

and the animals in that area, but only the men can form the proposition “The grass is turning brown.” An animal would not be able even to take the initial step of isolating the color of the grass as a separate fact, let alone take the subsequent steps of comparing the present color to that of previous days. Everything beyond viewing the current scene (which includes grass that happens to be browner than yesterday’s grass) requires concepts and their use in propositional thought.

## CLASSIFICATORY PROPOSITIONS

The simplest and earliest propositions are those that classify an entity under a first-level concept, e.g., “That is a dog.” When a toddler points at a dog and exclaims, “Dog!” he is, in effect, making that kind of proposition: he is subsuming the dog he sees under his previously formed concept, “dog,” just as if he had uttered the full sentence, “That thing is a dog.”

To subsume something under a concept is to classify it—i.e., to grasp that it qualifies as a *unit* of an existing concept. What qualifies an existent as a unit is its essential similarity to the other existents already integrated by the concept. It is this dog’s essential similarity to the animals already conceptualized as “dogs” that enables the child to classify it as a dog. The child says “Dog!” because he is aware, perceptually, of this similarity.<sup>85</sup>

Underwriting the similarity is measurement-proximity—i.e., the fact that this animal’s shape, size, diet, keenness of smell and hearing, etc. have measurements falling within the “dog” range or category. The canine shape, though instantly recognizable, is a complex set of ratios, such as of maximum height to maximum length and thickness, head size to body size, eye separation to head size, etc. For simplicity in diagramming the role of measurements in classification, I take as the CCD the relatively unimportant characteristic of overall size (volume).



85 The proposition, however, is *about* its subject, not about the similarity involved. Grasping similarities is the *how*, not the *what*. A proposition *about* similarity would take that similarity as its subject-term, as in: “The similarity of A to B is . . .”

Thus, *measurement-relationships* underlie the two basic operations of the conceptual level: concept-formation and conceptual identification. Concept-formation operates by *measurement-omission* (to establish a range) and conceptual identification operates by *measurement-inclusion* (inclusion in an established range). Concept-formation creates the file folder; a classificatory proposition applies the information in the file folder to the subject.<sup>86</sup> The child, of course, is aware only of similarity and difference, not of the underlying measurement-relationships, which is a phenomenon identified by the epistemologist.

A further step in the same direction comes when the child forms higher-level concepts; these enable him to make wider classifications. Forming the wider concept “animal,” allows him to make the wider classificatory identification: “Dogs are animals.” Here, the subject is a class of thing, dogs, not a single concrete, Lassie. But the process is the same: “dog” represents a measurement-range that is, from a wider perspective, only a sub-range within the animal range of measurements, as distinguished from that of plants.<sup>87</sup> In effect, he places the “dog” file folder inside the “animal” folder. Or, more literally, he grasps the fact that the concept “dog” is a unit of the wider concept “animal.”

Just as wider concepts, like “animal,” make possible propositions having greater generality, so conceptual subdivisions, like “collie,” make possible propositions having greater specificity. “Lassie is a collie” is more specific than “Lassie is a dog.”

Many of our concepts represent “cross-classifications” (see CHAPTER 4), and these are frequently used as predicates. E.g., “Lassie is a pet.” (“Pet” is a cross-classification.) From this array of quite simple higher-level concepts, one can already see the permutations start to proliferate: “Collies are animals,” “Some collies are pets,” “Pets are animals,” etc.

---

86 All mental content, including concepts, is *stored* in the nervous system in *physical* form. Neuroscience has found that this storage involves changes in neurons and their synaptic connections. (For a well-written, popularized history of some very recent discoveries concerning how the brain stores memories, see McDERMOTT, 2011.)

87 In forming “animal” (as a category ranging from, say, fish through mammals) two broad CCDs are involved: “form of locomotion” and “type of consciousness,” and each of those involve several axes of measurement. E.g., both a fish and a dog move themselves around and are conscious, in contrast to a tree or a bush, but there are many measurable differences in how they do so. Their different forms of locomotion and consciousness are adapted to their different means of survival in their distinct “ecological niches.”

## DESCRIPTIVE PROPOSITIONS

All propositions apply concepts to a subject, but only some propositions *classify* their subject as a whole. Classification occurs only when the predicate is a *noun*, in which case the predicate names a class of things. Since concepts start from perception, and since the content of perceptual awareness is entities, a child's earliest propositions have concepts of entities as their predicates. But soon thereafter, the child develops concepts of characteristics — of attributes, actions, relationships — as discussed in CHAPTER 4. (For ease of expression, I continue to refer to actions as “characteristics,” even though actions are not attributes.)

Thus, there is a difference between propositions that classify and propositions that describe, a distinction first made by Aristotle. [CATEGORIES, II, 1a20–1b8] Where a classificatory proposition classifies its subject as a whole, a descriptive proposition *analyzes* out of the whole subject a part, an attribute, the material of which it is made, etc. In a descriptive proposition, the predicate can be an adjective (“Tom is *tall*”), a verb (“Tom *ran*”), or a prepositional phrase (“Tom is *in the kitchen*”).<sup>88</sup>

One function of *classificatory* propositions is to connect concepts to other concepts, which organizes one's mental file folders into a network. Having one's concepts organized logically is of inestimable value; it means that identifying something as *P* carries with it or implies that it is also *Q*, *R*, *S*, *T*— and so on, for everything to which *P* is logically connected. Some of the most valuable of these connections are to the characteristics of *S*. “Man” stores all the characteristics of men: that they have a certain range of size and shape, that they walk, talk, think, learn, have parents, form societies, buy and sell things, create works of art. Having the concept “man” is cognitively valuable not because it “labels” men, but because it *stores knowledge of their characteristics*. Descriptive propositions are the means of identifying characteristics. And bear in mind that it is the analysis expressed in descriptive propositions that permits the identification of causal factors, the key to man's mastery of his environment and the progress of civilization.

How, then, do descriptive propositions work? What is the process of propositional judgment when the predicate is not a concept of an entity, but of an entity's characteristics? What are the underlying mechanics when a child thinks “Lassie barked,” or “Lassie is big,” or “Lassie is on the couch”?

88 Nouns may appear in the predicate of descriptive propositions, as shown by “Tom opened the *door*” and “Tom is the *winner*” — neither of which classify Tom.