§ The Goals:

1. To refute the Knowledge Argument from a materialist's point of view.

2. To justify a functionalist's analysis of qualia (of color-experience).

3. To deny the Hypothesis of Phenomenal Information and to argue for the Ability Hypothesis.

§ The Hypothesis of Phenomenal Information

1. Besides physical information there is an irreducibly different kind of information to be had: Phenomenal information.

2. Two possible cases might be exactly alike physically, yet differ phenomenally.

3. Phenomenal information is only to be had through experiencing (what it is like).

4. Thus, phenomenal information is information about experience -- about a certain part or aspect or feature of experience.

§ Materialism and Minimal Materialism

1. The Hypothesis of phenomenal information is false.

2. All the information there is about experience is physical information.

3. Physical information can very well be presented in lessons for the inexperienced.

4. Minimal Materialism: no difference without physical difference ['supervenience'].

   Any two things that are just alike physically are just alike simpliciter.

5. Materialism is a contingent truth: We grant that there are spooky possible worlds where materialism is false, but we insist that our actual world isn't one of them.

§ Lewis on Color-Experience

1. Most people are enough alike.
2. Qualia of color-experiences are defined through the causal role its corresponding neural state plays in the whole system of normal people.

3. Patients with absent qualia or inverted spectrum do not have the same role-occupying states as normal people do.

* Lewis' Functionalistic Argument against Jackson's Knowledge Argument:
___ 1. A certain color experience is simply whatever state occupies a certain functional role. [Functionalism]
___ 2. The intrinsic character of the color experience = the intrinsic character of the neural firing that occupies this functional role.
___ 3. Mary knows all about the intrinsic character of the neural firing. [by hypothesis]
___ 4. Therefore, Mary knows all about the intrinsic character of color experience.

§ Note: Lewis' Functionalistic Concept of "Pain" (from 'Mad Pain and Martian Pain')

Madman's pain: There might be a strange man who sometimes feels pain, just as we do, but whose pain differs greatly from ours in its causes and effects. Our pain is typically caused by cuts, burns, pressure, and the like; his is caused by moderate exercise on an empty stomach. Our pain is generally distracting; his turns him mind to mathematics, facilitating concentration on that but distracting him from anything else. Intense pain has no tendency whatever to cause him to groan or writhe, but does cause him to cross his legs and snap his fingers. He is not in the least motivated to prevent pain or to get rid of it. In short, he feels pain but his pain does not at all occupy the typical causal role of pain.

Martian pain:
___ a functionalist description of pain but his pain differs from ours in its physical realization.

___ i) [Holism]: Pain is defined through its causal role in the whole system.
___ ii) [Functionalism]: Pain is a state apt for being caused in certain ways by stimuli plus other mental states and apt for combining with certain other mental states to jointly cause certain behavior.
___ iii) The whole system could more or less realize the pattern of causal generalizations set forth in commonsense psychology.
___ iv) [Nonrigidity]: Pain might have not been pain because the occupant of the role might have not occupied it. Something that is not pain might have been pain if the relevant causal relations had been different.
The neural state that played the apt role in the system of pain, for example, neuron 31 firing, might not have caused pain if it is in a different connections with other mental or neural states. At the same time, a different neural state, such as neuron 40 firing, could have been the pain state if it in conjunction with other states caused pain.

v) [Contingent Identity]: If neural state \( N_1 \) is pain, then necessarily \( N_1 = \text{pain} \), but it is only contingently true that \( N_1 = \text{pain} \).

vi) [Multiple Realizability]: Pain is some state that occupies a causal role for a population, thus different species could have different physical states that all play the same causal role of pain for them.

vii) \( X \) is in pain simpliciter if and only if \( X \) is in the state that occupies the causal role of pain for the appropriate population.

The population is appropriate under four possibilities:
1. It should be us, since it is our concept and our word.
2. It should be a population that \( X \) himself belongs to.
3. It should preferably be one in which \( X \) is not exceptional.
4. It must be a natural kind (such as a species).

viii) If \( X \) is in the pain state, then necessarily \( X \) feels pain. (To have pain and to feel pain are one and the same.)

§ The Ability Hypothesis

1. If you have a new experience, you gain abilities to remember and to imagine.

2. But the information gained is not phenomenal.

3. Knowing what the experience is like = the possession of these abilities to remember, imagine, and recognize.

4. It isn't knowing-that; it is knowing-how: it is not a propositional knowledge and it is not the possession of some information.

5. That is why lessons cannot teach you what an experience is like: lessons impart information but abilities are acquired through experience. (e.g. skiing lessons, piano lessons)

6. Knowing-how (having the abilities) does not represent a special kind of information about a special subject matter.
§ Conclusion

What Mary lacks is a knowing-how: the ability to remember and to imagine what red sensation is like. She does not lack any information about the experience itself since the experience itself is nothing but a certain causal role the neural state plays. She knows everything about the neural state; therefore, she knows everything about the experience.