression such as a predicate did not bother Frege, since whether such entities really are there in reality is an misconception one. The notion of a concept is to be understood in such a way that the existence of concepts which are the meanings of predicates, as the existence of objects, which are the meanings of proper names. But the real problem lies in understanding the role played by meanings in the determination of the truth-value of sentences. If we go according to his formulations, this wholly depends upon the sense of proper names and predicates. Given this, knowing the criterion for identifying any given object as the meaning of that name is to know the sense of a proper name; to know the sense of a predicate is to know the criterion for deciding whether it is true of an arbitrary object. It amounts to finding the object which the name meant and then deciding whether or not the predicate true of it, determines the truth-value of a simple
subject-predicate sentence.

Frege's thesis that names have meaning only in the context of sentences appears to go against this result. The thesis surely entails that the sense of a name may be given by means of a value for determining the truth-conditions of a sentence containing it than via identification of an object as the meaning of the name.

The meaning of a complex name depends only on the meaning, not on the sense, of its constituent parts, and the truth-value of a sentence only on the meaning, not on the sense, of the words of it. Frege brushed aside the problem posed by many counter examples to this principle by saying that in such contexts the words do not have their ordinary meanings but mean what are ordinarily their senses. Despite the apparent inconsistencies and shortcomings, Frege's whole point in insisting that names have sense as well as meaning was just that the sense of a name could not consist merely in its meaning the object which it does mean; there must also be some particular way in which we recognize the object as the meaning.

The second addition to his philosophical logic is the theory of force carried by an utterance. In our linguistic practice we try to give an account of the sense of our words which depend upon, or are derived from, the truth-conditions of the sentences we utter. If that is so then we need give an account of the connection between the truth-conditions of a sentence and what we effect by uttering that sentence. Frege thinks that an act of assertion not only constitutes an utterance of a sentence with determinate truth conditions which the hearer understands, but also we express that the uttered
sentence is true. This activity of asserting that the thought we are expressing is true is sui generis, it is not a further determination of truth-conditions of the sentence which will remain unchanged irrespective of whether we assert or not. This aspect can be made use of in giving a definition, in asking question regarding the sentence or the assertion. One feature of assertion, is 'force' of an utterance, which needs to be understood if communication is to be possible. Frege deployed some special signs for this element. These signs may be attached only to complete sentences, there being no room for assertion sign within a subordinate clause, since such a clause serves to determine only partially the truth-conditions of the whole sentence.

These two supplementations are completely in conformity with the main doctrines concerning logic and language. The identification of a sentence's truth-value with its meaning rules out the possibility of the construal that the meaning of a sentence be considered as the thought which the sentence expresses, for the meaning of the whole cannot alter so long as the meanings of its parts remain constant, whereas the thought expressed can alter. But Frege gave no direct argument for ascribing a meaning to a sentence. Sentences are evidently complete expressions and hence truth-values are objects. Consequently sentences become a kind of complex proper name.

2. CARNAP, FORMAL LANGUAGE AND ONTOLOGY

As a formal language philosopher, Carnaps' views on the
concept of language and its philosophical consequences have to be considered. Carnap believes in the construction of a formal language which would comprehend the essential characterisation and nature of the world. His attempt to put forth the semantical theories and the concern over the formal syntax of language together provides the ground for the construction of an empiricist account of the world.

What makes him different from other empiricist philosophers or logical positivists is his theoretical construction of a formal language in order to accommodate and scientifically justify both the physical things and events and abstract entities, which are essential in a scientific theoretical construction of our experience of the world.

External and Internal Questions:

Carnap argues for a fundamental distinction concerning the questions about the existence or reality of entities, and the question regarding the linguistic framework in which the questions about the reality or existence of entities can be raised. The questions regarding the linguistic framework are external whereas the questions are internal in relation to the questions about the linguistic framework. Accordingly, linguistic framework provides the ground for the distinction and makes possible to answer the questions about the reality of entities. Carnap writes, "If someone wishes to speak in his language about a new kind of entities, he has to introduce a system of new ways of speaking, subject to new rules: we shall call this procedure the construction of a linguistic framework for the new entities in question. And now we must distinguish
two kinds of questions of existence: first, questions of the existence of certain entities of the new kind within the framework; we call them internal questions; and second, question concerning the existence or reality of the system of entities as a whole, called external questions. Internal questions and possible answers to them are formulated with the help of the new forms of expressions. The answers may be found either by purely logical methods or by empirical methods, depending upon whether the framework is a logical or a factual one."

Internal questions are cognitive, since the questions and possible answers can be formulated by making use of forms of expressions which are introduced to incorporate the proposed entities into the system. Whereas in the case of external questions, it is totally non-cognitive because of its nature itself. The possibility of finding out expressions as possible answers to the external questions are without avail because of the nature of the question, since the question is about the existence or reality of the system of entities as a whole. In order to understand Carnap's this idea, notion of linguistic framework must be taken into consideration in some detail.

Linguistic Framework:

It would be better to know the functioning of everyday language with its ontology of the spatio-temporally ordered things and events in order to understand what is Carnap's idea of linguistic framework. According to Carnap, we have accepted

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the thing language with its framework. He says "once we accepted the thing language with its framework for things, we can raise and answer internal questions, e.g., 'Is there a white sheet of paper on my desk?', 'Did King Arthur actually live?', 'Are unicorns and centaurs real or merely imaginary?' and like. These questions are to be answered by empirical investigations. Results of observation are evaluated according to certain rules as confirming or disconfirming evidence for possible answers."

The introduction of a linguistic framework is essential, accordingly, to raise the questions and to find out possible answers. For him, this means a set of rules which will coordinate forms of expressions in a language. As we practice in everyday life, prior to asking the questions regarding the existence or reality of the thing world, we have accepted a thing-langauge. Therefore, spatio-temporally ordered things and events constitute the subject-matter of the thing language. Since we accepted this thing-langauge the questions and answers regarding the reality of the thing--world can be raised and answered meaningfully and cognitively. Hence, answers are supposed to be found out by empirical investigations since the questions are about the factual world. Moreover, questions regarding the reality of physical objects and events are within the framework; therefore they can be considered as internal questions. Carnap says "the concept of reality occurring in these internal questions is an empirical, scientific, non-metaphysical concept. To recognise something as a real thing or event means to succeed in incorporating it into the system of things at a particular--space-time position so that it fits

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5 "Empiricism, Semantics, and Ontology." p.586.
together with the other things recognized as real according to the rules of the framework. 6

Once we raise the question about the reality of the thing world itself, the question amounts to be as external question because this question meaningfully cannot apply to the system itself and the question is framed in a wrong way. 7 To be real in the scientific sense means to be an element of the system; hence this concept cannot be applied to this system itself. 7 And Carnap construes this external question as the practical question, rather than theoretical question, concerning the structure of our language. The question is about the choice whether to accept or not the use of the forms of expressions in the framework in questions.

The acceptance of the thing language, according to Carnap, must be construed as the acceptance of the thing world. But that does not include or must not be interpreted as the acceptance of a belief in the reality of the thing world. 7 "To accept the thing world means nothing more than to accept a certain forms of language, in other words, to accept the rules for framing statements and for testing, accepting or rejecting them." 8 Therefore, the acceptance of a thing would does not amount to the acceptance of a belief since there is no such statements or assertions. Because it is not a theoretical question. It is an external question, hence, question regarding practical choice of the framework. Moreover, this question and statements about the reality of the world cannot be formulated in the thing language.

6 "Empiricism, Semantics and, Ontology." p.586.
7 Ibid., p.586.
8 Ibid., p.587.
As in the case of the thing language, Carnap constructs the introduction of new forms of expression into the language in order to incorporate abstract entities like numbers, properties, classes, propositions etc. The introduction of new forms of expression in accordance to the new sets of rules provides the linguistic framework in which we can cognitively raise the questions about the existence of the new entities and find possible answers to them. The way we answer or find out the answers depends upon the nature of the framework. For example in the case of numbers the nature of the framework and the questions and answers are logical.

Semantics and The Linguistic Framework

In the semantical meaning analysis Carnap makes use of the idea of linguistic framework. Linguistic expressions are said to designate or refer to certain extra-linguistic entities. In the case of thorough going empiricism, protagonist are reluctant to admit any kind of abstract entities as designatum. There will not be any objection as long as physical things and events are taken as designate. But when they take into account the nature of abstract entities, they express serious doubts. Carnap argues, "they reject the belief, which they regard as implicitly presupposed by those semantical statements, that to each expression of the types in question (adjectives like "red", numerals like "five" etc.) there is a particular real entity to which the expression stands in relation of designation. This belief is rejected as incompatible with the basic principles of empiricism or of scientific thinking.""9

9 "Empiricism, Semantics, and Ontology." p.592.
Carnap stands for the acceptance of the abstract entities as possible designates because once we accept the linguistic framework for a certain kind of entities, then we are bound to admit the entities as possible designate. In other words, the questions concerning the abstract entities as possible designate turns out to be the questions concerning the acceptability of the linguistic framework. For e.g., the statements 'Five designates a number' is a statement which presupposes that our language contains the forms of expressions which we introduced as framework for numbers. Here framework for numbers means introduction of numerical variables and the general term 'number.' Hence statement turns out as an analytic statement.

It is clear that within the linguistic framework we are able to assert meaningfully, since the forms of expressions, which are found in accordance with the set rules, provide the tool or necessary ground for the verification of the statement. In the case of statements or propositions concerning the physical things and events, the accepted framework for the thing would provide verification method by an empirical investigation, whereas in the case of abstract entities the method of verification is logical and depends upon the rules set by the framework. The set of rules, to which the linguistic expressions belong, are said to determine the answers to the questions raised about the reality of abstract entities. Carnap writes "Thus the question of the admissibility of entities of a certain type, or of abstract entities in general as designata is reduced to the question of acceptability of linguistic framework for those entities. Both the nominalistic critics, ... and the skeptics, ... treat the question of existence as a theoretical
question: They are, of course, not the internal question; the affirmative answer to this question is analytic and trivial and too obvious for doubts or denial, as we have seen. Their doubts refer rather to the system of entities itself; hence they mean external questions: 10

Ontological Commitments

It seems, Carnap's world of entities is broad enough to accommodate the things and events of our daily experience and the abstract entities which are essential for the language of science. One may express doubts over whether his world of entities is over populated. But he set forth rules for the verification of the entities in question. These rules are the essential characteristics of the language. Language, in his case formal language, contains the semantical and syntactical rules, though these are developed in course of adoption of a language in order to account for the world of experience. Therefore adoption of a language essentially entails the linguistic framework which determines the content and validity of the proposition or statements. Within his framework only the question regarding the entities, which are mentioned or expressed in a proposition, can be positively or negatively answered.

How is it possible to understand a proposition meaningfully? The understanding of a proposition depends upon the understanding of the meaning of the constituent words of the proposition. In order to understand the meaning of words, those words have to show, point out, indicate or designate. What do

10 "Empiricism, Semantics, and Ontology." p. 593.
they point to or designate? We can possibly, within Carnap's system, answer that what they designate, or point out, are the things and events presented to us in our experience. From this shall we construe that an external world of things and events exist independently? To speak of the existence of the external world would be to make a distinction between what is in our consciousness and what is outside of it.

When we raise the question of existence, or rather the ontological commitments of a theory, Carnap suggests to take into account quantificational nature of language. In a general statement which contains quantification variables stand for the entities which are values of the variables. Therefore, the ontological commitment of a theory depends upon the variable which ranges over a domain of entities. In other words, Carnap admits Quine's view that 'to be is to be the value of a variable.'

Carnap rejects the view that only those entities which are given immediately in our experience are to be considered as real or existent. If that is the case it is impossible to admit any abstract entities. According to him the constructs out of the data of sense experience are also eligible to be considered as real. Otherwise construction of abstract entities in the language of science would be impossible to justify.

3. LOGICAL ATOMISM OF RUSSELL

Russell labelled his philosophical perspective as logical atomism. If someone keen on finding a tightly knit system of principles and doctrines in Russell's thought definitely bound to get disappointed. Not only his contributions range over a
wide spectrum but also frequently the ideas or theories he presented with regards to some or other areas of thought get readjusted or reformulated, or sometime end up in total rejection with the replacement new thought. One reason might be that his philosophical career span over such a long time; consequently had to respond to the new developments. Another reason, it seems, could be that he did not believe in dogmatic assertion, rather felt happy with continuous interaction and reflection so that a more refined perspective will emerge. In spite of all these, there is an overall unity which can be shown by making explicit the underlying themes of his philosophical perspective.

When we take into account all his philosophical thought and try to locate the overall scheme, we can see that the whole endeavour was devoted to two principal themes, i.e., ontology and theory of knowledge. The search for 'what there is' constitutes Russell's idea of ontology with the perceived end result of what should be taken to be basic or fundamental type of reality. A theory of knowledge constitutes the attempt for a critical examination of the way to justify our claims to know the truth about something or other. According to Russell these two departments, i.e., 'what there is' and 'the justification of what we believe to be true' are closely inter-twined to the effect that a proper understanding of the one is not possible without taking into account the other. Ontology requires a theory of knowledge and the theory of knowledge has as one of its ultimate purpose to sanction an ontology.

Another area in which Russell devoted himself is the theory of meaning; but the concern over developing a meaning theory was
not for its own sake, rather he perceived that a well developed theory of meaning will act as a link between theory of knowledge and ontology. Problem of meaning should be considered within the wider concern of language and its functioning vis-a-vis a world or reality. For Russell the analysis of the nature of meaning is part of the wider concern of formulating a theory of truth and, therefore, also with what is real. He thought that consideration of the nature of meaning finally lead us to the role and nature of language as the carrier of meanings.

Analysis of language by making use of modern logic is not just a convenient tool in understanding the link between ontology and theory of knowledge but is an important one and the only possible method available. Hence modern logic assumes perennial role in the philosophical analysis of language. This made Russell say that logic in one sense is the essence of philosophy. Logic gives us the criteria by which we can confront and evaluate the everyday use of language.

Russell’s logical atomism adheres to a procedural principle called ‘Ockham’s Razor’ which states that plurality is not be posited without necessity. The idea in adhering to ‘Ockam’s Razor’ is that in performing any logical analysis, i.e., in treating the meaning of any complex symbol, as well as in determining what is real and what is true one should persist in trying to find what there are by identifying the meanings genuine constituents or components out of which they are composed.

Russell’s logical atomism is a complex doctrine concerning the nature of language, of knowledge and the world. He makes explicit what is meant by ‘logical atomism’; "the reason that I
call my doctrine logical atomism is because the atoms that I wish to arrive at is the sort of last residue in analysis are logical atoms and not physical atoms. Some of them will be what I call 'particulars'—such things as little patches of colours or sounds, momentary things—and some of them will be predicates or relations and so on. The point is that the atom I wish to arrive at is the atom of logical analysis, not the atom of physical analysis."

Facts and Propositions

The logical atomism assumes that we can get down in theory, if not in practice, to ultimate simple, out of which the world is built, and that those simples have a kind of reality not belonging to anything else. Simples are infinite in numbers, includes particulars, qualities and relations. All those simples have in their various ways some kind of reality that does not belong to anything else. Russell says that despite these simples the only sort of objects we come across in the world is facts, and facts are the sort of things that are asserted or denied in the proposition, and are not properly entities at all in the same sense in which their constituents are. This is evident from the fact that we cannot name any fact except that we can deny or assert. Though we cannot name them, it is true that we cannot know the world unless we know the facts that make up the truths of the world. Knowing of facts is entirely different from knowing simples.

Facts are not particular existing things, such as Socrates,

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Russell a fact is a sort of thing that is expressed by a whole sentence. "We express a fact, for example, when we say that a certain thing has a property, or that it has a relation to another thing; but the thing which has the property or the relation is not what I call a 'fact'."¹²

Facts belong to the objective world, they are not created or depend on our thought or belief. For Russell, there is a outer world of which we aim at knowing and this outer world, of course, comprised of particulars. But the world outside is not completely described by particulars; for that we have to take into account the facts which are sort of things that we express by sentences. Statements which express facts are not intended to express the condition of our mind, rather it reflects the facts of the outside world. Those sentences or statements are either true or false. When we speak or express truly it is that objective fact which makes what we say true and it is the same objective facts that makes it is false we speak falsely.

Russell's atomism does not envisage only one kind of facts. There are different kinds of facts, there are particular facts, for instance, 'this is white' and general fact which express sentence like 'All men are mortal.' Our world of experience are not fully derivable by only particulars facts, Compounded with these facts, there is a distinction between positive and negative facts.

Russell does not support the dualism of true and false facts. Facts are neither true nor false. The quality of truth and falsehood is ascribed only to statements or propositions. For the purpose of logic it is natural to concentrate upon the

proposition as the thing which is going to be typical vehicle on
the duality of truth and falsehood. A proposition is a sentence
asserting something. "A proposition is just a symbol. It is a
complex symbol in the sense that it has parts which are also
symbols: a symbol may be defined as a complex when it has parts
that are symbols. In a sentence containing several words, the
words are each symbols, and the sentence comprising them is
therefore a complex symbol in that sense."\footnote{13}

A belief or statement has duality of truth and falsehood
which the fact does not have. Any statement involves a
proposition and a proposition is not a name for fact. For each
fact there are two propositions, one true and one false, and
there is nothing in the nature of the symbol to show which is
true one and which is false one.

There are two types of relations between a proposition and
a fact; one is being true to the fact and other is being false
to the fact. But both these relations are essentially logical in
nature which subsist between the two. Whereas in the case of
name only one relation is possible. It just names some
particular or object. If a name does not have a relation with a
particular, then it ceases to exist. This is not the case with
a proposition, even if it is false the proposition does not
ceases to exist.

Propositions express facts and are capable of being true or
false. A proposition is a complex symbol expressed by several
words. One uniqueness of the proposition is that the meaning of
it is the product or combined effect of its constituent words
whose meaning are simple. We can grasp the meaning of a

\footnote{13 "The Philosophy of Logical Atomism." p.185.}
proposition, which we never encountered before, if we know the meaning of its constituent words. In contrast to this, component words get their meaning only by directly representing what they denote or refer. Therefore, analysis is only possible in regard to what is complex, and it always depends, in the last analysis, upon direct acquaintance with the objects which are meanings of certain symbols. If we know the vocabulary, grammar and syntax of language, then we can understand any proposition in a language.

To understand a proposition is to understand the components of the proposition which are symbols. Components of the facts, which makes a proposition true or false, are the meanings of the symbols which we must understand in order to understand the proposition. This directly shows that the complexity of propositions is the direct consequences of the complexity of facts. This complexity of facts or world is a genuine one and therefore one ought to start from the complexity of the world and arrive at the complexity of the proposition.

The simplest imaginable facts are those which consists in the possession of a quality by some particular thing. Again, we have facts which have relation between two facts, triadic facts, tetradic facts and so on. There are infinite hierarchy of facts available. But the whole hierarchy constitutes atomic facts and they are the simplest sort of facts. The proposition expressing them are called atomic proposition. All atomic propositions assert relations in varying orders and contains a 'term' which Russell define as 'particular'. The definition of particular is something purely logical in nature. An atomic fact, therefore, must contain a term or particular and a quality or relation with
respect to that particular. This relation of quality is called a 'predicate' of the atomic propositions. The other words that occur in the atomic propositions may be called the subject of the proposition which is the counterpart of particular in atomic facts.

According to Russell the only kind of word that is theoretically capable of standing for a particular is a proper name. He says that "it is true that if you try to think how you are to talk about particulars, you will see that you cannot ever talk about a particular except by means of a proper name. You cannot use general words except by way of description. Atomic proposition is one which does mention actual particulars, not merely describe them but actually name them, and you can only name them by means of names. Therefore, every other parts of speech except proper names is obviously quite incapable of standing for a particular."14

What pass for names in language were originally intended to fulfil this function of standing for particulars. But Russell argues that those are just abbreviations for descriptions. What really merit to be a name according to him, is a name, which is the narrow logical sense of a word, whose meaning is a particular, only be applied to a particular with which the speaker is acquainted. Therefore, in the proper strict logical sense, the only words that one use as names are the words like 'this' or 'that' with which one is acquainted at the moment.

While formulating his ideas of what is a theory of meaning Russell's main concern was with questions of specifying the kind of criteria needed to establish the meaning of some terms in the

nonformal vocabulary of a sentence or proposition. Russell agrees with Frege and others that in exploring logic of language we draw a broad distinction between those expressions which are purported to refer individual objects and the terms that general. In consistent with this distinction Russell in his formulation of a theory of meaning introduces the distinction between knowledge by acquaintance and knowledge by description. It is assumed that the formal or syntactical questions have been satisfactorily dealt with in the logical symbolism set forth in *Principia Mathematica*.

Russell's work in logic, especially the theory of description and the theory of types, has important connection with the logical atomism. One can look up on this as fitting out the details of his philosophical atomism.