The state of the composite system can, however, be represented by a superposition of states, each of which does contain a state for each subsystem.

Composite systems:

Make basic use of the fact that a subsystem of a composite system which is in a state does not in general possess an independent state, but only a relative state for each state of the remaining subsystems. The state of a subsystem of a composite system is thus generally correlated to the state of the remainder.

Such correlations are produced whenever two systems interact appreciably

superposition

Measurements (or observations) are considered to be simply interactions between the object-system and observer which produce ~~such correla~~ a correlation between the object system states and observer states.

ie the state function does not longer describe a single observer

It follows that after such an interaction there will, in general, exist <u>no</u> independent observer state. The resulting composite system still will be a superposition of a number of states, each of which contains an observer state <u>and</u> a relative system state. If the measurement has been "satisfactory" good, each of these observer states will describe an observer who has perceived (recorded) a different result, and for which the relative system state is (approximately) an eigenstate. Thus to <u>each</u> observer described by an element of the resulting superposition it <u>appears</u> that the system state has changed into an eigenstate in an unpredictable manner.

and definite

Abstract: Heuristic criticism of Schrödinger ie

The quantum-jumps exist in the theory as <u>relative</u> phenomena, i.e. states of object system <u>relative</u> to chosen observer states show this effect, while the <u>absolute</u> states change quite causally.