

## 1.11: Problems

1. Philosophers argue about the feasibility of a private language, a language that is known by only one individual. The case against the possibility of a private language is based on the assumption that language comes into existence as a tool for communication in a society comprising two or more individuals. Solipsism is a philosophical conception in which your sensory perceptions are internally generated; they are not the result of your interactions with the world. Solipsism assumes that the world you think you perceive does not in fact exist. Since a solipsistic individual is the only being that exists, any language he uses is necessarily a private language. Evidently, the existence of a solipsistic individual who uses some language to think and the impossibility of a private language are mutually exclusive: If a private language is impossible, a solipsistic individual cannot use any language. Since you are reading this, you are using a language, and therefore you cannot be a solipsistic individual. Does this argument convince you that you are not a solipsistic individual; that is, does this argument convince you of the existence of a physical reality that is external to yourself? Why or why not? Can a solipsistic individual engage in scientific inquiry?

2. Many people find the theory of evolution deeply repugnant. Some argue that the theory of evolution has not been proved and that **creationism** is an alternative scientific theory, where creationism is the Biblical description of God's creation of the world in six days.

(a) Is it valid to say, "The theory of evolution is unproved."?

(b) Comment very briefly on whether or not the theory of evolution meets each of our criteria for a scientific theory.

(c) Comment very briefly on whether or not creationism meets each of our criteria for a scientific theory.

3. Use an ordinary English sentence to state the meaning of propositions (a) and (b):

(a)  $\sim (p \text{ and } q) \Rightarrow (\sim p \text{ or } \sim q)$

(b)  $\sim (p \text{ or } q) \Rightarrow (\sim p \text{ and } \sim q)$

Are propositions (a) and (b) true or false?

Using propositions (a) and (b), prove propositions (c) and (d):

(c)  $[(p \text{ and } q) \Rightarrow r] \Rightarrow [\sim r \Rightarrow (\sim p \text{ or } \sim q)]$

(d)  $[(p \text{ or } q) \Rightarrow r] \Rightarrow [\sim r \Rightarrow (\sim p \text{ and } \sim q)]$

### Notes

<sup>1</sup> R. Clausius, *The Mechanical Theory of Heat*, translated by Walter R. Browne, Macmillan and Co., London, 1879, p. 76.

<sup>2</sup> We use square brackets around the symbol for a chemical substance to denote the concentration of that substance in molarity (moles per liter of solution) units.

<sup>3</sup> *Webster's Ninth New Collegiate Dictionary*, Merriam-Webster, Inc., Springfield, Massachusetts, 1988.

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