

WOLFGANG RUDOLPH / PETER TSCHOHL:

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It has not been possible to achieve a systematic, unifying harmonization of all the anthropological sciences so far, although demands for systematic organization of interdisciplinary co-operation, for reduction of the historically conditioned isolation of disciplines and for problem-orientated anthropological research have emerged, and there have been attempts to end this sterile situation. One of the main reasons for this is that hitherto there has been no systematic, encompassing, anthropological model, according to which the possibilities of investigations of general anthropological relevance in separate disciplines could be discerned and their findings combined or further investigations concerning the solutions of particular anthropological problems could consistently be co-ordinated. RUDOLPH/TSCHOHL attempt the construction of such a model. The aim of their investigation is a scientific theory covering everything that can systematically and in a meaningful manner be subsumed under a subject of inquiry designated by the concept "man".

The relevant and essential terms/concepts (Begriffe) are explicitly developed and integrated into a logically deduced system or continuum (axiomatization of terms/concepts). Thereby a preliminary, but necessary clarification of the conceptual scheme utilized by the sciences of man is achieved. The theory is constructed in accordance with these terms/concepts. The plausible systematization characterizing the authors' investigation is achieved by means of an explicit procedural method and a stringent conceptual scheme. The operational basis of the investigation is the empirical comparison of classes that is systematically effected by the construction of homologies and analogies.

The class comparisons in both basic forms are undertaken in terms of a delimiting specification in the direction of the aim of the investigation, namely, the "class-existence" (Klassenexistenz) of "human existence". This is done by eliciting the class characteristics of the "classes of existence" (Existenzklassen) and the subclasses of existence (phyloclasses) that are instructive for their identification. The investigation proceeds from the greatest overall class, which includes also the class of existence of man, i.e. the class of existence of facts that consists of all the units found in reality. Start-

ing from this class of "facts" a sequence of classes of existence is constructed: facts — systems — organisms, and the class of existence of organisms is resolved into its subclasses (phyloclasses): vertebrata — mammalia — primates — anthropoidea — hominoidea — hominidae.

The constitutive characteristic of systems is homeostasis, defined as functional autonomy. The constitutive quality of the class "organisms" as a subclass of the class "systems" is "life". Life is considered to be a combination of "teleonomy" and "homeostasis". "Teleonomy" is a basic concept in RUDOLPH'S/TSCHOHL'S theory. It constitutes the first link in the sequence of determinations: "teleonomy — genetic delimitations — organismic tendencies and potentials — adaptations". All functions of organisms useful for survival are, therefore, rooted in teleonomy. It has its material basis in certain macro-molecules that — as constituent parts of certain systems — possess the tendency to hold their structural norms constant and to reproduce them. Their exposition of relevant problems in molecular biology is so sketchy, however, that it does not become clear, what RUDOLPH/TSCHOHL really mean by the determination sequence: "teleonomy — genetic delimitations". As they refer to MONOD and to him alone one may surmise that they perceive teleonomy as based on the enzyme effects of the proteins. However, it has not been proved that enzyme-proteins can determine the genetic delimitations. Therefore EIGEN and STEGMÜLLER following ARTHUR KORNBERG proceed from a quite different sequence of determinations: DNA — RNA — proteins — everything else.

Adaptation is the realization of the principle of existence of life, i.e. all the — intra- and extra-organismic — effects supporting the self-preservation of organisms. It follows that an investigation of the class of organisms under the aspect of life must consist of specifications of adaptation in respect of the corresponding environmental conditions. The evolution of organisms is analysed under the twin aspects of phylogenesis and ecogenesis, where the basis of phylogenesis are mutations leading to the formation of new phyloclasses, and ecogenesis is the development of ecosystems as a result of behavior. The point at which the conditioning potency of phylogenesis recedes behind that of ecogenesis is defined as the eco-conversion (Öko-Umschlag). From this point