SUMMARY OF RUSSELL'S PROBLEMS OF PHILOSOPHY

Suggestion: Read through slowly and carefully, and tick each item when you are sure you have understood it.

CHAPTER 3, THE NATURE OF MATTER

1. If we agree that a table persists when unexperienced, what is its real nature?
2. Science proposes that there is matter, which has location and power of motion.
3. However, light is not the same as wave motion, as every blind person knows.
4. The experience of light (and other sensations) is not part of the scientists' world.
5. We see space, or experience it by touch, but real space is neither of these.
6. A coin has a real shape, in “public space”, different from our experiences of “private space”.
7. We have to believe in public space, as the place where we meet objects, generating sensations.
8. It is reasonable to assume that the arrangement and order of our sense-data matches arrangements in public space.
9. That is the limit of our knowledge: we know the arrangement of things, but not things in themselves (e.g. distances).

10. **We can know relations, but not the terms between which the relations hold**.
11. This is clear with time and space, where our feelings are unreliable, but relations of time and space seem accurate.
12. But be careful, because the order of lightning and the arrival of sunlight can be misleading.
13. Relations give truth about colours being the same or different, although they are unknowable in themselves.
14. We might claim that objects in themselves are very similar to our sense-data.
15. However, colour varies with the medium through which light passes, and the medium can create the colour, so colours are not in objects.
16. The idealist account of matter is that it is entirely mental, either as minds (Leibniz) or as ideas (Berkeley).

CHAPTER 4, ON IDEALISM

1. Idealism is the doctrine that whatever exists is in some way mental.
2. That existence depends on minds seems absurd, but common sense reveals nothing of the intrinsic nature of objects.
3. Berkeley said (correctly) that sense-data are in the mind, but then said that nothing else could be known.
4. He called anything which is immediately known (e.g. colours, memories, imaginings) an “idea”.
5. The existence of a tree (esse) is its being perceived (percipi).
6. Trees persist in the mind of God, and we partially participate in God’s perceptions.
7. The first error here is that ‘idea’ is ambiguous; the thought of the tree is in the mind, but not the tree itself.
8. The fallacy is to rightly say “ideas are in the mind”, then switch to a second meaning of ‘idea’, as the thing apprehended.
9. Idealists also argue that matter is unknowable, so it can’t be known to exist, and is unreal and unimportant.
10. But unknown matter can have theoretical importance, as a speculation.
11. Also ‘know’ is ambiguous; I may know truths about matter, even if I (or anyone) has no knowledge by acquaintance.
12. I can know something without direct acquaintance, by inferences based on descriptions of acquaintance.

CHAPTER 5, ON ACQUAINTANCE AND DESCRIPTION

1. Knowledge of things is either by acquaintance (simple and separate from truths), or by description (involving truths).
2. Acquaintance is direct awareness, without inference or truth, as when I know a colour in a sense-datum.
3. Knowledge by description infers what is causing my sense-data (e.g. a table, which cannot be directly known).
4. All our knowledge has acquaintance as its foundation.
5. Our obvious acquaintance is with sense-data, but to know truths we must also be acquainted with abstract universals.
6. We are acquainted with memories, which are the basis of any inferences we make about the past.
7. We are acquainted with introspections, which give self-conscious awareness of mental events.
8. Our knowledge of other minds is an inference from sense-data and introspection.
9. I seem to be acquainted with my self, when I am aware of myself experiencing a sense-datum (e.g. of the sun).
10. We are acquainted with universals (which become concepts); all sentences contain at least one universal (a verb).
11. We are not acquainted with objects (as that requires descriptions).
12. Descriptions are either ambiguous descriptions (a so-and-so), definite descriptions (the so-and-so).
13. Definite descriptions assert uniqueness, and common words, even proper names, are usually really descriptions.
14. The reference of a word is constant (and the resulting truth), but we use varied descriptions to achieve reference.
15. Thus Bismarck is acquainted with himself, but we know him by descriptions, which vary between individuals.
16. For reference to be successful, it must at some point involve particulars with which we are acquainted.
17. A thought contains one or two particulars which connect to the world, and then a set of concepts.
18. Names must involve descriptions based on acquaintance, but this is not required in logic.
19. Communication is possible as long as we have some true descriptions, no matter how much they may vary.
20. There is a hierarchy of reference, from direct acquaintance to vague descriptions.
21. Every understandable proposition must be composed wholly of constituents with which we can be acquainted.
22. We don’t know Julius Caesar just by his name, so it consists of acquaintance with particulars and universals.
23. Knowledge by descriptions is vital, because it takes us beyond the limits of our private experience.

CHAPTER 6, ON INDUCTION
1. The basic data for knowledge of existence is sense-data, ourselves, and memories.
2. We need inferences beyond the basic data – of matter, other minds, the past and the future.
3. It is hard to prove that the sun will rise tomorrow without the laws of motion, which in turn need proof.
4. A lot of previous motion isn’t enough to prove the laws of motion.
5. We don’t need certainty, but we need proof that events are probable or likely.
6. A mere habit of expectation will certainly not demonstrate the future, as a well-fed chicken will discover.
7. The past causes expectations, but are the expectations justified?
8. The question is whether we can accept the uniformity of nature.
9. Science is the quest for rules to which there are no exceptions.
10. It is no good saying that futures keep being reliable; we are interested in future futures, not past futures.
11. Even if only one law fits our observations, we can’t know whether we have found it, and whether it is unique.
12. We can’t take for granted that there are any laws, because that belief itself depends on induction.
13. The ‘principle of induction’ says more cases of A associating with B increase the probability of future associations, and this gradually approaches certainty.
14. Repetition increases the probability of the next case being the same, and (less certainly) that a law is operating.
15. Mere regularity is not enough, because other information (e.g. bird colouring) can affect the interpretation of data.
16. Observing one anomaly won’t much alter the probability of future events.
17. You certainly can’t prove induction by experience, as that would beg the question.
18. Scientific law and belief in causation are based on induction, just as much as daily life is.
19. All knowledge beyond experience needs induction, but all we can say is that induction is “rooted in us”.

CHAPTER 7, ON GENERAL PRINCIPLES
1. Principles of inference are even more obvious to us than induction, but how is that possible?
2. As in arithmetic, we spot particular principles, then realise they have general application.
3. We all understand modus ponens – that implications of true propositions must be true.
4. The laws of thought: Identity [x=x], Contradiction [¬(¬p→p)] and Excluded Middle [p v ¬p] are also self-evident to us.
5. These laws describe how things behave, as well as describing how we think.
6. We recognise the principle of induction, which reveals probabilities to us.
7. The rationalist philosophers were right that logical principles are independent of experience.
8. However, we learn logical principles because of experience, so they are not innate.
9. We will ignore innate knowledge, but say some knowledge is a priori, because its proof goes beyond experience.
10. The empiricists were right that matters of existence cannot be established a priori; you cannot, as the rationalists thought, prove what exists from what must be; all knowledge of existence is hypothetical.
11. The main non-logical case of a priori knowledge is of what has intrinsic value (happiness, knowledge and goodwill).
12. Some empiricists (Mill) thought arithmetic (and geometry) arose from experience by induction, but this is not so, because after a while further examples become irrelevant.
13. With arithmetic, we go beyond examples to see the necessity of it, in all possible worlds.
14. We can imagine inductive generalisations (such as all men are mortal) to be false, but not the truths of arithmetic.

CHAPTER 8, ON THE A PRIORI
1. Kant showed that, where it was usually thought that all a priori knowledge is analytic, some of it is synthetic.
2. Previously all a priori knowledge had depended on observing contradictions.
3. Hume saw that causation was synthetic (and hence, though Russell omits this, a posteriori and contingent).
4. Kant followed Hume in saying causation is synthetic, but also added arithmetic.
5. Mill is wrong in saying empirical induction can produce maths; induction is itself unprovable a priori, and maths is necessary, so enumeration (i.e. counting examples) is irrelevant.
6. Knowledge is a priori because it anticipates experience, which is a mystery.
7. Kant says a priori knowledge is of phenomena (not the noumenon), thus trying to satisfy empiricists and rationalists.
8. But (says Russell) the a priori should be certain, and we might change, so such knowledge can’t be purely subjective.
9. Kant claims time is a priori, but surely order in time can’t depend on the observer?
10. Kant confines a priori knowledge to phenomena, but it applies to objects even beyond experience.
11. The law of contradiction is not just a law of thought, it is also a law about how things (a beech tree) exist in the world.
12. Thus a priori knowledge (2+2=4) is synthetic, because we take it as applying to things just as much as to pure ideas.
13. A priori knowledge is not mental or physical, just as the relation of in is neither one nor the other in “I am in my room”.

**CHAPTER 9, ON UNIVERSALS**

1. Plato saw universals in ‘justice’ and ‘whiteness’, as whatever just or white things have in common.
2. The idea or form of justice is not identical with any particular thing, so cannot exist in the world of sense.
3. All we can say about sensible particulars is that they partake of the eternal world of ideas.
4. Plato’s theory is more about logic than it is about mysticism.
5. Names, pronouns and indexicals stand for particulars; nouns, adjectives, prepositions and verbs are universals.
6. Every sentence must contain at least one universal, and knowledge needs acquaintance with them.
7. We don’t notice universals, because when we use them we are usually focusing on a particular.
8. Relations have been neglected, leading to the view that everything is just particulars with properties.
9. If there are no relations, you are led to the view that reality is all one, or that things can’t interact.
10. Universal qualities can be denied, by saying we can only think of particulars, such as a white object.
11. But we have to then define whiteness as resemblance between certain particulars, and resemblance is a universal.
12. Once we admit resemblance as a universal, there is no point in trying to resist other cases of universals.
13. Once again the rationalists were right in acknowledging universals, but they all seem to neglect relations.
14. The relation ‘is north of’ clearly subsists independently of our minds, as a fact about the Earth’s surface.
15. ‘North of’ is real, yet it is not in a particular space or time, and it is neither material nor mental.
16. We must not think universals are in our minds, as that makes Berkeley’s mistake of confusing thought and content.
17. If you thought universals existed in different minds, this would rob them of their crucial universality.
18. We will say universals subsist rather than exist, as this tries to capture their timeless nature.
19. There are two worlds, the world of being, which is pure and timeless, and the world of fleeting existence.

**CHAPTER 10, ON KNOWLEDGE OF UNIVERSALS**

1. Some universals are known by acquaintance, others by description, and others are known neither way.
2. The universals known by acquaintance are qualities found in sense-data.
3. We learn the universals called ‘sensible qualities’ by abstraction from resembling sensations.
4. Sensible qualities are easily abstracted, and are close to particulars.
5. The easiest relations to know are those between parts of sense-data.
6. We learn of relations across time, as well as across space.
7. Resemblance is itself a universal, which can be learned (for example) from colours.
8. A universal such as ‘greater than’ is a relation between universals.
9. Although universals require an effort of abstraction, we have immediate knowledge of them.
10. Suggestion: a priori knowledge deals entirely with relations of universals.
11. An exception might be judgements about all of one class of particulars.
12. But we know 2+2=4 when we understand the terms; no acquaintance with particulars is needed.
13. We just have the unexplained power to see relations of universals.
14. It is not so mysterious, though, once we realise that it does not control experience.
15. We know 2+2=4, but we don’t know a priori whether two pairs of things exist.
16. Empirical generalisations (‘all men are mortal’) are not a priori, because evidence for them is particulars not universals.
17. We might, of course, learn a general truth from experience, and only later prove it was actually a priori.
18. On the other hand, we might know a generalisation a priori, while knowing no particulars of it (e.g. X x Y > 100).
19. This is vital, because we never know particular objects, but only a combination of sense-data, universals and a priori knowledge of relations, which bridges the gap between us and objects.

20. summary:

![Diagram](attachment:image.png)
21. Knowledge of truths is more difficult than knowledge of experiences, because we must explain error.

**CHAPTER 11, ON INTUITIVE KNOWLEDGE**

1. Nearly all beliefs can be proved, or supported by reasons.
2. Questioning drives us back to basic principles, such as induction.
3. Basic principles have to be self-evident, but so too are some of our more complex beliefs.
4. Simple arithmetic is just as self-evident as the logic on which it is based. \[\text{[logicism]}\]
5. Basic ethics seems to be self-evident.
6. Particular instances \((\neg(\text{red} \& \neg\text{red}))\) are more self-evident than general principles \((\neg(p,\neg p))\).
7. We learn general self-evident truths from particulars.
8. There are also self-evident truths and judgements of perception.
9. Sense-data cannot be called self-evident, because they cannot be true or false.
10. Sense-data are given, but we form judgements about their existence and nature, by means of analysis.
11. We intuitively judge memories, which are not of images, but are about the past, to which the images refer.
12. But memories can be wrong, which challenges the validity of all intuitive judgements.
13. Memories come in degrees of self-evidence, with recent ones usually seeming the best (or even ‘perfect’).
14. Occasionally people are very confident about false memories, but they might be just associations, not true memories.
15. Memories show self-evidence comes in degrees, from perceptions and logic having the ‘highest degree’, through induction and memories, to complex maths, with values having ‘not much’ self-evidence.
16. Since self-evidence has degrees, it is a guide to truth, but not a guarantee.
17. We might claim that the highest degree of self-evidence makes a truth infallible, but that needs discussion.

**CHAPTER 12, ON TRUTH AND FALSEHOOD**

1. We cannot be wrong about acquaintance with objects, but truth implies the possibility of error.
2. It is hard to distinguish truth from falsehood, so begin by trying to understand these two concepts.
3. Any theory of truth and belief must allow for the possibility of falsehood.
4. Truth is a property of beliefs and statements, and wouldn’t exist in a world of pure matter.
5. Truth and falsehood are relational properties, dependent on external factors.
6. This suggests a correspondence theory, but truth then seems beyond our thought, and so unattainable.
7. So the coherence theory may be better, saying truth is being part of a complete coherent system, which is The Truth.
8. However, there could be more than one coherent system, either in fiction, or in scientific theories, or in philosophy.
9. Also, coherence presupposes the truth of the law of contradiction, which can’t be established by coherence.
10. So coherence is not the meaning of truth, but is a key test for it.
11. We return to the correspondence theory, but we need to define ‘corresponds’ and ‘facts’.
12. A fact can’t be an object, because then truth would be acquaintance, and error impossible.
13. A belief can’t be a relation to a single object, because some objects of belief don’t exist.
14. Relations can involve more than two terms, as shown by ‘between’ and ‘jealous’.
15. To allow for falsehood, we must see judging or believing as relations between several terms.
16. Falsehood can’t just exist in the object, as a false object \((\text{e.g. Desdemona’s love for Cassio}).\) [Meinong’s idea]
17. It is easier to account for falsehood if it is a relation between the mind and components of the fact.
18. A belief or judgement relates the mind to several external things which are ‘knitted together’ in some way.
19. The sentence expressing a judgement puts the objects in a certain order (as all relations do).
20. One of the objects must be a relation, and belief is what unites the objects.
21. When a belief is true, there is a corresponding complex of real objects with the same order as those in the belief.
22. A fact is a complex unity which corresponds to a belief, with the objects in the same order as the belief.