

# The Origin of the Caland System and the Typology of Adjectives

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In recent years, a great deal of attention has been devoted to the study of the Caland system, a morphological system of IE that derives a number of nominal and verbal stems from roots with adjectival meanings (Nussbaum 1976). A very recent treatment of the topic is Rau 2009, which includes a rich morphological description and lexical survey of the system.

Open questions are still how and why the system came into being, and what function it had in the parent language. This paper will discuss some typological considerations on the nature of adjective classes that have a bearing on these questions.

The core roots taking part in the Caland system all belong to the most basic semantic types pertaining to adjectives cross-linguistically; these are (as described by Dixon 1982) the semantic types of DIMENSION, AGE, VALUE, and COLOR; many Caland roots also belong to the semantic type of PHYSICAL PROPERTY (which is the next most basic type of adjective cross-linguistically). What we are looking at is effectively the most archaic and most basic layer of roots with adjectival meaning in PIE. Though this fact has been pointed out several times (first by Watkins 1971:83f), and its importance has been variously stressed (see, for instance, Balles 2006), I believe that its significance has not yet been fully appreciated.

Adjectives belonging to the semantic types that PIE Caland roots belong to are the kind of adjectives that even a language with a minimal adjectival class is likely to have (Dixon 1982, 2009). In languages that have multiple, layered adjective classes, these are also the adjectives that exhibit the most conservative morphosyntactic profile; they are as well the first adjectives to be mastered during language acquisition (Blackwell 2005).

We know that languages vary greatly as to how they handle their adjectives: somewhat simplifying, some languages realize their adjectives nominally (like English), and some verbally (like Bororo, of the Macro-Gê family; see WALS: Predicative Adjectives); this choice tends to be an areal feature, and we know as well that languages can change their strategy for realizing adjectives over time, and this can result in one language having two separate classes of adjectives, each showing a distinct morphosyntactic behavior. This is the case of Japanese (in the analysis of Dixon

2009:32-6), which has an older, closed class of adjectives with verb-like behavior (-i adjectives) and a newer, open class of adjectives (*na* and *no* adjectives) with nominal behavior.

In this paper, I suggest that a similar situation could account for the existence of the Caland system in PIE as a separate class of adjectives: under this hypothesis, the Caland system roots would represent the oldest layer of IE adjectives, which behaved syntactically *like verbs* and took verbal inflection. In this layer of Pre-PIE, to say "the cat is red," one would say "the cat reds." Such verbal forms would constitute the bedrock of Caland formations. This proposal brings to its extreme consequences the insight that verbal formations (statives especially) are central to the Caland system (this insight also originated with Watkins 1971, and has most recently been developed by Rau 2009).

Later, when PIE developed a noun-like adjective class (the productive one we observe in all IE languages), old Caland forms had to be reshaped to fit within the new system: instead of tolerating two syntactically distinct adjective classes (one noun-like and one verb-like, as in Japanese), PIE derived both nominal and verbal formations to the Caland roots, forming noun-like adjectives that conformed to the productive adjectival class in the language, and verb-like verbs that did the same (with stative suffixes). In this process, the old root verbal formations were eliminated as aberrant, and replaced by derived formations using the *-eh<sub>1</sub>-* morpheme; this shift created the classic Caland configuration of secondary derivatives (the *-i-*, *-u-*, *-ro-* types etc.), seemingly lacking a synchronic base.

The Caland system as we normally describe it, straddling the line between nominal and verbal inflection, would be a result of such a restructuring. Perhaps already in the parent language, and surely in the individual languages, this pattern of derivation became newly productive (as Rau 2009 has illustrated), and was extended to new members of the adjective class.

Starting from the typological considerations above, this paper traces the possible development of the Caland system from Pre-PIE to PIE, focusing especially on the verbal members of the system (statives and factitives) and their origin.

## References

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