

onset of dreams in sleeping deaf-mutes was accompanied by action currents in the fingers which were absent from normal subjects under similar cond.

An increase in muscle tone not only accompanies think.; it also facilitates it. The more concentrated the thought & the more cortical activity involved, the > is the general muscular tension. And with progressive muscular relaxation attention, imagery, thought processes, & emotion gradually diminish.

A concept is a symbolic construction that represents some common & general feature or features of many objects or events. Eg. 'man', 'red', 'holiday', 'Equality', 'longer' & 'smoother' are concepts based on common relations. We use concepts to order & classify our environment. Studies show that we may ~~lose~~ ^{form} concepts, retain them over a pd. of time, & perhaps even use them unconsciously but in the main we build up meaningful concepts by using them over & over. The more concrete the concept, the better we can talk ab. it. Children's early concepts tend to be very concrete, uncluttered by theory or unpleasant memories. Concepts used by adults have some tendency to be influenced by indiv. & sometimes biased meanings.

We use concepts to order & classify our environment. ∴ concepts are ways of classifying the diverse elements in the world around us, they are convenient tools to use in thinking

Types.

about the world & solving problems.

Simple concepts are defined by the presence of a single property, feature or attribute. 'Red' is a simple concept. Concepts wh. are defined by several common properties are complex concepts. Conjunctive concepts are defined by the joint presence of two or more features of objects or events. Eg. football team consists of 11 players wearing certain clothes who kick, pass or carry a ball of a certain shape acc. to special rules. In a disjunctive concept, any one of several properties puts an object in the class of the concept. Relational Concepts are formed on the basis of the relships among features. Concepts such as 'more than', 'taller than', 'near' are relational concepts.

• Concepts can be learned without the use of language. Rats can learn the concept of triangularity by being rewarded for selecting Δ^s of various shapes & sizes & not rewarded for responding to other geometrical forms. Concept learn. utilizes the psychological processes of generalization & discrimination. In learning the concept of Δ^s triangularity, a rat generalizes the response to other geometrical forms but "these" go unrewarded, these are extinguished, & eventually narrows the discrimination to Δ^s .

Studies by Heidbreder (1947) indicated that concrete characteristics are generally easier to conceive than the more abstract relships of form and number. A series of expts. showed that object concepts (shoe, book)

* Definition helps in concept for. It helps us acquire concepts by describing them in terms of other words or concepts with wh. we are already familiar

were the easiest to learn, spatial forms the next easiest, & then numbers. Piaget's stages of intellectual dev. indicate that the child first learns object concepts & develops more abstract concepts only as he grows older.

Factors affecting concept attainment →

- ① Transfer - When people know a concept similar to the one being learned, they can learn the new one rapidly. This is +ve transfer. If a new concept appears to be similar to a known concept but is quite diff. in some impt. respect, people may have trouble understanding the new concept. In this case, to avoid -ve transfer & to capitalize on +ve transfer, both the similarities & the differences must be learned.
- ② Distinctiveness - the degree to wh. the common elements are isolated, grouped or otherwise made conspicuous. Anything that makes the common properties of the concept stand out aids concept attainment; anything that obscures these properties or embeds them in irrelevant details retards concept attainment.
- ③ Ability to manipulate the materials involved in the concept. Rearranging, redrawing, or reorganizing materials containing the common properties helps people to discover the concepts.
- ④ Instructional set - If people are told to try to

if they have all the relevant infor. available at the same time, instead of being given only a piece of infor. at a time.

Role of Set in Problem Solving:-

Our past experiences are valuable to us in solving new problems. The algorithms and heuristics we use in solving problems typically come from past experience with the solⁿ of similar problems. Practice in solving problems in one way tends to give people a set to use the same rules on other problems. If this proves helpful, then it is +ve transfer. However, some experiences can actually hinder prob. solving. This is -ve transfer.

Set may be induced by immediately preceding experiences by long-estd. practices or by instructions which revive old habits. Set biases thinkers at the start of the problem, directing them away from certain thoughts & toward others.

A part. kind of set that can point thoughts in the right direction has been called 'functional fixedness'. It is a set to use objects in the way that we are accustomed to using them, even if a diff. use might solve a problem. Adams (1952) had conducted an expt. to show functional fixedness. The prob. was to find a way of mounting a candle on a

with the necessary materials kept inside the box whereas a control gr. was given an empty box along with the other materials. The expt. a gr. had difficulty solving the prob. bec they had fixation on the function of the box serving as a container & not a platform. On the other hand, 86% of the subjects in the control gr. solved the prob. in the allotted time, as they were not set to use the box as a container.