

**MIND AND THE WORLD ORDER**  
**Outline of a Theory of Knowledge**  
**C I Lewis<sup>1</sup>**

***CHAPTER***  
***SUMMARIES***

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<sup>1</sup> C I Lewis *Mind and the World Order - Outline of a Theory of Knowledge*, , 1929, Dover Publications Inc, 0-486-26564-1

# INTRODUCTION

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The following summarises the individual chapters of *Mind and the World Order* in 28 pages.

Most of the basic paragraph structure has been retained, although this was not always possible.

A certain amount of interpretation and re-arrangement has been used to make the structure of Lewis's argument clear.

Lewis tends to use complicated philosophical language, an attempt has been made to present his arguments in clear up-to date English - this proved to be a challenging task !

In this work, concerned mainly with metaphysics and epistemology, Lewis attempts to address two age-old philosophical questions;

- what is the nature of human knowledge?
- how is it possible?

Lewis starts from a position based on Kant's *Critique of Pure Reason*, he develops a point of view he calls *CONCEPTUAL PRAGMATISM*, that aims to take on board;

- The way that science and technology have developed over the last 300 years.
- Modern scientific developments in abstract areas, such as relativity, quantum mechanics.
- Statistical methods and probability theories.

Not surprisingly, his thinking is also strongly influenced by the philosophers of the American Pragmatist school - James, Dewey and, in particular, Pierce. However, he has added to their pragmatic approach, his own concept of a limited, a priori, truth.

# PREFACE

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From Plato to the present, mathematics has had a profound effect on epistemology, because mathematics offers certainty and precision. Developments in the early twentieth century indicated that mathematics is a priori, analytic, (independent of empirical facts). It is not based on *self-evident truths*, nor is it *intuitive*, rather its initial postulates and definitions are concepts arbitrarily chosen for the sole purposes of the system itself.

Mathematics is independent of empirical facts; any connection with actual experience is tenuous - or absent.

There have been similar developments in modern science, theories - such as 'Relativity' show that abstraction and systematic precision go hand-in-hand, and that exact deduction does not mean certainty in experience.

So, we have abstract, precise systems - giving them a kind of certainty; this tends to divorce them from empirical truth which is, at best, probable.

This now seems common-place in all branches of science, so much so that we might doubt the foundations of science. We must, therefore, accept a paradoxical double-truth;

- mathematical "certainties", directly concerning the abstract,
- when we try to apply them to sense experiences, the resulting empirical truth is "at best" probable.

Therefore, the critical issue is the nature and validity of empirical knowledge. Since Kant, the traditional *a priori* view of truth has been abandoned.

What other grounds for truth can there be? Without a priori can there be any truth at all?

What is the nature of abstract concepts, and what is their relationships to experience and reality?

Science itself does not provide clear answers, so the book tries to shine some light on these problems.

In *Mind and the World Order*, Lewis attempts to establish the three postulates of CONCEPTUAL PRAGMATISM;

1. *A priori truth not absolute, but defines the principles of order and the criteria of the 'real', it arises from analysis of concepts.*

*For something 'real' to be a priori it must be discriminated in experience using previously defined criteria.*

## **Chapter III**

2. *While the delineation of concepts is a priori: the application of any concept to any experience is hypothetical, the choice of conceptual system is instrumental and pragmatic. Empirical truth is never more than probable.*

## **Chapter VIII**

3. *Any experience, in general, is capable of conceptual interpretation, this requires no assumption about experience conforming to the mind or its categories.*

## **Chapter XI**

He makes it clear that conceptual pragmatism relies on the earlier work of James, Dewey and Pierce in particular. However, he has added to their pragmatic approach, his own concept of a limited, a priori truth.

In writing this book Lewis had the problem that the arguments in his thesis are circular, and are strongly interconnected; this caused him difficulty in the order of their exposition.

# CHAPTER. I INTRODUCTION

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## ABOUT PHILOSOPHY IN GENERAL AND METAPHYSICS IN PARTICULAR

### THE PROPER METHOD IN PHILOSOPHY

Any philosophical method is characterised by its initial assumptions and the method it uses. So, what are the assumptions and methods of conceptual pragmatism?

#### INITIAL ASSUMPTIONS

There is a difference between science and philosophy. Science is about studying the world, and seeks to add to our knowledge of phenomena. Philosophy / metaphysics is about what is familiar, it is about clear consciousness and coherent expression of principles, in our dealings with the familiar.

Logic and ethics deal with "valid", "good", words that have single meanings. It is not clear that the same applies to metaphysics which is an attempt to study *reality*, in general, that is ambiguous and depends on context; mirages / dreams can be categorised as real from a particular perspective - and interpreted correctly.

Metaphysics is concerned to reveal the major categories of the phenomenal and the criteria for valid understanding.

*What we need to do is to categorise 'real' versus 'unreal' in experience, and formulate the criteria for doing so.*

The principles of the categories are closely related to experience and do not transcend it - they precede experience and define it. Therefore, they are A PRIORI. Experience does not categorise itself; the criteria of interpretation are within the mind.

*Therefore, the main business of metaphysics is with the problem of the categories.*

#### METHOD

The method chosen in metaphysics uses the same principles as ethics and logic. It is, therefore, concerned with the nature of the "real", only so far as it can be worked on through the REFLECTIVE METHOD. It is concerned with the initial principles and criteria present in any science, and in the *general business of life*.

Through reflective examination of experience we may correctly formulate the principles of categorisation that are implicit in dealings with the empirically given. These principles are only an attitude of interpretation towards experience. No later experience invalidates them, for instance, "physical" does not preclude delusions or dreams.

*They are, therefore, a priori; because they place no limit on the given, but as principles of interpretation, define the conditions it must meet to constituent 'reality'.*

An evaluation of traditional Rationalist and Empiricist philosophies shows them to be inadequate. Both treat knowledge as if it is the relation of an individual mind to an external object - neither recognises the sense that our truth is social. *The world of experience is not given in experience, it is constructed from sense data and reflects the structure of human intelligence. because we take attitudes.* We can only discover the mind and its principles through experience, the human mind does not transcend experience.

**The Reflective Method, (conceptual pragmatism), is analytic and empirical.**

Experience provides data to philosophy. That part of experience which mind contributes through its interpreting attitude, (recognising some underlying principles), is, in a sense, *a priori, rationalistic*. Philosophy aims to analyse / interpret our common experience and, by reflection, express those implicit principles that mind brings to experience and uses to make sense of experience. It is, therefore, the study of the a priori - the categories / criteria mind applies to experience, and their definition. But it is not rationalistic in the sense that mind is innate nor is it a transcendent entity.

The reflective method is also *pragmatic*; the categories and principles are implicit in our experience and attitudes. Philosophical truth, like knowledge, is about experience and, therefore, within ordinary grasp. The reflective method provides a critical examination of our constructs / interpretations, freeing them of inconsistency and rendering them more useful. Philosophy itself may work some alteration on this attitude, but one type of categorisation has no more merit than another.

The reflective method repudiates any concept of reality that transcends experience. Philosophical truth, like knowledge, is about experience, not something beyond our knowledge. It is about careful examination of the nature of life and the real.

*Lewis's aim is to establish his ideas of the theory of knowledge on the firm foundation of the American Pragmatists, but, at the same time, introducing a limited, rational, 'a priori' element.*

Philosophy is, therefore, the study of the a priori. It seeks to reveal the categorical criteria that the mind applies to the given, in order to define 'good', 'right', 'valid' and/or 'real'.

This leads to the outstanding questions concerning the nature of knowledge;

What is a priori and what is not?

The distinction between mind and what mind brings to experience.

Are these distinctions justified?

What are the grounds on which they are drawn?

How in these terms are experience and knowledge constituted?

The rest of the book sets out to examine the *nine principle theses* of conceptual pragmatism:-

1. There are two elements of knowledge; the sensually *given* and the *concept*, these are independent.
2. The concept leads to a set of a priori truths that define and explain concepts.
3. Pure concept and the content of the given are mutually independent; neither limits the other.
4. Empirical truth (knowledge of objects) comes from conceptual interpretation of the given.
5. An empirical object, (denoted by a concept), is never just "now", (one data point), it is extended in time as actual / possible experience.
6. Therefore, assigning a concept to one data point is prediction and only partially verified. There is no knowledge by direct awareness, we must interpret / predict.
7. Any number of data points cannot totally "prove" a concept, all empirical knowledge is, therefore, probable.
8. There are no pre-ordained categories outside the mind - we make them.
9. Any experience falls within some concept, so that genuinely probable judgements will give some prediction.

## CHAPTER II THE GIVEN ELEMENT IN EXPERIENCE

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In our cognitive experience there are two elements; immediate sense data - the *given*, and our interpretation - which represent the *activity of thought*. The relationship between these represents the basis of much philosophical argument. The distinction between them has a place in almost every philosophy.

There are philosophical theories that put emphasis on one or other element, although the distinction between the given and interpretation is always maintained.

- 1 Theories that equate knowledge with some stable state of pure immediacy. Interpretation is subordinated to an attempt to prioritise experience. Failure to recognise the element of interpretation will wreck these theories, and this makes it impossible for them to account for error and to find grounds for validity, leading inevitably to scepticism.
- 2 Theories which emphasise the constructive mind, and exclude any independent given, such as sense data, that are not relevant to true knowledge. They also regard the pure given as an unreal abstraction. There is no apprehension without construction - hence object / subject are within thought, not between thought and independent 'something'. They contend that the mental state of pure reception does not coincide with the given. But overall, idealism does not deny the necessity of sense-data

We can, therefore, take the two elements in our cognitive experience for granted, but certain questions still exist; what is the relation between the given and the real? how does the mind construct or interpret? does the mind transcend experience? if so, can mind be known? if not, how can it condition experience by interpretation?

There is an element in experience which we do not create by thought only, nor alter, nor displace by thought alone; this can be defined as the "sensuous".

This distinction between the element of interpretation and the given is emphasised by realising that the given is what remains unaltered - its sensuous character, (quality), remains - no matter how we think.

An observed "thing" has the character of a collection of sense qualities, but any our categorisation is socially acquired and will depend on my present interests, (of action). Something "given" remains constant but its classification, and its relation to other things or other actions, are different and are interpretation.

We don't just describe things merely as "given", but we add meaning in particular with respect to possible future experience - i.e. an element of prediction. This meaning is brought to experience by the mind and can be altered depending on my interests and wishes. However, we cannot describe the immediate presentation, as such, because this would be categorising / relating, i.e. acts of interpretation. So, the given is *ineffable* in this sense. Even so, no one could deny its immediate presence in the consciousness.

The given is always one whole totality, but our interest is in usually in a particular experience or object. We can define "*presentation*" as the given element in a single experience of an object - a historically unique event. This does not mean to identify the event with its repeatable content, which may be defined as "*qualia*" - described as the immediacy of redness, loudness, etc., or something analysable into a complex of such. The presentation as an event is unique, but the *qualia* that make it up are not.

### Summary

What in the content of experience will satisfy the criteria of "givenness"?

1. its specific sensuous / feeling character.
2. it remains unaffected by any mode of thought.

The given element is never discovered in isolation. The content of perception is first given then interpreted, without our being aware of such a state of intuition - unqualified by thought. although we do observe alteration / extension of interpretation through time. A state of pure intuition - utterly unqualified by thought - is a figment of the metaphysical imagination and cannot be used as a basis for our hypothesis of knowledge.

*Although an abstraction, the "given" is not unreal, but a constituent of experience.*

## CH. III THE PURE CONCEPT

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There are two elements of knowledge; the sensually *given* and the *concept*. Having looked at the *given*, this chapter looks at "*concept*" which we will define as "*logical intension / connotation of a term*".

Meaning must be clear, capable of being made so and unalterable through any discussion. It is clear that we are not talking about psychological states of perception; what we need to identify is that element of knowledge which can be maintained to be objective and impersonal. Pure *concept* may be defined as;

*the meaning / interpretation that must be common to two minds when they understand each other by use of a substantive or equivalent.*

The objectivity of meaning is fundamental to science and to other intellectual exercises. We must have meanings that are common to minds when they co-operate, otherwise the co-operation is illusory. Meaning must be identified as common to two minds, before individual psychological perceptions become relevant.

Individual perceptions cannot be shown to be identical, but this does not lead us to the sceptical view that there cannot be community of meaning. We use language to convey thought; if language conveys anything, then there must be commonality between minds in order for understanding to take place, and that this must relate to objective reality. We have no way to look into each others minds, but these *individual peculiarities* do not matter as long as we can discriminate and relate to others.

*The practical and applicable criteria of our common knowledge are that we share common definition of terms, and that we apply the same substantives / adjectives to the same object.* The way that we learn to name objects / things secures commonality in ascribing terms.

How do we verify our common meaning?

1. by defining our terms,
2. by behaviour that demonstrates our notation.

Of these, the second method is less conclusive; no collection of examples is one hundred percent effective. The larger the number of examples the better the chance that the meaning is precise.

The method of defining terms provides direct meaning. It may involve defining one concept in terms of others. This may be flawed, but if concept is defined as being independent of senses and imagination, it sets a pattern of relationships, (one in terms of another), that can be unambiguously communicated.

Looking at this interpretation of concept as the *relational structure of meaning*, there can be two doubts;

1. Use of relationship language may vary between individuals, and goes beyond what any individual may have had in had in mind.
2. While we may appear to agree on terms, our definition of terms may not coincide.

Three points are pertinent here;

- a) Over and above the ambiguities of language, some words can convey different meanings on different occasions.
- b) The particular word may have degrees of clearness of meaning - we may have 'meaning' in mind, but could not state it without pause for thought. *The purpose of knowledge is the practical interest of action*, so meaning may be implied from a consistent behaviour pattern as a response to a particular experience, even if it is unconscious.
- c) Meanings of terms have three grades of clearness; 1 - when we can place an object in a class, 2 - when we are prepared to classify an object we haven't seen before, 3 - when we can specify the criteria of classification. Often we use the first and/or the second without the third, and even when we have the third available we do not always use it in every day usage.

Identity of meaning consists practically in implicit modes of behaviour, even if we cannot specify why. If meaning could not be seen in attitude and behaviour we would have nothing to be conscious of. Objects do not classify themselves; they do not come with a label. Mind brings a classifying attitude in looking at given experiences that represent its meaning, and dictates the explicit concept.

### Summary

Up to now, the term '*common to two minds*' has been used in a figurative sense, because strict accuracy is confusing and impossible.

*Common concept* is a structure of meanings that would verify completely the coincidence of two minds through the use of language. This requires co-occurrence of a pattern of inter-related meanings necessary to co-operate. The *concept* is an abstraction and an ideality, as are most things of the mind. Community of meaning and genuine understanding of reality are ideals - rather than reality. We study them to inform us what our purposes intend and to give value to our actions.

*Concepts - even as abstractions - are implicitly present in our actions, and make up the element of interpretation that is the basis of our common understanding of our common world.*

## CH. IV COMMON CONCEPTS AND OUR COMMON WORLD

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(This chapter is noted by Lewis as an elaboration of, and a defence of, the previous chapter.)

*The significance of concepts is that they lead to knowledge; the significance of knowledge is that it leads to action, community of knowledge leads to community of action.*

Common meaning can over-ride idiosyncrasy of behaviour, but eventually the purpose of communication ensures similar behaviour when meanings are the same. We can only grasp meaning by observing the relation of someone else's meanings to one another and to his behaviour.

The possibility of having concepts in common is conditioned by; a) *we are all humans having the same needs / interests, and the same powers to discriminate / relate, b) we are confronted by a common reality.*

Initial community is, capable of extraordinary extension. The needs of common life and co-operation, imitation of behaviour, and developed institutions of education reinforce this elaboration from initial community. Idiosyncrasy is ignored, or got around. This does not necessarily mean to argue that our elaborate common knowledge comes from meagre beginnings, but this possibility means that elaborate common understanding does not necessarily mean an extended co-incidence of felt qualities or given experience.

Relationships and some co-incidence of concept must imply some identical order in psychological content. These are the under-pinning patterns of human experience and the basic structure of human reason. But, it is not necessary that we feel alike to act alike. The eventual aim of communication is co-ordination of behaviour - it is essential that we should have purpose / aim in common - this doesn't need community of feeling. The most important thing about purpose is the relation between anticipation and realisation. Neither the immediate experience of purpose, nor this relation need to be individually identical in order for us to 'understand purpose'.

In addition, we can conclude that there is no such thing as intrinsic simplicity / undefineability. All meaning is relational. Deductive order is a matter of choice and practical needs. What we need to demonstrate is the total fact of order and connectedness of the whole system. Through this, initial ideas that may be unclear at first become increasingly obvious. The significance of original notions is made clear by the relationships they form; much as the significance of a hypothesis becomes obvious as its consequences are observed.

Given the fact that we do not know how much of experience is shared by individuals; meanings are identified by the relational patterns in speech and patterns of behaviour. Total experience cannot be conveyed, but the characteristic order can be.

One reason we are able to communicate is because we face common reality. But, this reverses the order of knowledge - we have a common reality because we can identify orderly relation in behaviour which, in turn, serves co-operation. What this requires is an ability to discriminate and relate as others do, when confronted by the same situation. Our common reality is, in part, a social achievement - the need to co-operate is always there - this amplifies common ways of discrimination / relation. Individually held distinctions / relations will tend to diminish, these will be seen as subjective rather than objective reality.

Our 'like-mindedness' consists of; a) having similar needs and similar ways of satisfying them, b) having common concepts seen in our behaviour of discrimination / relation, and c) having the capacity of overcoming our individual limitations of discrimination by indirect methods. The last being a major component of intelligence - the power to identify common concepts in common ways. *Like mindedness is a pre-requisite for a common reality.*

Finding 'reality' in present experience, in which objective and subjective are mixed up, is an achievement of intelligence through categorical distinctions. Our common reality reflects common categories. We do not need to assume that this community is a ready made miracle. Our categories are a social achievement of like-mindedness. The sharing of a common reality is the aim / result of social co-operation.

## **Summary**

At an individual level; concept is a psychological abstraction, a pattern of relationships in the individual mind that involves some sense qualia together with some idea of its application in experience. Concept combined with sensory correlate leads to total meaning / idea for the individual mind.

Between minds; the correspondence between minds is more problematical, but is secured if each mind discovers within its experience patterns that fit the, (putative), common concept. (What they can agree on).

If their behaviour, guided by this common concept is comparable / congruous, then they have reality in common. This is a social achievement fostered by our need to co-operate.

*Therefore, our reality reflects criteria that are social in nature.*

## CH. V THE KNOWLEDGE OF OBJECTS

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“Concept”, as defined so far, involves transfer of meaning from one mind to another - this could imply that personal experience plays no part. However, knowledge concerns the relationships of individual experiences, and *our knowledge of objects must consist of conceptual interpretation of these experiences.*

Language conveys generalisations; knowledge of an object, as directly seen, is difficult to express in precise language, and is not necessary for personal perception. This difference between what words convey and actual perception is so marked that we may be tempted to make a distinction between language as propositional knowledge or generalisations, (*knowledge of*), and direct knowledge gained from experience, (*acquaintance with*). However, such a distinction cannot be made. The first thesis of this chapter is that there is no knowledge merely by acquaintance, knowledge transcends immediate perception by providing an attitude that leads to practical action, and that relates to what is not given. The ‘objectivity’ of this experience means that we can *check further possible experience that is predicted by our interpretation.*

a) *The material content of a given presentation.*

Lewis labels this as composed of ‘*qualia*’; without recognition of qualia by individuals nothing in experience could be named or understood. Confusion of quale and objective property has come about through a short cut in language, ‘looks round’ and ‘is round’ are the same at a particular angle of vision. So, in general, the name of a property is assigned to its appearance under optimum conditions. This use of language has obvious practical motives, but we must distinguish between appearance, (or other quale), and the objective property.

Qualia are ineffable; the best we can say is ‘looks like’, and subjective, since there cannot be proof that they are the same for different individuals. All we can do is to say that they are placed in experience, define the conditions for their re-appearance and other relationships of them. We do not need the qualia themselves for understanding / communication; what we do need is that pattern of stable relationships in experience which is what is implicitly predicated when it is taken as the sign of an objective property.

b) *Conceptual interpretation.*

If we take such simple ideas such as *blue*, *round*, these are concepts embracing not quales but stable patterns of relationships. They are properties of objects and we verify them by manipulating, or in some other way, taking action with the object in question - feeling, touching, smelling, tasting, etc. - i. e. testing and comparing. When we take these manipulating actions, we have *some* expected outcome in mind; if our prediction is not verified then the assigned objective property is withdrawn. From the point of view of knowledge, the objective reality of the property consists of those things which would verify it, and those things which, if they fail, would lead to the judgement being withdrawn as mistaken. So, *blueness*, or *roundness* are concepts about the objective property and include all that is essential to the truth of predicting the property - THEY ARE NOT QUALIA ALONE but ordered relations of differing qualia, relative to different conditions / behaviour. This pattern / order is extended in time and has a relationship with our ways of acting towards the presented object.

The application of concept must be verifiable over time, not the analysis of immediately presented qualia, but the ordered relationships of qualia that we can name. We develop an hypothesis based on immediately presented experience, which involves a prediction that can be proved / disproved by further experience. Since immediate qualia cannot be mistaken, the concepts based on such cannot be in error, but the prediction of a property transcends the given and may be mistaken.

This consideration about objective properties holds for knowledge of objects in general; it always transcends the immediately given. It begins with the recognition, (naming), of a qualitatively given presentation, but even using substantive / adjective is an interpretation that implies a relationship to further experience(s). This is how we verify real objects, and is what differentiates them from illusions. Thus, ‘*acquaintance with*’ - the recognition of a presentation as a real object - already has the significance of prediction and asserts the same kind of connection through time as the generalisation in ‘*knowledge about*’, both are *conceptual interpretations of what is presented.*

Perceptual knowledge of an object is not co-incident of mind and object, or duplication of the object in the mind. A presentation leads to an activity of the mind;

- a) abstracting and setting the bounds within the total field of all givens,
- b) classification which implies prediction of future experience, i.e. classification is a generalisation from experience which predicts orderly, lawful connection with further experience. *Classification and prediction are one and the same thing.*

If the object presented is real there must be more to it than could be contained in a single experience, i. e. predictable experience related to this experience in predictable ways. This 'more' is not always fully explored.

It is important to note that recognition / prediction are verifiable, but often not verified. This affects the relation of knowledge to action and the nature of objectivity. A passive mind would, therefore, have no knowledge of generalisations of objects.

To ascribe objective qualities to a thing means that I can make predictions about further activity,

*"if I do this . . . , then that . . . ."*; this is the whole content of our knowledge of reality.

These are the meanings that I ascribe to the presentation now, but it might be that I never take action to verify these possibilities. It is because we are active beings that our world is bigger than actual experience. For a passive being reality collapses into the given - i.e. nothing, there is no distinction between reality / illusion. Taking the given and assigning further connection with the content of future experience is conceptual interpretation and represents our knowledge of the object.

*The whole content of our knowledge of reality is the truth of "If...then..."propositions.*

The difference between reality and illusion is not in given experience, but it can be distinguished in the sequence of predicted relationships in real situations that could not apply to illusion. Reality can be recognised by judgement / interpretation that involves prediction.

Can the theory presented take account of knowledge of the past? This is difficult to answer simply, Lewis raises a few considerations; there cannot be anything in the past which is intrinsically unverifiable; things that happen in the past leave effects into the future; the past can be known and known to be the past.

Which ever way the past is verified, this is capable of predicting present / future experience.

The past is known through interpretation of the given that includes characteristics that tell us it is the past.

However, Lewis fails to use the argument that all knowledge must be knowledge of the past, and that our accumulated knowledge grows by applying hypothesis to the past in the same probable manner as we do to, presumed, present given experiences.

## Summary

Knowledge of objects / knowledge of the real / empirical knowledge has two elements :

- the given ineffable presentation - *material content*,
- the conceptual interpretation, in other words, the mind's response - *formal element*.

However, two misunderstandings need to be considered;

Because the given is indefinite does not mean that it is *formless* - it has specific qualities, nor does it mean that it is not of use for knowledge.

There must be some correlation in the individual mind between the concept and qualia to give an experience some meaning, without this no experience could verify / fail to verify anything. We make experience intelligible precisely because there is a stable correlation between the specific quality of the given and the pattern of its context in possible experience. This quality is due to relations / relational pattern. Every experience will exhibit some discoverable correlation. An intelligible world exists.

## CH. VI THE RELATIVITY OF KNOWLEDGE AND THE INDEPENDENCE OF THE REAL

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(This Chapter seeks to answer the question, "how do objective reality and the mind interact"? It reviews and criticises, in detail, *realism*, *phenomenalism* and *idealism*, none of which is able to reconcile the relativity of knowledge to the mind, and the independence of the objective world.)

Realists accept the independence of the real by attempting to show that knowledge is not relative to the mind.

We cannot derive certainty from immediate experience, we can only anticipate further probable experience. All presentation is valid perception - when correctly understood. It is prediction, not the qualitative character of the given, that drives understanding and this depends on the attitude of the perceiver. Since no experience is intrinsically incapable of being understood, then no presentation is intrinsically an illusion. There are many steps on the line between true experience and illusion. No experience can be guaranteed true / illusory, unless the mind of the perceiver is guaranteed. In other words, knowledge, as valid interpretation, is independent of the idea that presentation and real object coincide in quality.

Kant and the phenominalists accept the relativity of knowledge, the dependence of the object on the mind; but say that the content of knowledge is not the real.

Two points in logic; firstly, relativity requires an independent character of something that can only be defined by us in relative terms, secondly, if we define the relationship carefully, then this is true knowledge of that independent character. The concept *transcends* the relativity because it comprises the relational pattern of experience in which we see its independent nature. This reveals the fallacy of the argument that the relativity of knowledge makes it impossible to know about in independent reality. We learn to take one experience and predict others - this enables us to transcend the momentary limitation. A permanent limitation could not be transcended. We must not confuse limitation of knowledge with deception / error. Since our senses are limited there will always be the possibility of error, but we can only deceive ourselves by basing a judgement on a single experience, taking for granted our ability to view things from other perspectives. The more limited the data, the greater the likelihood of error because the grounds of judgement are less, but the given itself is not misrepresentative, it is always a true revelation of the real - however partial. The idea that it can be untrue to the real is to misunderstand the significance of judgement and to put credence on the 'copy theory'. Ignorance, however great, cannot make reality a '*ding an sich*', and does not negate the knowledge we have of an independent reality.

Idealists argue for the unqualified dependence of reality on the mind.

However, idealists do not do justice to our ability to use indirect methods to transcend the limitations of direct experience. The fallacy of idealism is to say that "nature depends on the nature of the mind; therefore, object cannot exist / have character independent of the mind". We cannot argue that it is meaningless to describe a thing without reference to its relation to mind and then jump to a different thesis that a real object is completely determined by the mind that knows it. We might argue that an object is determined by relation to mind in general. Mass and velocity cannot be defined without knowing relative motion, but this does not determine the relation. If the mind were the only condition of thing as known then, the mind being specified, objects would be completely determined.

All three are starting from the wrong premise; there is no contradiction between the relativity of knowledge and the independence of its object. If an object can be known at all it can only be known by its relation to mind - if the mind were different the object, as known, may be different. Even so, the description of the object, as known, is a true description of an independent reality. This may sound like a paradox, but the objective of this book is to convince us that relativity is compatible with independence.

Unless the content of knowledge is recognised to have a condition independent of mind, the significance of knowledge will be lost - the purpose of knowledge is to be true to something beyond it. It is a real act with a real purpose, that seeks something it knows it may miss. Without this condition, independent of the knowing act, this could not be so.

What does it mean for a mind to know an object when we rule out the possibility that the qualitative content of perception is identical with the object? *It means that we are able to interpret correctly particular experience as signs of other possible experience. The total of all such experience being attributed to the object, (using categories), is what we know about the object and what we mean by its reality.*

## **Summary**

In terms of experience and knowledge, the independent of reality from the knowing mind means;

- 1 The givenness of the given, we cannot alter it by thought.
- 2 The truth of , " *if . . . then . . .* ", propositions is independent of the observer. The "if" depends on the active mind, the "then" is totally determined by outside reality. However I start with "if", the "then" is independent of my attitude / purposes. I seek to correctly predict future experience, if my predictions do not obtain in reality then my present knowledge is false - this is independent of my mind.
- 3 The independence of the real means that it transcends present knowledge. It means that I can ask questions to which I do not yet have an answer - solving them through further experience - not just thinking about them.

## CH. VII THE TRADITIONAL A PRIORI

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(In this chapter, Lewis examines and criticises three traditional views of the a priori. The a priori can only be something that is true, *no matter what*. The a priori truth anticipates the character of the real).

### 1. Traditional rationalists

The claim that the a priori involves some psychological criterion, such as 'natural light' or 'innateness', is now a dead issue. The rationalists believed that universal propositions that are based on experience must be contingent / problematic, unless they have some authority - in advance. In other words, there have to be some universal truths known in advance of experience which are axiomatic and self-evident. However, Lewis contends that it is the way we think and not the content of thought that governs the validity of conclusions.

### 2. Post Kantian rationalism

This emphasises the logical necessity of the a priori. First principles are 'necessary presuppositions' - distinguished by particular criteria of proof - for classes of fact, science, experience. The meaning of 'presupposition' is not clear, it seems to imply that certain propositions logically precede the things that they presuppose. The notion of presupposition is not valid - it is extraordinary that it gained credence.

Both these sets of Rationalist arguments confuse the logical and the psychological. But if the 'a priori' have psychological self-evidence / inescapability then;

- a) The mind would find those principles as soon as it became conscious, just as it became aware of its own body - it would have no guarantee of it, any more than that of other uniform experience to date.
- b) The mind would become aware of them at some defined point in time - as an illumination from an external authoritative source, with a sanction superior to the mind. *The relationship of the a priori to the mind is key - the mind is assured in advance, nothing in future experience can falsify it - whatever experience brings.*

The concept of a pragmatic a priori presented in this book; is a possession of the mind, bearing the stamp of creativity, but also lacking compulsion, and having conceivable alternatives.

### 3. Kantian phenomenalism

Claims that experience is limited / determined in some way that corresponds to the way that the mind works.

So, the object of experience is subjective / phenomenal. It must be that way to make categorical synthesis possible; the objects of knowledge are the objects of experience, limitations of thinking are limitations of sensing, knowledge is possible because experience is not of the real, but of phenomena assured by our mode of reception. Kant needed to distinguish between phenomena and things in themselves, but failed to answer how we can know that the limitations of experience are due to the mind, and not those of an independent reality.

The limits of the possibility of experience are the limits of meaningful conception. We cannot know a priori, and with absolute certainty, that the limits to experience will be permanent. I know my own limits of perception, by comparison with other persons, they may be permanent or temporary. Similarly, the totality of human experience is limited; even so, no experience or reality is beyond our powers of conception. This answers the sceptics question; we do not need Kant's phenomenalism. What is beyond our powers of conception has no meaning. Experience does not need to be limited for us to understand it - we can understand *anything* - one way or another! *What is understood is conceived as possible experience*. This may be measurable or vague; but what is absolutely beyond the possibility of experience is beyond all meaning. The only limit that need be placed on experience is the limit to what can be understood.

To think of experience and the real as coinciding rules out dreams, illusions, hallucinations, etc. These must be included in the totality of experience. So, 'physically real' is a categorisation of a certain type of experience. *The a priori principles of categorical interpretation are required to limit reality; they are not required to limit experience*. Intelligibility is a matter of degree - nothing is completely understood, some partial interpretation is always possible - and is relative to our present knowledge and powers. Just because we categorise the given does not mean that we fully understand it.

### **Summary**

Traditional concepts of the a priori have been shown to be inadequate. The a priori is not about knowing, in advance, the absolute limits / possibilities of all future experience. What we can know, in advance, are the principles of true experience - these are, a priori, valid. These principles can be known, in advance, by self reflection because they are simply the criteria we use to classify experience - one way or another.

Any theory that requires the a priori to be transcendent / absolute / universal has the problems that have been exposed. The a priori, presented here, is one subject to gradual transition, or even abrupt change. But, using the analogy of the individual mind; the theory of knowledge should prove a contingency against transition / change without rationale.

## CH. VIII THE NATURE OF THE A PRIORI, AND THE PRAGMATIC ELEMENT IN KNOWLEDGE

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To adapt and control nature, we discover within it, or impose upon it, a stable order through which distinguishable items becomes signs of future possibilities; these patterns are what we call concepts. An element of concept must be determined in advance of the experience to which they will be applied for the purpose of meaning / interpretation. Concepts represent what mind brings to experience. Truth that is a priori rises from the concept itself. *The a priori is not a material truth restricting the content of experience, but defines and analyses it.*

If the a priori is made by mind, then mind can alter it. There is no absolute human reason fixed for all time. However, science has played a large part in the categorical order by setting the problem and fixing, in advance, the *criteria of interpretation*. The names of the categories are stable, but concepts, the way we analyse and categorise, undergo progressive alteration with the advance of thought.

Because the a priori is made by mind and capable of alteration does not mean that it is arbitrary. Faced with experience, the way mind works helps us understand / control nature. The similarity of individual modes of thought is re-inforced by our need to co-operate. We naturally seek a community of minds.

*The human mind is a social product and our categories reflect this.* So, the a priori is not dictated to by "the presented"; nor by eternal factors of human nature, but answers to criteria that are termed *pragmatic*.

From this point Lewis develops the idea that there are three areas where a priori principles apply;

Mathematics has always been seen as a priori. Developments in mathematics have shown that it is abstract, not dependent on empirical data, but based on rigorous / purely logical deduction. The fact that mathematics works, *in application*, is nothing to do with its logical integrity. The description of initial assumptions was also changed; "axiom" was replaced by "postulate" or "primitive proposition". Mathematics is about the relationship of implications between postulates and theorems; patterns of logical relations established by initial postulates. Today mathematicians accept that there are no absolute initial assumptions of mathematics. The truths of mathematics follow from a set of basic definitions that exhibit the meaning of its concepts by logical deduction. Judgement of mathematical truth is analytic - no synthetic judgement is needed. Definitions need not be true - just clear / concise; they are an arbitrary act of mind, answering no criteria save self-consistency.

This a priori, analytic knowledge has become basic to all other sciences.

The laws of logic are the prime examples of the a priori, since they are the most general. They demonstrate the basic rules of interpretation and the general mode of classification; and they impose no limit on experience. They are purely formal and forbid nothing - save what concerns the use of a term and the corresponding modes of analysis / classification. They are the principles of procedure, the parliamentary rules of intelligent thought and action. Their ultimate criteria are pragmatic. The truths of a particular logic are its own consistency. It can be shown that there are many self-consistent logics. In deciding between them we can only use the pragmatic grounds of human bent and intellectual convenience.

The a priori in natural science is also seen to be at a high level of abstraction. It represents an ordering by the mind leading to fundamental laws that are a priori. Without principles to guide our investigation of experience data, our knowledge of it would remain chaotic and changing. All definitions and concepts prescribe fundamental laws that represent the uniform behaviour of the natural world. The definition provides the criteria of 'thing described' and, in application, the laws of its behaviour. This is especially evident in science, because the "things" of science represent deep-lying order / uniformity. There is an historical process through early attempts to understand nature using superficial categories based on limited evidence, to later improved knowledge as our categories are refined. The earlier definitions are not false; they were merely useless / inadequate. A large part of scientific activity is a search for *things worth naming*.

Today we recognise that science is not wholly deductive or inductive; it involves the process of hypothesis and verification. But the *terms* in which the hypothesis / law are framed represent a scientific achievement. The world does not consist of fixed categories on one side and fixed things on the other. Scientific classification / categorisation are subject to alteration / abrupt changes that affect other aspects of science. But the process does not take place by deduction from first principles or directly from experience. It involves a process of hazarding something in mind which is then retained or otherwise, depending on its success. As science has developed, the naming, classifying, activity is prior to experience; we cannot interrogate experience without a network of concepts, unless meanings are fixed, experience cannot determine anything, we must have criteria first, in order to know whether the answers tell us anything.

We have reached a paradox; the principles of the order of natural law can only come from real experience, but what experience is real is determined by the criteria of the law. Which comes first? The law does - as long as we are prepared to maintain it as the criterion of the real. But, the reality is highly specific, carefully defined. All concepts, not just "categories" are criteria of reality, (real defines a particular kind of reality). And a priori in one context may be empirical law in another. *The determination of reality, classification of phenomena, and discovery of law all grow up together.* If the criteria of the real are a priori this does not say that no conceivable experience would lead to their further alteration.

The a priori should not be seen as alterable in the light of experience. Beyond the principles of pure mathematics / logic, there must be further, more particular criteria of the real prior to the investigation of nature. Such principles, criteria and categories the mind applies to make experience intelligible. However, newer, wider experience may bring some gradual alteration to these attitudes, even though they are independent from experience. Therefore, it is the a priori element of knowledge that is pragmatic, not the empirical element. Pragmatists have failed to separate concept and immediacy. This puts their truth at the mercy of experience and dependent on mind. Facts are brute and given; this has to be the fundamental ground for pragmatism. Nothing can force the abandonment of our interpretative attitude. But, the general need for intellectual consistency, comprehension and simplicity of interpretation take precedent over the personal or transitory. We must be pragmatic IN THE END, not the beginning.

The pragmatism described here does not mean that new truths can be discovered that contradict previous truths. Concepts and principles of interpretation are subject to alteration - we need to define how this happens. New experience, new equipment / techniques may lead to alteration of categories over time. In the light of new ranges of experience, we may define previous 'real' as 'not real' now. The truth remains unaltered and the new and old truths do not conflict. The old truth does not become false, in any way that it was not already false. The categories and meanings become more precise. But the terms of abstraction remain true. Any contradiction between old and new truth is purely verbal. Categories / concepts are logical structures and truths, expressed in their terms, remain valid forever.

When old methods of interpretation are discarded in favour of newer ones, this is driven by new empirical data which are difficult to interpret in the old method. *The advantage of the change must be great enough to overcome human inertia and prestige.* The factors that we need to examine and that drive pragmatic change are;

- the old concept versus the new concept,
- expanded experience with novel data,
- how concepts are applied to this expanded experience.

Newly discovered facts play a pragmatic role only, and do not affect truth in a deeper sense. Hypotheses, (empirical generalisations), are only probable and are capable of being disproved. When newly discovered empirical evidence renders old principles impossible; the old truth, which was never more than hypothesis, is now obviously, false. But we cannot reduce all truth to hypothesis, this is just a cheerful form of scepticism.

Therefore, the point of pragmatic theory is the responsiveness of truth to our needs and that, in some sense, it is created by the human mind. Interpretation of experience must always be in terms of categories / concepts determined by mind. There can be alternative conceptual systems describing experience; these can all be valid, providing they don't have logical defects. The choice of conceptual system is pragmatic. New facts may cause a shift of ground. New truth represents the creative power of human thought, but is always pragmatic.

## Summary

The a priori defined so far represents the principles of order and the criteria of the real.

Its truth represents our interpretation / interpretative attitude.

- It does not limit future experience.
- It can be maintained despite future possible experience.
- It is the contribution of the mind to knowledge, not law imposed by an outside mind. It does not require that mind be universal, absolute or a reality of a higher order than the object of knowledge.

The a priori is knowable simply through the reflective / critical formulation of our own principles of classification and interpretation. The a priori must meet two contradictory requirements;

- It must be known in advance to meet all experience.
- It must have alternatives, in other words, it can be left as we move forward to a more favoured interpretation. In some sense, like free choice and deliberate action.

The pragmatic element in knowledge concerns our choice of conceptual modes of application, between the absolutes of mathematics and logic and the given experience. Between these two, is the pragmatic element in truth / knowledge, in the choice of conceptual system and the defining concepts. This middle ground of trial and error, expanding experience and modification of concepts is how we interpret the world and control it.

The issues are pragmatic and are independent of absolute eternal truth; this prevents a slide into scepticism.

*At this point, Lewis has assembled the basics of conceptual pragmatism. In the final three chapters he seeks to further establish his philosophy by showing;*

- *that the a priori and the empirical are compatible, (CH.9),*
- *that probable knowledge is a sound basis for understanding the world, (CH.10),*
- *and that a world sufficiently ordered to provide pragmatic knowledge need not be deterministic, (CH.11).*

## CH. IX THE A PRIORI AND THE EMPIRICAL

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(The first part of this chapter reviews the elements of knowledge as a whole. Often the given, a priori principles and empirical generalisations are viewed together, and what is true of one is applied to the others. In order to get a consistent theory, we need to examine each in detail, and distinguish between five elements.)

### **1. immediate sense qualia**

There is in knowledge of presented objects a distinguishable element of awareness that is indispensable to knowledge. This is expressed by “this looks round”. It is an indispensable part of knowledge, but cannot be knowledge in our present meaning. This is an entirely subjective report, having no possibility of error, that immediately precedes interpretation that is subject to change. Cognition is active because it can be subject to change.

*The awareness of the given is prior to interpretation.*

**2. Knowledge of presented objects** - “this is round” expresses something much more complex. It represents a prediction of properties and may be subject to error. “Penny” is as much an interpretation as “round”. Similar considerations apply to all naming. The prediction of all experience, essential to its truth, must be contained in the judgement.

*Interpretation of empirical given is inexhaustible, never complete, therefore, probable only.*

The concept, as applied to things / objective properties, has unlimited temporal spread and, by implication, things / objective properties have unlimited duration. Empirical knowledge is, therefore, probable only.

**3. A priori elaboration of concept** is needed in order to define the criteria of empirical knowledge and its valid probability.. When we say “this penny is round”, both subject and predicate imply a priori criteria, the definitions of meaning that two people can agree on. These meanings imply various sequences in further possible experience. We need to set up definitions, measurements, etc., in order to properly focus them.

The judgement, “this is a round penny” requires two propositions to express it fully;

(i) “If this is a round penny, then further experience will.....”,

(empirical criteria of objective roundness - *a priori*).

(ii) “This present given is such that further experience probably will.....”,

(*probable* empirical truth).

This may be expressed in the form of propositions such as;

“If this is round, then condition A being provided, empirical eventuality M will happen”.

“If this is round, then condition B being provided, empirical eventuality N will happen”.

*The complex set of “then” conditions express the complete a priori meaning of the concept ‘round’*

#### 4. *The categorical knowledge of the principles of interpretation.*

In empirical knowledge we can define two certainties; the recognised qualitative character of the given, and a priori elaboration of concept. Application of concept to presentation is only probable, and is an interpretation that is predictive; the degree of assurance reflects generalisation from experience

In order to interpret a given presentation as a round object, what we need to know is;

- (a) The a priori proposition, "if this is round, then....."
- (b) "The present given is such that further probable experience will be....."

We can only know (b) as a generalisation from experience; *Things that look like this, under the present conditions, usually meet the criteria of....., in future experience.* We have to rely on past experience, and interpretation of the given requires generalisations from the empirical. *The complex set of "then" conditions will express the complete a priori meaning of the concept 'round' in denotation.* Some are explicit, while some are implicit / figurative. Some are not in mind at all and leave us unprepared to understand experience!

So, the validity of our knowledge of objects depends on the same general considerations governing other types of empirical generalisations. We do not have knowledge of *objects* by acquaintance - what we are directly acquainted with is *presentations*. Seeing may be believing, but the belief often turns out to be wrong

Is there a necessary connection between what is denoted by two concepts? In any theory of knowledge, we can have no certain assurance that objects encountered in experience and identified as X's, will always turn out to be Y's. The only kind of a priori knowledge of the empirical consists in knowing the empirical eventualities, implicit in our application of concepts and the correctness of this application. This does not limit possible experience. If a thing is not X unless further experience shows certain Y characteristics; then irrespective of experience, all X's must be Y's. This leaves all empirical knowledge subject to the test of further experience. But, no theory could do more, unless we specify that recognition of objects in momentary experience is certain. No one has ever claimed this to be so, but we have behaved as if it were.

*So, the choice of a priori, abstract, concept and the application of it to any particular is a matter of probability, determined by pragmatic considerations.*

The only question left about the a priori is what shall be accepted as the *physical* criteria of triangularity, straightness, etc? What kind of sequences of experience can be regarded as the basis for attribution of mistake to previous identification? What abstract system shall we chose to apply to experience in general?

*The chosen system becomes the criterion of true experience and defines the criteria of "reality".*

*It is a pragmatic choice, which may be deliberate, or unconscious - without recognition of real grounds.*

So, what is the relationship between the *a priori* and *the content of experience*?

*All concepts give rise to a priori truth that is purely analytic and is independent of experience. Concepts may be linked to add complexity. The application of concept must have temporal spread, that implies some orderly sequence of experience. Its applicability is verifiable approximately. The application of concept to experience may be secured without loss of a priori; its logical consequences, in time, become the criteria of its applicability. Later experience that is not in line with the concept means that the concept cannot be applied in this particular case. The logical requisites, a priori, of the concept become the criteria of reality of a sort, when applied to experience.*

## 5. Empirical generalisations;

Up to now, we have considered generalisations from empirical experience - judgements about particulars. We now need to consider *empirical generalisations* formally.

They are universal propositions, the subject of which denotes a class of objects.

They may be distinguished from a priori propositions because subject / predicate connection is "contingent", (rather than "necessary").

*"Swans are birds" is an a priori proposition; any non-bird is a non-swan.*

*"Swans are white" an empirical generalisation; any 'white' may/may not be a 'swan'.*

*A 'black' may be discovered meeting all criteria for 'swan'.*

A priori propositions do not limit experience; whatever lacks some essential property, X, is not classified under some concept, A. "All swans are birds", does not rule out the possible existence of any creature.

An empirical generalisation, "All swans are white", requires for its truth a limitation of conceivable existence.

*The a priori is FOREVER CERTAIN, but*

*empirical generalisations are at the mercy of future experience and are, therefore, probable only.*

In neither case do we have greater assurance about the content of future experience.

But, in the case of the a priori, it represents an intention of interpretation that maintains connection between the two concepts.

Since the a priori is ANALYTIC / DEFINITIVE NOT SYNTHETIC, this is true for all a priori propositions.

### Summary

Two points;

A) no substantive conception a priori can confine experience; all identification / material truths are probable only. This is re-inforced by two things;

- experience includes dreams, illusion, mistake as much as the physical,
- no theory can attribute a priori certainty that is not hypothetical to predictions about a particular presented thing.

B) The body of conceptual interpretation is a pyramid;

- comprehensive at the top,
- least general at the bottom.

We approach experience and attempt to fit it to preformed patterns, persistent failure leads to readjustment; the higher up the pyramid we are, the less willing we are to change.

On the one hand, every concept gives rise to a formal truth that cannot be invalidated by experience, (may be seen as little criteria of reality, but may or may not be useful). On the other hand, no concept is guaranteed to bring clearness / understanding. Even logic, which categorises 'thing', 'event', may not help to understand a complex world. So, we have the idea of clear / fixed concepts on the one hand, and the chaos of experience on the other; bringing them together is a matter of trial and error that is never more than probable and subject to revision in the process of learning. This gradual, continual revision of our knowledge is a deep lying process in the march of understanding - much more important than giving up empirical generalisations.

*The truth of the a priori is formal only, (i.e. it defines truth itself);*

*but it is a net to catch the truth of experience.*

So far as material truth depends on predictability of particular experience, the problem of knowledge is the truth of probability judgement. If there are no necessary connections in matters of fact then there is no valid knowledge.

## CH. X THE EMPIRICAL AND THE PROBABLE

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*The only knowledge a priori is analytic; empirical knowledge is probable only.* This leaves us with a problem; probable empirical knowledge has always seemed to lead to scepticism. If general, conceptual propositions only are absolutely certain, and empirical truth is probable only, then there can be no genuine knowledge of nature - even genuine probability is lacking because this must rest on some underlying certainty. Surely knowledge of nature must rest on some order in reality, or in the content of experience, that assures its correspondence with the way the mind thinks; in other words, some *synthetic*, a priori that links ideas and the reality of experience. Lacking this, knowledge of nature - that must include an element of prediction - will be lacking in truth.

The ideas presented here try to show that knowledge of nature is knowledge of probabilities, and that an *analytic*,

a priori is the only requirement for the validity of empirical generalisations. It is true that we require some knowledge, a priori, that is pertinent to nature and experience. We have already seen that there is, a priori, certainty; our modes of categorisation and concepts in general lead to analytic / certain truth. Obviously, when a priori concepts are applied to the particular this is no more than hypothetical / probable. If all knowledge were probable and rested on principles that are generalisations from experience, then these principles would be probable, and the knowledge that depends on them would be *probable*. So, we need to distinguish between types of universal propositions;

*Empirical generalisations* that are synthetic, such as the law of gravity, that are only probable.

*Analytic principles*, such as the theory of geometry that are the consequence of our concepts. These are a priori and certain when applied as abstract conceptual systems, but are hypothetical / probable when applied to particulars. For a given plot of land, we could say either;

- "If this is triangular, in a Euclidean space, then the sum of the internal angles is  $180^0$ ". *a priori and certain*.
- "The sum of the internal angles is  $180^0$ ". *probable judgement only*.

Every presentation is an absolute fact; but we cannot make classification of it without possible mistake - it is an interpretation involving prediction and potential falsification by future experience. Including the given under a concept is contingent on future experience; and a priori knowledge of universal propositions does not secure a priori knowledge of empirical particulars. The connection between universal particulars and empirical particulars is often left vague; because a particular follows from a *certain* universal is taken to imply that a particular is *certain*, for example, "All triangles.....". is taken to imply that "This triangle is .....". This in not necessarily so. *Empirical knowledge means that knowledge of objects is determined in extension*.

We can, therefore, see the difference between;

"If this is an A, then necessarily it is a B", *- a priori, certain, analytic and intensional*.

Knowledge of particulars that will be a priori if the application of the concept is assured - the inference from the assumed triangularity to other geometric properties. If our identification / naming is valid, then the object will have certain properties.

"This is an A, therefore it is B", *- probable, empirical and extensional*.

Knowledge of particulars supported only by inductive generalisations - the inference from observed data of gravitational behaviour. If our identification is valid, we only know for certain that other properties are probable.

*The a priori is compatible with the probability of empirical knowledge.* This turns on the fact that knowledge of objects involves application of concepts to the presented, and this identification is not absolutely certain. We make judgements based on a proposition that immediate qualia have, in the past, been proved reliable clues to the objective character in question. This application of concept to presented thing asserts that some regularity or connection is predictable between experiences, an argument from past to future, and the presence of some uniformity in experience. This leaves us with an outstanding problem; how can the validity of empirical knowledge exist without dependence on content of mind or to imposing limits on experience regarding intelligibility or metaphysical presumptions. The problem - expressed this way - is different from traditional thinking;

- a) 'Necessary connection' questions the predictability of knowledge of laws, not the possibility of identification / recognition of things. However, the only alternative to categorised / orderly experience is chaos.
- b) Experience must, a priori, conform to principles and criteria, in order to be pertinent to any investigation, or to the validity of a particular law of nature. But, it is not, a priori, certain that any experience is validly interpretable in any category, for example 'physical'. What we do know, a priori, with certainty is that if X is a 'physical' thing, then it conforms to certain principles that can be laid down in advance - the criteria of 'physical'.
- c) It is only necessary to assure the *validity of empirical knowledge as probability judgement*. This is all that is needed to answer the sceptic - if they want more than this, then there is no answer!

We need to examine *the validity of probability judgement from a logical point of view*. We often use the word "certain" when we mean "highly probable". There is a common supposition that if we can find instances where A is not B, then "it is probable that A is B" is invalid. But, it does not require 100% certainty, it only requires genuine probability. "A is B is probable", may be true when "A is B" is false; otherwise there is no difference between probable and certain knowledge.

Another consideration is the relation between probable judgement and the facts that constitute its grounds. This must rest on the data on which the probable judgement is based; *probability is relative to our ignorance*. This is typical of all probability judgements. They consist of complex evidence, and even accepted premises are only highly probable. However, this compound character of probability judgement offers no difficulty to their validity, provided they are based on something certain and there are some valid principles of probability in general.

The validity of the judgement that "A is probably B", concerns the relationship between the judgement and the data on which it is based. Immediate, and subsequent, premises may be only probable. This leads to two consequences; a) the validity of probability is not affected by the fact that it is individually subjective, b) probable knowledge is valid even if examples of false are known. A probability inference must retain reference to its basic premise. "A is probably B" is elliptical, what we mean is that, "on the premise that....., A is probably B". A new fact may come along that would increase / decrease the probability. Given all the relevant data, everything will be certainly true or false; short of this; *the value of the probability depends on the data we have available*.

If judgement is based on much less evidence than ought to be available - the validity of probability judgement remains - we still know the premises used. Thus, probability judgement is unaffected by ignorance, and is only affected by logical error. This leads to an important conclusion; *the probable judgement, if valid, is true*. There is no difference in probability inference between valid and true. "A is probably B" does not assert that "A is really B"; it asserts that "A is B has certain probabilities, based on the data used". Moreover, a probability judgement once true is always true. New data do not invalidate previous judgement, they lead to new probability.

As we have seen, there are two types of EMPIRICAL GENERALISATIONS:-

- a) Natural laws claim that whatever is called by some name has certain further properties not associated with that name - given certain order in experience, certain further order can be expected.
- b) Subtle generalisations that underlie the naming of something presented - what presents a certain given appearance, will exhibit further order so that we can apply a certain concept.

Both say something can be predicted because it held in the past.

Natural laws must have held in all past experience, without exceptions, and are expected to hold universally.

Statistical generalisations can have exceptions and will have a certain probability in each and every case.

Generalisations are based on the coincidence of empirical particulars. Knowledge of these particulars is also the basis of the applicability of a priori principles. Some may feel that this makes empirical knowledge complex and remote from its base in immediate experience. But, honest evaluation will show that empirical judgements are logically complex - much of which we take for granted. This is excusable in ordinary discourse, but not in philosophy; there is no merit in substituting some dramatic or comforting simplification.

- a) Complexity does not mean that probability drops in proportion.
- b) A practical attitude says we can assume something to be certain, even if it is only highly probable - any resulting failure would not be a disaster.

The general character of empirical knowledge is that of a probability judgement based on individual experience. Empirical judgements are sound if they use a 'just' logic. Further experience may destroy the judgement, but *it was forever true that it was probable - on the grounds used to make it. Then so long as we are rational, what we believe in is absolutely / eternally true.* However, we need believe nothing false - as long as it was based on valid grounds, and we are rational; we have a large body of generalisations that, correctly assessed, are a guide to useful action,- this is the only way that prevents us from regarding scientific knowledge as a chimera. What is required is a practical attitude that says that action in accordance with probability is *more likely to be successful.* If probabilities as general predictions are justified by the future, then the world must be orderly, and an attitude based on past co-incidences is the safest one. The essence of the validity of empirical knowledge is its ability to predict the future. Scepticism results, not from a perceived absence of cause and effect, but from a failure to understand that the necessary connections of *ideas* are relevant to the interpretation of the empirically given, and *precedes* determination of reality. This again raises the question of order in nature, cause and effect, and the basis of induction, this is covered in Chapter XI.

### Summary

- Interpretation of presentation is application of concept to it.
- The application of the concept requires, a priori, a predictable sequence in experience (continuous with the given).
- The application is hypothetical; the applicability of any concept is probable only.
- This may be supported by statistical generalisations, (appearances like the present may be applied in some proportion of cases).
- Probable knowledge of particulars becomes the basis for universal generalisations of the type asserting a connection between what is denoted by concept and further character / property implied by the concept.
- Our knowledge of these results from a compounding of probabilities, but compound probability has its roots in immediate certainty of given data in experience in particular circumstances,

## CH. XI EXPERIENCE AND ORDER

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Since empirical knowledge is knowledge of probabilities, its validity is based on induction and probability judgement. Is generalisation possible? Does the occurrence of sequences in the past constitute a ground for valid prediction in the future? Prediction need not be certain, only that the prediction is genuinely probable.

*There must be the possibility of arguing from past to future with genuine probability.*

Are there any valid principles of inference which can be used in drawing empirical judgement?" If probability judgement is valid, then empirical judgements which are rational and based on known grounds are true.

The applicability of concept and argument from past to future require some order / uniformity. This is not about the truth of what is judged probable. It is a different question; "Can a judgement that is subjective about an independent experience be meaningful of reality?" This involves the intelligibility of experience and the possibility of empirical knowledge. Both turn on similar considerations

### UNIFORMITY IN NATURE

Is there any alternative that challenges the necessity of uniformity? Two immediate points; a) reality and experience are not directly synonymous, b) we play a sort of game of animal, vegetable and mineral with the given. Therefore, it is reality, not experience that must be orderly.

There are some confusions about reality, not central to the main theme, that Lewis deals with in Pages 349 - 365. These are;

- Reality is more orderly than experience because reality is experience categorised.
- Lack of anticipated order leads us into defining the given as unreal; hence the unreal needs to be understood in another way that helps us in extending knowledge.
- Generalisations are based on reality, not uncategorical experience.
- Intelligibility does not require 'through and through' order, but it does require some order.
- The rational demand of uniformity looks like the search for an ideal or a maxim, that we do not need.
- Intelligibility / understanding are not incompatible with a lack of uniformity that may be irrelevant to recognition.
- There is a theoretical interest in unlimited variety.
- Imposed categorical procedures do not relate to the intrinsic order of things, but can reduce infinite possibilities to a definite number of alternatives.

Having examined the common misapprehensions about 'uniformity in nature' we now move on to the central problem; ***If experience is to be intelligible and knowledge possible, what is required of order is only that there be real things / objective facts. There is no alternative save the non-existence of everything.***

We see things as some possible sequence in experience, based on the given. The sole necessity for this to be so is that the possibilities of future experience shall be limited.

Let us call this; **Principle A**; *Every identifiable entity in experience is not equally associated with every other.*

a) This provides enough order in experience / reality necessary for the validity of empirical generalisation.

b) There is no alternative to this limitation. There is a paradox; every possible experience is possible, but it is not possible that every possible experience will happen. So, we are not limiting possibilities.

The requirement that there should be real things / objective facts does not mean that everything we see is real - only that it is an index of probable future experience. Experience and concept are not the same thing. It is not possible to require of our knowledge that every concept gives rise to uniformity that can be predicted with certainty - for ever. All that is required is that what we see is a probable indication of the uniformity implied by a concept. Statistical generalisation, based on past sequences, must establish their probability for the future - with the limitation of Principle A in mind. We could generalise by saying statistical generalisation based on past sequence of experience does not increase the probability of a further particular experience compared to any other - given the same initial experience. What any substantive concept denotes is a defined sequence in further possible experience. In an experience subject to no limitation, there could be no recognition of things as they appear - even as probable recognition.

We are justified in the assumption that there are limitations which will affect the uniformity of sequence, and that this is enough to establish the validity of argument from past to future. The validity of arguing for a correlation between presentation and future experience does not require us to know the reason for the correlation, only that such correlation exists - *in general*. If we assume the existence of real things; then the probability of future correlation is increased with each successive verification of the correlation.

The assumption of things leads to the assumption that there are valid generalisation of the type of law. If there were not uniformities in experience, there could be no uniformities like laws.

*What laws are valid depends upon what things exist*

Laws are like things; the validity of a generalised prediction depends on the assumption that there are laws. The uniform sequence that they describe, based on past experience, increases in probability with each successive verification and the probability judgement, if logical, is valid - even if future experience proves it to be mere co-incidence. So, the assumption that there are things, that there are recurrent sequences, secures the validity of knowledge in general, provided empirical knowledge is interpreted as probable judgement. We cannot accept the existence of things, while regarding generalisations as in doubt - implying that knowledge requires empirical generalisations to be certain. We have demonstrated that we do not need this certainty.

The existence of things does not mean a uniformity in which a determined sequence follows a given first term. If this were true then no apprehension could be valid unless it made mistake impossible. No absolute uniformities in experience are required for the for the existence of things or for the objective character of laws.

We have not examined the categories in detail. We are only trying to show that there cannot be a world of things where empirical generalisations are not a valid foundation for empirical knowledge that is genuinely probable. The only alternative is that there are no things and no minds to know them - meaningless nothing!

At this point, Lewis attempts to refute the two bases of scepticism. Firstly, the *relativity of sense perception* gives rise to the idea of a reality that we cannot know because of the subjectivity of our senses. This has been dealt with already; it neglects mistake / illusion that are a type of 'reality', it neglects the fact that reality is only meaningful in terms of some experience, and that appearances are the ground of true knowledge, it is impossible to think of reality as completely unknowable, even if reality cannot be completely known.

Just because perception is subjective does not mean that we cannot have knowledge at all. This sort of scepticism is based on the erroneous idea of knowledge as representation.

The other sceptic ground - *absence of 'necessary connection'* - turns on the concept of knowledge as predictive judgement. It has been supposed that the 'iron clad' uniformity of experience, would lead to certainty of prediction. We must not confuse this with the rational attitude of acting on the basis of probable judgement. *It is impossible to imagine any other sort of experience which would not present statistical stabilities that would validate probable prediction and would represent our experience of things.* No sequence in experience can be determined by a single presentation - real stabilities transcend this. If the reality of things required such sequences absolutely determined by the first term, we would have no reason to believe in their existence. We only require probability of future experience.

The reason that Principle A imposes no limitation on possibilities of experience may be expressed as **Principle B**; *There may be an entity failing to satisfy Principle A. For example, whose associations are random, but there will exist other entities, systematically connected to the original entities, such as to satisfy Principle A.* We determine the orderly constituents of experience in terms of random ones; by simplifying through analysis, by organising the elements in a larger whole or by looking at abstract elements - discarding the remainder of the given as irrelevant. What particular stabilities, and what types, that are to be found cannot be prescribed to experience or reality. The particular order found, its extent / degree are absolute data. We cannot assume that we will be able to find laws with pre-determined uniformity. Concepts are designed to find whatever significance is available, and can be abandoned in the light of further experience. It is impossible that conception, in general, is invalid.

Are particular, or even general, predictions of the future warranted? This is covered in Principle A. What is required is the validity of probable prediction only. This can be expressed as **Principle C**;

*Statistical prediction is valid because whatever is future to any given past is in turn past, to some future.*

If we continually revise judgement based on the probability of statistical generalisation by observation of success / failure, we will make more progress . As opposed to disregarding the past in anticipation of the future.

*This might be called the principle of statistical accumulation.* This holds even if we are dealing with things determined by 'pure chance'.

Given any experience, conception will be valid and knowledge will be possible.

**Therefore, the three original principles hold and generalisations are subject to genuine probability. No other metaphysical assumptions are required. The human mind is always capable of finding the order needed for knowledge.**

- it elicits significance by abstraction, analysis and organisation.
- it introduces order by conceptual classification and categorisation of the real.
- through learning from accumulated experience, it anticipates the future to satisfy our practical needs.

***This is the basis of CONCEPTUAL PRAGMATISM***

# GLOSSARY

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<b>A priori</b>	Something that is known with certainty on some basis other than sense perception. Mathematics and logic are accepted as a priori in most philosophies.
<b>Analytic</b>	Term used by Kant; analytic truth is one whose truth is guaranteed by meaning, and discovered through the analysis, of the terms used to express it. For example "all bachelors are unmarried". All the common propositions that result from experience of the world are synthetic.
<b>Behaviourism</b>	The idea that what we think in mind is really only bodily behaviour and dispositions to behave.
<b>Categories</b>	Order, class or division. Aristotle proposed ten classes / predicaments into which objects of thought could be divided. Kant proposed twelve primitive forms of thought contributed by thought alone apart from experience.
<b>Causation</b>	The action of making a thing have some property or go through some change.
<b>Certainty</b>	Without doubt. Some philosophies hold that absolute certainty is required for knowledge.
<b>Compatibilism</b>	Holds that we are responsible for our actions / decisions even if they are caused by previous psychological conditions. In other words, freedom and free-will are compatible with determinism.
<b>Contingent</b>	That which is not necessary and could have been otherwise.
<b>Deduction</b>	A type of argument in which the conclusion must be true if all the premises are true. An argument from the general to the particular.
<b>Determinism</b>	The idea that all events are completely determined by antecedent conditions. Hard determinism says that we cannot be responsible for our actions.
<b>Empirical</b>	Based on sense perception or the observable results of an experiment.
<b>Empiricism</b>	The idea that all knowledge comes from sense perception and from inner observation of the mind itself. (Locke, Hume and Berkeley).
<b>Free will</b>	Idea that people have power to detach themselves from inner motivation and chose between alternatives. Denies that decisions are causally determined.
<b>Hypothesis</b>	An account of a situation that goes beyond the observed facts. Explains the observed facts by fitting them into a larger picture.

<b>Idealism</b>	Claims that only the mind and its thoughts exist. Everything else is only an idea in some other mind.
<b>Induction</b>	Type of argument in which true premises provide support for the conclusion, but do not guarantee the truth of the conclusion. Argument from the particular to the general.
<b>Innate ideas</b>	Ideas that must exist as soon as the mind exists, not learned from experience.
<b>Mysticism</b>	The belief that the Supreme Spirit can be met in ordinary experience.
<b>Necessary truths</b>	True claims that cannot be false.
<b>Particulars</b>	The individual instances of universals.
<b>Phenomenalism</b>	Idea that reality itself can only be accessed by reason alone. The whole world of common sense and perception is no more than appearance / phenomena. First proposed by Leibnitz as a response to Hume's scepticism and modified by Kant.
<b>Pragmatism</b>	Claims that truth is a matter of the <i>usefulness</i> of beliefs in practical action.
<b>Rationalism</b>	Idea that we can only attain knowledge by a process of reasoning from self-evident principles. (Descartes, Leibnitz and Spinoza).
<b>Scepticism</b>	Idea that we do not and cannot know anything. (Hume).
<b>Synthetic</b>	A synthetic truth is one that affirms something in the predicate not already contained in the subject. For example "all bachelors are unfulfilled".
<b>Theory</b>	Scientific theory is a generalisation that refers to entities that are deemed to exist. Theoretical entities cannot be observed by the unaided senses. For example theories of gravitation, atoms, quanta, etc.
<b>Thing in itself</b>	Term used by Kant, ( <i>ding an sich</i> ), an independent reality that we can never know because our mind structures everything that we perceive and think.
<b>Transcend</b>	Going above and beyond.
<b>Universals</b>	The general types of things, properties or anything else.
<b>Utilitarianism</b>	Claims that we must judge beliefs, morals, behaviour, etc. as a function of the sum total of human happiness, ( <i>utility</i> ), that they include or produce. Strongly connected to pragmatism. Leading utilitarian philosopher was J. S. Mill. Has had an influence on most modern thinking.