

The Late-Klimov Model for Typological Classification of Active, Ergative, and Nominative Languages

— **Re-evaluation of the *Five Macroroles Model*, et al.**

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1. Background: The Dixon model or the 'early' Klimov model as conventional models

1.1 The mission of 'holistic typology'

In many academic fields, research has become more fragmented, with more in-depth studies of localised phenomena. As a result, attention to the global dynamics that have become diluted may be swayed back, as if to achieve a homeostatic balance. This is probably because the accumulation of localised research is an important element in shaping a global perspective and, conversely, it is hoped that a global perspective will influence the direction of localised research.

Many studies of linguistic typology today do not necessarily aim to subsume entire language grammars under a single set of correlations. In other words, there is less and less interest in characterising the entire grammar of a language as being of a certain 'type'. However, this may tend to lead either to study a single language using the various parameters of linguistic typology, or to study various languages with a focus on a single parameter. This tendency can result in a loss of opportunity to refine existing parameters or to create new ones.

Certainly, typologies of individual phenomena (so to speak 'local/partial' typologies); such as the typology of alignment, of word order, of head vs. dependent marking, of tone, of nominal classification, etc., have produced important results in recent years (especially in the first quarter of the 21st century). Instead of a holistic approach to linguistic phenomena, this partial approach has now become the mainstream.

On the other hand, however, I wonder whether this tendency is not stalling attempts to find out which parameters are primary and to use them to predict the typological characteristics of many other languages. Or perhaps it is stalling attempts to predict the dynamics of the parameters themselves, which would be involved in a diachronic transition in the historical context of any language. Such attempts must have been one of the ambitious and intriguing goals of the holistic approach especially in the last quarter of the 20th century.

However, it is worth noting that there have been no significant theoretical developments of holistic typology in recent years that have contributed to this most important issue. In the field of

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functional linguistics in Western countries, for instance, it is challenging to identify any significant progress since the rich stream of scholarship initiated by Jespersen and further developed by such as I. H. Aronson, Chafe, Comrie, and Nichols. In the field of linguistics associated with the Russian Academy of Sciences, if we consider Meshchaninov as the pioneer, then the quiet mainstream would be A.V. Desnitskaya, Klimov and their successors (such as M.E. Alekseev and Ishida), and there would be tributaries such as Alpatov and A.E. Kibrik, which led to the present situation. It is regrettable that there is a perception of stagnation and obstruction in the research sector of holistic typology, but I hope this is merely a subjective impression.

However, this sense of stagnation can also be seen in the tendency to merely judge and be satisfied with language types. For example, it is often assumed that differences in language types are the same as differences in alignment. In the past, this process of classification itself was valuable as a stage in this field of research. However, it is evident that this tendency is further fuelled by the fact that, in terms of classifying a particular language, different classifications are proposed for each language. While this is not in itself a negative thing, each of these classifications is completed and left at that, and this situation can be seen in language research in various places.

For example, is Swahili a nominative language or a classificatory² language? Is Basque an active language or an ergative language? Is Georgian an ergative, active, or nominative language? From the point of view of partial typology, such a question itself may be nonsense. This is because Swahili can be said to be a nominative language in one respect and a classificatory language in another. However, without asking such questions, it is not possible to extract primary parameters or to create new parameters that will be necessary for languages in their entirety. Now that partial typologies have matured, it is probably time to put each parameter on the table for a comprehensive examination. This is the importance of reconsidering the holistic typology.

On that other hand, the question of which language type a language belongs to has long been debated and is well known in languages such as American, Austronesian, Papuan, Bantu, and Caucasian languages. However, for languages that have passed the stage of collecting sufficient linguistic data, the debate about which language type they belong to often reaches an impasse, with different conclusions remaining parallel lines and few of them being settled. The fact that different researchers adopt different classification criteria for languages means that there is a lack of consensus, which makes communication between researchers difficult. Furthermore, different conclusions have been reached for the same language, and there is no way of deciding which theory is valid. If there is a holistic typology to be long-awaited today, it is probably not in the direction of pursuing a single generalisation of a linguistic type. Rather, we should focus on tasks such as

² In the late-Klimov model, it is referred to as a “class language” (*klassnyj* (классный) language) and is one of the language types. In this essay, I have tentatively translated the term using the adjective ‘classificatory’. Some modern Bantu languages are cited as examples of this language type, but since there are many unknown points, no sufficient description can be found in the model. Essentially, it can be understood as a language where noun classes are distributed into numerous groups based on animacy, with verbs also demonstrating agreement with these classes. It was noted that the strictness of this agreement is gradually dissipating in some contemporary contexts. (cf. classificatory affixes, section 5.4)

identifying the hierarchy between parameters and identifying the historical transition of primary parameters themselves, leveraging its holistic perspective.

It is unfortunate, but the current situation in holistic typology suggests that the current methodology itself may be hindering the achievement of the ultimate goal. This area of research may have reached a stage where the methodology itself should be questioned again.

1.2 Conventional models and their limitations for classifying language types

Conventionally, the method of classifying language types has usually been based on the distribution pattern (alignment) of how the relationship between the predicate and the argument is expressed by the conjugation of the verbals and/or the declension of the nominals of the language under examination. It is also well known that the most standard theory of this methodology is the alignment model with 'four macroroles' (Figure 1), which can be called the Dixon model or the 'early' Klimov model. The former has become the standard in the West, while the latter has become one of the standards in the research community close to the original Russian Academy of Sciences.

It is evident that both models assume the semantic criteria (the four macroroles consisting of A, O, and two types of S) are distributed based on transitivity.³ This point is recognised as being of some standing. In particular, many languages that had previously lacked an appropriate way of distinguishing their language types (especially so-called active languages) have been successfully extracted using this model.

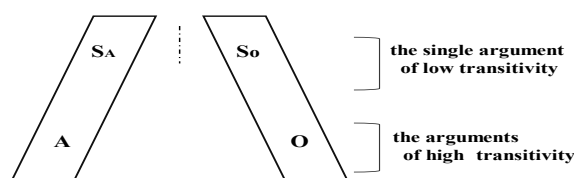


Figure 1: Conventional model of alignment (Dixon / 'early' Klimov model)

As illustrated in Figure 1, the traditional model is depicted as a symmetrical distributional relationship between the two opposing terms of macrorole A and macrorole O in transitive verb constructions. The question of which of the two macroroles, A or O, the macrorole S-class of the intransitive verb construction is equivalent to, is addressed. In other words, it is a symmetrical relationship between two pairs of S-classes: the S-class equivalent of A vs. the S-class equivalent of O.

On the other hand, it is undeniable that there is a strong tendency to position languages that

³ In the case of conventional models, the symbols used by the two are different in some respects, but their meanings are generally the same. For the terminology used in the late-Klimov model, see footnote 6.

can be called 'active languages' as 'in between' ergative and nominative languages, despite the fact that their unique characteristics are recognised.

The isolation of the two language types (ergative and nominative), which are recognised as the two central pillars, is probably also related to the fact that the conventional model tends to lack a perspective on the diachronic aspect of language type formation and development. In other words, the conventional model could be said to have entrenched the notion that language types are something to do with the synchronic state. In the same way, it could be said that the possibility of considering continuity between language types was also excluded.

One of the reasons for this may be that the conventional model (the Dixon model or the 'early' Klimov model) forced us to see ergative and nominative languages as two opposing axes in the end. The modelling of the two opposing categories (macrorole A and O) with the macrorole S-class as the dividing line has resulted in the perception of 'two opposing pairs'.

Furthermore, it should be noted that the field of language typology has been discriminated solely on the basis of the analysis of alignments based on the conventional Dixon/'early' Klimov model. Discriminations based on morphological features such as inflectional and agglutinative languages are now a thing of the past. While alignments are indeed part of morphological analysis⁴, they are distinct from these kinds of distinctions. However, it is important to question whether language typology is truly a simple system that can be divided based solely on formal analysis using one parameter (alignment) as an absolute indicator. While differences in alignment are undoubtedly an important parameter, it would be unwise to rely solely on this factor for determining language typology. However, relying solely on this parameter to determine language typology seems to be a naive approach.

It is essential to keep the issue simple and not overcomplicate it. However, limiting the criteria to the morphological phenomenon of alignment, which is a phenomenon of the form of the word, as the only criterion, may lead to a short-circuited formalism.

This situation creates challenges in guaranteeing the general reliability of this field of research, as well as the reliability of its aims and methodology for those who wish to study it. It is vital to assess the risks involved in a scenario where the future of the field is uncertain, particularly in terms of the emergence of diametrically opposed views on a single language and the development of a comprehensive theory that can synthesise both perspectives. There is a concern that the pursuit of the two main goals of the academic field of linguistic typology may be forgotten: 'What are the different types of languages that exist?' and 'How do we identify them?'.

1.3 Crucial changes from the early Klimov model to the late-Klimov model

⁴ Because alignment analysis involves looking at the relationships between arguments, it is often referred to as a 'syntactic' analysis for determining typology, but in reality it is determined not by syntax but by looking at morphological phenomena such as the specific affixation of words.

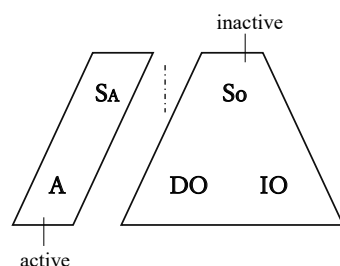
From the perspective of analysing alignments, as previously mentioned, it appears that the two conventional models (Dixon / early Klimov) are broadly equivalent methods. However, it is important to note that the early Klimov model was later (after 1980) significantly improved (the 'late' Klimov model). Unfortunately, this improvement is not well known, especially in the West. Within this academic field, it is widely acknowledged that the term 'Klimov's theory' primarily refers to the earlier model (mainly Klimov 1973 or 1977).

One of the reasons for this lack of public awareness may be that it is difficult to say that the relevant significant improvements were sufficiently publicised and explained by Klimov himself or his successors at the time. Another possible reason is that the books were written in Russian, and the few papers Klimov wrote in English (in 1979) were summaries of the 'early' Klimov model.⁵

In this study, the term 'early Klimov' refers to a theory based mainly on his work prior to the 1980s. As previously stated, this is largely equivalent to the Dixon model with regard to the method of alignment analysis. In contrast, the theory referred to as the 'later' Klimov model is mainly based on Klimov & Alekseev 1980 and Klimov 1983, which describe the details of the analysis made with significant refinements to the method of alignment analysis.

What were the major changes made to the late-Klimov model that set it apart from the previous one? In essence, the four macroroles employed in the earlier model for evaluating alignment were reorganised into five macroroles — two types of S, A, and two types of O. The following visual representation illustrates the revised alignment analysis model using the five macroroles⁶:

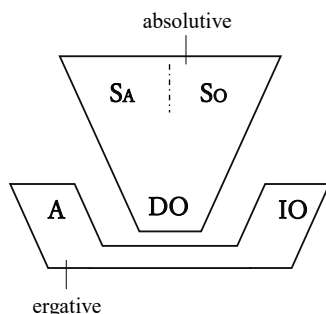
(a) Active language



⁵ Although parallels can be drawn with aspects other than linguistics, such as any possible tendency towards historical materialism, the conclusions drawn in the later Klimov model are based on empirical evidence, including the many languages of the Caucasus, and appear to be free from ideological preconceptions.

⁶ In the late-Klimov model, the designations for each macrorole are S₁ and S₂ for the S-class, and DO, which is a tentative designation in the essay, is simply indicated as O, and IO is indicated as O₁ or I (implying instrumental). In the essay, in order to avoid misunderstanding, A is used as it is, and the others are written as SA, So, DO and IO respectively. The content implied by each macrorole is generally the same in the essay as in that of the late-Klimov.

(b) Ergative language



(c) Nominative language

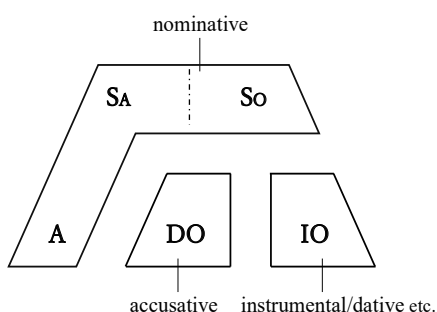


Figure 2: Alignment model by the Late-Klimov's five macroroles

In the late-Klimov model, the definition of ergative languages has been extracted bottom-up and redefined, which is different from the earlier model. In this change in alignment analysis in the later Klimov model, the most notable point is that the following should be noted.

Unlike the conventional model (Dixon model / early Klimov model), it frees us from the idea that ergative and nominative languages are two opposing axes. As Figure 2 shows, the two main language types have lost the symmetry seen in Figure 1. In the conventional model, there was always an apparent symmetry between the two pivotal language types, namely whether S-class (SA/SO) was a language treated as equivalent to A or to DO. As we have seen, this has resulted in these two language types being segmented as completely separate and mutually non-contiguous. Even when the alignment model of the five macroroles of the late-Klimov is limited to three language types, including the active language type, they are still in a non-symmetrical relationship with each other. No language types are assumed to be neutral or intermediate.

In the case of conventional models, while recognising the distinctiveness of languages that can be called active, there has been a tendency to position them as 'in-between' the ergative and nominative languages. The reason for this is that in the case of active languages, S-class was seen as a language that 'split' into two types: one in which S-class was treated as equivalent to A, and

the other in which it was treated as equivalent to DO. In the late-Klimov model, however, the typology of active languages has a distinctly different alignment distribution from the other language types, and is explicitly carved out as a unique type.

Indeed, even in the late-Klimov model, the analysis of alignment is modelled in the same way as before, with the underlying logic of transitivity. This is because, by establishing a semantic opposition in the predicate in terms of transitivity, the distribution of arguments can be analysed in terms of transitivity. While transitivity is a highly universal indicator, the late-Klimov model emphasises that there is no guarantee that all languages use transitivity as a principle for alignment. As a judgement model, it is inevitable that it will be based on some kind of 'biased' viewpoint. In the conventional model, this indicator of transitivity was used as a fixed standard. Consequently, there may be a need to reconsider the absolute nature of this indicator, as it has led to the assumption that transitivity is 'unavoidable' when assessing alignment based on transitivity.

However, in order to deepen the discussion of language types, if we take, for example, so-called 'split intransitivity', rather than simply assuming that intransitive verbs appear split from the perspective of transitivity, it would be important to consider whether there is any possibility that the behaviour of the language in question is motivated by some principle other than transitivity. The late-Klimov model allows us to use transitivity as a foothold, but also to explore the possibility that there are other principles at work.

As mentioned above, the early Klimov model is equivalent to the Dixon model in terms of analysing alignment.⁷ However, it should also be noted that there are a few points that differ from the Dixon model in terms other than alignment. To put it simply, the difference is that it is argued that the determination of language types should not be based solely on morphological-level analysis centred on the relevant alignment. It is asserted that language types should only be determined after considering the analysis of morphology and morphophonology, as well as the analysis of the lexical level and the analysis of the syntactic level. The methodology for each of these levels, other than alignment, was further refined in the late-Klimov period (as discussed later in Section 5).

2. Problems: Three points for reassessing the Late-Klimov model.

The aforementioned points have highlighted several issues that must be addressed in the

⁷ However, according to Ishida (2019), the lexical semantics of verbs are not taken into account in the Dixon model. In the case of intransitive predicates, it might appear that the arguments whose semantic quality is fixed by transitivity are divided into two types. However, it has been noted that the fact that transitive verb predicates in ergative languages are also 'split' is ignored. If we insist on the idea of 'splitting', then we would have to say that ergative languages have a 'split transitive verb' structure, because transitive verbs are distributed in both the ergative verb group and the absolute verb group. This incongruity is attributed to the disregard of the semantics of the predicate words. In the late-Klimov approach (where there is no change from the early Klimov approach in this respect), the distribution of arguments is based on the semantics of the predicate verbs, so the concept 'split' does not arise.

present state of linguistic typology. Firstly, there is a tendency to assume the two main language types as an antagonistic axis pair. Secondly, there is a tendency to regard alignment analysis as the only methodology. Thirdly, there is a tendency to see a binary symmetry in the alignment indicators themselves. Finally, there is a lack of awareness of the significant improvements made to Klimov's theory after 1980.

If these issues are the cause of the prevailing methodology, then the following three points should be considered when exploring a new methodology.

Firstly, a model that does not exclude mutual continuity or diachronic transition between language types.

Secondly, the alignment analysis model itself should be optimised.

Thirdly, a judgement method package that is not reliant upon alignment analysis.

If we consider these three points as issues, it may be possible to reconsider the 'late-Klimov' model, which has been misunderstood and not fully recognised. This is because the theory assumes a certain historical process in the formation of language types, proposes a new approach to the analysis index of alignment, and presents a model that combines several specific explanatory variables in addition to alignment analysis.

In this essay, I will therefore summarise the late-Klimov model based on my understanding of the model, focusing on the following three points:

1. What principles are assumed to be structured for each language type? [Section 3]
2. What is the significance of adding IO as a macrorole for alignment analysis?
[Section 4]
3. What specific analysis methods are plotted for the levels of lexicon and syntax, in addition to the morphological level (case alignment, etc.)? [Section 5]

3. Survey (1): The principles and mutual continuity of each language type in the late-Klimov model

3.1 Extracting the principles of each language type

Firstly, with reference to Figure 2, which illustrates the alignment analysis of the late-Klimov model, we aim to verify which of the five macrorolls each language type prioritises in its recognition strategy (the dotted frame in the figure).⁸

⁸ As I could not find a satisfactory definition of the 'classificatory language' (cf. footnote 2) even in the late-Klimov model, I have omitted it from this essay. The late-Klimov model is designated to include a total of four language types. While there may be other potential language types, he is raising concerns that such assumptions must only be logical deductions. In other words, they are either based on a scarcity of individual language examples or misjudgments of one of the four main types. In the future, therefore, proof from the standpoint of both sides will be required.

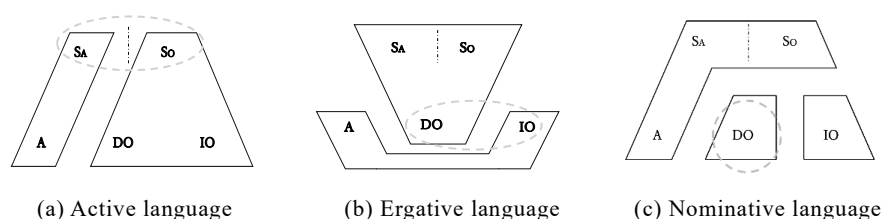


Figure 3: Focal point for each language type

In active languages, it is shown that the active and inactive cases are determined by whether the single member of the intransitive construction is treated as equivalent to the macrorole A (i.e. SA) or not (i.e. So). In other words, in this type of language it is important how the S-class is recognised (how the 'subclass' of the S-class is distinguished). Thus, the principle underlying the distribution of these types is based on the difference in the degree of actionality⁹ of entities of the S-class. Among the S-class, the more active S type (SA) is equated with the active A; i.e. SA = A. In contrast, the more inactive S type (So) is treated as equivalent to the O-class which is non-actional; that is, So = DO = IO.

In ergative languages, it is demonstrated that the ergative and absolute cases are determined by whether the complement of the transitive verb construction is treated as equivalent to the macrorole A, (i.e. IO); or not (i.e. DO). In other words, it is important to be able to distinguish between the subclasses of O-class. The principle that determines the distribution of these macroroles is based on the way in which they are involved in the activity of change, whether as the side that changes (i.e. S-class = DO) or as the side that brings about the change (i.e. A = IO).

It is important to note that in nominative languages the macrorole DO, which indicates the entity that directly receives the transitive activity among the complement-like terms of the transitive verb construction, has no terms that can be treated equivalently (i.e. DO ≠ S-class/A/IO). Of course, it can also be said that the key to distinguishing whether an entity is an agent or not is based on the fact that the subject (S) of an activity or a state is treated as equivalent to the subject (A) of an activity. In other words, the principle is the agent-object relationship (agentivity) of whether the entity is an agentive entity or a non-agentive entity. However, the entity that is the axis of recognition that establishes this principle is DO. Whether DO is marked in isolation (whether it has a dedicated accusative) is what determines this. In this sense, from the point of view of case

⁹ In active languages, the active/stative opposition is often described using the expression 'active/inactive'. However, some of the confusion surrounding active languages stems from this 'active' notation. For example, there is confusion with the voice, which is opposed to 'passive,' and also with 'agentive', which implies control and agency. In this essay, I have attempted to address these confusions and misunderstandings by proposing the expression 'actional/non-actional' to refer to this opposition in the entity that characterises active languages.

marking, it is a type of language that is not specified by the opposition between nominative and oblique case (such as accusative case, instrumental case/dative case, etc.), but by whether or not a non-agentive entity or a recipient of an action is given a special case (accusative case).

In each language type¹⁰, which entity does the argument particularly emphasise, and what are the principles that underpin this tendency to emphasise predominantly? These can be organised as follows.

<i>language types</i>	<i>focal point</i>	<i>cognitive opposition principles</i>
Active Lg.	S-class	actional entity $\Leftrightarrow$ non-actional entity
Ergative Lg.	O-class	entity inducing the change $\Leftrightarrow$ entity in which change occurs
Nominative Lg.	DO	entity instigating the activity $\Leftrightarrow$ entity receiving the activity

Table 1: Principles of cognition for each type of language

3.2 Plotting the continuity between the different language types

In the late-Klimov approach, the way in which we view these different principles for each language type is based on the premise that human cognitive strategies intervene.¹¹ What is characteristic of the principles derived from this kind of cognition is that, as is the case in the cognitive linguistic research field, they promise that there is a continuum between the various categories. As previously mentioned, the conventional model perceives each language type as fragmented (particularly into two majors), and the continuity between language types is not adequately delineated. In conventional discussions of the classification of language types, it was often assumed that even for reconstructed proto-languages, the classification should be made in terms of the synchronic state of a language at a certain point in time. This was likely due to the prevailing assumption that language types should be distinctly separated from each other, as if they were discrete entities.

However, as is clear, individual languages are dynamic systems that have the potential to change their typology due to various factors. While it is, of course, important to determine the

¹⁰ Additionally, while the explanation of the principles in the essay is somewhat logical, it can be understood that in the late-Klimov model, these principles were not deduced logically, but were extracted inductively based on empirical evidence, such as the verb lexicology of the Abkhaz-Adyghe, Nakh-Dagestani and Kartvelian languages.

¹¹ In his theoretical system, the late-Klimov frequently underscores the emphasis on content, employing expressions such as 'content-intensive/-oriented'. By using these expressions, he is indicating that they are in contrast to standpoints that are too biased towards formalism or alignment. And it could also be argued that it consistently highlights the nature of human cognition. This perspective is evident throughout.

language type in the synchronic state of a language, focusing only on the synchronic state and being content with that would mean ruling out the possibility that there may have been historical changes in the language that affected the typology.

Let's suppose, for example, that a phenomenon is observed in a certain language which is a 'deviation from the norm' of a certain type of language. It is well established that, in the study of the synchronic features of many languages, certain types of deviant phenomena are often observed, with regard to the subject, for example, nominative complements, genitive subjects, dative subjects, etc., and with regard to the predicate, unergative/unaccusative verbs, deponent verbs, impersonal passive voice, anti-passive, etc. It is undeniable that the conventional approach has tended to stop at discussions such as whether such behaviour is a deviation from the norm of a particular language type or a 'subtype' of a language type.

From a diachronic perspective, however, the 'deviations' from the norms of a language type have two possibilities. One is that they are the remnants of a language type that may have preceded it historically, and the other is that they are the seeds of another language type that may change in the future. In particular, the significance of assuming this continuity is that it gives us room to consider why such deviations have occurred. The importance of being able to plot the continuity between language types on a model, and the direction of diachronic change that this indicates, is immeasurable. One thing that can be seen as a new prospect is that the phenomena of deviation that have been reported in many languages in the past can lead to new discoveries and explanations about the motives that led to the deviation, etc., by looking at them from a diachronic perspective.

In the late-Klimov theory, it is argued that each language type, including classificatory languages, is a continuum. This continuity is repeatedly explained in diachronic terms, that is, as the transition of language types.

It is important to note that the continuity between language types is argued to be irreversible with a certain directionality, based on the fact that there are no examples of individual languages that occur cyclically¹², for example, and the fact that there is no evidence to be found in any language that shows a transition from a nominative case to another language type. In the late-Klimov theory, the patterns of transition from one language type to another are limited to the following three possibilities.¹³

¹² In contrast to the late-Klimov theory, there are also claims that language types change in a cyclical manner.

¹³ In addition, classificatory languages are postulated as a possible language type that could give rise to an active language. However, it is difficult to say that the late-Klimov theory provides sufficient data to support this analogy. Furthermore, it is not claimed that this transition between language types is due to 'development' of the language. This transition can be understood as being due to the change in the strength of the language's reliance on the principles we have already pointed out.

- | | | | |
|---|---------------|---|-----------------|
| ① | Active type | ⇒ | Ergative type |
| ② | Active type | ⇒ | Nominative type |
| ③ | Ergative type | ⇒ | Nominative type |

Table 2: Transition patterns between language types

Furthermore, among these transition patterns, the possibility of a transition from ① to ③ (active type → ergative type → nominative type) has not been ruled out. This hypothesis regarding this series of transitions suggests that there is no transition from nominative type to ergative or active type, and that there is no transition from ergative type to active type.

If we look at these transition patterns from the perspective of the above axiomatic principles, we can see that they have undergone a semantic expansion that is also intuitively understandable. Below we show a picture of this semantic expansion for each of the three transition patterns above.

<i>transition patterns</i>	<i>opposition in cognition principles</i>		<i>language types</i>
①	actional entity	⇔ non-actional entity	Act.
	↓	↓	↓
	entity inducing the change	⇔ entity in which change occurs	Erg.
②	actional entity	⇔ non-actional entity	Act.
	↓	↓	↓
	entity instigating the activity	⇔ entity receiving the activity	Nom.
③	entity inducing the change	⇔ entity in which change occurs	Erg.
	↓	↓	↓
	entity instigating the activity	⇔ entity receiving the activity	Nom.

Table 3: Cognitive transition motivating language type transition

It is hypothesised that the transition of the language type corresponds with the semantic expansion of the opposing relationship in the cognition principle. The semantic expansion indicated by the arrows from up to down in each pattern seems to be a reasonable assumption.

4. Survey (2): The fifth macrorole 'IO' implemented in the late-Klimov model

4.1 The contents of macroroll IO

It is widely acknowledged that the S-class is divided into two types of subcategories: the relatively actional SA and the relatively non-actional So. This classification is based on the perspective of its actionability, as outlined in the conventional model (Dixon model/early Klimov model). It is important to note that this does not imply the presence of ambivalence in the S-class. The perspective of a 'split' is also a biased interpretation, and the viewpoint of the late-Klimov, who does not consider this perspective to be valid, is outlined in footnote 7. The key point to emphasise here is that in a construction with a low transitivity predicate, there are two types of entities with different characteristics that can be the only argument in the construction.

Both SA and So are perceived as independent, completely different entities and are explicitly distinguished accordingly. In other words, this model reflects the cognitive strategy of perceiving the opposition between actional (active) and non-actional (inactive) as an essential factor in the cognition of the predominant nominal entity in a phenomenon.

A notable feature of the late-Klimov five macrorole model is its division of the O-class into two categories. This distinction sets it apart from the early Klimov model. The term 'dividing the O-class into "lower" categories' may be misleading. It is assumed that, from the perspective of a nominative language, there may be two important divisions for categories that appear to be in the O-class, depending on the language type. In the conventional model, the complement was simply grouped together as O (i.e. $DO \equiv IO$) or it was often assumed that O was only DO. However, the late-Klimov model, by explicitly placing IO, demonstrates that there are two categories in the complements and that they are oppositional (i.e. $DO \neq IO$). The conventional model, consisting of four items, did not plot the macrorole IO.

However, it is necessary to be aware of the contents of this macrorole IO. The IO in this five macroroles model does not generally refer to indirect complements in the sense of constituents of sentences. As can be seen in footnote 6 above, late-Klimov uses the term 'I' (which mainly implies an instrumental role), so we should be careful to note that among the components of indirect complements, mainly entities with characteristics of instrumental roles are assumed. A tool as a semantic micro-role is an entity that cannot be called a dominant entity, but is generally responsible for carrying out substantial activities. In this sense, the instrumental role can be said to be an entity with relatively high activity. If we look at indirect complements in general, in addition to the tool role, there can be other high activity role entities, such as assistants or collaborators in an action, or things that bring about events. On the other hand, indirect complements in general also include role categories with relatively low activity, such as the recipient or giver of an object in an action, or the place where the action takes place. In the late-Klimov model, the macrorole IO is assumed to be a highly actional entity like the former.

In terms of the O-class as a whole, DO is set as a relatively more inactive entity, including spatial and other elements, and IO is set as a more active entity. In other words, it can be thought that this reflects the fact that the O-Class also consistently involves the opposition of active and

inactive cognitive strategies.

4.2 The significance of introducing macrorole IO

The introduction of the new category of macrorole IO has particular implications for the identification of ergative languages. It has been argued that the equivalent relationship between macrorole IO and macrorole A is the alignment of ergative languages. In the traditional model, IO was not included, leading to the assumption that ergative was exclusively a feature of macrorole A. However, the late-Klimov model has undergone a significant revision due to the recognition that IO and A are treated equivalently in many languages. This revision is outlined in Chapter 2 of Klimov's 1983 publication. The late-Klimov model demonstrates that ergative languages exhibit an alignment in which IO and A are treated equivalently, and concurrently, S-class and DO are also treated equivalently.

Also, when the macrorole IO is considered in terms of its relationship to DO, IO is seen in opposition to DO in that, unlike DO, it does not undergo any changes on itself. This will be important in understanding the orientation of ergative languages because, as mentioned above, it is thought that the cognitive principle of ergative languages is based on the opposition between the side that brings about change and the side that change occurs in¹⁴. This principle of ergative languages can be thought of, as a result, as the presence or absence of change on the entity, as argued in the late-Klimov theory.

Additionally, when considering macrorole IO, it is important to note the distinct nature of IO and A in terms of controllability. Typically, IO serves as the order-executor of an operation, thus negating the necessity for intentionality or controllability. Consequently, the involvement of IO differs significantly from that of macrorole A with regard to both controllability and intentionality.

It is important to note that these two macroroles, IO and A, which are 'heterogeneous' to each other, are treated as equivalent regardless of whether they are controllable or intentional. This is because the basis for treating the two macroroles IO and A as equivalent is that their greatest common divisor is simply the entity performing the activity. As we have already noted, the basic principle of ergative languages is that the cognitive schema is based on whether the entity causing the change in the other (in other words, the entity that does not change itself) or the entity that changes itself. Controllability and intentionality are not necessarily implied in this activity of change. Although the macrorole IO is an actional entity that participates in operations as a tool role, it does not change itself in the same way as A. This is where the two have something in

¹⁴ This opposition can most naturally be expressed in English as 'the opposition between the side that causes change and the side that is caused to change'. However, it should be noted that this kind of expression has the disadvantage of forcing us to understand the opposition in terms of the voice category (active voice vs. passive voice).

common. On the other hand, however, IO does not need to have the high degree of controllability and intentionality that macrorole A almost inevitably has. IO is free of controllability and intentionality.

In this way, ergative languages regard both IO and A as equivalent, despite their different positions with respect to controllability and intentionality. This means that, in ergative languages, controllability and intentionality are not categories that serve as cognitive principles. In the conventional model, agency is often assumed to be involved in the ergative case. This is probably because it has been assumed that the category 'predominant entity' naturally implies agency. In active languages, as well as in ergative languages, controllability and intentionality are also not the principles that separate or connect the S-class and the A macroroles.

It is in nominative languages that controllability and intentionality begin to play a role in their principles. This is because, since being an object is synonymous with being the recipient of an action, the absence of controllability and intentionality is usually a necessary and sufficient condition. When analysing, we tend to "unwittingly" read into the salient entities of an action the assumptions of controllability and intentionality, while still wearing the glasses of the nominative language that may be our mother tongue. The late-Klimov model frees us from this. The fact that an entity is actional does not guarantee that it has high intentionality, which is an affinitive category of controllability.

Furthermore, numerous studies of traditional ergative markings have clearly demonstrated its scope of function to be remarkably extensive when compared to other cases, such as the absolute or nominative markings. The term 'combining'¹⁵ ergative' is used to denote the ergative's multifunctional characteristic. This ambiguity supports the notion that the ergative's functional category is open to interpretation. In the traditional model, this ambiguity is identified as a contributing factor to the complexity of ergative languages' alignment discussions, which consequently extend to active languages.

In previous observations, it was often observed that macrorole A did not always behave as a single macrorole category (i.e. the ergative argument of the traditional theory). It was also often reported that macrorole A appeared to be equivalent to SA (i.e. the active argument of an active language). Alternatively, there were also often observations that macrorole A appeared to be equivalent to an O-type entity (i.e. an indirect complement such as a tool).

However, the basis for this multifunctionality/ambiguity of the ergative, which has caused a considerable amount of fluctuation in those opinions, can be clearly identified due to the settings of macrorole IO. These discrepancies in the viewpoint of opinions are simply referring to the 'non-A' nature of IO in some cases, the 'non-S-class' nature of IO in other cases, and the 'non-DO' nature of IO in yet other cases. Because the macrorole IO functions as a criterion that can denote some of the non-A characteristics, some of the non-S-class characteristics, and some of the non-DO

¹⁵ The term 'совмещающий' was coined by Meshanynov to refer to an ergative case that can also indicate the function of oblique cases. It is the counterpart of the exclusive ergative case.

characteristics.

5. Survey (3): Multiple explanatory variables in the late-Klimov model

5.1 Weights for each variable

As previously stated, the conventional approach to language typology has been to rely solely on alignment features between predicates and arguments. However, it is difficult to imagine that language typology is a simple organisation that can be determined by alignment patterns alone. In fact, alignment analysis is an analysis of the conjugation of the verb class that serves as the predicate, and the declension of the noun class that serves as the predicate's argument. In summary, this analysis only captures a very limited aspect of the morphology of the target language.

In the late-Klimov model, in addition to analyses at the morphological level including analyses of alignment, the language type of a language is determined by analysing it at four levels: lexical, syntactic, morphological, and morphophonological. These four levels are then modelled as having different degrees of importance, as follows.

Lexical level → Syntactic level → Morphological level → Morphophonological level

Table 4: The four levels of language type determination

This hypothesis is based on the premise that the structuring of language occurs over time in the sequence outlined. In essence, it suggests that the transition of human cognitive strategies is reflected in language structure, particularly in the organisation of lexical items.¹⁶ To this extent, the morphological level, which addresses aspects such as alignment, should be given less weight than the lexical level when making judgements. In the subsequent section, we will provide an overview of the parameters established for each of these levels.¹⁷

5.2 Methodology on the lexicology level

At the level of lexicology, it is considered necessary to analyse how nouns and verbs are

¹⁶ In line with these hypotheses, the late-Klimov model assumes that there are also gradual phases within a language type, for example, a language in the later stages of a certain language type. The same is true of the transition process between language types. For example, a language in which the parameters that indicate a certain language type are dominant but also show a tendency towards another language type.

¹⁷ The morphophonological level is not motivated by meaning or function, but in many cases by general phonological rules, etc., so it has been omitted from this essay.

classified from the perspective of semantic structure.

With regard to nominals, we look at whether there is a certain level of discrimination from the perspective of animacy and actionality. For example, we look at whether there are forms that suggest an explicit distinction between humans, animals, certain plants, and other objects — such as word formation and the differences between suffixes — that are incorporated.

The late-Klimov model places the foremost importance on verbals, as research findings indicate that in diachronic language structural change, the structural change of verbals precedes that of nominal classes. Verbals can be classified by differences in conjugation using personal suffixes, etc. For instance, if a division based on a specific class related to animacy is identified, it is likely to be indicative of a classificatory language. Alternatively, if a broad division based on actionality is observed, it is more probable to be an active language.

An important point in the analysis of the lexical level of verbal classes is the principle of not assuming the division of transitive and intransitive verbs as a principle, a point particularly emphasised in the late-Klimov model. Assuming that the categories of transitive and intransitive verbs are absolute principles would fix the quality of the arguments in the clause. Such an approach merely involves analysing the typology of the target language based on the typology of nominative languages where verbs are distributed based on transitivity. As a result, we end up identifying the differences and similarities with the nominative case language.

Firstly, in the classification of verbal types in active languages, there is a division based on actionality that is distinct from transitivity. More specifically, the opposition between action verbs and stative verbs is distributed. Distinguishing between these is possible in terms of morphology, through the use of various indicators that characterise each. The key question, however, is that of semantics.

Action verbs (also called active verbs) include not only transitive verbs but also some intransitive verbs, and are modelled as a single subclass individually. This indicates that in this language type, the distribution of verb classes is not determined by the transitivity. For the active verbs, it is often not possible to distinguish between transitive and intransitive verbs in terms of word formation or morphology. This is because they have the same morphological form or suffix regardless of whether they are transitive or intransitive, and the transitivity or intransitivity of the verb is determined by the context¹⁸. For example, modern English verbs such as *grow* (*He grows cucumbers. / He grows well.*) also share this characteristic. But it should be noted that there are some sort of verbs in active language whose meaning depends on the context, and in some cases, it can indicate either “die” or “kill” with the same verb form. Examples of this type of verb are “fall” (*An object falls.*) / “topple” (*Someone topples an object.*), “incinerate” / “catch fire”, “run” / “urge” (spur up), and the same verb is responsible for expressing concepts that are clearly different (opposite) in terms of transitivity. In addition, while there are clear transitive verbs such as “cut”,

¹⁸ Verbs with these features are called labile verbs. They are also called diffused verbs or ambivalent verbs.

“drink”, “collect”, there are also clear intransitive verbs mixed in. For example, “to sing”, “to jump”, “to dance”. What kind of schema do we think is common to the class of action verbs made up of intransitive verbs, transitive verbs, and labile verbs? The schema is thought to be a framework in which actionality is either external or manifest, in other words, an extrinsic activity that is realised in a tangibly iconic way. And it is clear that whether it has agentivity or not is completely disregarded in the scheme for this actional entity by the active verb.

On the other hand, all stative verbs (also called inactive verbs) are low transitivity verbs (intransitive verbs). For example, they are composed of words like “to bloom”, “to blow” (*The wind is blowing.*) and “to stick out”. It is important to note that many of the inactive verbs are verbals that are mainly used as adjectives in many languages. For example, it is important to note that words such as “hungry”, “warm”, “painful”, and “wet” behave as verbs (stative verbs).

As is evident, the two main distributions of active and inactive verbs are clearly not based on transitivity. The former (active v.), whether transitive or intransitive, conceptualises its activity as a physical action. In contrast, the latter (inactive v.) is closer to a state of being than an activity, in that it is difficult to recognise the process from start to completion. The criteria for this kind of opposing distribution ultimately rely on the cognitive distinction between whether a phenomenon is actional(active) or non-actional (inactive).¹⁹ If such an opposition based on semantic features is structured in a verbal category, there is a high probability that the language is an active language.

Next, the verb types of ergative languages form a contrast with what are called ergative verbs (also called ‘agentive verbs’) and absolute verbs (‘factitive verbs’).²⁰ The ergative verbs, which are distinguished from the absolute verbs by a different indicator, are composed of so-called change verbs. The conceptual structure of these verbs is that of a change, that is, a meaning structure of “state X becoming state Y”. To illustrate, consider the modern English verb “cut”. It has a structure of “a process of shifting from the state X of not being cut to the state Y of being cut”. From a

¹⁹ Actionality (active/inactive) is not synonymous with the opposition between manifest and potential activity. In the late-Klimov theory, actionality is a category associated with a more ‘iconic’ way of perceiving phenomena. The opposition between manifest and potential activity is explained by the category of diathesis in verbs. As it is a category realised in the word formation and morphology of verbs, it can be said to be similar to the category of aktionsart (which mainly indicates temporal relations). Diathesis is a category that indicates spatial relations, such as whether the activity is directed outward (centrifugal ‘version’) or inward (centripetal ‘version’) from the active entity. This diathesis category is only involved in actionality, not inert phenomena such as states. As a category about the directionalities in which action is realised, it is expected to be explained in more detail from the perspective of the egophoricity category (cf. S. Floyd, E. Norcliffe, and L.S. Roque 2018), which has been the subject of recent research.

²⁰ Ishida (2019, etc.) has highlighted that the terminology used for each of these opposing classes of verbs does not always accurately reflect reality, and may even lead to misunderstandings about the treatment of ergative languages in the late-Klimov model.

transitivity perspective, ergative verbs are transitive, and their aktionsart is limited to accomplishment. Verbs such as “cut”, “crush”, “dig”, “capture”, and “kill” are transitive, and the fact that the endpoint of the action is clear is one of the semantic features of ergative verbs.

Absolute verbs, which are distinguished from ergative verbs by an alternative indicator, are used to denote an ongoing state of activity and do not imply change. From a transitivity perspective, intransitive verbs predominate, but there are also numerous transitive verbs that are non-achieving. For instance, while they are composed of intransitive verbs such as “lie down”, “dance”, and “sing”, they also include transitive verbs such as “hit” (*a drum*), “pull” (*a rope*), and “abuse”. However, these transitive verbs do not conceptualise a critical point that indicates the achievement of the activity, and many of them indicate continuous or repetitive/multiple activities.

The key question to consider is what drives the distribution of these two types of verbs, which have different conceptual structures in opposition to each other. The activities expressed by the former indicate change, while the activities expressed by the latter, whether intransitive or transitive, indicate a constant state of activity and are not change verbs. In other words, the presence or absence of changeability is what divides the verbs of this language type into two broad categories. This distribution is clearly different from the distribution seen in the verb categories of active languages, and it is one of the important indicators for distinguishing between these language types.

In addition, a group of verbs known as labile verbs are also assumed to be present in the same way as in active languages (cf. footnote 18). For example, in modern English, as in the cases of *grow*, *break*, and *burn* (*It burns.* / *Burn it.*) mentioned previously, these verbs can act as both an intransitive verb and a transitive verb.²¹ The presence or absence of these labile verbs and their distribution rate within the whole verbal group are thought to differ depending on the language type. In particular, when the size of this group of verbs is relatively large, the probability of it being an ergative language is high.²²

As previously stated, the distribution of verbs in nominative languages is based on the well-known opposition between transitive and intransitive verbs, which is evident from the fact that they are dependent on transitivity. However, in many languages considered to be nominative, there are groups of verbals that appear to deviate from this typological standard. There is room for reconsideration from the perspective of the distribution of aktionsart and the behaviour of such as labile verbs. In the late-Klimov model, the distribution of verb classes in each language type is plotted on the same model, based on the results of a survey of verbs in many languages, which

²¹ If we add a few words about modern English, we can see that this group of verbs can be seen as the remnants of labile verbs from active or ergative languages. In this sense, we can ask whether modern English, which is said to be a standard nominative language, could have been an active or ergative language in its historical context.

²² Furthermore, the presence of a minor verb class that denote emotions and sensations also serves as a parameter for determining language types, with the distribution rate of these types being a key indicator.

shows that the distribution of verb classes in each language type is brought about by different criteria.

5.3 Methodology on the syntax level

When analysing at the syntactic level, the primary attention is given to the patterns (constructions) of the syntactic relations between predicates and their arguments. The syntactic level of any language type is correlated with the lexical level, and in particular with the principles governing the structuring of verbs.

In an active language there is a contrast between active constructions, where the active verb is the predicate, and inactive constructions, where the inactive verb is the predicate. If the language has declension, the construction may also have an active/inactive case marker. Note that in the construction of an active language, the basic number of arguments is often not multiple, but a single argument (and thus a subject). The same applies to transitive predicates. The linguisticisation of the complement in its construction is modelled as being entirely optional, meaning the complement is therefore a secondary element. In other words, from the standpoint of a nominative language, an argument for a direct complement that would be obligatory for a transitive verb is rarely found in the construction of an active language. Depending on the context, it may be preferable to linguistically represent the complement. However, in that case, the argument corresponding to the subject of the transitive predicate would not be linguistically represented. Therefore, the syntactic relation is mainly specified by the two components predicate and subject (the single argument). To put it bluntly, the syntactic importance lies in what kind of unary argument (the subject) it is. That is, the emphasis is on whether the events/states indicated by the predicate are actional or not, so that the entity forming the axis (the unary argument) can be either the subjective or the objective entity. All events/states are seen as the way in which only a single entity (X) intervenes, as in “X is doing Y.” or “X is in a state Z.”. An analysis of whether or not the syntactic relations of an active language are based on this subject-predicate relation is an important parameter for determining the syntactic level.

For example, in a construction consisting of the only argument a “deer” and the predicate verb “crawl along”, if each word is given an affix indicating non-actional, the events/states expressed by the construction '*the deer + crawl along.*' would mean “he/someone is dragging the deer as prey”. In this construction, “deer” is an objective from the perspective of transitivity, but it is not a complement; rather, it stands as the grammatical subject (the one and only argument) of the sentence. The affixes that indicate inactivity in this construction should belong to a group that is opposed to the affixes (active affixes) given to “deer” and “run” in the construction encoding '*the deer runs.*'

In contrast, the ergative language construction is based on the syntactic relationship between the predicate and the complement, as opposed to the predicate and the subject. As outlined in section 3.1 on their principles, this is a key distinction between ergative and active languages at

the syntactic level. In active languages, the construction is based on the syntactic relationship between the predicate and the subject, but in ergative languages, the predicate is modelled as being structured primarily around the syntactic relationship with the complement. In essence, the syntactic theory of an ergative language focuses on the quality of the complement. This is linked to the fact that, as mentioned above, the verbs that function as predicates are classified into classes according to the principle of whether or not they induce alteration. In other words, in ergative languages, the strong focus is on whether it is an entity that is itself being changed by some activity, or whether it is an entity that is not itself being changed.

For instance, comparing the verbs “to carry” and “to wait”, from the perspective of transitivity, the former is higher and the latter is lower, but both can take complements. In the classification of verbs in ergative languages, from a lexical semantics perspective, the verb “to carry” is a typical ergative verb in that it can cause changes in the entity that becomes the complement. In contrast, the verb “to wait” is classified as an absolute verb, as it does not result in changes to the entity that becomes the complement. This distinction is reflected in the use of affixes and other markers in the verb morphology, which are categorised as either ergative or absolutive. When comparing the ergative construction shown in ‘*I + you + carry.*’ with the absolute construction shown in ‘*I + you + wait.*’, the nature of the concept of alteration in the complement can be understood. In the former, “you” undergoes a change in the form of transposition of location due to mobile activity, but in the latter, “you” does not change.

The same is true for single verbs that should be equivalent in terms of transitivity. For example, in an ergative language, in an expression with the meaning ‘*carpenter + wood + scrape*’, if the predicate “scrape” agrees with the complement, the meaning of “scrape” would be “to strip off all the bark”. In other words, the complement “wood” would indicate that the object is a substance undergoing a complete transformation. On the other hand, if the predicate does not agree with the complement (if it agrees with the subject “carpenter”), the action of “scraping” would indicate that it is an activity that applies a very fragmented and partial “indentation” to the “wood”, such as making a dimple in the tree.

Thus, if a language Q, at the syntax level, has a strategy for signalling the presence or absence (or strength or weakness) of transformation in the complement through the use of affixes and agreement, then it is highly probable that language Q is an ergative language, in that it has an opposition between ergative and absolutive constructions.

In the case of a low transitivity predicate, the activity is stateful, and so it forms an absolutive construction as an absolutive verb. The entity that serves as the complement does not normally occur in this construction. From the perspective of alignment, it should be noted that the subject (S-class) receives the same alignment as the complement (DO), which indicates the direct object of a construction with a high transitivity predicate.

Furthermore, although grammatical voice is sometimes involved not only at the lexical level but also at the syntactic level, in the late-Klimov theory, the voice category is considered to be a category that exists exclusively in nominative languages. This is because only nominative

languages have the principle of an explicit agent-patient relationship (the one who does it or the one who is done to). Voice is generally considered to be a category that cannot exist without an agent-patient relationship. In summary, voice is a category that cannot occur in active or ergative languages.²³ In this respect, voice is one of the important parameters for determining whether a language is a nominative language or not.

With reference to the 'anti-passive' behaviour conventionally said to be unique to ergative languages, it should be noted that, according to the late-Klimov model, constructions of this type are not considered to be a voice phenomenon. The reason for this is that there is no predominant agent-patient relationship in ergative languages. Specifically, in the case of labile verbs, constructions involving these verbs intransitively (absolutive constructions) adhere to the same standard rules as other verbs, indicating they are not a specialised construction. Take, for instance, the intransitive construction (absolutive construction) expressed by the two arguments '*he*(ABS) + *carve* (labile vi.)'. It does not represent the same phenomenon as the transitive construction (ergative construction) '*he*(ERG) + *wood*(ABS) + *carve* (labile vt.)', even though it has the same form of the labile verb as predicates. The meaning of the former sentence functions as a construction expressing the habit or repetition of the action 'he always does the carving'. Therefore, this construction does not imply that the direct complement has been "deleted", but rather represents an entirely different meaning, not describing a transitive action. This absolutive construction, where the actional entity is marked in the absolutive case as the sole argument, and there is no direct complement, does not indicate a one-off occurrence of an activity. Rather, it signifies that the actional entity is engaged in that activity as a regular tendency (e.g. occupation). This construction is regarded as being no different from the normal usage of absolutive constructions with intransitive predicates (and thus no direct complement). In other words, it is assumed that there is no grammatical voice contrast between the two constructions.²⁴

5.4 Methodology on the morphology level

As for the morphological level, as we have already discussed above in the analysis of the alignment, in this section we would like to add some other points about the morphology that characterise the late-Klimov model.

In morphological analysis, since there are many languages that do not have declension, the analysis of the morphology of conjugation (personal affixes, etc. included on verbals) tends to be

²³ Active languages and ergative languages have categories (called 'versions') that can be used in place of voice in some respects. In essence, it can be understood as a subcategory of a category (called 'diathesis') that, like voice, is based on the directionality of the act. It is a strategy that more clearly indicates the directionality of the act, and is structured lexically rather than syntactically. A more detailed discussion of this topic will be reserved for a separate article. (cf. footnote 19)

²⁴ For languages such as the Mayan languages and Ainu, which have recently been reported to have not only the anti-passive but also other passives, it is necessary to consider what kind of explanation is possible from the standpoint of late-Klimov.

the main part of the analysis. In the late-Klimov theory it is assumed that the appearance of discriminative forms in the nominal class through declension is the result of the decline of the marking of conjugation in the verbal class. In other words, declension is positioned as a strategy that compensates for conjugation. This is probably a difference in weighting that inevitably occurs when emphasis is placed on the verbs that carry the predicate. That is, if a language has not developed declension, there can be no active/inactive or ergative/absolutive case affixes. But this can be taken as one of the evidences that the language has not reached the later stages of its language type (e.g. it is still in the early stages of an ergative language).

With regard to declension, the presence or absence of classificatory affixes (cf. footnote 2), that is, whether or not the language has affixes that indicate a hierarchical classification based on animacy, such as human, animal, tree, food, object, etc., and, if it has such affixes, the completeness of their function, is one of the parameters. This parameter is used not only as an indicator to distinguish classificatory languages, but also as a basis for determining that a language is not a nominative language. If the types of classificatory affixes are more limited and have a more conflicting distribution, there is a possibility that it is an active language. This is because the opposition between actionality and non-actionality in the nominal class is roughly equivalent to how the language divides the hierarchy of animacy into two.

Other strategies²⁵ in declension, such as the presence or absence of a possessive category, are also parameters for determining language type. In particular, in active languages the possessive category is represented by a set of affixes (not necessarily genitives) indicating whether the possessive relation is alienable or inalienable possessive.²⁶ Therefore, the presence or absence of this type of affix is neither a necessary nor a sufficient condition for establishing an active language, but it is a quasi-sufficient condition that is frequently observed in active languages.

With regard to conjugation, it is particularly important to note that verbs are involved in indicating the quality of time when they become predicates. In active languages, verb groups (active verbs) that conceptualise a certain process can signal and distinguish different aspectual meanings through different strategies, such as affixation. In other words, this is behaviour at the morphological level, but it is also closely related to the lexical level in that it relies on the aktionsart of verbs. These aspectual meanings include, for example, perfective, imperfective, progressive, iterative, intensive, and also modal meanings such as optative and desiderative. In active languages, these meanings are expressed in a variety of ways, with specific affixes used to distinguish between them. In many cases, the tense-related categories are determined by the context using these affixes. In addition, tense-related meanings are often expressed only as implications of the aktionsart affixes, such as the implication that the resultative state implies the past tense and the volitional state implies the future tense, etc. In other words, the tense category is assumed to be a more recent

²⁵ The presence or absence of inclusive and exclusive forms is not a parameter for the declension of nominal classes, but is mainly set as a parameter for the conjugation of verbal classes.

²⁶ See also Suda 2024.

creation than the aspect category. Therefore, in an active language, it is necessary to pay more attention to aspect than to tense when it comes to categories of temporal relations. Rather than being realised grammatically through auxiliaries, etc., it is necessary to determine whether or not the various differences in 'processuality' are structured in the verb itself (through its aktionsart). This can be achieved by looking at the differences in the forms of the verb group (especially the active verbs including process).

6. Summary: Three possibilities for the late-Klimov model

In this essay, I identified several issues that I consider to be problematic in the methodology of language classification in contemporary holistic typology. I then went on to propose that the late-Klimov model (1980 and 1983), which differs from the early Klimov model, could contribute to resolving each of these issues in the following three ways.

The late-Klimov model, first, deduces the fact that each language type is structured according to specific principles, which are different for each language type. These principles ensure continuity between language types and chart a certain diachronic process of change for language types.

Second, the new addition of IO as a macrorole for alignment analysis has succeeded in capturing the rationale for issues that had remained unresolved in the conventional approach, such as the multifunctionality of the ergative alignment and the ambiguity of the boundary with the active alignment.

Third, specific analysis parameters were set at the morphological, lexical, and syntactic levels, rather than relying solely on alignment analysis.

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Bibliography

- Alexeev, M.E. *Voprosy obshchego i kavkazskogo yazikoznaniya v trudakh G.A. Klimova* [Problems of General and Caucasian Linguistics in the Works of G.A. Klimov]. *Voprosy Jazykoznanija* [Topics in the Study of Language], no. 4. Moscow: RAS, 1998.
- Anderson, R. Stephen. "On Mechanisms by Which Languages Become Ergative." In *Mechanisms of Syntactic Change*, edited by N.C. Li, 317–363. Austin: University of Texas Press, 1977.
- Aronson, I. Howard. "Towards a Semantic Analysis of Case and Subject in Georgian." *Lingua* 25, no. 3 (1970): 247–264.
- Chafe, Wallace. L. "A Semantically Based Sketch of Onondaga." *International Journal of American Linguistics Memoir* 25 (1970).
- Comrie, Bernard. "Review of Klimov 1973." *Lingua* 39 (1976): 1–15.
- . "Ergativity." In *Syntactic Typology*, edited by W.P. Lehmann, 329–394. Austin: University of Texas Press, 1978.
- Dixon, R.M.W. *Ergativity*. Cambridge: Cambridge University Press, 1994.
- Donohue, Mark and Søren Wichmann. *The Typology of Semantic Alignment*. Oxford: Oxford University Press, 2008.
- Floyd, S., E. Norcliffe, and L.S. Roque. *Egophoricity*. Amsterdam: John Benjamins Publishing, 2018.
- Ishida, Shuichi. "Jinruishi ni okeru katukaku-gengo, noukaku-gengo—Naiyou-ruikeigaku no shiten kara" [Active Languages, Ergative Languages in Human History—From the Viewpoint of Content-Oriented Typology]. *Typological Studies* 5 (2019). Kyoto: The Typological Studies Society.
- Nichols, Johanna. *Linguistic Diversity in Space and Time*. Chicago: University of Chicago Press, 1992.
- Kibrik, A. Evgenievich. *Essays on General and Applied Issues of Linguistics (Universal, Typical, and Specific in Language)*. Moscow: Lomonosov Moscow State University Publishing House, 1992.
- Klimov, Georgy A. *Ocherk obshchei teorii ergativnosti* [Essay on the General Theory of Ergativity]. Moscow: Nauka, 1973. (Japanese translation by S. Ishida as *Ippan Noukaku-ron Gaisetsu*, unpublished copy.)
- . *Tipologiya yazykov aktivnogo stroya* [The Typology of Active Languages]. Moscow: Nauka, 1977. (Japanese translation by S. Ishida as *Aatarashii Gengo Ruikeigaku – Katukaku Kouzou Gengo to wa Nanika*. Tokyo: Sanseido.)
- . "On the Position of the Ergative Type in Typological Classification." In *Ergativity: Towards a Theory of Grammatical Relations*, edited by F. Plank, 327–350. London: Academic Press, 1979.
- Klimov, Georgy A. and M.E. Alekseev. *Tipologiya kavkazskikh yazykov* [Typology of Caucasian Languages]. Moscow: Nauka, 1980. (Japanese translation by S. Ishida as *Kafukaasu no Ruikeigaku*. In *Typological Studies of the North West Caucasian Languages*, edited by T.

Yanagisawa. Nagoya: Nagoya University.)

Klimov, Georgy A. *Printsipy kontensivnoi tipologii* [Principles of Content Typology]. Moscow: Nauka, 1983. (Japanese translation by S. Ishida as *Naiyou-Ruikigaku no Genri*. Tokyo: Sanseido.)

Matsumoto, Hirotake. "Gengo-taipu to shukan-sei" [Linguistic Types and Subjectivity]. A handout of *The Typological Studies Society*, Kyoto, 2018.

Mithun, Marianne. "Active/Agentive Case Marking and Its Motivations." *Language* 67, no. 3 (1991): 510–546.

Suda, Junichi. "Kodai-nihongo no yuuki-shoyuu to hi-yuuki-shoyuu" [Alienable and Inalienable Possessive Suffixes in Old Japanese]. *The Annual Bulletin of the Humanities* 54 (2024): 149-174. Tokyo: The Institute of Humanities, Senshu University.

Yanagisawa, Tamio. *A Grammar of Abkhaz*. Tokyo: Hituzi Syobo Publishing, 2013.