1. Introductory:

It was towards the end of 1896, that Moore and Russell rebelled against Kant and Hegel. Kant and Hegel both dominated the field of philosophical activity. Bradley distilled out of Hegelianism, his monism according to which, ultimate reality is one whole made up of a plurality of components in relation to one another and their truth consisted in their relation with the whole, to which they belonged. In Appearance and Reality, Bradley worked hard to show how substance, quality, quantity, space, time, causality, magnitude etc. including god, good and beauty are appearances taken in and by themselves. In the second part of that book, the said appearances are declared to have absolute truth which, according to Bradley can be traced no where but among the appearances taken as a systematic whole. They are appearances so long as they are cut off from the whole. The moment they are viewed in their relation with the whole they became as real as the whole.

Bradley's monism simultaneously worked at the destruction of pluralism for it refused to recognise independent reality of the
objects of the world. Russell and Moore wanted to prove that the fact is in general independent of experience. (1) Although both of them were in agreement, they differed on two important counts. Russell was interested in the rejection of Bradley's monism while Moore was interested in the rejection of Idealism. Both these doctrines i.e. monism and idealism were closely connected through the doctrine of the theory of Internal Relation which Bradley had distilled out of the Philosophy of Hegel. The doctrine of Internal Relation was based upon the view that every relation between two terms expresses, primarily, intrinsic properties of the two terms and, in ultimate analysis a property of the whole which the two compose. Russell admits that in case of some relations this view is possible but not in the case of relational facts of a more abstract kind e.g. The relation of earlier and later. Bradley's theory of Internal Relations did not even refer to this type of relations. The possibility of mathematics and by implication that of science rested on the recognition of the relation of such types. Russell called such relations i.e. the relation of earlier and later; assymetrical relation or the relations which, 'If they hold between A and B do not hold between B and A'. Assymetrical relations according to Russell are essential in most parts of mathematics and if the theory of Internal Relation is accepted as valid it would demostrate the impossibility of both, mathematics as well as natural sciences. (2)

1. See B. Russell. My Philosophical development
2. See I bid Page 55
Russell and Moore wanted to oppose Idealism somehow because the idealistic doctrine of Internal Relation led to monism which does away with all relations whatsoever and consequently delivers a death blow to all forms of pluralism. Russell calls his view, 'The doctrine of External Relation'.

2. The Theory of External Relation:

Russell traced the roots of his theory of external relation in the current atomism in physics and monadology of Leibnitz combined both of these in inspiring his theory of logical atomism in which the atomic facts, of which the world was composed were designed after the pattern of points of space and instants of time. Newtonian physics here loomed large. The atomic facts were considered independent. They were externally related in the sense that the facts were incapable of being mentioned without it being mentioned along with other facts. This means that the atomic facts were required to be related and this relation cannot be the idealists' internal relation in which the parts were organically interrelated and hence they were not independent. Infact, the doctrine of Internal Relation presupposed monism which does not admit any other entity outside itself. The doctrine of Internal Relation was deduced from one central logical doctrine according to which 'every relation is grounded in the nature of the related terms'.
He calls this the axiom of Internal Relation. It follows at once from this axiom that the whole of reality or of truth must be significant whole. For each part will have a nature which exhibits its relation to every other part and to the whole; hence if the nature of any one part were completely known, the nature of the whole and every other part would also be completely known, that would involve knowledge of its relation to each part, and therefore of the relation of each part to each other part. It is also evident that, if reality or truth is a significant whole, the axiom of Internal Relation must be true. The axiom is equivalent to the monistic theory of truth. (3)

3. Russell's Criticism of Theory of Internal Relation:

(i) While criticising the theory of Internal relations, Russell says that it follows from the axiom that nothing can be considered true except in the relation to the whole. Nothing quite true can be said about A or B without taking account of the whole universe and what is said about A and B would be the same as what would have been said about anything else, since the nature of different things must, like the nature of Leibnitz's monads, all express the same system of relations. If we considered more closely the meaning of the axiom of Internal Relation and the grounds for
and against it, we would come to know that according to it, the nature of the terms or of the whole which they compose as well as the relation which they hold will have a ground in the nature of the terms. Idealists generally tend to identify a proposition with its consequences. Thus the idealist view of Internal Relation leads to the view that there are no relations at all. Bradley has already affirmed this. The denial of relations among objects of the world amounts to the denial of the multiplicity and difference as also the denial of the relation of diversity, for if there are two things which are diverse, it is impossible to reduce this diversity to adjectives like A and B.

(ii) The axiom of Internal Relations is equivalent to the assumption that every proposition has one subject and one predicate. A proposition which asserts a relation must always be reduced to a subject-predicate type of proposition unless otherwise the sentence of ordinary discourse is so reduced, it cannot be logically considered as meaningful proposition. Aristotle therefore defines a proposition as a statement of relation between subject and the predicate in which the predicate is either affirmed or denied of the subject. Proceeding in this way to the larger and larger wholes, says Bradley, we gradually correct our first crude abstract
judgements and approximate more and more to the one truth about the whole. The final truth must consist of a proposition with one subject namely the whole, and one predicate. Even at this stage, says Russell, the distinction between the subject and the predicate remains in tact. The best way according to Bradley is to abridge the gulf between the two by an, intellectual institution. This final intellectual institution, says Bradley, is not intellec-
tually corrigible for even absolute truth persists in being not quite true. (5)

(iii) Even the law of sufficient reason implies that, nothing can be a just brute fact, but must have some reason for being, thus and not otherwise. Bradley contents that the terms from their own inner nature donot enter into the relation, the relation seems arbitrarily made. (6) If any form of the law of sufficient reason is relevant, says Russell, it is rather to be discovered by examining one of the grounds in favour of the axiom of relation, namely, that related terms cannot but be related as they are.

(5) I... Bid Page 544
(6) I... Bid Page 375
(iv) The axiom of Internal Relations, says Russell is incompatible with all complexity. It leads to a rigid monism. It implies that there is only one thing and only one proposition which attributes a predicate to a subject. But this one proposition is also not quite true because it involves distinguishing the predicate from the subject. A difficulty, therefore, arises with regard to the predication which involves the difference of the predicate from the subject. If the predicate is not distinct from the subject, there cannot, even be a false proposition attributed to one predicate to one subject. We shall have to suppose, that the predication does not involve difference of the predicate is identical with the one subject. It is essential for the philosophy of Bradley to deny absolute identity and maintain, 'Identity in difference'. The apparent multiplicity of the real world cannot otherwise be explicable. The doctrine of 'Identity in difference' is impossible, if we adhere to the strict monism.

Russell contended, from all this that, Identity in difference disappears: there is identity and there is difference. Every complex may have some elements identical and some different we cannot say of any pair of objects that they are both identical and different, 'In a sense' for this sense is something which is vitally necessary and remains undefined says Russell, that we have
world of many things, with relations which are not to be deduced from a sound nature or essence of the related things. The objects of the world are complexes composed of related simple things and their analysis is no longer confronted at every step by endless regress as Bradley assumed.

4. **Logical Atomism of Russell**:

Russell was highly influenced by current atomism in physics and the monadology of Leibnitz. Both of these combined in inspiring his theory of logical atomism in which the atomic facts of which the world was composed were designated after the pattern of points of space and instants of time. Newtonian physics here loomed large. The atomic facts were considered independent. They were externally related in the sense that no fact was capable of being mentioned without it being mentioned along with other facts. This means that the atomic facts were required to be related and this relation can not be an idealist's internal relation in which the parts were organically inter related and hence they were not independent. In fact, the doctrine of internal relation presupposed monism which does not admit of any other entity outside itself.

With a view of defining atomism the neo-realists were in search of a theory of relation which did not belittle the inde-
pendente of the object even when it was related to its subject. They attempted to maintain the independence of the object through their new interpretation of the term, 'relation' according to which atomic facts even though related were independent in the sense that an atomic fact can be mentioned without at the same time making any reference to other atomic facts, and this they labelled as their theory of external relation. The theory of external relation was a new innovation in the service of their theory of atomism. They maintained that as there are atomic facts in the physical world, so there are logical atomic facts and both of these have something in common. The logical facts are elementary propositions. Russell and other - Wittgensteinians maintained that the traditional logic did not sufficiently analyse the constituents of their theory of propositions and hence they were led to the theory of internal relation which consequently led to monism.

5. Transformation of Traditional Logic:

According to Russell the theory of Internal relation assumed that every proposition has one subject and one predicate. A proposition is a statement of relation of the predicate term with the subject term. It was also assumed that every relation is grounded in the nature of the related terms. This led to the doctrine of a reality in which the objects were internally related as the terms
of a compact system which stood as the absolute of the idealist. The idealist accordingly maintained that if the nature of any part of the whole thus constituted is known, the nature of the whole as well as every other part would be completely known by implication. Anything which did not have any relation with other parts or with the whole was declared unreal by the idealists. This view led the idealist to the conclusion that there are no relations.

Russell located the inconsistency in the idealist picture of reality in their theory of internal relation and sought to transform the traditional logic from the point of view of the contrary assumption i.e. the assumption of the reality of external world and the reality of external relation. He criticised traditional logic on the ground that it was not sufficiently analytical as it presumed only the subject-predicate relation in a proposition and did not go beyond it.

With a view to transform traditional logic Russell presented a new theory of propositions which started with subjectless proposition. We can understand reason behind it. He had a prejudice against the idealist's subsumption of the world of realities to a subject or self consciousness. If he were free from such a prejudice he could or well have started with a predicateless
proposition. He maintained that propositions like, "Hurrah", 'oh', 'Look', etc. have no subject at all. In what sense such propositions have no subject - no logical subject - is a matter of controversy because the distinction between, 'a grammatical subject' and 'a logical subject' - is not very clear. Russell started with subjectless proposition because, perhaps, when there is nothing to be predicated of, there cannot be the possibility of a proposition. So also will be the case if there is no subject, for in a proposition, something is predicated of something else. The constituents of a proposition must somehow be related. In a subjectless proposition, there is predication only and therefore subjectless proposition is not a proposition proper because it is not a statement of relation. As such a subjectless proposition is meaningless because a statement of relation must have at least two constituents.

Following atomism, Russell describes his subjectless proposition as complex facts with which starts the process of analysis. His criticism of subject-predicate type of propositions and consequent reduction of this type of propositions to conjunction, implication, alteration and disjunctive etc. is devised to cater to the needs of his thesis of maintaining logical atomism. Russell believed that the grammatical form of proposition may misrepresent its logical form. This is amply born out in the case
of the use of quantifier like 'for all value of X' or 'there is an X such that .....' in which the logical form of a proposition which states about, 'all', 'every', etc. is distorted. From a strict pluralistic point of view, it is not warranted to do. He maintains that the truth or the falsity of the molecular proposition like '(X) (F x ∨ G x)' is known once we know the truth or falsity of the atomic facts or propositions out of which they are constructed.

6. Mathematical Standpoint in Logic:

Russell's doctrine of external relations led him to relate mathematics to logic because assymatrical relations were of prime importance to arithmetic. The doctrine of internal relation did not even refer to or give proper weight to such assymatrical relations. The logical apparatus based simply on intension of the terms was not found appropriate by him to embody mathematical results. He failed to see as to why logical apparatus should embody mathematical results. Latter on, he admitted that mathematics was a child of logic and realised that logic need not admit of the limitation imposed upon it by mathematics, (7) formerly he believed that mathematics was rather more general than logic and that logic rested on mathematics.

7. See Russell Introduction to Mathematical Philosophy
7. **Theory of Class Relationship**

Following mathematics and with a view to transforming traditional logic on a mathematical pattern he laid down a theory of propositions which started with subjectless proposition. From proposition treated strictly as statement relating classes, he went on to propositional functions and to class relationship. His theory of types, theory of description and the theory of structure are the theories mainly devised to cater to the needs of maintaining the thesis that (i) The proposition is a statement expressing class relationship, and (ii) proposition as statement of the relations of classes embody within the assymetrical relations which, if they hold between A and B, do not hold between B and A.

Russell, in working out his theory of external relation used through out 'Principia Mathematica' the concept of class without defining the concept. He struggled hard to disolve to arrive at the correct view of class based upon his theory of external relation but he failed miserably, and had to declare 'Class' as a logical fiction.

He admitted his failure to define the class and said that though he used the notion of 'Class' he has not as yet defined what 'Class' means exactly.\(^{(8)}\)

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8. B. Russell My Philosophical Development Page 56-57
Classes and relations are therefore, logical fictions devised to carry out analysis.

In his treatment of the definition of natural numbers he treated numbers as classes and defined one with its relation to the other, without defining the notion of a class. He sought to define the natural numbers in terms of classes based upon the theory of external relation and this process led him to define finite numbers in terms of the infinite. All whole numbers except zero thus defined in terms of class relationship, were found to contain relations which cannot be determined on the strength of extension but must rest upon intension.

He found that it is the intension and not the extension of the terms involved beyond simple enumeration, which makes their knowledge possible without knowing even the specific instances of the kind, which makes their knowledge possible.

This class of totality of possible values of functions or logical objects or propositions was found to be a greater class than the total number of objects which it stood. Russell was, therefore, led to conclude that classes are mere logical expressions convenient in discourse. But the difficulty was not over. He admitted that all relations are based upon, 'similarity' and classes are based upon not enumeration or extension but intension.
8. **Definition of Class Based Upon Intension:**

The definition of class is based upon the theory of external relation or extension, leads ultimately to regressus ad infinitum while, if the same is based upon intension, it limits the class and makes the definition of class possible. He found that what gives unity to a class is not extension but intension which limits the class. The definition of class based upon intension allows us to infer that whatever is true of the whole is equally true of each of one of the constituents of the whole and this makes knowledge possible. The intension is common and peculiar to all of its members and this applies equally to finite as well as infinite classes whose members can not be enumerated by the method of simple enumeration. Definition of a class based upon an intension does not require any reference to any member of the class. It simply takes into consideration the differentia of the genus to be defined and hence no enumeration is required.

9. **The Problem of Universalisation:**

The question of definition of terms either as classes or as members of such classes leads to the problem of induction or technically the question of pervasion. We should take up this problem in the second part of this thesis. When we shall take account of [Navya Nyāya or Neo-realistic theory of universalisation.](#)
Even in the case of mathematical logic to which we shall now devote ourselves in the next chapter, this universalisation is carried out through the use of quantifiers. All statements in which quantifiers are used, are statements about, 'All', entities including individuals, classes and other statements.