

1. The world is made of objects. They have properties independent of any people or beings who experience them. For example, take a rock. It's a separate object and it's hard. Even if no people or other beings existed in the universe, it would still be a separate object and it would still be hard.

2. We get our knowledge of the world by experiencing the objects in it and getting to know what properties the objects have and how these objects are related to one another. For example, we find out that the rock is a separate object by looking at it, feeling it, moving it around, etc. We find out that it's hard by touching it, trying to squeeze it, kicking it, banging it against something softer, etc.

3. Words have fixed meanings. That is, our language expresses the concepts and categories that we think in terms of. To describe reality correctly, we need words whose meanings are clear and precise, words that fit reality. These may be words that arise naturally, or they may be technical terms in a scientific theory.

4. There is an objective reality, and we can say things that are objectively, absolutely, and unconditionally true and false about it. But, as human beings, we are subject to human error, that is, illusions, errors of perceptions, errors of judgement, emotions, and personal and cultural biases. We cannot rely upon the subjective judgements of individual people. Science provides us with a methodology that allows us to rise above our subjective limitations and to achieve understanding from a universally valid and unbiased point of view. Science can ultimately give a correct, definitive, and general account of reality, and through its methodology, it is constantly progressing toward that goal.