

# An Index To Arguments Used by Bertrand Russell

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✓ = read

X = indexed

# Arguments in The Problems of Philosophy 1912

1 That the real table, if there is one, is not the same as what we immediately experience by sight or touch or hearing. The real table, if there is one is not immediately known to us at all, but must be an inference from what is immediately known. pp 8-11

n.a) Whenever we see a colour, we have a sensation of the colour, but the ~~colour itself~~ colour itself is a sense datum, not a sensation. p 12

(1+det) we cannot say that the table is the sense-data, or even that the sense data are directly properties of the table. p 12

2 Thus the certainty of our knowledge of our own experiences does not have to be limited in any way to allow for exceptional cases. p 19

3 we can never prove the existence of things other than ourselves and our experiences. p 22

4 Thus every principle or simplifying way is to adopt the natural view that there really are objects other than ourselves and our sense data which have an existence not dependent upon our perceiving them. pp 22-25

5 we may assume that there is a physical space in which physical objects have spatial relations corresponding to those which the corresponding sense data have in our private spaces. pp 27-31

6 Thus we find that, although the relations of physical objects have all sorts of knowable properties, derived from their correspondence with the relations of sense data, the physical objects themselves remain unknowable in their intrinsic nature, so far at least as can be discovered by means of the senses. p 31-34

7 When we realize the nature of knowledge, Berkeley's argument is seen to be wrong on substance as well as form, and his grounds for supposing that ideas - i.e. the objects apprehended - must be mental, are found to have no solidly foundation. pp 38-43

8 Thus, in some sense, it would seem we must be acquainted with our ideas as objects of some particular experiences. pp 50-61

9 Thus it would seem that, in some way or other, a description, known to be applicable to a particular must involve some reference to a particular with which we are acquainted. If our knowledge about the thing described is not to be merely what follows logically from the description. pp 55-56

10 Every proposition which we can ever find must be compatible with all our ideas with which we are acquainted. p 58

11 [The inductive principle is not capable of being proved or disproved by experience] pp 67-69

12 Thus all knowledge which asserts existence is empirical, and the only a priori knowledge concerning existence is hypothetical, giving connexions among things that exist or may exist, but not giving actual existence. pp 74-75

13 ... knowledge as to what is intrinsically of value is a priori in the same sense in which logic is a priori, namely in the sense that the truth of such knowledge can neither be proved nor disproved by experience. pp 75-76

14 Thus Kant's solution unduly limits the scope of a priori propositions, in addition to failing in the attempt at explaining their certainty. p 85-88

15 [Logical principles are not 'laws of thought'] pp 88-89

16 Thus all truths involve universals and all knowledge of truths involves acquaintance with universals

17 The relation of resemblance, therefore, must be a true universal. And having been forced to admit this universal, we find that it is no longer worth while to invent difficult and unpalatable theories to avoid the admission of such universals as whiteness and triangularity. pp 95-97

Hence we must admit that the relation, like  
the terms it relates is not dependent upon thought  
18 but belongs to the independent world which though  
apprehends but does not create. p 97-98

We shall find it convenient only to speak of things  
existing when they are in time, that is to say,  
19 when we can point to some time at which they  
exist, ... But universals do not exist in this sense  
we shall say they 'subsist' or have 'being' where  
being is opposed to 'existence' as being timeless. pp 99-100

[We have acquaintance with universals such as white,  
sweet, hard, loud, etc. These are called sensible qualities,  
20 We also have acquaintance with relations such as  
left-right between particulars, and similarity between  
universals.] pp 101-103

21 All a priori knowledge deals exclusively with the  
relations of universals. pp 103-107

... We may sometimes know a general proposition where  
22 we do not know a single instance of it. pp 107-108

In accordance with our three requisites, we have  
to seek a theory of truth which (1) allows truth  
23 to have a ~~truthhood~~ opposite, namely falsehood, (2) makes  
truth a property of beliefs, but (3) makes it a property  
wholly dependent upon the relation of the beliefs  
to outside things. pp 119-123

The relation involved in judging or believing must  
24 if falsehood is to be duly allowed for, be taken to be a  
relation between ~~two~~ <sup>several</sup> terms, not between two. pp 124-125

25 Where ever there is a relation which relates certain terms, there is a complex object formed of the union of those terms; and conversely, where ever there is a complex object, there is a relation which relates its constituents." p 127

26 When an act of believing occurs, there is a complex, in which 'believing' is the uniting relation, an subject and objects are arranged in a certain order by the 'sense' of the relation of believing. p 127

27 Thus a belief is true when it corresponds to a certain associated complex, and false when it does not. p 128

28 Thus it is clear that a true belief is not knowledge when it is deduced from a false belief. p 131-132

29 We may say that a truth is self evident, in the first and most absolute sense, when we have acquaintance with the fact which corresponds to the truth. p 136

30 The second sort of self-evidence will be that which belongs to judgements in the first instance, and is not derived from direct perception of a fact as a single complex whole. p 137-138

31 What we firmly believe, if it is true, is called knowledge, provided it is either intuitive knowledge or inferred (logically or psychologically) from intuitive knowledge from which it follows logically. pp 131-140



## Arguments in The Analysis of Mind

1921

1 it is true that thoughts can be collected into bundles, so that one bundle is my thoughts, another is your thoughts, and a third is the thoughts of Mr Jones. But I think the person is not an ingredient in the single thought; he is rather constituted by relations of the thoughts to each other and to the body pp 17-18  
[Meinong's act seems unnecessary and fictitious]

2 The reference of thoughts to objects is not, ... the simple direct essential thing that Brentano and Meinong represent it as being. It seems ... to be derivative, and to consist largely in beliefs; beliefs that what constitutes the thought is connected with various other elements which together make up the object. pp 18-19

3 ... when we reject the act, which I think we must, we are driven to a theory of memory which is more akin to idealism. [Use content?] p 21

4 ... I should say that images belong only to the mental world, while those occurrences (if any) which do not form part of any "experience" belong only to the physical world. There are, it seems to me, prima facie different kinds of causal laws, one belonging to physics and the other to psychology. ... Sensations are subject to both kinds of laws, and are therefore truly "neutral" in Holts sense. p 25-26

Thus what is called "knowing" in the sense in which we can ascertain what other people "know" is a phenomenon exemplified in their physical behaviour, including spoken and written words. pp 27-29

I believe that the discovery of our own motives can only be made by the same process by which we discover other peoples, namely, the process of observing our actions and inferring the desire which could prompt them. A desire is "conscious" when we have told ourselves that we have it. pp 30-31

we feel dissatisfaction, and think that such-and-such a thing would remove it; but in thinking this we are theorizing, not observing a patent fact. p 32

There is no cogent empirical reason for supposing that the laws determining the motions of living bodies are exactly the same as those that apply to dead matter p 36

I believe an "unconscious" desire is merely a causal law of our behaviour, namely, that we remain restlessly active until a certain state of affairs is realized when we achieve temporary equilibrium. If we know beforehand what this state of affairs is, our desire is conscious; if not unconscious. p 38

10 [hypothesis of mental continuity highly probable and useful] p41

11 -- though self-knowledge has a definite and important contribution to make to psychology, it is exceedingly misleading unless it is constantly and controlled by the test of external observation, and by the theories which such observation suggests when applied to animal behaviour. pp42+43

12 I believe that sensations (including images) supply all the "stuff" of the mind, and that everything else can be analysed into groups of sensations related in various ways, or characteristics of sensations or of groups of sensations. pp68-69

disagree  
think  
pleasure  
&  
discomfort  
distinct  
sensations

13 [pain is a sensation. Discomfort & pleasure are ~~not~~ qualities of sensations. They will be defined by associated behaviour ~~and~~ without assumption about their intrinsic nature]

14 ... we can collect all mnemonic phenomena in living organisms, which contains ~~all~~ what is hitherto verifiable in Semon's two laws. This single law is:

If a complex stimulus A has caused a complex reaction B in an organism, the occurrence of a part of A on a future occasion tends to cause the whole reaction B. pp84-86

15 [Mnemonic causation probably not ultimate] pp 88-92

16 [table rejected as cause of its appearance, table defined as set of its appearances] pp 97-99

I believe that the stuff of our mental life, as opposed to its relations and structure, consists wholly of sensations and images. -- Images, as opposed to sensations, can only be defined by their different causation: they are caused by association with a sensation, not by a stimulus external to the nervous system. -- pp 109-123

18 We may therefore define the "perspective" to which the sensation in question belongs as the set of particulars that are simultaneous with this sensation. pp 127-128

~~We may therefore define the "perspective" to which the sensation in question belongs as the set of particulars that are simultaneous with this~~

19 We may define the "biography" to which the sensation belongs as the set of particulars that are earlier or later than, or simultaneous with, the given sensation. p 128.

20 ... we may define a "perception" of an object as the appearance of the object from a place where there is a brain -- with sense-organs and nerves forming part of the intervening medium. [So defined, perceptions give rise to mnemonic phenomena, p 131 and are affected by mnemonic phenomena]

Every thing outside my own personal biography is outside my experience; therefore, if anything can be known by me outside my biography, it can

- 21 only be known in one of two ways:  
1) By inference from things within my biography, or  
2) By some a priori principle independent of experience. p 132
- 22 A patch of colour is certainly not knowledge, and therefore we cannot say that pure sensation is cognitive. p 142
- 23 [Sensations are caused through the sense organs, Images through mnemonic causes.] pp 147-150
- 24 Perception, ~~according to~~ is no more a form of knowledge than sensation is, except in so far as it involves expectations. p 158
- 25 [Relation between image & prototype confusing] p 159
- 26 There are, if I am not mistaken, at least three different kinds of belief feeling, which we may call respectively memory, expectation and bare assent. p 176
- 27 Memory demands (a) an image, (b) a belief in past existence. p 186
- 28 [Essence of language is in fixed associations] p 191

- 29 Taken as a problem in logic, ~~in~~, absolutely nothing in the way of abstract mental content is inferable from the ~~fact~~ mere fact that we can use intelligently words of which the meaning is abstract. p 213
- 30 [General ideas differ from vague ideas not in content but in an accompanying belief] pp 221-222
- 31 [Beliefs are true or false] p 232
- 32 [We must distinguish between believing and what is believed.] pp 232-233
- 33 What is believed, and the believing, must both consist of present occurrences in the believer, no matter what may be the objective of the belief. p 233
- 34 Between content and objective there is sometimes a very wide gulf, -- p 234
- 35 The objective reference of a belief is connected with the fact that all or ~~some~~ some of the constituents of its content have meaning. p 235
- 36 [there are at least 3 forms of belief - memory, expectation, and bare assent] p 250
- 37 [A belief consists of:  
1) proposition (or content of belief)  
2) feeling of assent  
3) relation between assent and proposition such that the proposition is what is assented to] p 251

Arguments in the Analysis of Matter  
Part I

1927

1 We must therefore find an interpretation of physics which gives a due place to perceptions; if not, we have no right to appeal to the empirical evidence.

p 7

2 ... given any region not containing myself, two physical theories which give the same boundary conditions all over this region are empirically indistinguishable.

p 28

Arguments in The Analysis of Matter  
Part II

1927

- 1 [Physical space + psychological spaces must be distinguished.] ~~and~~ pp 143-146
- 2 [Correlation of various psychological spaces is through experience] pp 146-148
- 3 [Postulates] ought to be so used that, when they are true, they yield verifiable theories, but, when they are not true, no theory can be framed which will fit the facts - until we find a way of working with different postulates. p 167
- 4 The most important postulate of science is induction. p 167
- 5 The existence of causal laws perhaps deserves to rank as a postulate, or may perhaps be proved probable, on existing evidence, if induction is assumed. p 168
- 6 Propositions which form part of logic, or can be proved by logic, are all tautologies - i.e. they show that certain different sets of symbols are different ways of saying the same thing, or that one set says part of what the other says. p 171
- 7 I shall therefore assume that, at any rate in every department relevant to physics, all knowledge is either analytic in the sense in which logic and pure mathematics are analytic, or is, at least in part, derived from perception. p 175



- 8 [Our belief in induction is not knowledge] p175
- 9 Thus empirical laws not only depend upon particular matters of fact, but are inferred from these by a process which falls short of logical demonstration. p176
- 10 [Primitive ~~element~~ in perception.] There are coloured shapes which move, there are noises, smells, bodily sensations, the experiences which we describe as those of touch, and so on. There are relations among these items: time relations (earlier and later) amongst all of them, and space-relations (up-and-down, right-and-left, and the relations by which localization in the body is affected) amongst many of them. There are recollections of some of these things; this seems indubitable, although it is not easy to say in what a recollection consists, or how it is related to what it recollects, there are also expectations; by this I mean something just as immediate as memory. pp 180-181
- 11 [The causal theory of perception (2 parts)] First, there is the rejection of the view that perception gives direct knowledge of external objects; secondly, there is the assertion that it has external causes as to which something can be inferred from it. p197
- 12 [No logical proof that our perceptions have external causes] pp 198-200

- 13 We have exactly as good reason for believing that others perceive what we do not as we have for believing that we shall have a perception of touch if we stretch out our hand to an object which looks as if it were within reach. p 205
- 14 The exact thing we have been trying to prove is this: Given an observed correlation among our own percepts, in which the second term is what one would naturally call a percept of our own bodily behaviour, and given a percept of similar behaviour in a physical object not our own body but similar to it, we infer that this behaviour was preceded by an event analogous to the earlier term in the observed correlation among our percepts. p 206
- 15 [Testimony is an instance of the above] p 206
- 16 ... without assuming anything that no one perceives, establish a common space and time in which we all live. pp 207-208
- 17 [Arguments against phenomenalism] pp 208-210
- 18 [Construction of Ideal percepts] pp 210-213
- 19 ~~Thus~~ Thus the view we are examining [Ideal percepts] is incompatible with physical determinism in fact though not in form. p 214
- 20 Therefore, although it is logically possible to interpret the world in terms of ideal elements, I conclude that this interpretation is unpalatable, and that it has no positive grounds in its favour. p 214

- 21 "Matter", I shall contend, is known only as regards certain very abstract characteristics, which might quite well belong to a manifold of mental events, but ~~also~~ might also belong to a different manifold. p 215
- 22 I shall assume henceforth not only that there are percepts which I do not perceive, connected with other people's bodies, but also that there are events causally connected with percepts, as to which we do not know whether they are perceived or not. pp 215-216
- 23 The inferences to be primarily drawn from a perception are as to other members of the group to which the percept concerned belongs. p 219
- 24 We assume that differences in percepts imply differences in stimuli. This principle, together ~~with~~ with spatio-temporal continuity suffices to give a great deal of knowledge as to the structure of stimuli. p 226-227
- 25 We cannot argue that because a picture looks beautiful, therefore there is beauty in the system of stimuli, because beauty may depend upon the actual qualities. p 227

- 26 There is therefore every reason, from the stand point of perception, to desire an interpretation of physics which dispenses with permanent substance. p247
- 27 In addition to the propositions which can be proved by logic, there are other propositions which can be enunciated by logic, though they cannot be proved or disproved except by empirical evidence. p 250
- 28 When two relations have the same structure (or relation-number), all their logical properties are identical. p251.
- 29 ... we can only infer the logical (or mathematical) properties of physical space, and must not suppose that it is identical with the space of our perceptions. pp252<sup>253</sup>.
- 30 Colours and sound can be arranged in an order with respect to several characteristics; we have a right to assume that their stimuli can be arranged in an order with respect to corresponding characteristics, but this, by itself, determines only certain logical properties of the stimuli. This applies to all varieties of percepts, and accounts for the fact that our knowledge of physics is mathematical: it is mathematical because no non-mathematical properties of the physical world can be inferred from perception. p253
- 31 Thus our knowledge of time seems to be inferred from perceived relations which are not strictly temporal. p 254

32 ... Psychological time may be identified with physical time, because neither is a datum, but each is derived from data by inferences of the sort we have found elsewhere, namely inferences which allow us to know only the logical or mathematical properties of what we infer.

p 254

33 Thus it would seem that, where even we infer from perceptions, it is only structure that we can validly infer; and structure is what can be expressed by mathematical logic, which includes mathematics.

p 254

34 The gulf between percepts and physics is not a gulf as regards intrinsic quality, for we know nothing of the intrinsic quality of the physical world .... The gulf is as to what we know about the two realms. --- If there is any intellectual difficulty in supposing that the physical world is intrinsically quite unlike that of percepts, this is a reason for supposing that there is not this complete unlikeness. And there is a certain ground for such a view, in the fact that percepts are part of the physical world, and are the only part that we can know without the help of rather elaborate and difficult inferences.

p 264

Arguments in The Analysis of Matter  
Part III

1927

- 1 There is therefore nothing in our perception of process to make us feel that the mathematical analysis of continuity must be inadequate to physics, nor yet to show that a quantized time and space could not produce the sort of percepts which we call "seeing a motion." p 280
- 2 ... a percept may have parts which are not percepts, so that the structure of a percept may ~~be~~ be only discoverable by inference p 281
- 3 We perceive events, not substances; that is to say, what we perceive occupies a volume of space-time which is small in all four dimensions, not indefinitely extended in one dimension (time). p 284
- 4 ... what we can primarily infer from percepts, assuming the validity of physics, are groups of events, again not substances. p 284
- 5 We may say that this is the characteristic merit of analysis as practised in science: it enables us to arrive at a structure such that the properties of the complex can be inferred from those of the parts. pp 285-286
- 6 "Events" may have a structure, but it is convenient to use the word "event" in the strict sense, to mean something which, if it has a structure, has no space-time structure, i.e. it does not have parts which are external to each other in spacetime. p 286

- 7 What is logically convenient is likely to be artificial. pp<sup>290-291</sup>
- 8 ... there is at present no means of knowing whether events have a minimum or not; that there never can be conclusive evidence against their having a minimum; but that conceivably evidence may hereafter be found in favour of a minimum. pp<sup>292-293</sup>
- 9 I shall assume only that any structure it [an event] may have is irrelevant to physics and to psychology. p<sup>293</sup>
- 10 ... so far as our experience goes, no event lasts for more than a few seconds at most. pp<sup>293-294</sup>
- 11 [Construction of pts & space-time order] pp<sup>290-312</sup>
- 12 Thus the percipient is the meeting place of a number of more or less independent causal series — as many, at least, as there are distinguishable elements in his total momentary perceptual field. But although these lines have converged upon him more or less independently, the totality of his percepts now becomes a causal unit, as is seen in mnemonic phenomena. ... In the physical world, the same sort of thing must be supposed to occur, though to a less striking degree. p<sup>315</sup>

## Arguments in An Inquiry into Meaning and Truth 1940

Note Two main problems treated:

"I 'What is meant by 'empirical evidence for the truth of a proposition'?'  
II 'What can be inferred from the fact that there sometimes is such evidence?'" p. 11.

1 Naive realism is false. p. 15

2 "... the behaviorist, when he thinks he is recording observations about the outer world is really recording observations about what is happening in him." p. 15.

Note "The first step in such a scrutiny is the arrangement of what we think we know in a certain order, in which what comes later is known (if it is known) because of what comes earlier. This conception, however, is not so clear as it might seem to be. It is not identical with logical order, nor yet with order of discovery, though it has connections with both." p. 16

Note "The problem for epistemology is not 'why do I believe this or that?' but 'why should I believe this or that?' In fact, the whole subject is a product of Cartesian doubt. I observe that men err, and I ask myself what I must do to avoid errors. Obviously, one thing I must do is to reason correctly, but I must also have premisses from which to reason. In a perfected epistemology,



the proposition will be arranged in a logical order, though not in the logical order that a logician would prefer." p16

Note

"Epistemology must arrange all our beliefs, both those of which we feel convinced, and those that seem to us only more or less probable, in a certain order, beginning with those that, on reflection, appear to us credible independently of any argument in their favour, and indicating the nature of the inferences (mostly not strictly logical) by which we pass from these to derivative beliefs. Those statements about matters of fact that appear credible independently of any argument in their favour may be called 'basic propositions'. These are connected with certain non-verbal occurrences which may be called ('experiences') the nature of this connection is one of the fundamental questions of epistemology!" p17

3 "The word 'dog' is a universal, just as dog is a universal. We say, loosely, that we can utter the same word 'dog' on two occasions, but in fact we utter two examples of the same species, just as when we see two dogs we see two examples of the same species. There is thus no difference of logical status between dog and the word 'dog'; each is a general, and exists only in instances." p24

4 "When we attempt to define the spoken word 'dog' we find that we cannot do so without taking account of intention." p24

Note ~~1~~ "The word is, in fact, a family\*, just as dogs are a family, and there are doubtful intermediate cases, just as, in evolution, there must have been between dogs and wolves." p25  
\*I owe this way of putting the matter to Wittgenstein."

5 "In the meaning of a sentence, there are three psychological elements: the environmental causes of uttering it, the effects of hearing it, and (as part of the causes of utterance) the effects which the speaker expects it to have on the hearer." p27

6 "We may say, generally, that speech consists, with some exceptions, of noises made by persons with a view to causing desired actions by other persons. Its indicative and assertive capacities, however, remain fundamental since it is ~~owing~~ owing to them that, when we hear speech, it can cause us to act in a manner appropriate to some feature of the environment which is perceived by the speaker but not by the hearer, or which the speaker remembers from past perceptions." p27

[Distinguishes Atomic & Molecular sentences]

- 7 "A proper name, in practice, always embraces many occurrences, but not as a class-name does; the separate occurrences are parts of what the name means, not instances of it." p33
- 8 "From a logical point of view, a proper name may be assigned to any continuous portion of space-time." p33
- 9 "It may therefore be assumed, at least for the present, that every proper name is the name of a structure, not of something destitute of parts. But this is an empirical fact, not a logical necessity." p34
- 10 "We shall say, then, that a form of proposition is atomic if the fact that a proposition is of this form does not logically imply that it is a structure composed of subordinate propositions." p34
- ¶ [Treatment of symmetrical & asymmetrical relations]
- 11 "thus the meaning of a sentence, at any rate in some cases, is determined by the series of words, not the class." p38
- 12 ... let us assume, for the moment, that there is only spoken speech. Then all words have a time order, and some words assert a time order. We know that if 'x' and 'y' are names of particular events, then if 'x precedes y' is a true sentence, 'y precedes x' is a false sentence. My present problem

is this? can we state anything equivalent to the above in terms which are not concerned with language, but with events? It would seem that we are concerned with a characteristic of temporal relations, and yet, when we try to state what this characteristic ~~is~~ is, we appear to be driven to stating a characteristic of sentences about temporal relations. And what applies to temporal relations applies equally to all other asymmetrical relations.

p 39

[Theory suggested that fading of a katalytic sensation of words enables <sup>(time)</sup> order of words to be distinguished]

pp 39-40

Note

"On this theory there is, no doubt, an element of truth. It seems clear, as a matter of psychology, that there are occurrences, which may be passed as sensations, in which a present sound is combined with the fading ghost of a sound heard a moment ago. But if there were no more <sup>than</sup> of this, we should not know that past events have ~~occurred~~ occurred, assuming that there are katalytic sensations, how do we know their likeness to and difference from sensations in their first vigour? If we only knew present occurrences which are in fact related to past occurrences, we should never know of this relationship. Clearly we do sometimes, in some sense, know the past, not by inference from the present, but in the same direct way in which we know the present.

For if this were not the case, nothing in the present could lead us to suppose that there was a past, or even to understand the supposition.

p 40

Note

"Composition is a necessary stimulus to abstraction but abstraction must be possible, at least as regards similarity. And if possible in regard to similarity, it seems pointless to deny it elsewhere."

p 43

Note

"The importance of atomic forms and their contradictories is that - as we shall see - all propositions, or at least all non-psychological propositions justified by observation without inference are of these forms. That is to say, if due care is taken, all the sentences which embody empirical physical data will assert or deny propositions of atomic form. All other physical sentences can theoretically be either proved or disproved (as the case may be), or rendered probable or improbable, by sentences of these forms; and we ought not to include as a datum ~~any~~ anything capable of logical proof or disproof by means of other data."

p 45

Note

"On a sentence of atomic form, expressed in a strictly logical language, there are a finite number of proper names (any finite number from one upwards), and there is one word which is not a proper name, ... We can distinguish proper names from other words by the fact that

a proper name can occur in every form of atomic sentence, whereas a word which is not a proper name can only occur in an atomic sentence which has the appropriate number of proper names. "45

- 13 "We must therefore say either that my present experience is indistinguishable from my knowing it while it is present, or that, as a rule, we do not know our present experiences. On the whole, I prefer to use the word 'know' in a sense which implies that the knowing is different from ~~the~~ what is known, and to accept the consequence that, as a rule, we do not know our present experiences."

p50

Note "Knowing may be defined as 'acting appropriately'."

Note "The word 'appropriate' can only be defined in terms of my desires."

- 14 "It seems, then, that the most immediate knowing of which we have experience involves sensible presence plus something more, but that any very exact definition of the more that is needed is likely to mislead by its very exactness, since the matter is vague and one of degree. ~~But~~ What is wanted ~~is~~ may be called 'attention'; this is partly a sharpening of appropriate sense-organs, partly an emotional reaction."

p51.

- 15 "Association is an essential part of the connection between being hot and the word 'hot', but is not the whole."

pp52-53

16 "To mean is to intend, and in the use of words there is generally an intention which is more or less social." p53

Note "We may say, as a preliminary rather than a final definition, that a verbal utterance truly expresses a sensible fact when, if the speaker had heard the utterance without being sensible of the fact, he would have acted as a result of the utterance as he did act as a result of the sensible fact." p54

17 "A sentence, we shall say, differs from a word by having an intention which may be only that of communicating information." p55.

18 "Thus a proposition of the form 'this is similar to that' if not itself an expression of a sensible datum, must, it would seem, be derived from premisses of which at least one is of the same form." p57

Note "On such cases, the question as to what is inference and what is not is one that has, psychologically, no one definite answer." p57

19 "The arguments for the necessity of a hierarchy of languages are overwhelming, and I shall henceforth assume their validity." p62

[words true & false do not occur in primary language] p63

['not' does not occur in the primary language] p64

[conjunctions + quantifiers do not occur in primary lang] p64

20 "Since 'is' does not belong to the primary language, 'existence' and 'being' if they are to mean anything, must be linguistic concepts not directly applicable to objects." p65

~~21~~ [for the present time propositional attitudes will be excluded from the primary language] p65

Def: "We can now partially define the primary or object-language as a language consisting wholly of 'object-words', when 'object-words' are defined, logically, as words having meaning in isolation, and, psychologically, as words which have been learnt without it's being necessary to have previously learnt any other words." p65

[Discussion of learning of object-words] p66

~~21~~  
21 "When we say 'this or that' we are not saying something directly applicable to an object, but are stating a relation between saying 'this' and saying 'that'. Our statement is about statements, and only indirectly about objects!" p73

22 "Theoretically, given sufficient capacity, we could express in the object-language every non-linguistic occurrence." p77

[false and 'not' synonymous (logically)] p78



23 "From premisses none of which contains the word 'not' or the word 'false' (or some equivalent) it is impossible logically to infer any proposition containing either of these words. Therefore, if there are negative empirical propositions, there must be, among basic propositions, either pure negations, such as 'this is not white', or implications of the form 'p implies not-q', e.g. 'if this is grey it is not white'. Logic allows no third possibility." p82

26 "Psychologically 'or' corresponds to a state of hesitation." p84

27 "When we assert p, we are in a certain state; when we assert q, we are in a certain other state; when we assert 'p or q' we are in a state which is derivative from these two previous states, and we express this state, not something about the world. Our state is called 'true' if p is true, and also if q is true, but not otherwise; but this is a new definition." p85

28 "In the case of a judgement about some, as in disjunction, we cannot interpret the words except in reference to a state of mind." p91

[cannot imagine a language without names]

Note  
(abolish particulars)

"I propose to abolish what are usually called 'particulars', and be content with certain words that would usually be regarded as universals, such as 'red', 'blue', 'hard', 'soft', and so ~~on~~. These words, I shall suggest, are names in the syntactical sense; I am not therefore seeking to abolish names, but to suggest an unusual extension for the word 'name'." p94

Def "A sentence is of atomic form when it contains no logical words and no subordinate sentence. . . . Positively, a sentence<sup>2</sup> of atomic form if it contains one relation-word (which may be a predicate) and the smallest number of other words required to form a sentence." p95

Def "We may define a 'name' as any word that can occur in any species of atomic sentence. . . ." p95

Note "We are concerned only, therefore, with such names as designate, without ambiguity in principle, some definite continuous portion of space-time -

29 "I wish to suggest that 'this is red' is not a subject-predicate proposition; but is of the form 'redness is here'; that red is a name, not a predicate; and that what would commonly be called a 'thing' is nothing but a bundle of coexisting qualities such as redness, hardness, etc. If this view is adopted, however, the identity of indiscernibles becomes analytic. . ." p97

Def "Let us give the name 'qualities' to specific shades of colour, specific degrees of hardness, sounds completely defined as to pitch and loudness and every other distinguishable characteristic, and so on." p 98

30 "Common sense regards a 'thing' as having qualities, but not as defined by them; it is defined by spatio-temporal position. I wish to suggest that, wherever there is, for common sense, a 'thing' having the quality C, we should say, instead, that C itself exists in that place, and that the 'thing' is to be replaced by the collection of qualities existing in the place in question. Thus 'C' becomes a name not a predicate." p 98

assumption 31 "The angular coordinates of an object in the visual field may be regarded as qualities" p 99

32 "Thus  $(C, \theta, \phi)$  is one bundle of qualities, and  $(C, \theta', \phi')$  is another. If we define a 'thing' as the bundle of qualities  $(C, \theta, \phi)$ , then we may say that this 'thing' is at the place  $(\theta, \phi)$ , and it is analytic that it is not at the place  $(\theta', \phi')$ ." p 99

assumption 32 "We may, for simplicity, treat the coordinates of a place as qualities; in that case, the place may be defined as being its coordinate. It is therefore analytic that no two places have the same coordinate." p 99

33 "Thus the empirical element comes in when we explain the utility of latitude and longitude, but not in giving the definition." p100

Note "Latitude, longitude, and altitude are, of course, not directly observed qualities, but they are definable in terms of qualities, and it is therefore a harmless avoidance of circumlocution to call them qualities." p100

34 "All egocentric words can be defined in terms of 'this'." p108

35 "... No egocentric particulars occur in the language of physics." p108

36 "There can be no question that the non-mental world can be fully described without the use of egocentric words" p109

37 "The word 'this' appears to have the character of a proper name, in the sense that it merely designates an object without in any degree describing it." p109

38 "Thus the difference between a sentence beginning 'this is' and one beginning 'that was' lies not in their meaning, but in their causation." p113

39 "Thus in every statement containing 'this' we may substitute 'what I-now notice', and in every statement containing 'I-now' we may substitute 'what is compresent with this'.

It follows that what has been said of 'this' applies, equally to 'I-now'; what distinguishes 'I-now' from a proper name is no part of what is stated by a sentence containing 'I-now', but is only an expression of the causal relation between what is stated and the stating of it.

p 115

40 "No words exist, according to the instrumentalist, which do not embody theories or hypotheses, and the crude fact of perception is therefore for ever ineffable.

I think that this view under estimates the powers of analysis. It is undeniable that our every-day interpretations of perceptive experiences, and even all our every-day words, embody theories. But it is not impossible to whittle away the element of interpretation, or to invent an artificial language involving a minimum of theory. By these methods we can approach asymptotically to the pure datum, that there is a pure datum is, I think a logically irrefutable consequence of the fact, that perception gives rise to new knowledge." p124

41 "If, ..., all empirical words are, strictly speaking, defined in terms of egocentric particulars, then, since two people cannot attach the same meaning to the same egocentric words, no two people can attach the same meaning to any empirical word, and there is no empirical proposition that two different people can both believe." p 126

42 "The word 'this' may be replaced by something that is strictly a name, say 'w', denoting that whole complex of qualities which constitutes all that I am now experiencing. The impersonal truth asserted when I say 'this is hot' will then be translated into the words 'hotness is a part of w', " p 128

42 "... serious is the apparent consequence that all judgements of perception are analytic." p 128

43 "The only answer is to say that, although 'w' is, in fact, the name of a certain bundle of qualities, we do not know, when we give the name, what qualities constitute w. That is to say, we must suppose that we can perceive, name, and recognize a whole without knowing what are its constituents." p 128

[Alternate to above has worse consequences] pp 129-130.

Note. "An epistemological premise, which we shall now seek to define, must have three characteristics. It must be (a) a logical premise, (b) a psychological premise, and (c) true so far as we can ascertain." p131

44 "For me now, only my momentary epistemological premisses are really premisses; the rest must be in some sense interred." p 134

Def "Speaking psychologically, a 'perceptive premise' may be defined as a belief caused, as immediately as possible, by a percept." p 135

Def "'Basic Propositions', as I wish to use the term, are a subclass of epistemological premisses, namely those which are caused, as immediately as possible, by perceptive experiences." p137

45 "... a basic proposition should have two properties -  
(1) It must be caused by some sensible ~~premise~~ occurrence  
(2) It must be of such a form that no other basic proposition can contradict it." p138

46 "We can consider the whole body of empirical knowledge, and define 'basic propositions' as those of its logically indemonstrable propositions which are themselves empirical, i.e., assert some temporal occurrence." p139

[thinks two def's are extensionally equivalent] p139

[humorous discussion of Neurath & Hempel] pp 139-

47 "— basic propositions must be just as true when applied to dreams as when applied to waking life; for, after all, dreams do really occur." p151

Def "Empirical knowledge requires, however, other premisses asserting matters of fact, in addition to pure perceptive propositions. I shall give the name 'factual premisses' to any uninfereed proposition which asserts something having a date, and which I believe after a critical scrutiny." p152

48 [There are four kinds of 'factual premisses']  
I Perceptual propositions  
II Memory propositions.  
III Negative basic propositions  
IV Basic proposition concerning present propositional attitudes, i.e. concerning what I am believing, doubting, desiring, etc. p153

49 "It would be a mistake to think that, corresponding to every true judgment of perception, there is a separate fact. — [there is] only one datum, from which a variety of judgments of perception can be derived." p154.

50 "— first, memory is fallible, so that in any given case it is difficult to feel the same degree of certainty as in a judgement of perception; secondly, no memory proposition is, strictly speaking, verifiable, since nothing in the present or the future makes any proposition about the past necessary; but thirdly, it is impossible to ~~state that~~



~~What this says is~~

doubt that there have been events in the past, or to believe that the world has only just begun. [sic] This third consideration shows that there must be factual premisses about the past, while the first and second make it difficult to say what they are." p 154.

51 "It would seem, therefore, that the mere fact that we can understand the word 'past' implies knowledge that something happened in the past." p155

52 "Since it is hardly possible that our most primitive knowledge of the past should refer to a vague 'something', there must be more definite memories which are to be accepted as basic propositions." p156

Note "Images come, it seems to me, in three ways - as merely imaginary, or with a yes-feeling, or with a no-feeling. When they come with a yes feeling, but do not fit into the present, they are referred to the past. (Q. do not mean that this is a complete account of what happens in memory) Thus all memory involves propositional attitude, meaning, and external reference; in this it differs from judgement of perception." p156

53 [Memory propositions may involve 'some'] pp157-158

54 "In an attempt to dispense with memory, we shall still allow knowledge of whatever falls within the specious present; thus we shall be still aware of temporal sequence." p158

~~54~~ "We shall construct our knowledge of the past by means of causal laws, as we do in geology, where memory does not come in." p158

"In theory, the small but finite stretch of time comprised within the specious present should suffice for the discovery of causal laws, by means of which we could infer the past without having to appeal to memory." p159

"... I think it is clear that, in fact, we know more of the past than can be accounted for in this way." p159

55 "It is plain, to begin with, that sensible qualities fall into genera." p162

"It thus appears that, as regards incompatibility, there are differences between qualities belonging to different senses." p162

[But negative propositions are equally possible among the various senses] p162

"It seems that we must conclude that pure negative propositions can be empirically known without being inferred." pp162-163

55 " ---, while a positive basic proposition is caused only by a percept (given our verbal habits), a negative one is caused by the percept plus a previous propositional attitude. There is still an incompatibility, but it is between imagination and perceptions. p164.

56 [If empiricism is true, it cannot be known to be true] p165.

57 "... it seems clear that it must be possible to construct a language having the following two properties

(1) Every sentence composed according to the rules of syntax out of words having meaning is significant;

(2) Every significant sentence consists of words having meaning and put together according to the rules of syntax." p167

58 "But although it should be possible, in a good language, to give syntactical rules determining when a sentence is significant, it must not be supposed that 'significance' is a syntactical concept." p. 167.

59 "... a non-tautologous sentence is significant in virtue of some relation that it has to certain states of the person using the sentence. These states are 'beliefs' and are instances of the same belief which is 'expressed' by the sentence. p167

60 "Propositional attitudes, prima facie, throw doubt on two principles that are assumed by many mathematical logicians, namely the principles of extensionality and atomicity." p. 68a

Def [The principle of extensionality is]

I, The truth-value of any function of a proposition depends only upon the truth-value of the argument, i.e. if  $p$  and  $q$  are both true or false, then any sentence containing  $p$  remains true or false, as the case may be, if  $q$  is substituted for  $p$ .

II, The truth-value of any function of a function depends only on the extension of the function, i.e. if whenever  $\phi x$  is true,  $\psi x$  is true, and vice versa, then any sentence about the function  $\phi$  remains true or false as the case may be, if  $\psi$  is substituted for  $\phi$ .

p. 68.