The Circumscription Theory by Robert Carneiro in the Socio-Ontological and Macrosociological Context

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The theory of origin of the state by Robert Carneiro (1970), no doubt, is one of brightest achievements in the 20th century macrosociology. From the methodological point of view, the theory is significant, first, because it is built with a high degree of logical correctness, and second, because, when faced with anomalies, it has been successfully improved in direct line with the concept of scientific research programs (Imre Lakatos). In my article, I will focus on the coherence criterion (between this theory and other theories and more general scientific and philosophical paradigms).

Hempel's logical scheme of the nomological (based on laws) explanation and prediction (Hempel 1942), despite the decades of severe criticism turns out to be the core of the most successful research programs. According to Hempel's scheme, a full-fledged scientific theory must explain and predict phenomena by means of deductive judgments that connect initial conditions and universal laws. In his last article, Carneiro formulated the main thesis of his theory in the following way:

A heightened incidence of conquest warfare, due largely to an increase in population pressure, gave rise to the formation of successively larger political units, with autonomous villages being followed by chiefdoms, the process culminating in certain areas with the emergence of the state (Carneiro p. 27).

A possible (a bit simplified) explication of the thesis can be presented as follows:

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In all cases where the following combination of conditions is present

C1 – demographic pressure,

C2 - regular warfare oriented at conquest,

a phenomenon e occurs, which belongs to the class of phenomena E, that is political evolution as a formation of larger political units from autonomous villages through chiefdoms to states.

The generic quantifier immediately gives rise to legitimate doubts whether the political units really enlarge and integrate in all cases under such conditions. From the theory of geopolitical dynamics by Randall Collins we know about the effect of overextension and fragmentation of vast conquest societies. If states are susceptible to disintegration, then pre-state political forms which are less efficient in control and maintaining integrity should also break down because of overextension.

Moreover, some polities may cease conquest and consolidation, and remain at the stage of chiefdom. Carneiro discussed this point in the earlier paper where he presented empirical observations and generalizations about the size of population and territorial threshold for chiefdom (Carneiro 1988). The stable integrity of such large communities (which should be distinguished from the sporadic military mobilization of autonomous chiefdoms or tribes) is achieved only through a transition to statehood.

Carneiro points to the following criterion of statehood: a presence of a central government capable to enforce people to work and war (Carneiro 1970). Generally speaking, a strong and respected leader of a chiefdom, relying on his close associates (military elite), can also compel people to work and war. What is the difference from the 'central government'? The main one is the new institutional quality, namely, the power structure of functional positions ('offices') and the rules of interaction between them, relatively autonomous from kinship relations and personal ties between individuals, moreover, this structure passes on from generation to generation.

This structure ensures a preservation of power, integrity of management processes under the inevitable aging and death of the ruling elite. These features make a state in general, more efficient and robust than the previous forms: simple and compound chiefdoms. The structure of a universal law can be represented graphically as follows (Fig. 1).

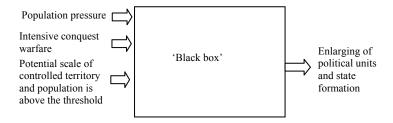


Fig. 1. Schematic representation of the basic law of origin of the state in the circumscription theory

The presence of the 'black box' as a mediator between the 'inputs' (initial conditions, causes) and 'outputs' (consequences, effects) of the process is legitimate and justified in Hempel's logical scheme. But it is treated as an insufficient one in the methodology of Daniel Little (1991), who requires to demonstrate a social mechanism of transition, that is to transform the 'black box' into 'a transparent one'.

It should be noted that in the classic paper (Carneiro 1970) the mechanism of consolidation of political units was shown in general terms, partly in the form of empirical generalizations, partly reconstructed on the common sense basis but not on a theoretical level.

How to represent the mechanism of origin of the state theoretically? If to follow the same Hempelian principles then one needs to point out general rules and conditions of regularities that lead to the processes that start up the mechanism. Since the latter obviously has a complex nature, we use a general analytic representation of the structure of social ontology and consider the processes in each of 'worlds' (the spheres of Existence).

Social ontology constructed for conceptualization of historical dynamics consists of four 'worlds' (according to Popper): the material world (biotechnosphere), psychosphere, cultural sphere, and sociosphere (Rozov 2002: ch. 3). Each sphere is characterized by a special type of substances (physical objects, psychic phenomena, cultural patterns and social structures, respectively).

In addition, each sphere develops its specific laws. Human organisms, landscapes with resources, food, clothing, shelter and weapons belong to the material world. The effect of (physical) constraint refers specifically to this sphere of Existence. The special configuration of natural landscape, that is an abundance of resources in the middle and barriers to care at its edges, drives several laws which, in fact, are common to human and animal populations and are not intended to refer to any psychological, social or cultural explanations.

First, the population concentrates in the areas of resource abundance. Secondly, in terms of the abundance, the population growth accelerates.

Third, barriers to care (physical barriers, steep resource gradient) lead to the fact that the migration flows do not compensate the continuing population growth, and this leads to increasing population pressure, which is expressed in a regular resource scarcity, increasing discomfort, attempts to capture resources and territory as a source of resources.

The appeal to the world of consciousness, psychics (psychosphere), and to the world of social interactions and structures (sociosphere) is justified when you need an explanation of a certain type of behavior or one of several possible strategies. In our case, the main interest is the choice of a conquest strategy. In fact, the demographic pressure, correlating with resource scarcity and general discomfort does not automatically lead to conquests. There are few common responses to the challenges of resource scarcity:

1) ceremonial practices (*e.g.*, calling the rain, prayers, communion with spirits, and so on);

2) search for new types of resources in the same area and attempts to use previously neglected resources;

3) invention and borrowing, that enable to compensate for losses ('technical progress');

4) conservation of reserves, limited consumption, establishment of appropriate regulations;

5) practice of birth control;

6) search for new, more favorable locations, migration;

7) raids on neighboring communities for the purpose of robbery;

8) attempts to gain from expulsion, the capture of a foreign land extermination or expulsion of the vanquished;

9) attempts to subordinate the conquered population.

Probably, in different places different strategies (pts 1–5) have been used, but they were either inefficient (pt. 1) or provided only a temporary effect (pts 2–4), or required rather large social costs (pts 3–5). The migration strategy (pt. 6) was hampered as a result of constrained situation (surrounded by almost impassable barriers). Raids with robbery (pt. 7) are probably the most natural and common response strategy for resource scarcity, as they provide a quick and tangible results, especially if you already have storage technology (thus, there is something to rob); successful raids also contribute to social cohesion and enhance the leaders' prestige.

It is obvious that the raids and robbery are a common practice. Each plundering community is in danger to be plundered itself. This situation leads not only to development of raiding strategies, but also of the security and defense strategies (palisades, ditches, walls, patrol, and so on). Coalition-building, especially through marriage, the expansion of kinship structures are the ways to improve military capabilities for defense and for attack.

Under these new conditions, a successful raid cannot be limited only to robbery. There is also an urgent task to secure a settlement from expected revenge raids. New defense practices are not spontaneous, but require a serious preparation, special ammunition, military training business, practices (rituals) producing group emotional excitement.

The usual egalitarian structure of small communities (villages) is no longer suitable for this purpose. Military mobilization requires a special, usually a vertical social structure, which was originally performed in a clan with patriarchal relations, extended (socially constructed) fraternity, *etc.* Increasingly complex functions of creation, collection and redistribution of military resources (weapons, fortifications, food) lead to specialization. However, the special structures of chiefdom, built mainly on kinship relations (real or socially constructed) with the change of generations are crumbled and need a restoration. Some intermediate stage seems probable to exist between chiefdom and state structures where individual families and clans specialize in a particular kind of military mobilization. This order was also maintained at very late stages of statehood, for example, in a certain system of Russian *mestnichestvo* (a specific system of posts inheritance).

Carneiro's theory almost completely lacks any cultural components; however, it is clear that the cardinal historical transition to statehood could not occur without dramatic shifts in cultural patterns (units of the cultural sphere). The state like any other social institution can be sustained and preserved for generations if only being accompanied with a complex of sacred symbols and new regular *rituals* that actualize these symbols and maintain new social relations. Features of symbols and rituals can be reconstructed from archeological and anthropological data.

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