Chapter III

The Problems of Causation in Contemporary Western Philosophy

In Chapter II, the thesis shows us how the notion of causality in Western philosophy has developed. In the present chapter, I shall clarify and analyse contemporary problems of causality. The problems of causation I shall explore here are the following:

3.1 Causality and temporal precedence.

3.2.1 Cause as necessary connection.

3.2.2 Cause as constant conjunction.

3.2.3 Cause as sufficient condition.

3.2.4 Cause as INUS condition.

3.2.5 Cause as power.

3.2.6 Cause as recipe.

3.2.7 Cause as probability.

3.3 Causality as unanalysable primitive category.

Let us begin with the problem of causality and temporal precedence.

3.1 Causality and Temporal Precedence.

Since in our daily life all known things are in time, we often observe one event occurring before another; for instance, a lightning flash is followed by a thunder clap, hot weather comes before perspiring, after putting heat to water it boils, Monday precedes Tuesday, a day is followed by a night, shortly after a cock crows the sun rises, and so forth. In the interest of brevity, I shall call the event which comes before A and that which follows B. In some cases, every time we observe an A, we also see a B. Without A's occurring, B never comes into being (at least within our experience). And it is the fact that B never precedes A (at least within our experience). We, therefore, believe that we have good reason to say A precedes B and in such a way that A is causally connected to B, and begin to say 'A causes B'. Accordingly, it may seem natural to conclude that in every case of causality the cause must precede the effect in time. That is, temporal occurrence of the cause before the effect is a necessary condition for the causal relation to hold.

A. J. Ayer is one of the contemporary philosophers who has advocated this thesis. Let us consider his view first.

In The Problem of Knowledge, Chapter 4, vii, which is entitled 'Why cannot cause succeed effect?' Ayer writes:

It is, indeed, necessarily true. The use of the word 'cause' is such that if one event is said to be the cause of another, it is implied that it precedes . . . the event which is said to be the effect.[1]

To justify his claim, Ayer further claims that we cannot conceive how something which does not yet exist can already be exerting its influence.

However, the temporal succession view appears to have problems. According to this thesis, 'A causes B' implies, among other things, 'A precedes B'. But it is the fact that there are putative examples of contemporaneous causal connection. In addition, Aristotle's final cause, if it be taken seriously, might be raised as an objection to this view.

Let us take up the simultaneous and causal connection between A and B first. And, to give an illustration of this, I would like to cite Gasking's sample — a bar of iron glowing. To argue against the temporal precedence view, Gasking says:

'It is glowing because it is at a temperature of 1,000°C. or more.' The glowing, B, is caused by the high temperature, A. And here the B that is caused is not an event subsequent to the cause A. Iron reaches

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[1]A. J. Ayer, The Problem of Knowledge (Harmondsworth: Penguin Books Ltd., 1956), pp. 170-171.

1,000°C. and begins glowing at the same instant.[2]

Or again, consider Taylor's objection in The Metaphysics of Causation. There, Taylor has argued that there are many clear-examples of causal connection wherein those conditions that constitute the cause and those that constitute the effect are entirely contemporaneous, neither occurring before the other. As an illustration of his objection, Taylor examplifies "a locomotive that is pulling a caboose."[3] He says, in respect of the motion of the locomotive and the caboose and under the circumstances of the two being connected in such a way that the former cannot move without the latter moving with it, that there is no temporal gap between the former's motion and the latter's motion. Thus, obviously, both motions are contemporaneous.

Further, consider Taylor's second example, that of 'one's hand and a pencil one is holding while writing. Ignoring the question of what causes the hand to move, Taylor says: "It is surely true . . . that the motion of the pencil is

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[2]Douglas Gasking, "Causation and Recipes," in Human Understanding, ed. Sesonke and Flemming (California: Wadsworth Publishing Co., 1966), p. 60.

[3]Richard Taylor, "The Metaphysics of Causation," in Causation and Conditionals, ed. Ernest Sosa (Oxford: Oxford University Press, 1975), p. 39.

caused by the motion of the hand . . . And, manifestly both motions are contemporaneous;"[4]

But C. J. Ducasse disagrees with Gasking and Taylor. According to him, what is called a cause will precede what is called an effect. His strategy is to treat causality in such a way that the above are not examples of causal connections. In his On the Nature and the Observability of the Causal Relation, Ducasse hypothetically defines the notion of causality, recognizing that the definition given is not true to some of the ways in which the word 'cause' is actually used, as follows:

> Considering two changes, C and K . . . the change C is said to have been sufficient . . . to have caused, the change K, if:
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> 1. The change C occurred during a time and through a space terminating at the instant I at the surface S.
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> 2. The change K occurred during a time and through a space beginning at the instant I at the surface S.
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> 3. No change other than C occurred during the time and through the space of C, and no change other than K

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[4]Ibid., p. 40.

during the time and through the space of K.[5]

Ignoring (3), it is noticed that the account in (1) and (2) implies a cause precedes its effect.

Yet, Ducasse's definition of cause is not adequate. For, many changes like C's occur before the changes like K's but without any causal relation between them. As an example of this, let us consider a succession of a day and a night as we experience in our every day life. (Ignoring the fact that we cannot divide a day and a night into parts. For, they shift together successively.) Suppose C representing a day, K representing a night. It is manifest that according to (1) a day occurred during a time and through a space terminating at the instant I and at the surface S, and according to (2) a night occurred during a time and through a space beginning at the instant I at the surface S, but no one says a day causes a night.

The other objection we may bring against Ducasse's point of view proceeds like this. According to Ducasse, before a cause acheives its effect, it has to last for some time, Take for instance, water's boiling. Water is not
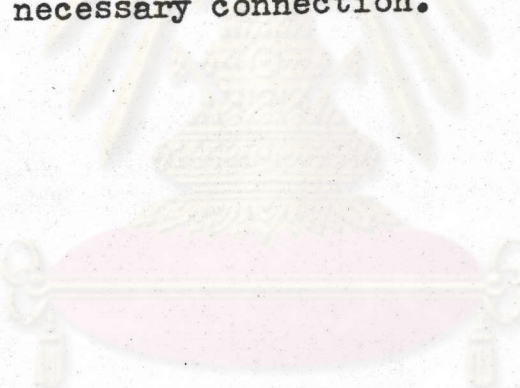
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[5]C. J. Ducasse, "On the Nature and the Observability of the Causal Relation," in Causation and Conditionals, ed. Ernest Sosa (Oxford: Oxford University Press, 1975), p. 116.

caused to boil by first being heated. Rather, it boils as soon as it is heated to a certain point. And again cause and effect are simultaneous. There is no gap in time at all. One might say that water does offer some resistance to the heat, and that the heat must overcome this resistance before boiling occurs. But then we need only add that the heat is no cause of the water's boiling until that resistance is overcome.

The last objection to the temporal succession view, I think, though its significance is somewhat unclear, centers on Aristotle's concept of final cause. When one is asked 'why are you performing an exercise?' He may reply 'because I need health.' According to Aristotle's final cause, a goal is considered to be a cause of human action and natural phenomena. Viewing from this, 'being healthy in the future' causes his performing an exercise. Yet this claim can be rejected by saying that it is not 'being healthy in the future' that causes his performing an exercise, but 'desire of being healthy in the future' does. These two expressions are obviously different in meaning. The former refers to a state or condition of body and mind which he will possess after his performing an exercise, whereas the latter refers to a state of mind arises prior to his performing an exercise. Thus, according to the opponents of Aristotle's final cause, the cause of his performing an exercise — desire of being healthy in the future, still occurs prior to the effect — his performing an exercise.

Whether Aristotle is right or wrong on this point
I shall not analyse his view here. This is because my
purpose is only to show that temporal priority may not
be a necessary condition for the causal relation.

At this stage, we can conclude that the
distinction between a cause and its effect does not
<u>always</u> include a temporal difference with the cause
earlier than the effect. Or, perhaps the temporal
condition is a negative one, i.e. the cause may not
antedate the effect. Now let us proceed to the main views
of causation in contemporary philosophy. That is the
problem of necessary connection.

3.2.1 Cause as Necessary Connection.

In modern times, the association between causality and necessity could be traced back to Spinoza, "Given a determinate cause, the effect follows of NECESSITY, and without its cause, no effect follows."[6] But as a matter of fact, the conviction of a relation of necessity between a cause and its effect was held by all intuitionists; e.g. Descartes, Kant and the Scholastics. Yet, this thesis was rejected by Hume. Hume denied that such connection exists between a thing that is called a cause and a thing that is called an effect. Hume regards a necessary connection as a reflection within our own minds. That is to say, after becoming accustomed to an event A constantly conjoined by an event B, the association thus formulated in our minds. It is obvious that, according to Hume, the necessary connection is nothing but merely 'a customary transition of the imagination' in men's minds.

However, the theory of necessary connection has been defended by some contemporary philosophers. Among those who advocate this theses, Alfred Cyril Ewing is the

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[6] Benedict De Spinoza, Ethics, Book I, Axiom III, cited by G. E. M. Anscombe in "Causality and Determination," in Causation and Conditionals, ed. Ernest Sosa (Oxford: Oxford University Press, 1975), p. 64.

most outstanding. To defend the necessary connection

theory he says in A Defense of Causality as follows:

> If the regularity view be the final truth the world
> of events in time is not any sort of rational system,
> but a mere assemblage of intrinsically unconnected
> facts.

> This view of causation I shall reject. It amounts
> really to a denial of causation, and I cannot bring
> myself to disbelieve that events have causes, though
> I may perhaps be hard put to it to justify the
> belief.[7]

In an attempt to justify his claim, Ewing writes

in his Idealism thus:

> Other factors besides regular sequence or
> concomitance which are frequently supposed to be
> present in cases of causation by people who do not
> hold the regularity view are the following: (1) The
> effect is held to be continuous with, dependent on
> something in the cause so that the two do not merely
> happen in regular succession but are intrinsically
> connected with each other. (2) The cause is held to
> explain the effect, to answer not only the question —
> how? — but the question — why? so that the demand
> for causes is primarily a demand for reasons, which
> implies that there is a logical connection between
> the two like that of ground and consequent such that
> the cause is at least part of the reason for the
> effect and helps to make the occurrence of the latter
> intelligible. (3) The cause is held actively to
> produce or determine the effect in a sense in which
> the effect cannot be said to produce or determine
> the cause. (4) Causality involves necessity. If
> there is a causal law connecting A and B, it is not

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[7]A. C. Ewing, "A Defense of Causality," in

Metaphysics, ed. W. E. Kennick and Morris Lazerowitz

(New Jersey: Prentice-Hall, Inc., 1966), p. 259.

only the case that B does follow A, but it must
follow A.[8]

Keeping in mind the four aspects of causation
Ewing mentioned above, compared to Hume's view, we can
see the two different grounds of thought on causality.
The former's thought rests on 'the common-sense ground',
whereas the latter's rests on 'the empirical assumption'.
Consequently, the outputs of their thought are different.
To clarify this statement, let us consider the
proposition 'A shoots B and a minute after that B is
dead.' According to Ewing, our common sense tells us
that there must be an intrinsic connection between B's
death and A's shooting. When compared to the proposition
'I drink tea at 7 a.m. and the President of America gets
into his car at 7.01 a.m.', obviously these two
propositions are different, i.e. in the latter, common
sense tells us there is no intrinsic connection, whereas
in the former common sense tells us there is.

But according to Hume who rests on the empirical
assumption, these two propositions are not different in
respect of connection, i.e. what we experience is that
after A's shooting, B's death follows, and that after my
drinking tea the President of America's getting into his

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[8] A. C. Ewing, Idealism (London: Methuen & Co.,
1974), pp. 154-155.

car follows. With an empirical ground, there is nothing more than this. With respect to an intrinsic connection in the first proposition as someone believes there is, Hume explains that it is due to a custom or a habit, i.e. after a repetition of similar shootings, the mind is carried by habit to expect similar deaths. Nothing farther is in the case. Let us now proceed to this difficulty.

Before setting forth objections to this theory, I would like to summarize major characteristics of the necessary connection theses first.

As previously noted, it is often declared or evidently assumed that causality is some kind of necessary connection. Its significant nature are fourfold: (1) To say that 'A is necessarily connected to B' implies that there is an intrinsic connection between A and B. (2) Such a connection is a logical one. (3) To believe that A is necessarily connected to B implies that A can produce B. (4) If B must necessarily follow A, this implies that there is a causal law connecting A and B. And that kind of law must be universal.

Now let us analyse the four abovementioned major features of the necessary connection view respectively.

Objections to an intrinsic connection between A and B:

According to Ewing, there is such a connection in a causal relation between A and B. To defend his view, Ewing contends thus:

> The regularity view specially associated with Hume and Earl Russell, has become very popular today . . . On this view causality does not involve any connection whatever between cause and effect but that of regular sequence or concomitance. Earl Russell's statement may sound fairly innocent, but it carries with it . . . the startling implication that if, for instance, A shoots B, the shot has no more intrinsic connection with B's death than has my drinking tea or an earthquake at the other end of the world. [9]

From the above quotation, Ewing implicitly says that there must be an intrinsic connection between A's shooting and B's death. If asked for the ground for his belief, the answer is common-sense. Asking again whether common-sense is the best ground for finding out a final truth on causality. The response is NO. For, quite often our common-sense fails to tell the truth; e.g. with common-sense we believe that a man lying in a buried coffin without any food or water for a month must die. But, for some Indian yogis, they can survive. Saying like this, I do not pretend that Ewing's view is entirely wrong, but want to maintain that common-sense may seem to be an inadequate justification for a notion of causality.

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[9] Ibid., p. 153

The next aspect of the necessary connection theory
I shall explore is the purported logical relation between
a cause and its effect. On this Ewing said that the 'why'
question implied a logical connection between cause and
effect.

Before proceeding in detail, I would like to
disclaim here that I do not mean that Ewing is wrong on
the point of 'logical connection between cause and effect'
but merely want to show that the advocates of Hume's
constant conjunction theory might seem to claim without
any contradiction that there is no necessary connection
between what is called a cause and what is called its
effects, by quoting Hume's words as follow:

> The contrary of every matter of fact is still possible;
> because it can never imply a contradiction, and is
> conceived by the mind with the same facility and
> distinctness, as if ever so conformable to reality.
> 'That the sun will not rise tomorrow' is no less
> intelligible a proposition, and implies no more
> contradiction than the affirmation, 'that it will
> rise'.10

Consequently, Humeans hold that to say that an
event A causes an event B is to say only that, in our
experience, events similar to A are regularly followed by
events similar to B. And they claim that their saying is

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10 Hume, _An Enquiry Concerning Human
Understanding_, p. 624

logically possible, nothing self-contradictory. When the necessitarians are entitled to claim their soundness, why shouldn't those of the regularity theory be so entitled as well? The Humeans may ask like this.

Anyway, in the case above, the point in question is concerned with the interpretation of the terms 'necessary' and 'logical'. According to the Humeans, the notion of 'necessity' is analytic. It is thus obvious that Humeans' logical possibility is narrow. It is merely limited within the context of analytic propositions. But it is the fact that after Kant many believe that the idea of 'necessity' also extends to synthetic propositions.

At this stage, we can see that Humeans and necessitarians are working from different presuppositions in the case of 'necessity'.

The third feature of cause, as Ewing claimed, inherent with the notion of cause as necessary connection is that the cause can 'produce' or determine the effect. This claim leads to the problem of circularity in defining the word 'cause.' Let us see how the difficulty develops itself if we define a cause as what produces something or brings about something.

The above definition of cause implies that the occurrence of the cause compels the occurrence of the effect. Or in other words, the cause possesses some power to bring about the effect. In short if the cause occurs,

it is necessary that the effect must follow.

At present I shall consider the word 'produce'.
Ewing applied in his definition of cause. With regard to
the implication of cause as power, I shall take it up
later on.

According to Ewing, to cause something is to
produce something. Conversely , to produce something
is also to cause something to happen. Obviously, these two
terms are synonymous. Therefore, to say that A produces B
manifestly only means that A causes B. And we are back
again where we have started. This renders the analysis of
cause empty or vague. As Hume says:

> Shou'd any one . . . pretend to define a cause, by
> saying it is something productive of another, 'tis
> evident he wou'd say nothing. For what does he mean
> by 'production?' Can he give any definition of it,
> that will not be the same with that of causation? If
> he can; I desire it may be produc'd. If he cannot; he
> here runs in a circle, and gives a synonimous term
> instead of a definition.[11]

Now we come to the fourth feature of cause
described by Ewing. Repeatedly, Ewing claims that
causality involves necessity, and that if there is a
causal law connecting A and B, it is not only the case
that B does follow A, but it must follow A. The problem

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[11] Hume, A Treatise of Human Nature, pp. 124-125.

I shall take up here concerns 'the causal law.'

Ewing, like other common-sense philosophers, believes that causal relation between what is called a cause (A) and what is called its effect (B) must have no exceptions. That is to say, A is necessarily followed by B. This line of thought corresponds with the old view of causal law. But Russel rejects it. According to him, causal law is probable, not necessary. That is to say there is room in causal law for exceptions.

Russell, like Hume, holds that men's formulation of causal law derives from experience. To back his claim Russell writes:

> Experience has shown us that . . . the frequent repetion of some uniform succession or coexistence has been a cause of our expecting the same succession or coexistence on the next occasion.[12]

And, these crude expectations of uniformity in nature, Russell maintains, are liable to be misleading. As an example of this, I refer to Marcus Long's story of the chicken which is considered as a good parody of the old view of causal law. Long's story is as follows:

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[12] Bertrand Russell, The Problems of Philosophy (London: Oxford University Press, 1952), p. 62.

A little chicken sitting comfortably in the henhouse
without a care in the world was startled by the
appearance of a man and ran away. When it came back
the man was gone but there was some corn lying on
the ground. Having a degree of scientific curiosity
the chicken began to watch and it soon noticed that
when the man appeared the corn appeared. It did not
want to commit itself to any theory in a hurry and
watched the sequence 999 times. There were no
exceptions to the rule that the appearance of the man
meant food, so it swallowed its skepticism and
decided there must be a necessary connection between
the man and the corn. In the language of causality
this meant that whenever the man appeared the corn
'must' appear. On the basis of this conclusion it
went to meet the man on his thousandth appearance to
thank him for his kindness and 'had its neck wrung'.[13]

From the foregoing story, manifestly, the causal

law differs from the uniformity of nature. It is the fact

that we formulated the causal law after having observed

uniformities in nature. Had we never observed any

uniformities of nature, the causal law would never have

occurred to us. This implies that the causal principle

is nothing rather than a psychological outcome of the

observation of uniformity, as Russell noted thus:

The mere fact that something has happened a certain
number of times causes animals and men to expect that
it will happen again. Thus our instincts certainly
cause us to believe that the sun will rise
to-morrow . . .[14]

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[13] R. G. H. Siu, The Tao of Science (Massachusetts:
The M.I.T. Press, 1957), p. 29, quoting Marcus Long.

[14] Russell, The Problem of Philosophy, p. 63

In so speaking, Russell explicitly supports Hume's assertion that it is custom or habit which causes us to form causal laws. According to Hume, "All inferences from experience . . . are effects of custom, not reasoning."[15]

At this stage I shall conclude that, by means of the empirical ground, Russell and the advocates of Hume's regularity view admit that causal laws only render probability, not necessity.

There remains a point of view likely against the common-senses' causal law. This view holds that the causal law is neither true nor false. For it is not a proposition at all. It is neither a posteriori nor a priori, but:

> It is more like the 'rule' of a game. The rule of baseball 'The batter shall not have more than three strikes' is neither true nor false. It is true that there exists such a rule in baseball, but the rule itself is neither true nor false; it merely prescribes how the game of baseball is to be played . . . likewise, the Causal Principle functions as a rule of

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[15]Hume, An Enquiry Concerning Human Understanding, p. 634.

the scientific game. . .[16]

If we adopt it, we are spurred on to find causes;
if not we would give up. Viewed from this point, the
causal law likely "functions as a suggestion: Let's find
more uniformities."[17]

Thus, the necessary connection theorists' conclusion
that 'If there is a causal law , it is not only the case
that B does follow A, but it must follow A' is too much.
For, according to the new interpretation, the causal
principle functions only as a rule. We have no right to
conclude that the event B must follow the event A without
any exception. Let us consider, for instance, the volleyball
rules. One of them says: No players may touch the net.
This does not mean that, in each match, the players
never touch the net at all. The rule only prescribes
'Never touch the net.' Obviously, the rule is one thing
and 'touching the net' is the other. We have no right to
assert that the actual facts must necessarily follow the
rule.

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[16]Hospers, An Introduction to Philosophical
Analysis, p. 317.

[17]Ibid.

We can conclude here that the necessary connection theorists' assumption that 'If there is a causal law, B must follow A' is of small weight. For now, there are at least three different interpretations of the causal law; namely, (1) The a priori interpretation. (2) The empirical interpretation. (3) The new interpretation. And we do not yet know which one is true.

Let us now pass to the other problem of causation in contemporary philosophy. That is the problem of cause as constant conjunction. Before inquiring into this problem, I would like to sum up the account of this thesis first.

3.2.2 Cause as Constant Conjunction.

According to this thesis, 'A causes B' means A is constantly conjoined by B, or in other words A is regularly followed by B. That is, things of the first sort have been observed to be conjoined by things of the second sort regularly. Under these conditions, we form the habit of expecting the second whenever the first occurs. It is this fact, David Hume believes, which explains our conviction that A causes B. Hume contends that, as far as our sense perception tells us, no necessity lies in the objective facts, but, rather, in the mind of the observer. It is manifest that , according to the constant conjunction theory or the regularity thesis, the notion of cause is subjective. According to the necessary

connection view, the concept of causality is objective.

However, the necessitarian account of causality, just mentioned, Hume says, is drawn from circumstances forein to sense perception of the cause. Hume further contends that we cannot remedy that inconvenience or attain any more perfect definition. Thus speaking does not mean that Hume denies there is necessary connection between what is called `a cause` and what is called `an effect`, rather, so far as our sense perception tells us no necessity lies in the objective facts.

Some of the contemporary philosophers — both the advocates and the opponents of Hume, partially misinterpreted Hume's analysis of causality by saying that, according to Hume, cause is something not more than a constant conjunction, or in other words, there is no necessary connection between cause and effect. One reason in so speaking, I think, is that they only consider Hume's crude definitions of cause.(Hume defines causation without reference to necessitation.) But, in fact, before defining a cause, Hume contends that his definitions of cause are imperfect. (See p. 24 last paragraph) From this statement, Hume likely thinks of causality more than a constant conjunction.

Among the contemporary philosophers who advocate the constant conjunction theory, Moritz Schlick is regarded as an outstanding Humean. To justify Hume's

view of cause, he says:

> The difference between a mere temporal sequence and a causal sequence is the regularity, the uniformity of the latter. If C is regularly followed by E, then C is the cause of E; if E only 'happen' to follow C now and then, the sequence is called mere chance. And since (as we just saw) the observation of the regulaity was the only thing that was done, it was necessarily the only reason for speaking of cause and effect, it was the sufficient reason. The word 'cause' as used in everyday life, implies nothing but regularity of sequence because nothing else is used to verify the propositions in which it occurs.[18]

Obviously, the key word in Schlick's analysis of cause is 'regularity'. He hypothetically claims that if C is regularly followed by E, then C is the cause of E. The simple objection to his analysis of cause is that this makes it impossible to distinguish between causal and accidental sequences of events. Imagine the succession of days and nights. A day is regularly followed by a night. Schlick must therefore admit that a day is the cause of a night. But this is clearly not the case.

Again let us consider Dutoit's counter-example, "two clocks A and B such that when clock A chimes clock

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[18]Moritz Schlick,"Causality in Everyday Life and in Science," quoted by John Hospers, in An Introduction to Philosophical Analysis (New Delhi: Allied Publishers Private Ltd., 1977), pp. 288-289.

B chimes, a micro-second afterwards."[19] This satisfies all that Humeans expect of a causal relation. For the chime of A is invariably followed by the chime of B. But again this is not the case.

Manifestly, to argue against Schlick's view, it is not difficult for us to cite clear counter-examples wherein A is regularly followed by B, but A never causes B. It appears, then, that there is something wrong with Schlick's analysis of cause.

Another objection to the regularity view is proposed by A. C. Ewing. Ewing admits that "It may. . .be . . . true that causation prevails in the physical world in the sense merely of regularity. . ."[20]But, in the world of action, causality is something more than regularity. "To say that such and such an action is due, e.g. to desire for power as a motive, is more than to say that such actions generally are preceded by desire for

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[19]Basil Du Toit, "Causation," in Basic Concepts in Philosophy, ed. Zak Van Straaten (Cape Town: Oxford University Press, 1981), p. 20.

[20]A. C. Ewing, Idealism (London: Methuen & Co., 1974), p. 164.

power. . ."[21]

Ewing further says that "If the regularity theory be true all practical wisdom, which presupposes throughout that I can do things by willing them and can act from motives, becomes worthless."[22]

In addition, with regard to memory, Ewing asserts that:

> Memory itself,. . . .presupposes causality in a sense other than any admitted by the regularity view.
> If we are to be aware of the past in memory we must think of the past as determining or at least causally affecting our present state in remembering it; if our state is not in any degree determined by the past event we have no genuine memory but a fancy or illusion.[23]

It is obvious that Ewing has tried to point out that the regularity view, if tenable at all, is limited to within the physical world. But, in every day life, the notion of causality is also applied to the internal world; viz, volition, desire, memory, belief, and so forth.

In this connection, he finally concludes that:

> Will and motives cause action, that belief . . . does entail a view of causation different from the regularity view, does entail causation in the sense not of regular sequence . . .[24]

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[21]Ibid., p. 162.

[22]Ibid.

[23]Ibid.

[24]Ibid.

Now let us turn to the problem of cause as sufficient condition.

3.2.3 Cause as Sufficient Condition.

According to this thesis, cause is the totality of antecedent conditions which will at once be sufficient for an occurrence of its effect. However, such an analysis presents at least two difficulties — i. no totality of conditions can ever be considered sufficient for the occurrence of any event, and ii. the problem posed by what we may call 'undeterminative sufficiency'.

Now let us begin with the first problem. In many cases, sufficient conditions for producing something are very complex, for instance,

> What is sufficient for the car to function properly? The conditions here are far more numerous: the wheels must be attached, the axles must not be broken, the motor and generator and countless other parts must be functioning properly. . . The list of necessary conditions would run into the thousands.[25]

Or, if taken seriously, it can be said that no totality of conditions can ever be enumerated or considered sufficient for the occurrence of any event, for example, "In the case of preserving bodily health to the age of 100, no complete set of conditions is known."[26]

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[25]Hospers, An Introduction to Philosophical Analysis, pp. 292-293.

[26]Ibid., p. 293

Taylor also agrees with the above objection. He writes:

> . . . no totality of conditions can ever be considered sufficient for the occurrence of any event, such as a match's igniting, for it might not have ignited even in the presence of those conditions — it might suddenly have been made wet, for example, or otherwise been prevented from igniting.[27]

However, Mackie has attempted to defend this thesis by singling out one factor from a set of conditions as the cause and called it 'INUS condition'. I shall explore and analyse Mackie's account of causality separately in the next section.

Now we come to the second problem of the sufficiency thesis; i.e. the problem posed by what we may call 'undeterminative sufficiency'. Taylor offered several examples of such 'undeterminative sufficiency', for instance, a locomotive that is pulling a caboose. On this, Taylor says:

> . . . the motion of the locomotive is sufficient for the motion of the caboose . . . But so also, the motion of the caboose is sufficient for the motion of the locomotive . . .[28]

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[27] Taylor, "Causation, "The Encyclopedia of Philosophy 2, ed. Paul Edwards: 63.

[28] Taylor, "The Metaphysics of Causation," in Causation and Conditionals, ed. Ernest Sosa, p. 30.

Ernest Sosa also agrees with Taylor. As an example of this, Sosa says:

> . . . the position of a table top relative to the floor is caused by the length of the legs that support the top. . . . the length of the legs is . . . sufficient for the position of the top relative to the floor. Unfortunately, the position of the top is also . . . sufficient for the length of the legs.[29]

From the above citation, Sosa wants to show that in some cases the sufficient condition seems to be unconcerned with the notion of causality. To back his claim, he exemplifies the relation between the position of a table top and the length of the table legs. We can say that the length of the legs is sufficient for the position of the top. Thus, according to the Sufficiency Thesis, it is intelligible to say that the length of the legs causes the position of the top. Unfortunately, Sosa says, the position of the top is also sufficient for the length of the legs. Therefore, again according to the Sufficiency Thesis, the position of the top should be said to cause the length of the table legs. But, it seems to be absurd in so saying. For, the length of the table legs is not determined or caused by the position of the table top. Viewed from this case, the Sufficiency Thesis faces with the 'undeterminative sufficiency' problem.

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[29]Ernest Sosa, _Causation and Conditionals_ (Oxford: Oxford University Press, 1975), p. 3.

From two cases above, manifestly, the sufficiency thesis may seem to be defective.

Let us now proceed to Mackie's INUS notion of cause.

3.2.4 Cause as INUS Condition.

Before looking into problems with this theory, I shall summarise the central point of this thesis again.

According to Mackie, if C is a cause of E (on a certain circumstance), then C is an INUS condition of E, i.e. ". . . the so-called cause is . . . an insufficient but necessary part of a condition which is itself unnecessary but sufficient for the result."[30]

Obviously, Mackie attempts to tackle the sufficient condition thesis opponents' accusation that it is impossible to enumerate a genuinely sufficient condition without including the totality of prior state of the universe. To clarify his INUS thesis, Mackie gives as an example 'a short-circuit causes a house's catching fire'.

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[30] J. L. Mackie, "Causes and Conditions," in Causation and Conditionals, ed. Ernest Sosa (Oxford: Oxford University Press, 1975), p. 16.

Before seeing whether his attempt is successful or not, let us restate his definition of cause as follows:

i) Cause (say, A) is an INUS condition.

ii) A is relative to other factors (B, $\bar{C}$) in the sufficient condition for E.

iii) A is insufficient, but necessary for E on that occasion.

iv) $AB\bar{C}$ is sufficient, but unnecessary for E.

To illustrate his notion of cause, Mackie lets A stand for the occurrence of a short-circuit, B for the presence of inflammable material and $\bar{C}$ for the absence of a suitably placed sprinkler. Then the conjunction 'AB$\bar{C}$' represents a minimal sufficient condition of the fire

According to the above interpretion, the following is an explanation.

i) A short-circuit is a cause of the house's catching fire.

ii) A short-circuit is relative to presence of inflammable material and to absence of a suitably placed sprinkler.

iii) A short-circuit is insufficient, but necessary for a house's catching fire. 'Insufficient' because if without B (the presence of inflammable material) and $\bar{C}$ (the absence of a suitably placed

sprinkler), the short-circuit cannot cause the house's catching fire. 'Necessary` because $\overline{B}C$ alone is insufficient for E (the house's catching fire).

At this point, it is manifest that Mackie's account of cause does not differ from Scriven's. (See Scriven's definition of cause on page 64)

iv) The whole set of condition ($AB\overline{C}$) is sufficient, but unnecessary for E. That is the conjunction of A, B, and $\overline{C}$ is a sufficient for E. But 'unnecessary` because $\overline{B}CD$ can be also sufficient for E. (Suppose D represents the overturning of a lighted oil stove.)

Again at this stage, Mackie cannot solve the problem of the plurality of causes which Taylor has raised. Taylor maintained that if events could be produced in a variety of ways, e.g.:

> A match can be ignited by friction, but also by being heated, and perhaps in other ways, too . . . it presents a difficulty for defining causes and effects in terms of necessary and sufficient conditions. If, for example, one claims that a given match's being struck was a causal condition of its igniting and one construes this to mean that it was a necessary condition, then it can be replied that the match could have ignited just as well even if it had not been struck — it might have been thrust into a flame, for instance. Alternatively, it can be claimed that no totality of conditions can ever be considered sufficient for the occurrence of any event, such as a match's igniting, . . .[31]

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[31] Taylor, "Causation," The Encyclopedia of Philosophy 2, ed. Paul Edwards: 63.

To escape from this difficulty, Mackie has dealt with only <u>singular</u> causal statements, e.g. 'This short-circuit caused this fire.' Consequently, his notion of necessary condition is narrower than that of the traditional necessitarians.

With regard to his attempt to tackle the objection that it is impossible to find a genuinely sufficient condition without including the totality of prior state of the universe, Mackie also fails. This is because the case of 'this short-circuit causes this fire' is the simple one. Only three conditions are sufficient for the house's catching fire. "What set of conditions must be fulfilled in order for a person to enjoy a philosophical discussion . . .?"[32] as Hospers asked. "The conditions here are staggeringly complex, and even if we list many items, we probably do not yet have a sufficient condition."[33]

In sum, according to Mackie's INUS theory, the INUS condition is very little different from Scriven's notion of cause. The only difference may be only in 'the name', not in 'the account'.

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[32] Hospers, <u>An Introduction to Philosophical Analysis</u>, p. 293.

[33] Ibid.

When compared with Mill's sufficient condition thesis, the significant difference is that if C is an INUS condition of E, then C is a necessary factor of a condition that is sufficient for E, whereas Mill regards the whole set of conditions as a cause. In other words, Mackie singles out one factor from the totality of the sufficient condition and names it a cause.

Finally, I shall conclude that Mackie's analysis of cause does not go far beyond Mill's and Scriven's. Let us proceed to the next problem of cause in the twentieth century. That is the problem of cause as power.

3.2.5 Cause as Power

As previously noted in Chapter II, Locke regards causality as power. This notion of cause has been widely taken into consideration by the contemporary philosophers; for instance, Richard Taylor, John Hospers, Bertrand Russell, and M.R. Ayers. Let us see how these philosophers have viewed this notion of cause. I shall begin with Richard Taylor's view.

In The Metaphysics of Causation, he attempts to show defects of various analyses, whether in terms, e.g. of temporal precedence or sufficient condition or necessary connexion, and so forth. He finally concludes that "while the concept of causation can perhaps be used to shed light upon other problems or used in the analysis of

other relationships, no other concepts can be used to analyse it."[34] This implies that we may not be able to define the term 'cause' by any non-causal terms, but merely by the synonyms for causation. To back this implication, I shall quote his words as follows:

> A true interpreted statement of the form 'A was the cause of B means . . . that A made B happen by virtue of its power to do so. But this final qualification, alas! renders the whole analysis empty. For to say that A made B happen obviously only means that A caused B, and to say that it did this by virtue of its power to do so obviously means nothing more than that A produced B by virtue of its efficacy as a cause . . . To say of anything, then, that it was the cause of something else, means simply and solely that it was the cause of the thing in question, and there is absolutely no other conceptually clearer way of putting the matter except by the introduction of mere synonyms for causation.[35]

As Taylor has pointed out above, obviously, he admits that there is no other conceptually clearer way of analysing the notion of cause except by the introduction of mere synonyms. That is 'A causes B' means that 'A makes B happen by virtue of its power'. But, the sense of the term 'power' Taylor used in this context is different from that of the term 'power' Locke applied. This is because, according to Locke's analysis of cause, the concept of power is something like the metaphysical entity

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[34] Taylor, "The Metaphysics of Causation," in Causation and Conditionals, ed. Ernest Sosa, p. 43.

[35] Ibid., pp. 42-43.

lying under the notion of causality. (See Chapter II, p.14)
Anyway, to say 'A causes B means that A makes B happen by
virtue of its power' will lead us to the problem of
circularity. As an example to illustrate this problem,
I shall quote Hospers' statement as follows:

> '. . . . To cause something is to produce something, to
> bring about something.' Doubtless this is true, but
> it hardly answer the question: it only shift it: what
> does 'produce' mean? It is roughly synonymous with
> the word 'cause' itself, and thus we are back where
> we started.[36]

According to the above citation, it is obvious
that the usual analysis of cause as power is circular.

Russell is also one of the opponents of this
theory. Let us see what Russell has said of this concept.
He writes:

> All transitive verbs involve the notion of cause as
> activity, and would have to be replaced by some
> cumbrous periphrasis before this notion could be
> eliminated.[37]

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[36]Hospers, An Introduction to Philosophy Analysis,
P. 279.

[37]Bertrand Russell, Our Knowledge of the External
World (London: George Allen & Unwin Ltd., 1922), p. 228.

To clarify his assertion above, Russell exemplifies the statement 'Brutus killed Caesar.' He further explains that:

> We may say that to kill a person is to cause his death intentionally. This means that desire for a person's death causes a certain act, because it is believed that that act will cause the person's death; or more accurately, the desire and the belief jointly cause the act. Brutus desires that Caesar should be dead, and believes that he will be dead if he is stabbed; Brutus therefore stabs him, and the stab causes Caesar's death, as Brutus expected it would. ... We feel that if his desires had been different, the effects which he in fact produced would not have occurred. This is true, and give him a sense of power and freedom.[38]

Furthermore, Russell noted :

> A cause, considered scientifically, has none of that analogy with volition which makes us imagine that the effect is compelled by it. A cause is an event or group of events . . . having a known relation to some other event, called the effect;[39]

Causes in the statements like 'Heat causes iron to glow.', 'This short-circuit causes this fire.', 'Taking arsenic causes a man's death.', and so forth, are what Russell means. And causes in the abovementioned cases never possess any desire or volition. Thus, why do we

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[38]Ibid., pp. 228-229.

[39]Ibid., p. 229.

consider them to be power?

To sum up here, according to Russell, the notion of cause as power cannot be applied to an inanimate thing.

Let us now proceed to another objection proposed by M. R. Ayers. To argue against the idea of cause as power like in the statement 'Fire has power to melt gold.', Ayers says:

> . . . the content of our idea of power . . . extends no further than we can observe. And yet the idea has reference to what we do not observe, a postulated something in agent and patient, lying behind the observed relationship between them.[40]

And, in fact, Ayers says:

> It is not the observation of mere change, but of repeated, regular change, that is said to give us the idea of power. The idea is acquired or suggested to the mind by contact with things that always or nearly always behave observably in a given way in given observable circumstances. It is because we regularly observe the melting of gold whenever it comes into contact with fire . . .[41]

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[40] M. R. Ayers, "The Ideas of Power and Substance in Locke's Philosophy," in <u>Locke on Human Understanding</u>, ed. I. C. Tipton (London: Oxford University Press, 1977), p. 80.

[41] Ibid., p. 81.

It follows from the above citation that we should not explain changes in terms of causes possessing the power to produce their effects. But, we should note instead that uniformity in nature gives rise to the idea of power in our mind. Many philosophers since Hume have eliminated the concept of power from the notion of causality. Reid, for instance, "suggested in his writings that the relation between states and changes of inanimate things can be called 'causal' only in a loose and metaphorical sense".[42]

Let us now explore the next problem of causation in contemporary philosophy, namely, the problem of cause as recipe.

3.2.6 Cause as Recipe

This notion of cause is proposed by Douglas Gasking. It will appear that there is nothing different from Collingwood's second sense of cause, but the name used.

According to Collingwood, causality is divided into three senses; namely, (1) Person-to-Person Causality. (2) Person-to-Thing Causality. (3) Thing-to-Thing Causality. The first sense "is the one where 'that

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[42] Taylor, "Causation." The Encyclopedia of Philosophy 2, ed. Paul Edwards: 58.

which is "caused" is the free and deliberate act of a
conscious and responsible agent, and "causing" him to do
it means affording him a motive for doing it.'" [43]
To answer Hume's question on a source of this sense of cause,
Collingwood writes as follows:

> I answer, from impression rceived in our social life,
> in the pratical relations of man to man; specially,
> from the impression of 'compelling' or 'causing' some
> other man to do something when, by argument or
> command or threat or the like, we place him in a
> situation in which he can only carry out his
> intentions by doing that thing; and conversely, from
> the impression of being compelled or caused to do
> something. [44]

Thus, in this original sense of cause, according
to Collingwood, nothing can be called 'a cause' which is
not within the control of an agent.

The second sense is:

> ... the one where 'that which is "caused" is an
> event or state of things by producing or preventing

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[43]A. J. Ayer, Philosophy in the Twentieth Century
(London: Unwin Paperbacks, 1984), p. 205.

[44]R. G. Collingwood, "On the So-Called Idea of
Causation," quoted by John Hospers in An Introduction to
Philosophical Analysis (New Delhi: Allied Publishers
Private Ltd., 1977), p. 298.

which we can produce or prevent that whose cause it is said to be.'[45]

In this second sense, similar to the first one, the term 'cause' expresses an idea relative to human action, but the action in this case is intended to control things in nature or physical things. John Hospers has called this sense 'Person-to-Thing Causality', and explained further that "In this sense, the 'cause' of an event in nature is the handle . . . by which we can manipulate it."[46] Douglas Gasking, also, agrees with this second sense of cause. In his Causation and Recipes, Gasking says:

> . . . the notion of causation is essentially connected with our manipulative technique for producing results. Roughly speaking: 'A rise in the temperature of iron causes it to glow' means 'By applying to iron the general technique for making things hot you will also, in this case, make it glow.'[47]

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[45]Ayer, Philosophy in the Twentieth Century, p. 205.

[46]Hospers, An Introduction to Philosophical Analysis, p. 298.

[47]Gasking, " Causation and Recipes," in Human Understanding, ed. Sesonke and Flemming, p. 64.

According to the second sense, it is obvious that we cannot call any event or condition a cause unless it involves something we can do to bring about the effect.

The third sense is:

'that which is "caused" is an event or state of things, and its "cause" is another event or state of things standing to it in a one-one relation of causal priority: i.e. a relation of such a kind that (a) if the cause happens or exists the effect also must happen or exist, even if no further conditions are fulfilled, (b) the effect cannot happen or exist unless the cause happens or exists, (c) in some sense which remains to be defined, the cause is prior to the effect.[48]

In the third sense as quoted above, the notion of cause involves only an event in nature, or in other words, 'Thing-to-Thing Causality.' For the sake of illustration, the followings are examples of the last sense of Collingwood's notion of cause, the sun causes the earth's rotation, the gravitational energy causes a body's falling down, and so forth.

Now let us explore and analyse Gasking' view of cause. According to Gasking, cause is the manipulative technique for producing results. Gasking says:

By making bodily movements men can manipulate things: can lift them, hold them in certain positions, squeeze

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[48]Ayer, Philosophy in the Twentieth Century, p. 205.

them, pull them . . . and so on. Men discovered that
whenever they manipulate certain things in certain
ways in certain conditions certain things happened.[49]

He, finally, concludes that "the notion of
causation is . . . connected with our manipulative
technique for producing results."[50] His position has its
difficulties. Let us now consider how the problem arises
if we define a cause as Gasking does.

According to Gasking, causal statements involve
only human action, excluding natural phenomena. But, then,
what will Gasking say concerning the following statements —
the tides are caused by gravitation forces of the moon, the
heat of the sun causes the ice to melt, bacteria causes
diseases, and so forth.

Taylor disagrees with Gasking's view. He says:

Ice is caused to melt from a river in the spring by
the increased heat of the sun. It is clearly the heat
of the sun that causes the ice to melt. . . neither
of these conditions is a means, within the control of
any agent, for attaining any end.[51]

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[49] Gasking, "Causation and Recipes," in Human
Understanding, ed. Sesonke and Flemming, p. 63.

[50] Ibid., p. 64.

[51] Taylor, "Causation," The Encyclopedia of Philosophy
2, ed. Paul Edwards: 64.

Hospers is another who has rejected Gasking's notion of cause. To disprove this thesis, he writes:

> From time immemorial, people have talked about causation in those situations in which they do something in order to get something else to happen — they move their bodies in a certain way in order to achieve a certain effect: you move your fist forward (cause) in order to hit someone in the jaw (effect); you lift the fork to your mouth (cause) in order to get the food in (effect); and so on. The condition we call the cause is the one we can manipulate, but it is not a sufficient condition; many other conditions are required for the effect to occur — for example, your arm must be in good working order.[52]

And further, Hospers says:

> On the manipulability account, to cause is to do something that results in the effect. . . But we do often talk about causing and causes when there is nothing we can do to bring about the effect. We not only talk about the cause of the explosion in the munitions factory, we talk about the cause of the explosion of a supernova hundreds of millions of light-years away. In this latter spectacle we are entirely passive observers, with no manipulation handle for effecting any state-of-affairs related to it.[53]

Another objection to the recipe thesis is raised by Michael Scriven. In his Defects of the Necessary Condition Analysis of Causation, Scriven has noted:

> Suppose that whenever and however we produce C, E occurs,

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[52] Hospers, An Introduction to Philosophical Analysis, p. 300.

[53] Ibid., p. 303.

and that E never occurs unless C is produced (so that C is in a sense the only handle by means of which we can manipulate E), then C is the cause of E. (We assume a normal experimental context throughout. E may also turn out to be a cause of C, e.g. where C and E are alterations in pressure and temperature of a cylinder of gas.)[54]

The last objection to Gasking's view is formulated by Alexander Rosenberg. According to him, the notion of a manipulative technique cannot eliminate the difficulty of circularity in an attempt to define 'a cause'.

To back his claim, Rosenberg writes thus:

Consider the notion of a manipulative technique; what is a manipulative technique? A straightforward, unobjectionable answer might well be that it is a method some one may use to bring about a state of affairs, situation, event, etc. But again we may ask: what does 'bring about' mean here? The most plausible answer is: it means 'cause'. I suspect that any analysis of the notion of manipulative technique presupposes the notion of cause or some other concept which can only be understood in terms of the concept of cause, so that an analysis of cause carried out in this way cannot fail but be circular.[55]

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[54]Michael Scriven, "Defects of the Necessary Condition Analysis of Causation," in Causation and Conditionals, ed. Ernest Sosa (Oxford: Oxford University Press, 1975), p. 44.

[55]Alexander Rosenberg, "Causation and Recipes: The Mixture as Before?," Philosophical Studies 24 (November 1973): 379.

There is one more notion of causation to be taken into consideration; viz. cause as probability. This concept of causality is proposed by Bertrand Russell. Let us therefore cast our eyes on this thesis and see what question will arise from this view.

3.2.7 Cause as Probability

Russell himself held that causality was a relic of a bygone age. During his time, causation seemed to have gone from physics. Manifestly, the decade prior to 1935 was a major turning point in physics, for in this period quantum mechanics developped tremendously. Yet, during the last two decades we saw a revival of the causal problem, analyses and theories. The most favoured lines of enquiry into the nature of causation is that which extends back to Mill's sufficiency thesis, Hume's constant conjunction theory and the necessary connection thesis as previously noted.

According to Russell, a cause is an event or group of events having a relation to some other event, called the effect. And, his interpretation only involves causality in the external world.

In Our Knowledge of the External World, Russell writes: "A cause. . . has none of that analogy with volition which makes us imagine that the effect is

compelled by it."[56]

Furthermore, Russell disagrees with the traditional views of cause. In his Mysticism and Logic, Chapter IX 'On the Notion of Cause', he notes:

> All philosophers, of every school, imagine that causation is one of the fundamental axioms or postulates of science, yet, oddly enough, in advanced science such as gravitational astronomy, the word 'cause' never occurs . . . To me it seems that philosophy ought not to assume such legislative functions, and that the reason why physics has ceased to look for causes is that, in fact, there are no such things.[57]

After having rejected the traditional views of cause, Russell defined a causal law as follows:

> A 'causal law', as I shall use the term, may be defined as a general principle in virtue of which, given sufficient data about certain regions of space-time, it is possible to infer something about certain other regions of space-time. The inference may be only probable, but the probability must be considerably more than a half if the principle in question is to be considered worthy to be called a 'causal law'.[58]

From the abovementioned, it follows that Russell's

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[56]Russell, Our Knowledge of the External World, p. 229.

[57]Bertrand Russell, Mysticism and Logic, ch. IX (London: George Allen & Unwin Ltd., 1963), p. 132.

[58]Bertrand Russell, Human Knowledge (London: Unwin Brothers Ltd., 1948), p. 326.

definition of causal laws does not appeal to the concept

of necessity. If his view is right, the traditional

analysis of 'cause', whether as a necessary connection

or a sufficient condition or a power, and so on, will be

wrong and meaningless. But in reality, very few thinkers

in the twentieth century have agreed with him.

After giving the definition of causal law,
Russell explains further:

> . . . causal laws, like the rest of our knowledge,
> may be mistaken. What I am thinking of is that some
> laws state probabilities, for example the statistical
> laws of quantum theory. Such laws, supposing them
> completely true, make inferred events only probable,
> but this does not prevent them from counting as
> causal laws according to the above definition.[59]

In sum, Russell's view of causal relation is

similar to Hume's in respect of no necessary connection -

between what is called 'a cause' and what is called 'an

effect'. The only difference is that Hume considers

causal relation between cause and effect as a constant

conjunction, but Russell considers it as probability.

It is true most of scientists admit that causal

principle renders only probability, not necessity. Or in

other words, there is a room in causal laws for an

exception. But this is not the point I shall reject. The

point I will argue against Russell is that in everyday

life, we never confine the concept of cause to within

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[59]Ibid., p.327.

the external world. We also regard desire, memory and volition as causes. For instance, Mr. X may say 'my desire for knowledge causes me to read this book.' or 'my memory of the past causes me to behave as I do at present.' If we did not call these statements 'causal' what would we call them?

At this point, we could see that Russell's notion of cause is very narrow. It covers only the natural phenomena. But, in reality, talk of causality produces causal statements in all areas of knowledge, for example, in psychology, in ethics, in history, in sociology, and so on.

However, there remains another line of thought concerning the notion of causality should be taken into consideration — that is 'Causality as Unanalysable Primitive Category'. Let us now consider this line of thinking.

3.3 Causality as Unanalysable Primitive Category.

Immanuel Kant is regarded as the pioneer of this line of thought. As previously noted in Chapter II (pp. 26-28), Kant considered the notion of causality to be one of the original pure concept that our mind contains within itself. It is a form of understanding which our mind, by nature, fundamentally possesses.

During the contemporary period, this notion does not play a significant role in the context of causation. Most contemporary philosophers pay little or no attention to this notion of causality. But Taylor has argued, in The Metaphysics of Causation, that causation is a philosophical category which cannot be given an independent definition or analysis.

> . . . causation is a philosophical category, . . . while the concept of causation can perhaps be used to shed light upon other problems or used in the analysis of other relationships, no other concepts can be used to analyse it.[60]

If compared to Moore's analysis of simple idea, these two concepts are consistent. According to Moore, the simple idea is indefinable. To back his claim, Moore says:

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[60] Taylor, "The Metaphysics of Causation," in Causation and Conditionals, ed. Ernest Sosa, p. 43.

You can give a definition of a horse, because a horse
has many different properties and qualities, all of
which you can enumerate. But when you have enumerated
them all, when you have reduced a horse to his
simplest terms, then you can no longer define those
terms . . . . the power of further defining ceases.[61]

Likewise the notion of cause, according to Taylor,
is unanalysable. For it is a primitive or simple concept.
No matter how hard we attempt to analyse or define it, our
analysis is still imperfect.

Suppose Taylor's note is right. But, in holding
so we apparently surrender to the problems of causality
rather than solve them. For this reason, I think, most
twentieth-century philosophers would not be ready to
accept Taylor's view.

Furthermore, a discussion of causality usually
goes along with a debate on determinism and freedom. If
determinism is true, then there is no room for human
freedom. But, since we do not yet know exactly how the
notion of causality is to be understood, how are we
entitled to conclude that we live in a deterministic
world? Viewed from this point, determinism will be
considerably affected by our assumption about causality.

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[61]G. E. Moore, "Goodness as a Unique Indefinable
Quality," in Ethical Theories, ed. A. I. Melden (New Jersey:
Prentice-Hall, Inc., 1967), p. 516.

At this stage, we come to one important question, namely: If we analyse a cause as unanalysable primitive category, can such an analysis solve any other problems of causation? The answer is 'YES'. It can at least solve the problem of circularity.

As previously noted, some philosophers; for instance, Hume and Hospers, argued against the cause-as-power theory. They claimed that if we defined a cause as power, it would lead us to the problem of circularity. Let us now consider why it is so.

Returning again to the analysis of cause as power. According to this view, to cause something is to produce something or to bring about something or to make something happen by power. Hume and Hospers say that the terms 'to cause', 'to produce', 'to bring about', and 'to make...happen' are synonymous. Thus, such an analysis of cause leads us to the difficulty of circularity.

But, after a careful consideration, I found that the problem of circularity in causality was due to a linguistic analysis. (This view holds that we can better understand the nature of philosophical problems by analysing ordinary language.) Russell noted that all transitive verbs involved the concept of cause as activity.(See pp. 74-75). Therefore, if we analyse the notion of causality by means of the linguistic analysis, it will inevitably lead us to the difficulty of

circularity. To solve this problem, I think, Taylor's proposal; i.e. cause as unanalysable primitive category may seem to be operative.

It might be argued that any philosophical system contains within itself clusters of related concepts. Once analysing on to the fundamental ground of those systems, the primitive or basic concepts can be found. At this basic level, we will encounter a difficulty in analysing or defining them independently. To be an example of this, let us consider the notion of 'good' in Ethics. Moore says ". . .'good'is a simple notion, just as 'yellow' is a simple notion; . . . you cannot. . . explain to any one who does not already know it. . . what good is."[62] However, the problem in defining the notion of 'good' may seem to be superseded by appealing to the notion of 'evil'. If asked: what is good? The answer may be 'abstaining from evil'.(Obviously, without the notion of evil, we will never know what the notion of good is.) Likewise, If asked: what is a cause? The response may be 'a power to produce something'.(Manifestly, without the notion of power, we will never know what the concept of cause is.) Defining the notions of 'good' and 'a cause' like this, many may argue that it renders the problem of circularity. No doubt, to those who hold a linguistic analysis ground, such a

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[62] Ibid.

definition will raise the difficulty of circularity. But, to those who hold that there is a cluster of related concepts in philosophical systems, for instance, in Ethics the notions of good, bad, right, wrong, and so on, can be grouped into a cluster, or in causality, the notions of power, production, activity, and so forth, can be grouped into another cluster, such a definition is not circular. For, without related concepts in the same cluster, primitive ideas are indefinable and unknown, for example, without the notion of bad or evil, we will never know what good is, or without the concept of power we will never know what a cause is. Viewed from this assumption, the problem of circularity disappears.

At this stage, it can be seen that Taylor's proposal — causality is an unanalysable primitive category, is able to solve the difficulty of circularity.