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Topics in Kalasha syntax: An areal and typological perspective

Bashir, Elena L., Ph.D.
The University of Michigan, 1988

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TOPICS IN KALASHA SYNTAX:
AN AREAL AND TYPOLOGICAL PERSPECTIVE

by

Elena L. Bashir

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Linguistics)
in The University of Michigan
1988

Doctoral Committee:

Professor Peter Hook, Chairman
Associate Professor Josh Ard
Professor Madhav Deshpande
Professor Colin Masica, The University of
Chicago
Professor Gernot Windfuhr
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This dissertation is dedicated to my husband, Muhammad Bashir, my children Shaista, Khurram and Neena, and to the people of Pakistan.
ACKNOWLEDGEMENTS

The research upon which this dissertation is based was supported by a grant from the American Institute of Pakistan Studies, which I gratefully acknowledge. My field work was done in affiliation with the Lok Virsa Institute, Islamabad, Pakistan. I thank its Director, Uxi Mufti, and its Director of Research, Adam Nayyar, for their institutional and personal cooperation. Finally, I wish to thank the Ministry of Education, Government of Pakistan for so expeditiously granting the NOC under which this work was conducted.

I would like to thank the members of my dissertation committee—Peter Hook (Chairman), Gernot Windfuhr, Madhav Deshpande, and Josh Ard of the University of Michigan, and Colin Masica of the University of Chicago. I have spent many enjoyable and stimulating hours with these scholars, and want to acknowledge here their contributions to my development as a linguist. I also want to express my appreciation to the University of Michigan for awarding me the Regents Fellowship, and in particular to Dean Carolyn Copeland for the flexibility and understanding with which she has dealt with the administrative aspects of my program.
at the University of Michigan.

A study like this is impossible without the active help and cooperation of the speakers of the languages of study. Here I would like to express my tremendous gratitude to those people who worked with me in my study of the Kalasha and Khowar languages. The following persons have spent many hours with me patiently answering countless, often repetitious, questions about their languages. For Kalasha I wish to acknowledge the contributions of my main helpers in Bumburet, Bumbur Khan and Multan Bibi of village Brun. I am particularly grateful to Multan Bibi for her meticulous concern for accuracy on the transcriptions of my taped texts. Mr. Jinnah of Brun also provided me with some examples. In Rumbur I worked with Saifullah Jan of village Balanguru, and with Engineer Khan of Batet. I would also like to thank Kazi Khosh Nawaz for the stories which I have collected from him. Numerous other people have also contributed texts from which many of the examples in this study are drawn.

In my study of Khowar, several people have given me invaluable help. M. Yousuf Shazad, Training Officer with the Aga Khan Rural Support Program at Chitral and editor of the Jamhur-e-Islam, the monthly Khowar publication of the Government of Pakistan Information Department, first acquainted me with the work of the Anjuman-e-Taraqi-e-Khowar, the literary organization under whose auspices much
work is being done to develop Khowar as a written literary language, and has subsequently continued to help me in my research on Khowar. Inayatullah Faizi, Lecturer at the Government Degree College, Chitral and Regional Representative of the Lok Virsa Institute in Chitral, has also been extremely helpful. For the gracious and unstinting gift of his time, and for his thoughtful and insightful comments on points of Khowar grammar, I would like to thank Rahmat Karim Beg, Lecturer in English at the Government Degree College in Chitral. I am also grateful to Sahib Nadir, Advocate and Honorary President, Aga Khan Regional Council, Chitral, and to Wali-ur-Rehman, Advocate, Chitral, to Professor Israr-ud-Din of the Department of Geography, Peshawar University, and to Sher Nawaz Naseem, Sub-Editor, Jamhur-e-Islam for the help which they have provided me. My particular thanks go to Wazir Ali Shah, the elder statesman of Khowar studies, for his kindness and hospitality to me on my many visits to Chitral, and to Shahzada Mohiuddin, MNA and Chairman, District Council, Chitral, for his timely help at an important juncture in my work.

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It goes without saying that none of the above-mentioned persons are in any way responsible for any misunderstandings or mistakes that appear in this dissertation. These are entirely due to me.

Finally, and most important, this work and the long years of preparation for it could not have been undertaken without the unique understanding and encouragement of my husband, Muhammad Bashir of Lahore.
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TRANSCRIPTION SYSTEM

The transcription system used in this dissertation for Kalasha and Khowar data is phonemic. For Kalasha I follow the phonological analysis in Trail and Cooper (1985) which is summarized in Chapter 1. For Khowar I follow the analysis summarized in Chapter 1. Shina data are also presented in phonemic transcription, based on the work of Georg Buddruss and Muhammad Amin Zia (Zia 1986). Data from other languages are presented either in broad phonetic transcription when based on the author’s own field work, or retain the original transcriptions when cited from earlier published works.

Vowel length is indicated by doubling the vowel symbol, e.g. \( \text{aa} \) represents “long a”. Retroflexed vowels are capitalized, and nasalization is represented by a tilde (\( \sim \)) above the vowel.

Consonant gemination is indicated by a doubled letter symbol, retroflexion (retraction) by capitalization of the corresponding non-retroflexed consonant (except in the cases of Khowar \( <L> \) and \( <G> \)), and palatalization by a lowercase \( v \) following the consonant symbol. Aspiration is represented by lowercase \( h \) following the consonant.

Stress is indicated by an apostrophe following the
stressed syllable. In numbered examples, morpheme breaks are represented by hyphens.

High tone is indicated by \( '<' \) over the vocalic syllable nucleus, and low tone by \( '<' \).
ABBREVIATIONS

Abbreviations used in this dissertation are the following:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>actual</td>
</tr>
<tr>
<td>ABL</td>
<td>ablative</td>
</tr>
<tr>
<td>ACC</td>
<td>accusative</td>
</tr>
<tr>
<td>AN</td>
<td>animate</td>
</tr>
<tr>
<td>CAJ</td>
<td>cajolative</td>
</tr>
<tr>
<td>COMP</td>
<td>complementizer</td>
</tr>
<tr>
<td>COND</td>
<td>conditional</td>
</tr>
<tr>
<td>CP</td>
<td>conjunctive participle</td>
</tr>
<tr>
<td>Cs</td>
<td>causative</td>
</tr>
<tr>
<td>CTF</td>
<td>contrary to fact</td>
</tr>
<tr>
<td>DAT</td>
<td>dative</td>
</tr>
<tr>
<td>EMPH</td>
<td>emphatic</td>
</tr>
<tr>
<td>f</td>
<td>feminine</td>
</tr>
<tr>
<td>F</td>
<td>future</td>
</tr>
<tr>
<td>HORT</td>
<td>hortative</td>
</tr>
<tr>
<td>hf</td>
<td>human female</td>
</tr>
<tr>
<td>hm</td>
<td>human male</td>
</tr>
<tr>
<td>I</td>
<td>inferential</td>
</tr>
<tr>
<td>IMP</td>
<td>imperative</td>
</tr>
<tr>
<td>IMPFV</td>
<td>imperfective</td>
</tr>
<tr>
<td>NOM</td>
<td>nominative</td>
</tr>
<tr>
<td>NS</td>
<td>non-specific</td>
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<td>OBL</td>
<td>oblique</td>
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<td>p</td>
<td>plural</td>
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<td>P</td>
<td>present</td>
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<td>perfect</td>
</tr>
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<td>PFV</td>
<td>perfective</td>
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<td>participle</td>
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<td>presumptive</td>
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<td>pronominal suffix</td>
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<td>past</td>
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<td>PURP</td>
<td>purpose</td>
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<td>Q</td>
<td>question</td>
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<td>specific</td>
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<td>TOP</td>
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<tr>
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<td>x gender</td>
</tr>
<tr>
<td>y</td>
<td>y gender</td>
</tr>
<tr>
<td>1</td>
<td>first person</td>
</tr>
<tr>
<td>INAN</td>
<td>inanimate</td>
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<tr>
<td>INF</td>
<td>infinitive</td>
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<tr>
<td>INST</td>
<td>instrumental</td>
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<tr>
<td>LOC</td>
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<tr>
<td>m</td>
<td>masculine</td>
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<tr>
<td>NEC</td>
<td>necessitative</td>
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CHAPTER 1
INTRODUCTION

1.1. Purpose and plan of the dissertation

This dissertation is intended as a theory-neutral discussion of selected features of Kalasha syntax. My aims are: (1) to make accessible to a wide audience of linguists hitherto unavailable data on this little studied language, (2) by focusing on syntactic features which have been identified as especially relevant to the study of the South Asian linguistic area, to characterize Kalasha with respect to this linguistic area; and (3) to work toward sharpening the distinction between areal and typological causal factors in explaining the observed similarities among South Asian languages.

In this introductory chapter I shall (1) describe the methodology employed, (2) discuss some theoretical considerations relevant to (a) the concept of linguistic area and (b) the structuring of conceptual space inherent in tense-aspect-modality systems, (3) review previous scholarship on Kalasha and Khowar, and (4) present some basic facts about Kalasha as background for the reader approaching this language for the first time.
1.2. Methodology

This study is based on field work carried out mainly during the period October 1986 through November 1987 in the Chitral District of northern Pakistan. During the course of my research on Kalasha I lived in a Kalash home while working on specific questions with several informants. My Kalasha data are of several types: (1) spontaneous utterances recorded by the author on the spot with as much of the context preserved as possible, (2) elicited sentences, (3) examples drawn from longer texts, both from my own materials and from those of other researchers. My Khowar data were gathered in Chitral town, and represent elicited sentences. Cited examples will be coded as follows.

\[
\begin{align*}
S[\text{initials of informant(s)}]: & \text{ spontaneous utterances} \\
E[\text{initials of informant(s)}]: & \text{ elicited sentences} \\
T[\text{initials of informant/source}]: & \text{ examples from texts}
\end{align*}
\]

Elicitation (as opposed to working with spontaneous utterances) presents some potential problems. One such problem concerns the choice of contact language. Kalasha is a minor language which is subject to influences from both Urdu and Khowar because of universal bilingualism among Kalasha speakers. If sentences to be elicited are presented in Urdu, there is every likelihood that the informant will give a sentence influenced in some way by Urdu, either in choice of lexical items, word order, or expressive strategy. The same problem would arise if Khowar were to be used as the contact language. In order to minimize effects of the culturally dominant languages on my
materials, I adopted two strategies. The first was to learn to understand and speak Kalasha so that as much of my work as possible could be done directly in that language. The second was to seek out the few Kalasha speakers who know English, and work with them directly in English, which is sufficiently different from Kalasha to minimize potential interference effects.

A second weakness of the elicitation technique is that it often fails to capture categorial distinctions or expressive strategies unique to or characteristic of a particular language. For example, the category of evidentiality (direct vs. indirect knowledge) is central to the morphology and semantics of the Kalasha and Khowar verb systems; if, however, one were to present a sentence with the category of indirect knowledge analytically expressed (as one would have to do in Urdu or English in order to get the desired meaning), he would be likely to elicit a sentence with the category analytically encoded in a sort of calque on the presentation sentence.

1.3. Theoretical Considerations

1.3.1. The concept of linguistic area

The importance of the concept of linguistic area or sprachbund for South Asian language studies was given prominence by Emeneau in his classic 1956 paper, where he defines a linguistic area as "an area which includes languages belonging to more than one family but showing traits in common which are found not to belong to the other
members of (at least) one of the families." Some well-studied linguistic areas in this sense are the Caucasus, the Balkans, Southeast Asia (Henderson 1965), and South Asia (Masica 1969, 1972, 1974-a, 1974-b, 1976, 1983), (Hook 1982, 1985, 1987). The Balkan sprachbund, for example, meets this definition in that it encompasses languages from the Greek, Albanian, Italic, and Slavonic branches of I.E. and marginally Turkish, and that the common Balkan traits are not shared by the other members of the Slavonic and Italic branches, or by all dialects of Turkish.¹ It is characterized by several syntactic isoglosses: suffixation of the definite article to the noun, the replacement of infinitival complement constructions by subordinate clauses introduced by a complementizer and having a (subjunctive) finite verb; phonologically by the development in Romanian under the influence of Slavic Bulgarian of a series of palatalized consonants; and lexically by the existence of idiomatic expressions which are more or less morph-by-morph calques of each other. (Bynon 1977:246-7)

For purposes of this dissertation, I shall adopt the following definition of areal features. Areal features shall be those which (a) are shared by a geographically contiguous group of languages belonging to different genetic groupings but do not belong to the other members of (at least) one of the groups, and (b) for which the com-

¹Greek and Albanian are the sole representatives of the Greek and Albanian branches.
monality does not arise because of independent parallel development, common origin, or typological harmony. Thus if a given feature can be demonstrated to be present independently in several languages because of typological or genetic considerations, it shall be excluded from the inventory of areal features of these languages.

There are two major theoretical problems in defining (i.e. establishing the geographical limits of) a linguistic area: (1) how to discriminate areal from non-areal phenomena, and (2) how to decide where to draw the boundaries. Then, once areal phenomena are isolated, and boundaries defined, the independent problem of identifying the source of the shared phenomena arises. That is, does the shared feature originate (a) in one or the other of the contiguous language families or (b) in a shared sub- or superstratum.²

The first question is analogous to the problem faced by historical linguists in establishing genetic relationships in order to define language groupings and sub-groupings. The historical linguist's task is to isolate the effects of common genetic heritage from those of chance, geographical proximity (convergence), and typological harmony. He attempts to find regular predictable patterns of change in a given feature over time

²Other questions central to convergence theory concern the mechanisms of convergence, the relation of convergence to creolization, and the question of whether long-term convergence eventually culminates in the emergence of a new language family (Andronov 1968), which in turn is related to the issue of relict effects of former linguistic areas.
which can be used to infer that one stage is a lineal descendant of an earlier. At the current state of understanding, this has been most feasible at the level of sound change—hence judgements on genetic relationships are based on sound correspondences among semantically similar lexical items across languages which are candidates for genetic relationship. The areal linguist’s challenge is to isolate the effects of geographical contiguity/proximity from those of chance, common genetic inheritance, and typological feature clustering. The basic methodology is the same—to find predictable patterns of change over space.

Several aspects of this question must be addressed: (a) What are the observable effects of transmission over space in general, and (b) how can they be distinguished from the effects of chance resemblance? (c) How can convergence and typological effects be discriminated, and how do they interact? (d) What, if any, linguistic features are more (or less) susceptible to transmission resulting from spatial contiguity, i.e. language contact?

With regard to the first aspect, change propagated over space, like wave motion, has the characteristic of being most intense closest to its source, and fading regularly with distance from the source (unless reinforced or interfered with in some way). Thus, if a gradation in the intensity of some phenomenon is due to some factor in which spatial location/proximity is the most important operant causal element (e.g. proximity to the equator, or altitude
in the case of temperature), then we should expect a regular pattern, in which the most intense manifestation of the phenomenon (e.g. in the context of language contact effects, the highest frequency of occurrence of the feature), is closest to its source. Conversely (in the context of language contact), the appearance of "a regular correlation with distance . . . especially if this correlation is independent of genetic groupings and subgroupings" (Hook 1985) establishes a strong case for spatial contiguity (specifically, convergence because of language contact) rather than chance as the operative causal factor.

One method which can discriminate between chance resemblances and those attributable to convergence is based on (a) the general characteristics of spatially transmitted phenomena, and (b) treating the occurrence of a linguistic feature as a scalar quantity, rather than a simple two-valued presence vs. absence judgement. Data resulting from treating frequency of occurrence as a scalar quantity consist of a set of frequencies of occurrence of a given feature (for each location sampled), rather than simple present vs. absent data points. Two-valued data points result in iso-lines (like the isoglosses of early dialect geography) that partition a region into an area having a feature and an area not having it. To look for the boundaries of a linguistic area one then looks for bundles of isoglosses. Isopleths drawn on the basis of scalar data connect points having an identical numerical value for some
variable, like, for example, isotherms in the physical sciences. Measurements in this form would yield a series of isopleths for a given linguistic feature. The expectation under this approach is that such isopleths will, in the case of location-related phenomena, form a regular pattern of gradation from lower to higher values.

An early attempt at applying such a methodology to the study of the phonological systems of the languages of a putative "Central Asian Linguistic Union", which includes the Nuristani, Dardic and Pamir languages, Tajik Persian, Indo-Aryan Domaki, and Burushaski, is that of Toporov (1965). He establishes a set of nine abstract phonological oppositions characterizing the consonantal phonemes of these languages and then computes the percentage of consonant phonemes characterizable by each opposition for each of the languages in question. He finds a diminution in the importance of the oppositional factors of voice vs. voicelessness, along a west-northwest to east-southeast axis.

Hook (1985) discusses a study of a syntactic trait along these lines. He reports the results of a survey covering the area from south India through parts of Sind and Baluchistan in Pakistan. These results are based on a standardized set of sentences elicited from a relatively large number of informants over an extended geographical area, including Dravidian, Indo-Aryan, and Iranian languages. The results are presented in terms of percentage of occurrence of the feature in question, namely
the positioning of the subordinate clause relative to the main clause in the two sentences: 'Wait here until he gives you the letter.' and 'I was afraid that you might give him the letter.' Mapping of the percentage results shows a regular frequency increment (or decrement depending on the point of view) with distance, of the type argued above to be a clear indication of spatial factors as a causal element. In the southernmost part of India, where Dravidian languages are spoken, the subordinate clause preceded the main clause 100% of the time in both sentences, while in the part of Pakistan surveyed by Hook, 0% of the time. This result pointed to an areal effect such that decreasing proximity to the Dravidian or Iranian-speaking core areas correlated respectively with decreasing or increasing frequency of subordinate clause preceding main clause. This is particularly telling in the case of Brahui, genetically a Dravidian language but surrounded by western Indo-Aryan and Iranian languages.

Another recent study of this type is that of Abbi and Mishra (1985). The authors identify twenty semantic features that are signalled by the formal device of reduplication in various languages of India. The number of these features realized by reduplicative structures for each language under study is computed, and the number (out of 20) of features plotted on a map. This summary map shows a clustering of languages having nineteen or twenty features in the central region of India, flanked on the south, east,
and north by a zone of sixteen to eighteen feature languages. Farthest to the south is a zone of twelve to fifteen feature languages. These results display the spatial gradation characteristic of convergence features, and also lead the authors to propose the Munda languages as the source of the spread of reduplication.

Let us now examine more closely the third aspect of the problem—that of distinguishing the effects of typological harmony from those of convergence. Typological clusterings of features presumably result from system-internal properties of the grammar(s) of human language(s). Thus if we find a potential candidate for the status of linguistic area characterized only by a cluster of typologically related properties (e.g. GN, AN and postp. vs. prep. order) we cannot simply invoke convergence. For example, Masica (1983) and Hook (1985) discuss the case of Ecuadorian Quechua, which has five of the characteristics considered to define the South Asian linguistic area: (1) SOV, Adj N, S M Adj comparative phrases, and relative clause NP word order patterns; (2) derived causatives and transitives, (3) conjunctive participles, (4) compound verbs, and (5) dative-experiencer constructions. It also employs the conjunctive participial form of SAY as a complementizer as do many South Asian languages. Ecuadorian Quechua is thus very similar to the South Asian type, yet the question of convergence in this case does not arise.

When features are known to pattern together in a typo-
logical constellation (e.g. word order patterns), they cannot be treated as independent, and the value of their co-occurrence as evidence for convergence needs to be adjusted on the basis of a weighted formula designed to eliminate the effects of typological harmonics (Hook 1985). The extent to which different word-order features do correlate, however, is not as simple as it has sometimes been taken to be. For example, Masica (1983) points out that SOV and AN order are not predictable one from the other. Also, although typological harmony and contact effects are conceptually independent, they interact in the real world in ways which we have hardly begun to understand. Suppose, for example, that language contact has brought about change in a particularly crucial (i.e. determinative) linguistic property which is implicationally related to a set of other properties. This initial change due to contact will then induce a syndrome of other changes by system-internal mechanisms. We thus have a situation in which the effects of both causal factors are intertwined. Recent work by Dryer (1985) has shown that there is no evidence for a universal relationship between the order of object and verb and the order of noun and adjective, and in fact that "the order of adjective and noun among OV languages exhibits a strong areal pattern, the OV languages of Eurasia tending toward Adj-N order, those outside Eurasia tending toward the N- Adj order" (1985:10). This (unexpected) discovery of an apparent areal effect influencing a correlation pre-
viously thought to be purely a matter of typology raises new questions about the relationships of distant genetic relationships, long-term convergence effects, and typology. Thus, though the effects of (partial) predictability of co-occurrence due to typological harmony must be factored out, it is by no means clear yet how this is to be done.

This leads directly to the fourth aspect of our question: Are properties which can be shown to be more predictive of other properties more or less susceptible to convergence effects than more "inert" traits? Or is there any relationship at all of this nature? For example, Hawkins (1983:297) finds that prep. and postp. are more predictive of AN and GN order than the SVO, SOV, etc. orders of major constituents. If this is so, then a specific question can be framed and investigated: "Is the change from prep. to postp. or from postp. to prep. order less frequently attested than the change from, for example, SVO to SOV constituent order?"

With regard to the question of which linguistic features are more readily transmitted by contact, it used to be thought that language contact did not result in the transmission of syntactic features or of grammatical morphemes. But in the face of massive evidence to the contrary that view has now been abandoned in favor of one according to which phonology, lexicon, syntax, and semantics are all subject to convergence effects. Mbugu, for example, though not a Bantu language, seems to have
acquired the grammatical morphology of the contiguous Bantu languages, long thought to be impervious to contact transmission (Bynon 1977:253-4). Phonetics, lexicon, syntax, morphology, and semantics can converge separately or together. Consider the textbook case of Kupwar in Central India studied in Gumperz and Wilson (1971), in which convergence among Urdu, Marathi, and Kannada has produced a situation where, in effect, three lexicons are attached to a single syntax and phonology. The lexicons of the separate languages have persisted, while phonology and syntax (and probably semantics also), have converged. Such considerations lead to the possibility of establishing a typology of convergences, such as that sketched by Hymes (1971:75), in which A represents persistence and B convergence. His typology is reproduced here, with additional suggestions by this author:

<table>
<thead>
<tr>
<th>Phonetics</th>
<th>Lexicon</th>
<th>Syntax</th>
<th>Semantics</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>North Pacific Coast</td>
</tr>
<tr>
<td>2. A</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>Relexification</td>
</tr>
<tr>
<td>3. A</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>Mbugu (? eb)</td>
</tr>
<tr>
<td>4. A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>European inter-translatability</td>
</tr>
<tr>
<td>5. B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>6. B</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>7. B</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>8. A</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>9. A</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>10. A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>Balkans (? eb)</td>
</tr>
<tr>
<td>11. B</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>12. B</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>
The type AAAA does not appear because that would be no convergence; one wonders, though, what type BBBB would represent. To the extent that there is a great deal of shared lexicon and dialect borrowing among the languages of South Asia, it seems that BBBB may describe the situation between, say, Urdu and the Panjabi of Pakistan, or Hindi and the Panjabi of India.\(^3\)

Such a typology also invites the question of what types of socio-linguistic interaction lead to what types of convergence. Gumperz and Wilson, for example, suggest that the resistance of the lexicon to change in the Kupwar situation reflects the strict separation of the sphere of home life from that of everything else.\(^4\)

Considering the possibility of such a variety of convergence types in relation to the question of how to define a linguistic area, we see that the most likely case is that

\(^3\)Regarding phonetic convergence, one hears a distinct Panjabi "accent" in the Urdu of many Pakistani Panjabi speakers when they speak Urdu; conversely Ashok Kalra (p.c.) notes that in India Panjabi speakers who have moved to Delhi begin (fairly rapidly) to lose tonal distinctions.

\(^4\)Thurgood, in a very interesting paper (ms), identifies three distinct types of language contact situation—partial bilingualism by some speakers of a language with the primary language remaining the principal means for social and economic interaction; complete multilingualism resulting from exogamous marriage patterns; and situations where "large groups of people . . . have been displaced, moved to a new location and forced to learn a second language in order to survive" (p. 4)—and correlates the first type of language contact with a tendency to lexical borrowings (e.g. the borrowing of numerals along with their tones from Thai into T'in), and the third type with pidginization and creolization. (A correlation for the second type is not specified.)
the convergence of syntax, semantics, phonology, etc., will only sometimes co-occur. The question then is: is any one type of convergence criterial for assigning the status of linguistic area? Or does there have to be a critical number of convergence manifestations, or a critical intensity, perhaps, in order to establish the existence of a sprachbund? And if so, how does one measure intensity of convergence? Or, should each component of the grammar be considered separately and should we then talk about phonological convergence areas, or syntactic or semantic convergence areas. Or is the nature of the whole phenomenon such that it can only be accurately or insightfully described by establishing a continuum of sprachbund types and strengths?

Given the insight that convergence does not affect the several components of the grammar in the same manner or degree, we must further recognize that each component itself is not monolithic. In considering the relation of syntactic and semantic convergence, for example, each syntactic construction needs to be considered individually. Hook (1982), treating the relation between syntactic (formal) and semantic convergence between Hindi and Marathi, and between Hindi and Godwari, demonstrates that it may be the case that for construction A, syntax and semantics do converge together in the same construction (as in the "dative subject" construction). But in other cases formal convergence may not be accompanied by full semantic convergence for a given construction. Hook discusses the case of the com-
pound verb which is found in both Hindi and Marathi—formal convergence. While the compound verb expresses both the meanings of anteriority/posteriority and of perfectivity in Hindi, it does not express perfectivity in Marathi.

Nor is semantic convergence necessarily accompanied by formal convergence. For example, in Godwari, the same set of semantic contrasts (perfectivity and anteriority) which are expressed in Hindi by the compound verb are expressed by the appearance of an "ergative adverb" po (Hook 1982:33). It is significant to note, though, that in this case, the same semantic distinctions seem to exist; the difference is that they are not grouped in the same way in both of two languages under consideration. In some cases they are mapped onto the same syntactic form in two languages, and in other instances onto different syntactic forms.

With regard to the second major problem—where to draw the boundaries of a prospective linguistic area—Masica's basic method (1976) is to trace the presence of a feature until a point is reached where an opposing feature is reached, and to draw the boundary for that feature at that point. The expectation is that a genuine linguistic area will be defined by a bundle of such iso-featural lines. This is essentially the two-valued approach. If one applies a scalar rather than a presence/absence mapping procedure, the boundary of a linguistic area will be established by locating a zone in which a (critical) number of features show an abrupt diminution in frequency. A practi-
cal requirement for either approach is the availability of comparable data for all the languages in question for the feature in question. It may turn out that the boundaries of linguistic areas are not as sharply definable as we have thought.

Consider the discussion in Heston (1980, 1983) of several features considered to characterize the South Asian linguistic area—dative construction, reduplicative structures, and echo-words (Masica 1976:189–90). These are shown by Heston to be present also in various Iranian languages. What we will probably find, as anticipated by Ramanujan and Masica (1969:576–7) is that there will be a number of (sub-) sprachbunds within any larger linguistic area, which may also share in features characterizing more than one sprachbund. Thus languages in the eastern part of the South Asian area share features of the Southeast Asian linguistic area. Bengali, Assamese, Oriya, and Maithili, for example, have well developed systems of numeral classifiers (Emeneau 1956, Masica 1976:11), and a substantial number of South Asian languages share the

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Southeast Asian areal features are summarized in Matisoff (1988, handout) as follows: "(a) Phonological: monosyllabicity and tone, devoicing of *voiced obstruents and tonal splits, the compounding prefixing cycle; (b) Morphological: compounding, elaboration; (c) grammatical: classifier systems (not plural markers on common nouns), topic prominence (not subject prominence), aspect (not tense), verb serialization and verb concatenation, sentential nominalizations (not embedded); (d) semantic: sentence-final emotive particles, situational formulas 'Have you eaten yet?' 'Where are you going?', parallel lexicalizations and intertranslatability."
feature n-ng opposition with S.E. Asia (Ramanujan and Masica 1969:560).

Kalasha and Khowar, belonging to a sub-group of Indo-Aryan which has (until very recently) been isolated from most other Indo-Aryan languages, and situated on the periphery of the South Asian subcontinent, are particularly likely to provide evidence bearing on these questions.

1.3.2. Windfuhr’s tense-aspect-mood model

In analyzing the verb systems of Kalasha and Khowar I apply the spatial model developed by Windfuhr to "map the networks of both morphology and categorial functions of the verb forms simultaneously and synoptically" (1985:424). By mapping form and categorial function simultaneously, the model "allows for the synoptic and comprehensive comparison of the forms and their function at two different stages of the same language or of different dialects thereof, or of different languages, or their dialects" (1987:1). It is also envisaged that it will constitute a means "which allows for the reinterpretation of assumptions about the interrelationships and the differentiation of the categories involved" (1985:416). In the process I both characterize the systems of these languages and explore the potential of the model. I first summarize Windfuhr's conceptualization of the model and then in Ch. 2 discuss the somewhat

^Note that the model deals with these categories as they are expressed in basic verb morphology, either derivational or inflectional. Thus if a language, for example, expresses a category only by analytic/syntactic means this category will not be represented in the model.
modified interpretation which I employ in my analysis.

The most salient features of this model are its treatment of the category of tense, and the "reinstatement of the aorist as distinct from the perfective" (1985:415). Whereas most models of verb systems treat present and past as two (primitive) points on a single temporal dimension, Windfuhr's analysis began by treating past and present as values located on two intersecting axes. The original motivation for this was to reflect the behavior of the Persian aorist forms (usually called the "simple past"), which function in both the present and the past systems; that is, the aorist participates in verbal constructions which encode events with present and future time reference as well as those with past time reference. 7

Windfuhr's framework postulates four mutually intersecting dimensions in that part of the conceptual space of verb systems reflected in the grammatical categories of tense, aspect, and mood. 8 In their most general conceptualization, the four axes of the model are

7Windfuhr uses the term "aorist" in the sense of a tense and aspect-neutral verb form, which encodes the bare occurrence of an action. Friedrich (1974) characterizes the Homeric Greek aorist as the least marked form, neither durative nor perfect, which gives it the most tense functions. The characterization of the aorist is central to Friedrich's work, as it is in the development of Windfuhr's model. Menges (1968:128) characterizes the aorist in Turkic languages similarly: "The aorist does not have any tense-notation, it just expresses the action as such, going on at present or in the future, or pictured as such; the aorist is, in fact, the 'timeless tense'."

8The reader will notice that the categories of voice and person-number are not addressed.
The model does not advance a universal definition for aspect, working rather with the idea that, in the spirit of Friedrich (1974), "aspectual distinctions are language-specific and may oscillate between durative: non-durative, completive: non-completive, and stative: non-stative", and concluding that "the aspectual distinction is not necessarily binary, but may be ternary as in Persian and ... in those languages which have the equivalent of the Persian aorist" (1985:429).

The axis of REALITY is a continuum where "the location of a lateral plane to the left relative to another indicates 'more real' and location to the right indicates 'less real'." More and less "real" refer to the degree to which an event is represented as realized in the world "out there". Examining the cross-linguistic interpretation of the axis of REALITY, Windfuhr finds, based on comparison of the verbal systems of French, Persian, Russian, Arabic and Turkish, that

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Terminological note: "axis" is normally synonymous with "dimension", but in order to avoid confusion the two terms are discriminated in the following way. "Axis" shall refer to the component of the model represented by lines drawn on paper, and "dimension" shall refer to the aspect of conceptualization being represented.

For the development of this conceptualization from its concrete roots in the problem of analyzing the Persian verbal system to its generalized version the reader is urged to consult Windfuhr (1985 passim).

For another interesting treatment of degrees of reality or "realizability", but as a function of the presence or absence of detached (Reichenbachian) temporal reference points, see Magier (1985).
"there appear to be at least five degrees of reality, rather than oppositions of real and non-real... Subjunctive can be seen as expressing potential reality; future as expressing predictive reality; general and assertion as expressing structural reality; the 'basic' plane as expressing deictic reality; and progressive as expressing phenomenal reality..." (1985:447)

Emergent relations between the values of REALITY and other verbal categories are characterized as follows:

"the progressive plane is the plane foregrounding aktionsart. The deictic plane is the plane foregrounding tense: its top level foregrounds present; its definite non-actual level foregrounds past; and its indefinite non-actual level foregrounds the occurrence of a situation at least once in the past. The structural plane is the plane foregrounding aspect: its top level foregrounds the imperfectivity of an action; its definite non-actual level foregrounds the instantaneity of an action; and its indefinite non-actual level foregrounds the perfectivity of an action. The predictive plane is the plane foregrounding real mood; the potential plane is the plane foregrounding non-real mood." (1985:447-8)

These relations are summarized as follows (adapted from Windfuhr 1985:448):

<table>
<thead>
<tr>
<th>Degree</th>
<th>Phenomenal</th>
<th>Deictic</th>
<th>Structural</th>
<th>Predictive</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foregrounds:</td>
<td>aktionsart</td>
<td>tense</td>
<td>aspect</td>
<td>real mood</td>
<td>non-real mood</td>
</tr>
</tbody>
</table>

The discrimination of values along the axis of EXPERIENCE depends on an extension to verbal conceptions of the referentiality distinctions definite/indefinite and specific/non-specific which are usually applied to nominal concepts. Thus, for Persian for example, Windfuhr identifies two degrees on this axis: a "definite non-actual", (i.e. aorist ["past tense"] forms), and an "indefinite non-actual" (i.e. inferential past forms)
He further differentiates indefinite experience into "specific indefinite" and "non-specific indefinite" (1987:5). For example, (in Persian), "the 'present perfect' expresses specific indefinite experience, i.e. the speaker knows about the result of the action and the process that led to it" (emphasis mine). Such is not the case with the 'inferential past' which expressed non-specific experience, by the use of which the speaker "communicates his experiential distance from the action, be it hearsay, conclusion, or reminiscence, etc."

(emphasis mine) (1987:5)

Since the categorial dimension which Windfuhr grades into generic, definite: indefinite, and specific: non-specific pertains to how an action or state impinges on an experiencer, this axis is called the axis of EXPERIENCE.

The axis of NARRATION is the axis which, according to Windfuhr, "effects a 'present' determination at generic, mostly 'past' at definite, and 'present perfect' at indefinite" (1985:448). In a more recent characterization

11Windfuhr's use of "actual" here is different from my use of actual (as opposed to inferential) in Ch. 2.

12Notice that Windfuhr has here identified the speaker's knowledge of the process that led to the result as crucial to the difference between his categories of "specific" and "non-specific" experience. This is the point independently emphasized in the work of DeLancey based on his causal-chain explanation of inferentiality. (DeLancey 1985-a, b, 1986)

13My characterization of the values of this axis in Ch. 2 depends on the notion of specificity rather than definiteness.
of this axis, Windfuhr considers it as accomplishing the discoursal function of foregrounding and backgrounding.

The four mutually intersecting axes of the model are schematized in Fig. 1.

![Fig. 1. Schematization of Windfuhr's Model](image)

How, then, is tense treated in this model? The category of tense no longer appears as a primary axis. Tense values emerge as derivative categories resulting from the intersection of axes representing more fundamental parameters. Specific temporal (i.e. tense) interpretations result from the intersection of the axes of REALITY, EXPERIENCE, and NARRATION. Thus, for the Persian aorist, "its interpretation differs according to the degrees of reality. The deictic aorist narrates definite, and thus past action. The structural aorist describes an action simply as structural definite, which results in its interpretation as occurring at the point of speaking. The predictive aorist predicts a definite, and thus likely future action. And the potential aorist expresses not the assumed completion of an action prior to another, but the simple possibility of an action." (1985:449)

Other scholars have noted that tense (in the sense of a grammatical category referring to real-time location) is
not necessarily a primitive category of natural language. Windfuhr notes Lyons' treatment of tense (1977:819-20), in which the value "present" is the realization of the intersection of "non-remoteness" with factivity, and "past" is the interpretation of the intersection of "remoteness" with factivity. Compare also Friedrich's similar observation about the secondary status of tense in Homeric Greek:

"Tense operates only in the indicative mood, and even then its association with the basic theme is a matter of tendency, or degree of probability; the aorist indicative, for example, is past in tense most of the time, but not inevitably. . . . In some cases, a feature is the product of two (or more) inherent features. For example, the feature of past is a statistically probable product of the interaction of the aorist and indicative . . . ." (1974:S24)

The present model makes specific and offers a theoretical explanation for the conditions under which each tense interpretation arises.

My reasons for employing this model to systematize and compare the Kalasha and Khowar verb systems are the following. (1) It has the potential to represent the interacting categories in a verb system in a single multi-dimensional structure in which the axes are conceptualized in terms general enough to allow language-specific differences to be expressed, and yet remain within a single unified framework. (2) The model has the potential for application to questions of language change resulting from language internal and/or external causes. The originator of the model has already applied it with interesting results to such questions in Windfuhr (1987).
This is a study of the representations of the verb systems of standard Persian and Talyshi (Iranian), and Turkish and Azari (Turkic). Standard Persian (taken as representative of an Iranian-type system) has three degrees of REALITY, while Azari (representing Turkic systems) has seven degrees along the REALITY axis. These two situations are represented schematically in Figures 2 and 3 which are adapted from Windfuhr (1987).

Fig. 2. Persian (Iranian pattern)\textsuperscript{14}

\textsuperscript{14}Adopted from Windfuhr (1987) Figs. 4 and 5. The occurrence of a given form at more than one point reflects its functioning with differing semantic values at various
Northern Talyshi, an Iranian dialect spoken in Soviet Azerbaizan, has been in contact with Azari Turkish for several centuries (Windfuhr 1987). This language, in contrast to standard Persian, has five degrees of REALITY, a difference which is attributed to convergence effects with Azari. Windfuhr schematizes the Northern Talyshi verb system as in Fig. 4 (below), concluding that "the axes postulated do seem to represent the historically observed changes more comprehensibly than the traditional time-line model, by seeing those changes as developing within a multi-dimensional network. . ." (1987:21)
<table>
<thead>
<tr>
<th>PROGRESSIVE</th>
<th>DEICTIC</th>
<th>STRUCTURAL POT./COND.</th>
<th>OPTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-e-da-m</td>
<td>PT-e-da-m</td>
<td>b-a-PT-e-m</td>
<td>bi-PR-vm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a-PR ni-m</td>
<td></td>
</tr>
<tr>
<td>PT-a bi-m</td>
<td>PT-a bi-m</td>
<td>PT-a ba-i-m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PT-vm</td>
<td>PT-vm</td>
<td>PT-vm</td>
</tr>
<tr>
<td>PT-e-da bi-m</td>
<td>a-PR-i-m</td>
<td>a-PR-i-m</td>
<td>(b-)a-PR-i-m</td>
</tr>
<tr>
<td></td>
<td>PT-a m</td>
<td>PT-a m</td>
<td>PT-a b-o-m</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 4. Northern Talyshi system

Given that the model assumes that the four dimensions are related in a dynamic unitary system, one can predict that if a change is introduced on one semantic dimension it will have repercussions throughout the system. Thus the generalization or expansion of a form's range of use along dimension x will displace any previous forms occupying that semantic niche, either causing them to change their function (represented by displacement along one of the axes), or to be lost.

(3) My final reason for utilizing this model is that it provides a principled way to deal with categories observed to be central to the Kalasha and Khowar verb systems.

In Ch. 2, I first catalogue the verbal formations of Kalasha and Khowar, giving the range of uses I have
identified for each form, and then correlate the forms and their attested functions with the dimensions of the model. This yields representations comparable with those already available for Persian, Turkish, Arabic, Russian, and French. I then compare the schematized verb system of Kalasha with those of Khowar (northwest Indo-Aryan (Dardic)), Hindi (Indo-Aryan, central group), Persian (Iranian), and Turkish (Turkic). From this we obtain observations based on which we can frame statements of the form: "The verb system of Kalasha is more like that of x than that of y". Such results yield an interesting contribution to the typology of verb systems but still not conclusions about the position of Kalasha vis-à-vis the South Asian linguistic area. In order to be in a position to make statements of this nature based on representations employing this model, it is necessary to have comparable characterizations of the verb systems of a great many languages belonging to the South Asian linguistic area, including at least one language from each genetic stock represented. Then we may be able to say whether or not the dimensions of verb systems captured by this model have been subject to the same sorts of convergence effects as have other formal and semantic features in South Asian languages. As this task is beyond the scope of the present research, the contribution of this work will be to suggest this as a fruitful line of inquiry, and to make a start toward that end.
1.4. Previous research

1.4.1. Kalasha

The Kalash people have been the subject of many anthropological studies, among them Snoy (1962), Siiger (1963 and 1967), Darling (1973), Wutt (1976), Parkes (1984), Jettmar (1975) and Loudé and Lievre (1976 and 1984).\(^\text{1}\) So far, however, the only linguistic works published on Kalasha are Leitner's pioneering sketch (1880) upon which the Linguistic Survey of India (1919) drew heavily, and Morgenstierne's "Notes on Kalasha" (1973). More recently Trail and Cooper have an unpublished paper on the phonological system (1985), and a pre-publication version of a Kalasha dictionary (1987). Work in progress by Georges Lefeuvre in France including syntactic studies and an etymological dictionary should become available to scholars in late 1988. Turner's Comparative Dictionary of the Indo-Aryan Languages incorporates Morgenstierne's and Leitner's Kalasha materials, as does Fussman's Atlas linguistique des parlers Dardes et Kafires (1971). Both of these are basic research tools for the Dardic scholar.

1.4.2. Khowar

An exhaustive survey of Khowar studies up until 1981 is available in Endresen and Kristiansen (1981). This article lists and describes extant Khowar texts, most of these are basic research tools for the Dardic scholar.

\(^{1}\) Jones (1966 and 1969) are exhaustive annotated bibliographies on the anthropology and social and political history of the peoples of Nuristan and Chitral. Jettmar and Edelberg (1974) is an important collection of articles on the region and languages under study.
which are quite fragmentary or unpublished. The most important of the linguistic works on Khowar are (1) Biddulph's initial sketch of the grammar with three short texts and a glossary (1880); (2) O'Brien's Grammar and Vocabulary of the Khowar dialect (Chitrali) (1895), which includes a very brief grammatical sketch, 256 example sentences, fifteen short texts, and a glossary; and (3) Morgenstierne's three articles "Some Features of Khowar Morphology" (1947), "Iranian Elements in Khowar" (1936), and "Sanskritic Words in Khowar" (1957).

Since 1981, Buddruss has published Khowar-Texte in arabischer Schrift (1982), with chapters on the Khowar writing system and rhyme and meter in Khowar poetry, twelve texts in the original Arabic script with transliterations, grammatical notes and translations, and a glossary; and a short monograph (1983) on the recent development of Khowar as a literary language. Other recent work includes a popularly oriented dictionary compiled by Sloan (1981), many of the entries in which unfortunately do not reflect important phonological distinctions; a dictionary in preparation by Munnings (1987); and a grammar intended for use by Urdu speakers learning Khowar by Inayatullah Faizi working with the Anjuman-e-Taraqqi-e-Khowar, a recently formed literary and cultural society. Faizi also has an unpublished manuscript on "Different Dialects of Kohwar (sic)."

1.5. Basic facts about Kalasha

1.5.1. Genetic and geographical relationships
Kalasha's closest genetic relationship is with Khowar, both of which belong to the group of languages usually called "Dardic". Morgenstierne (1973:188) considers the following unique similarities between the two languages to be the result of a period of uniquely shared development.

(1) Retention of the OIA augment with some verbs, e.g. Kal. 'awis 'I drank', ak'airis 'I did', Kho. qsoi 'it was' (<aşayat), obestam 'I could', obristam 'I died'.

(2) The possibility of reconstructing common Kalasha-Khowar forms in some cases, e.g. *jhu:* > N. Kal. chu:(l), S. Kal. jhu:r, Kho. zur 'daughter' (with probable intervocalic t > *t > r/l).

(3) Similar systems of demonstratives with three degrees of distance.

(4) Formation of the past participle: *karitaka > *kardau > Kho. kardu, Kal. kada.

(5) Numerous lexical correspondences, (but the problem of recent borrowings clouds this issue).

In his genetic classification of the Dardic languages, Grierson (1919) grouped them with the Nuristani (formerly called "Kafiri") languages as a third branch of Indo-Iranian, along with Iranian and Indo-Aryan. In the LSI he stated that

"... the Dardic languages possess many characteristics which are peculiar to themselves, while in some respects they agree with Indo-Aryan, and yet in other respects with Erani languages. They do not possess all the characteristics of either Indian or of Erani. We must assume that at the time when they issued from the Aryan language, the Indo-Aryan lan-

---

1These forms are given as cited by Morgenstierne and retain his transcription system.
guage had already branched off from it, and that the Aryan language had by that time developed further on its own lines in the direction of Eranian." (LSI VIII:8)

Schematically the relationship he proposes is:

```
Aryan
 /   \
/     \    
Indo-Aryan
\     /      
|    |        
Eranian Dardic
```

According to Morgenstierne, however, (1929, 1974) the "Dardic" languages are unquestionably Indo-Aryan. Their unique features are the result of a long history of isolation in the mountain valleys on the borders of the IA area. The Nuristani languages, however, do constitute a separate sub-group of Indo-Iranian. In 1929, Morgenstierne said:

"The Kafir languages undoubtedly present several features which separate them from the true Dardic and the other Ind. languages. But the only sound change which they share with Ir. is the early disaspiration of mediae, and this characteristic may have developed quite independently in Kaf. and Ir. On the other hand, Kaf. is more conservative than any Ir. or Indo-Aryan language in one point, viz. the retention of affricates developed from I.E. k'-."

By 1974 he is still not certain as to whether the "ur-Kafirs" separated from the Indo-Aryan branch in pre-Vedic times or whether they had branched off already before the separation of Indic from Iranian--schematized, whether (a) or (b) represents the historical situation better.

```
Indo-Iranian
 /   \
/     \    
|    |        
Rig Veda Iranian Kafiri Indic
```

or

```
Indo-Iranian
 /   \
/     \    
|    |        
(1974:9) Iranian Kafiri Indic
```
I shall use the term "Dardic" as a geographical cover-term, referring to the northwest Indo-Aryan languages spoken in northwest Pakistan and the extreme northwest parts of India.\footnote{For an authoritative current discussion of the grouping and subgrouping of the Dardic and Nuristani languages, see Strand (1973).}

In 1929 Morgenstierne found two dialects of Kalasha—a northern variety spoken in the valleys of Birir, Bumburet, and Rumbur, and a southern variety spoken in the Urtsun valley (1973:188). Today still, Northern Kalasha is spoken in Birir, Bumburet, and Rumbur, in the Chitral District of the Northwest Frontier Province in Pakistan. According to local sources some speakers can also probably be found in the Jinjiret Valley, south of the three valleys mentioned. There is some dialectal variation even within northern Kalasha, although the speech varieties of all three valleys are entirely mutually intelligible. The dialects of Rumbur and Bumburet are closest to each other, while that of Birir is somewhat more divergent. According to Peter Parkes (p.c.), the speech of Birir combines retention of some features lost in the other two valleys (e.g. certain consonant clusters), and introduction of considerable numbers of Urdu loan words. Southern Kalasha is still spoken in Urtsun, where Morgenstierne recorded some forms in 1929.\footnote{My thanks to Richard Strand for confirming this point (p.c.).} The present dissertation is based on the speech
of Bumburet and Rumbur.

Formerly the extent of the Kalasha speaking area was much greater. Until the early 14th century Kalash kings ruled in Lower Chitral from Ashret just below the Lowari Pass, to as far north as either Reshun, the boundary between Upper and Lower Chitral, or according to another tradition, the present village of Kari. Kalasha's present linguistic neighbors are the eastern dialect of Kativiri (Nuristani) on the west, and Khowar on the north, east, and south (see Appendix, map 1).

The total number of Kalasha speakers is probably between 3,000 and 4,000. According to everyone I have consulted, all Kalasha speakers are bilingual in Kalasha and Khowar. This includes old people, women, and children depending on their age. Many, especially in the villages at the heads of the valleys, also speak Kativiri.

1.5.2. Phonological system

The Tarikh-e-Chitral, quoted by Darling (1979:161) gives Reshun as the northernmost extent of Kalash rule. Another tradition considers the village of Kari, a few miles north of Chitral town as the northernmost limit. This second tradition was rejected by Schomberg (1938:209), who was of the opinion that the Kalash once ruled in all of Chitral. Kari, however, is the extent quoted by Rahmat Karim Beg lecturer at the Government Degree College, Chitral.

Khowar is currently spoken throughout Chitral District, serving as the lingua franca of the district, in a few villages in Swat, where it is referred to as Qashqari, and in the Yasin valley in Gilgit Agency. According to all sources, the "purest" form of Khowar is to be found in the Turkho and Mulkho areas of Upper Chitral. Within the Khowar-speaking area there is also some dialectal variation. Faizi (1988) identifies five dialect areas, mainly on the basis of lexical variation.
In this section I present the phonological analyses of Kalasha and Khowar adopted for this work. For Kalasha I employ the analysis proposed by Trail and Cooper (1985) with minor additional comments. These concern (1) the status of vowel length, and (2) the phonetic characterization of the two "I" phonemes.

With regard to the status of vowel length, in many cases I have recorded unmistakeably long vowels, whereas Trail and Cooper have analyzed the vowel as a stressed short vowel. For example, they treat aaya 'mother' as a'ya. In this word and in words like baaba 'sister', baaya 'brother', there is definitely something other than stress operating in the first syllable. Since I am not ready to discuss the phonemic status of length, I will assume vowel length and stress to be independent in Kalasha and record length where I hear it and stress where I hear stress.

Trail and Cooper have an /l/ and an /l/ phoneme and an /n/ and an /n/. They describe /l/ as a "voiced dental lateral articulated with the tongue tip" (1985:20), and /l/ as a "voiced alveolar lateral articulated by the blade of the tongue." They then describe the difference between these two sounds as being "close to the difference in English between clear and dark 'I', the /l/ being clear and the /l/ being dark" (ibid.:21). Based on my hearing of these sounds, which agrees with the "clear 1, dark 1"

21Although these words have a very distinctive pitch contour, I am not able now to argue for or against the existence of contrastive tone in Kalasha.
distinction, it seems one should characterize the /l/ as velarized and the /r/ as palatalized. A similar distinction applies to /n/, which I hear as palatalized and /m/ which is not. I have transcribed these sounds with /ly/ and /ny/ for the palatalized sounds and /l/ and /n/ for the velarized or unpalatalized sounds (cf. fn. 21).

With these modificatory comments, the consonant system of Kalasha is given in Table 1 (based on Trail and Cooper 1985).²²

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Alveo-palatal</th>
<th>Retroflex</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Vl.unasp.</td>
<td>p</td>
<td>t</td>
<td>t</td>
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<tr>
<td>asp.</td>
<td>ph</td>
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<td>th</td>
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<tr>
<td>Vd.unasp.</td>
<td>b</td>
<td>d</td>
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</tr>
<tr>
<td>asp.</td>
<td>bh</td>
<td>dh</td>
<td>dh</td>
<td></td>
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<td></td>
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<tr>
<td>Affricates</td>
<td></td>
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<tr>
<td>Vl.unasp.</td>
<td>ts</td>
<td>c</td>
<td>c</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>asp.</td>
<td>tsh</td>
<td>ch</td>
<td>ch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vd.unasp.</td>
<td>dz</td>
<td>j</td>
<td>z</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>asp.</td>
<td>dzh</td>
<td>jh</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Fricatives</td>
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<tr>
<td>Vl.</td>
<td>s</td>
<td>s</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>Vd.</td>
<td>z</td>
<td>ž</td>
<td>J</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Nasals</td>
<td>m</td>
<td>n</td>
<td>ny</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Laterals</td>
<td>l</td>
<td>ły</td>
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<td></td>
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<tr>
<td>Flaps</td>
<td>r</td>
<td>y</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Semivowels</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 1. Kalasha Consonant Phonemes

The vowel system has five vowels, plus the phonemic

²²With regard to the phonemes /ż/ and /j/ Masica (p.c.) notes that in other Dardic languages they are often free-variant allophones. In Kalasha, however, these are definitely in contrast, viz. ja 'wife', ża 'until, up to'; juk 'louse', żuk 'to eat'; ubujik 'to be born', sužik 'needle'.
features of nasalization and retroflexion. Table 2 gives the basic Kalasha vowel system. Nasalized and retroflexed versions of these are contrastive.

<table>
<thead>
<tr>
<th></th>
<th>Unrounded</th>
<th></th>
<th>Central</th>
<th></th>
<th>Rounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>i</td>
<td></td>
<td></td>
<td></td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>

Table 2. Kalasha Vowel Phonemes

For Khowar I will employ the phonemic analysis upon which Munnings (1988) has based his lexicographical work. This analysis is essentially the same as that presented in Endresen and Kristiansen (1981) following Morgenstierne. It differs in identifying three additional consonant phonemes: /J/ voiced retroflex affricate, /tsh/ voiceless aspirated danti-alveolar affricate, and /dz/ voiced danti-alveolar affricate. I differ from Endresen and Kristiansen and from Munnings in the phonetic characterization of the phoneme /L/. Endresen and Kristiansen classify this as a retroflex sound; and while Munnings does not present a phonetic description of this sound, he symbolizes it without comment in the same way as other retroflex counterparts of danti-alveolar consonants are symbolized. It should be noted that the Khowar writing system does the same thing. This sound, however, is in fact a velarized rather than a retroflexed lateral. It is the same sound as Kalasha /l/,
but the velarization seems even stronger in Khowar. The consonant system of Khowar is given in Table 3.

---

23I have also found it in Dangarikwar (cf. "Phalura") spoken in Lower Chitral.

The decision to transcribe Kalasha velarized "1" with <1> and the same sound in Khowar with <L> is based on discussions with Richard Strand, who points out that Khowar /L/ developed from original retroflexed *D, e.g. kul 'well' < *kuDya 'well' (T3251), loLik 'to look at' < laLatii 'sports' (T10922), while the reflexes of *I have the palatalized /l/. In Kalasha, on the other hand, original *I has developed into the velarized phoneme (e.g. lui 'blood' < *lo:hi 'red, blood' (T11164), lac 'shame' < the root laji- (T10970), while palatalized /ly/ appears to occur (mainly/only?) in loan words from Khowar. Thus <1> represents the phoneme which is a reflex of original *I in each language.

24For typographical reasons, to avoid confusion between underscored forms of <g> and <q>, I have chosen to transcribe the postvelar stop with (upper case) <Q> instead of the usual <q>. As a matter of interest, it should be noted that in Khowar the phonemes /Q/, /x/, /G/, and /f/, often confined in other IA languages to Perso-Arabic loan words, occur in both these loans and in native Khowar words. For example: DaQ 'boy', Gaf 'claw', Qure'ik 'to snore', froSk 'straight, right', roxStik 'to forget', sax 'vegetable', Sur 'sand', SadaG 'third month in Khowar system', Gall 'game (like hockey)'. (Examples from Munnings 1987)
Table 3. Khowar Consonant Phonemes

The vowel phonemes of Khowar are given in Table 4.28

Table 4. Khowar Vowel Phonemes

1.5.3. Morphology

1.5.3.1. Nouns. Kalasha has lost the inherited category of gender, but has innovatively grammaticized an

28Vowel length is not contrastive, and the distinctive retroflexion of Kalasha vowels is not present. Both Morgenstierne and Buddruss have found that Khowar has phonemic tone. I am grateful to Richard Strand for the following minimal triplet which illustrates this point: gol 'valley', gol 'gully', and gol 'front part of the neck'.
animacy distinction. The finite verb agrees with the subject of its sentence in person, number, and animacy. The verb 'be' has separate forms for animate and inanimate entities, and since of the nine basic finite verbal forms, five are formed from a participle plus a finite form of 'be', this distinction is central to the semantics of the verb system.

Most Kalasha nouns distinguish the category of number only in the non-nominative cases. A few nouns referring to specific categories of humans sometimes take a NOM plural in -aan, e.g. gaDər'ak-aan 'elders'. A very small class of kinship terms has a specialized plural form -autr'-- bayautr' 'brothers of each other', baabautr' 'sisters of each other. Adjectives are invariant in form.

Case suffixes for inanimates, animate common nouns and proper names (of animates?) are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INANIMATE</td>
<td>NOM: Ø</td>
<td>Ø</td>
</tr>
<tr>
<td></td>
<td>OBL: -as</td>
<td>-an/-in</td>
</tr>
<tr>
<td></td>
<td>INST: -an</td>
<td>?</td>
</tr>
<tr>
<td>ANIMATE</td>
<td>NOM: Ø</td>
<td>(-aan), (-autr')</td>
</tr>
<tr>
<td></td>
<td>OBL: -as</td>
<td>-an/-in/-on'</td>
</tr>
<tr>
<td>PROPER NAMES</td>
<td>NOM: Ø</td>
<td>Ø</td>
</tr>
<tr>
<td></td>
<td>OBL: -as</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>DAT: -a</td>
<td>?</td>
</tr>
</tbody>
</table>

Various local cases are also recorded. The particular case ending assigned to express a particular local relation depends both on the specific semantics of the temporal or spatial relation involved, and on the declension class of the noun involved. These case desinences include:
In Kalasha both case-marking and verb-agreement are NOMINATIVE-ACCUSATIVE. That is, the subjects of both transitive and intransitive sentences are marked in the same way (NOM) in all tenses, and the verb invariably agrees with the subject in person, number, and animacy. Examples (1-4) illustrate these basic cases.

1) Intransitive - past tense
   a) pesa'ur hat'ya par-a'
      I(NOM) Peshawar to go(PST-A)-ls

2) The same is true for Khowar, with the exception of constructions of the type bap-o rardu 'the old man said', in which the verb rardu 'said' is a past participial form. See Ch. 2, section 2.2.3. These two languages contrast in this respect with other New Indo-Aryan languages, all of which (to my knowledge) show or showed some degree of split ergativity along tense lines. In Urdu, for example, in the simple past tense of transitive verbs, the subject receives the "ergative" marker -ne, and the finite verb agrees in number in gender with the direct object. For example, (a)
   (a) maI-ne kitaab paRhii
      I -ERG book(fs) read(PST-fs)
      'I read the book.'

   The reason for this, as proposed by Morgenstierne (1947:8) is that among the Indo-Aryan languages, Kalasha and Khowar alone have retained the finite OIA preterital forms. In all the other IA languages the old finite past tenses were entirely replaced by forms based on the past participle; and, according to most scholars, a reanalysis of the passive construction into an active one took place. This is evidenced by the fact that in Kalasha (with a large group of verbs) and Khowar (with fewer verbs) an augmented past tense has been retained. For example, in Kalasha from naš'ik 'to die', we have a-naš'-au 'he died', and in Khowar from brik 'to die' we have obritai 'he died'.

   Among the Nuristani languages, Prasun has a NOM-ACC case marking system. Edelman (1983:56) implies former geographical contiguity as the reason for this common feature; saying that Prasun, Kalasha, and Khowar used to constitute a compact block prior to "the relatively recent immigration of Kati speakers into the area."
‘I went to Peshawar.’

2) **Intransitive - non-past tense**
\[
\text{pesa'ur hat'ya par-im'-dai} \]
\[
\text{I(NOM) Peshawar to go(P/F-S)-is}
\]
‘I am going to Peshawar.’

3) **Transitive - past tense**
\[
\text{krom suruk' ar'-is} \]
\[
\text{I(NOM) work(NOM) beginning do(PST-A)-is}
\]
‘I began the work.’

4) **Transitive - non-past tense**
\[
\text{sula' on'-im} \]
\[
\text{I(NOM) firewood bring(P/F-N5)is}
\]
‘I will bring firewood.’

Direct objects take the NOM case (e.g. 3). If a singular direct object is marked with a deictic adjective, i.e. ‘this’ ama or ‘that’ ala, the deictic takes its ACC case form.

1.5.3.2. **Pronouns.** The personal pronouns are:

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM:</td>
<td>a</td>
<td>a'bi</td>
</tr>
<tr>
<td>OBL:</td>
<td>mai</td>
<td>ho'ma</td>
</tr>
<tr>
<td>2) NOM:</td>
<td>tu</td>
<td>a'bi</td>
</tr>
<tr>
<td>OBL:</td>
<td>tai</td>
<td>mi'mi</td>
</tr>
</tbody>
</table>

The demonstrative pronouns also serve as personal pronouns in the third person. There are three degrees of distance. The paradigm is as follows.

---

\(\text{dai}\) is the marker of the present/future-specific (P/F-S) tense form.

\(\text{Whether or not NP’s marked with these deictics are the only ones that can be considered definite in Kalasha is a question which I am not prepared at this point to answer.}\)

\(\text{In non-careful speech the intervocalic /s/ is often lost, and the forms a'sa, ta'sa, ta'si, and a'isi are often heard as [a'a], [ta'a], [ta'i], and [a'i].}\)
Notice that in the singular the present-near and the absent categories have three distinct forms—NOM, OBL, and ACC—, while for the present-far category, NOM and OBL are homophonous. In the plural, only NOM and OBL forms are distinct.

An emphatic form of each of these pronouns can be constructed by prefixing ʾ(ā)‐. The use of the forms in ʾ(ā)‐ entails that the referent has been mentioned or is tacitly assumed to be present in the discourse context; these forms convey the sense of 'this/that very one'.

Kalasha has a set of pronominal suffixes, which are suffixed to kinship terms to indicate possession. This is their only function. They do not cliticize to verbs and they do not encode any of the core arguments (subject, direct object, indirect object). Their agreement pattern is unusual; they agree in person with the possessor and in number with the possessed (kin term). The paradigm is as follows.

<table>
<thead>
<tr>
<th>Person</th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>-a</td>
<td>-ai</td>
</tr>
<tr>
<td>2.</td>
<td>-au</td>
<td>-ali</td>
</tr>
<tr>
<td>3.</td>
<td>-as</td>
<td>-asi</td>
</tr>
</tbody>
</table>

An example of the use of the first person plural suffix is

---

3⁰See Emeneau (1965), for an identification of six functions which pronominal suffixes in various Indo-Aryan and Iranian languages fulfill. Khowar does not have pronominal suffixes.
given in (5).

5) te mai putr-ai (*putr, *putr-a) roksat'
   they I(OBL) son-PS1p (*0, *1s) departure
   pron [E:mb, bk]
   give(PST-A-3p)
   'They sent off my sons.'

Notice that the pronominal suffix -ai agrees in person
(1st) with the possessor ('I'), but in number with the
possessed ('sons'). In this sentence (1st person pl.
pronominal suffix and direct object possessed NP) the
clitic is obligatory.

The occurrence or non-occurrence of the pronominal
suffix depends on several variables: (a) person-number,
(b) syntactic context, and (c) presupposition of the
existence of the possessed NP. For example, the first
person singular pronominal suffix does not appear in
nominative contexts, either as predicate nominal (6-a) or
as subject (6-b).

6-a) iy'a hom'a baaba/*baaba-a [E:bk, mb]
   this us(OBL) sister/sister-PS1s
   'This is our sister.'

b) mai chu/*chul-a cei kar'iu-dai
   I(OBL) daughter/daughter-PS1s tea make(P/F-S)-3s
   'My daughter is making tea.' [E:mb, bk]

Nor does it appear when the possessed NP is the direct
object (6-c).

6-c) as'a mai chu/*chul-a troel'-lai
   he(NOM) I(OBL) daughter/%daughter-PS1s cry-CS-P/F-S-3s
   'He is making my daughter cry.'

But it is obligatory when the modified NP is in an OBL
context (6-d).

6-d) ho'ma chul-a/*chu
   we(OBL) daughter-PS1s/%daughter for what
The third singular pronominal suffix behaves differently. It appears in all syntactic contexts, even nominative (7-a, b).

7-a) iy'a salyim'-a baaba/baaba-s [E:mb]
   this S.-OBL sister/sister-PS3s
   'This is Salim's sister.'

b) salyim'-a aaya-s/*aaya payranak'
   S.-OBL mother-PS3s/*mother across the river
   pai a'-au [E:mb]
   go(P PERF)-3s
   'Salim's mother has gone across the river.'

c) tas'i daada-s/*daada/*daad-asi hatya kagas'
   they(OBL) father-PS3s/*father/*father-PS3p for letter
   dai a'-am [E:mb]
   give(P PERF)-3s
   'I sent a letter to their father.'

The use of the pronominal suffix presupposes the existence (in the appropriate possession relation) of the possessed NP. Thus in (8), which is reporting the coming into existence of the son, the pronominal suffix is not used.

8) tas'a pi ek putr/*putr-as haw'-au [S, E:bk]
   she(OBL) from one son/%son-PS3s become(PST-A)-3s
   'One son was born from her.'

while in (9), which refers to an already existing son, the pronominal suffix appears.

9) iy'a kawi'ki-a putr-as [S:bk]
   this K.-OBL son-PS3s
   'This is Kawiki's son.'

1.5.3.3. Verbs. The following person-number endings in the present/future and past-actual tenses have been identified to date.
Person-number endings
Conjugational classes

<table>
<thead>
<tr>
<th></th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
<th>Class 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRES:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1sg:</td>
<td>'-im'</td>
<td>'-am'</td>
<td>'-em'</td>
<td>'-im'</td>
<td>'-em'</td>
</tr>
<tr>
<td>2sg:</td>
<td>'-is'</td>
<td>'-as'</td>
<td>'-es'</td>
<td>'-is'</td>
<td>'-es'</td>
</tr>
<tr>
<td>3sg:</td>
<td>'-iu'</td>
<td>'-au'</td>
<td>'-el/-al'</td>
<td>'-iu'</td>
<td>'-al'</td>
</tr>
<tr>
<td>1pl:</td>
<td>'-ik'</td>
<td>'-ik'</td>
<td>'-ek'</td>
<td>'-ik'</td>
<td>'-ek'</td>
</tr>
<tr>
<td>2pl:</td>
<td>'-a'</td>
<td>'-a'</td>
<td>'-a'</td>
<td>'-a'</td>
<td>'-et'</td>
</tr>
<tr>
<td>3pl:</td>
<td>'-an'</td>
<td>'-an'</td>
<td>'-en/-an'</td>
<td>'-in'</td>
<td>'-en'</td>
</tr>
</tbody>
</table>

|      |         |         |         |         |         |
| PAST:|         |         |         |         |         |
| 1sg: | '-is'   | '-is'   | '-es'   | '-a'    | '-a'    |
| 2sg: | '-i'    | '-i'    | '-es'   | '-a'    | '-a'    |
| 3sg: | '-au'   | '-au'   | '-au'   | '-au'   | '-au'   |
| 1pl: | '-imi'  | '-imi'  | '-e'mi' | '-o'mi' | '-o'mi' |
| 2pl: | '-ili'  | '-ili'  | '-a'li  | '-a'li  | '-a'li  |
| 3pl: | '-an'   | '-an'   | '-an'   | '-on'   | '-on'   |

<table>
<thead>
<tr>
<th></th>
<th>Class 6</th>
<th>Class 7</th>
<th>Class 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRES:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1sg:</td>
<td>'-am'</td>
<td>'-im'</td>
<td>'-im'</td>
</tr>
<tr>
<td>2sg:</td>
<td>'-as'</td>
<td>'-is'</td>
<td>'-is'</td>
</tr>
<tr>
<td>3sg:</td>
<td>'-au'</td>
<td>'-iu'</td>
<td>'-iu'</td>
</tr>
<tr>
<td>1pl:</td>
<td>'-ik'</td>
<td>'-ik'</td>
<td>'-ik'</td>
</tr>
<tr>
<td>2pl:</td>
<td>'-a'</td>
<td>'-eu'</td>
<td>'-a'li</td>
</tr>
<tr>
<td>3pl:</td>
<td>'-in'</td>
<td>'-in'</td>
<td>'-in'</td>
</tr>
</tbody>
</table>

|      |         |         |         |
| PAST:|         |         |         |
| 1sg: | '-es/-is' | '-a'   | '-is' |
| 2sg: | '-i'    | '-a'   | '-i'  |
| 3sg: | '-es/-is' | '-au'  | '-au' |
| 1pl: | '-imi'  | '-o''mi' | '-imi' |
| 2pl: | '-ili'  | '-a'li  | '-ili' |
| 3pl: | '-ini'  | '-on'   | '-an'  |

Rows indicate person-number categories; columns refer to conjugation classes. This classification is quite preliminary and doubtless incomplete. It incorporates classes identified by Morgenstierne (1973), in Trail (ms), and my own materials.31 Examples of verbs belonging to

31Trail’s classification formulates classes by considering present and past tense forms together, while Morgenstierne considers the present endings separately from the past series. The two schemes are compared below.

<table>
<thead>
<tr>
<th>Trail’s class</th>
<th>M’s present class</th>
<th>M’s past class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (parik’)</td>
<td>1 (parik’)</td>
<td>1a (ka’rik)</td>
</tr>
</tbody>
</table>
each of these classes follow.

Class 1: kar'ik 'do'
Class 2: ma'ik 'to say'
Class 3: jagek' 'to look at'
Class 4: parik' 'to go'
Class 5: dek 'to give', tvek 'to beat'
Class 6: sâga'ik 'to hear, feel'
Class 7: ik 'to come', nisik 'to sit down'
Class 8: hik 'to become'

Some verbs have past tense conjugations in which the OIA augment is preserved. Classes 1 and 2 include verbs

<table>
<thead>
<tr>
<th>Bashir</th>
<th>Trail</th>
<th>Morg.(pres.)</th>
<th>Morg.(past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1a</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1a</td>
<td></td>
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<tr>
<td>3</td>
<td>3</td>
<td>1b</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>1b</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>-</td>
<td>-</td>
<td>1a</td>
</tr>
</tbody>
</table>

My classes are compared with Trail's and Morgenstierne's in the following summary table.

My class 7 is the same as Class 4 with the exception of the 2nd pl. present. Class 7 verbs appear to be undergoing regularization to the Class 4 paradigm. Class 8 includes to my knowledge only the verb hik and appears to represent a contamination of the 2nd pl. present with the 2nd pl. preterite ending represented in Classes 3, 4, and 5.

Morgenstierne also noted a preterital class 1c, but only for one verb in the Urtsun dialect (1973:227).

Morgenstierne (1973:228) notes a PST-A 3s form adu'is with 3p. adu'ini (duik 'to burn'), with the gloss 'it ached'. Noting several other forms: bilis' 'it melted', sathis' '(the rain) stopped', di witrax'is 'the sky brightened', aâis' 'it was', tsatsir'is 'it (the belly) became satisfied', and (LSI) suru'is 'it fell', he comments that all these have inanimate subjects. Now in my materials I have adu'au 'it burned' with the inanimate subject 'bread'. This may indicate that in M's time (1929) the distinction between animate and inanimate subjects was also marked in verbs other than 'be', by an alternation between the 3rd person endings -is/-ani for inanimates and -au/-an for animates.
with augmented past tense conjugations. The forms of the verb *ka'riki* 'do' exemplify these verbs.\(^{32}\)

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a ar'-is</td>
<td>a'bi ar'-imi</td>
</tr>
<tr>
<td>2.</td>
<td>tu ar'-i</td>
<td>a'bi ar'-ili</td>
</tr>
<tr>
<td>3.</td>
<td>se ar'-au</td>
<td>te ar'-an</td>
</tr>
</tbody>
</table>

Past-inferential forms are past participles used as finite verbs. These participles terminate in -u'na (e.g. *nisu'na* 'sat down', -(a)'la (e.g. *gala* 'went'), -da (e.g. *ka'da* 'did'), -ila (e.g. *chin'ila* 'broke').\(^{33}\) Person-number marking in first and second persons sg. and pl. is achieved by appending the present-future forms of *hik* 'to become', the paradigm for which follows. Third person is unmarked for person and number.

### Paradigm of *hik* 'become'

#### Present

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>h-im</td>
<td>h-ik</td>
</tr>
<tr>
<td>2.</td>
<td>h-is</td>
<td>h-al'i</td>
</tr>
<tr>
<td>3.</td>
<td>h-iu'</td>
<td>h-in</td>
</tr>
</tbody>
</table>

#### Past-Actual

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>haw'-is</td>
<td>haw'-imi</td>
</tr>
<tr>
<td>2.</td>
<td>haw'-i</td>
<td>haw'-ili</td>
</tr>
<tr>
<td>3.</td>
<td>haw'-au</td>
<td>haw'-an</td>
</tr>
</tbody>
</table>

#### Past-Inferential

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>hu'la him</td>
<td>hu'la hik</td>
</tr>
<tr>
<td>2.</td>
<td>hu'la his</td>
<td>hu'la ha'li</td>
</tr>
<tr>
<td>3.</td>
<td>hu'la</td>
<td>hu'la</td>
</tr>
</tbody>
</table>

\(^{32}\)These are the N. Kalasha forms. Morgenstierne recorded *akar'is* 'I did', *akar'i* 'you (sg.) did', *akar'er* 'he did', *akar'imi* 'we did', *akar'eri* 'you(pl.) did', *akar'en* 'they did' in Urtsun in 1929. When I tested the form *akar'is* 'I did' with a Bumburet informant, it was not accepted.

\(^{33}\)See Morgenstierne (1973:231) for historical discussion of these forms.
The paradigms of the auxiliaries 'be' as'ik (animate) and sik (inanimate) are given below. 'Be' also functions as a finite verb in existential sentences, i.e. those affirming the existence, in general or in a specific location, of an entity. Equational sentences, however, are nominal constructions, e.g. iya may chu (*aau). 'This my daughter (*is).'

Paradigm of as'ik, sik 'be'(animate/inanimate)

<table>
<thead>
<tr>
<th>Present</th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a'-am (as'-am)</td>
<td>a'-ik (a'-sik)</td>
</tr>
<tr>
<td>2.</td>
<td>a'-as (as'-as)</td>
<td>a'-a (a'-sa)</td>
</tr>
<tr>
<td>3 an.</td>
<td>a'-au (as'-au)</td>
<td>a'-an (as'an)</td>
</tr>
<tr>
<td>inan.</td>
<td>śi'-u</td>
<td>śi'-an</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past-actual</th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ay'-is (as'-is)</td>
<td>ay'-imi (as'-imi)</td>
</tr>
<tr>
<td>2.</td>
<td>ay'-i (as'-i)</td>
<td>ay'-ili (as'-ili)</td>
</tr>
<tr>
<td>3 an.</td>
<td>ay'-is (as'-is)</td>
<td>ay'-ini (as'-ini)</td>
</tr>
<tr>
<td>inan.</td>
<td>as'-is'</td>
<td>as'-i'ni</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past-inferential</th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>as'ta him</td>
<td>as'ta hik</td>
</tr>
<tr>
<td>2.</td>
<td>as'ta his</td>
<td>as'ta ha'li</td>
</tr>
<tr>
<td>3 an.</td>
<td>as'ta</td>
<td>as'ta</td>
</tr>
<tr>
<td>inan.</td>
<td>śia'la</td>
<td>śia'la</td>
</tr>
</tbody>
</table>

The [y] in the PST-A forms represents a glide which develops with the loss of intervocalic /s/. The forms given in parentheses are alternate pronunciations, heard occasionally in Bumburet today. Morgenstierne (1973) based on field work done in 1929 gives these as the normal forms.

As with other verbs, the first and second persons of the PST-I paradigm are constructed with the present tense of the auxiliary hik 'become'.

1.5.3.4. Discourse particles. A particle mi, which
can suffix to any type of constituent, and is always stressed, functions as an exclusive emphatic, very much like the exclusive hi of Urdu. For example (10).

10) i'ya mai-mi’ kitap’ [S]
   this I(OBL)-EMPH book
   ‘This is my book (and not someone else’s)’

The particle -ta, which is never stressed, serves as a topicalizer, as in (11) and (12).

11) phu'ci-ta a'-am [S:bkw]
    ask(CP)-TOP be(AN-P/F)-1s
    ‘I have asked’ (In reply to question ‘Why don’t you ask?’)

12) tai-mi’ taada-ta si'u [S:z]
    you(OBL) near-TOP be(INAN-P/F)-3s
    ‘It is right by (near) you (and nowhere else).’

The particles -mi and -ta can co-occur, as in (13).

13) satra'-mi'-ta thai a'-am [S:bkw]
    EMPH-there-EMPH-TOP put(CP) be(AN-P/F)-1s
    ‘I put it right there!’

-mi can also occur between the verb bha’ik ‘to be able’ and its infinitival complement, as in (14).

14) maska’ zuk-mi’ na bha’-am [S:bkw]
    butter eat(INF)-EMPH NEG be able(P/F-NS)-1s
    ‘I can’t eat butter at all!’

The particle -q is multifunctional; one meaning it conveys is of contrast with a previously mentioned entity or situation, or with an implied situation. Consider the sentences in (15) and (16).

15) mic aš'-is maza'-o ne ar'-au [S:mb]
    only eat(PST-A)-1s enjoyment not do(PST-A)-3s
    ‘I only ate, but didn’t enjoy it.’

16-a) a paš’-i-o ne a'-am [S:bs]
    I(NOM) see(CP)-q not be(AN)-1s
    ‘I haven’t seen it (only heard about it).’

b) thai’-q kawai’ a’-as [S:bk]
Notice that in (16-a and b) -o intervenes between the participial and the finite elements of the participial present perfect tense forms. -o can also intervene along with an adverb between the finite element and the specificity marker of the P/F-Specific tense, as in (17).

17) par-is'-o kawai' dai [S:bkw] go(P/F)-2s where specificity marker
'Where are you going?'

With the conjunctive participle, -o emphasizes the meaning of temporal sequentiality: Compare (18-a and b, and c).

18-a) zai kai uk halim'-dai [E:bk, ek, mb] water channel do(CP) water bring(P/F-S)-is
'By making a water channel I am bringing water.'

b) zai kai-o bo uk i-u [E:bk, ek, mb] water channel do(CP)-o much water come(P/F-NS)-3s
'When/if (we) make a water channel, a lot of water will come.'

c) te šerau že uk tha'i-o ban kai-o those dry bread and water put(CP)-o close(CP)-o ga'la [T9:kn] go(PST-I)-3s
'He left those pieces of dry bread and water, locked (him up) and left.'

In (18-a) the interpretation of the conjunctive participle is of a manner or reason adverbial, while in (18-b), with -o, the sense of sequentiality is emphasized. Similarly, (18-c) stresses the sequentiality of the three actions mentioned.

The particles -ta and -o often function together to show topicality and contrast, giving -o the sense of 'but':
19) š-a’ši isteriža’-an moc’-ai du’-ta mai EMPH-those(OBL) women-OBL among two-TOP my dust du’-o mai dušman’ [E:bk] friends two-G my enemies 'Two of those women are my friends but two are my enemies.'

The enclitic -tik conveys a presumptive meaning, similar to the function of the Urdu presumptive construction with the future of honaa 'become'. Compare (20-a and b).

20-a) aap ke beTe kii abhii tak šaadi nah1=tl you of son(OBL) of now until wedding(fs) not hu-ii ho-gii become(PST)-fs become(FUT)-fs 'Your son is probably not married yet.'

b) tai putr ja ne kai a’-au tik [S] your son wife not do(CP) be(AN-P/F)-3s PRMT 'Your son is probably not married.'

But, in contrast to Urdu hogaa, this particle can cliticize to constituents other than the verb, emphasizing the constituent which it follows, as in (21).

21) se peša’ur hat’ya tik par-au’ he Peshawar to PRMT go(PSTa)-3s 'He probably went to Peshawar.'

A "cajolative" particle naa/nee is also found, which is illustrated in (22).

22-a) sak kimat’ hu’la neé ghōi mai’la [T : ] very much price became CAJ COMP say(PST-I)-3s 'The price is (surprisingly) very high - (really)" , he said.’

b) tu-ta aset’ thi a’-as-e neé you-TOP ruined become(CP) be(AN-P/F)-2s-Q CAJ 'You are (already) ruined (yourself) - aren’t you!' [T2:bkw]

c) š-al-ai’ gū’gur-ai ati’ luhi’-as naa EMPH-there-LOC hole-LOC enter(CP) hide(IMP2s) CAJ 'Just get into that hole and hide.' [T2:bkw]

It functions sometimes (22-b) like the English tag
questions, 'aren't you, didn't I', etc., or the Urdu hai-na 'Isn't it so?'.

With the exception of the cajolative, all these particles form phonological units with the constituents to which they attach.
CHAPTER 2
STRUCTURE OF THE VERB SYSTEM

In this chapter I first discuss the Kalasha verb system, summarizing stem-formation processes, and giving a brief overview of non-finite and finite forms. I provisionally characterize the Kalasha verb system with reference to the informally defined semantic parameters of TENSE, ASPECT, MODALITY, SPECIFICITY, and INFERENTIALITY, and show how they interact in this language. Then I apply Windfuhr's model and specific terminology as introduced in Chapter 1 to the analysis of the Kalasha verb system. Repeating the process for Khowar, I draw a comparison between the systems of Kalasha and Khowar. Finally, I formulate a similar representation for Urdu/Hindi and refer to Windfuhr's schematizations of the Iranian and Turkic verb systems in an attempt to arrive at some historical, areal, and typological inferences.

2.1. Kalasha
2.1.1. Stem-formation

With regard to stem formation, Kalasha verbs can be divided into two classes: those for which all forms, finite and non-finite, are formed on a single stem, which
consists of verb root + -i or -e (<-ai), and those in which the (non-inferential) past stem consists of root + stem formant vowel + a- augment.\footnote{A few of the most frequently used verbs are irregular: \textit{par}- 'go' with past participle \textit{ga’la}, perfective participle \textit{pai}, \textit{i}- 'come', perfective participle \textit{ita} and past participle \textit{ala}, \textit{h}- 'become', perfective participle \textit{thi}, past participle \textit{hu’la}, \textit{d}- 'give', past stem \textit{pr}-.

-\textit{par}- 'go' with past participle \textit{ga’la}, perfective participle \textit{pai}, \textit{i}- 'come', perfective participle \textit{ita} and past participle \textit{ala}, \textit{h}- 'become', perfective participle \textit{thi}, past participle \textit{hu’la}, \textit{d}- 'give', past stem \textit{pr}-.


It may be that the process of past stem formation by augmentation remains, or has remained until fairly recently, productive. One piece of evidence is suggestive: the usual past tense first person singular form from \textit{žu}- 'eat' is \textit{aš’-is} 'I ate'. There is, however, an alternate past tense form \textit{ażu-is} meaning 'I ate up (all of something)'. The interesting point is that aside from the initial a- augmentation, the rest of the formation is regular.

These stems in -\textit{ai}/-\textit{e} appear to be lineal descendents of Skt. \textit{-avya}- causatives. (Cf. Ch. 3 below.)

See Bashir (1986) for a discussion of this point in relation to Kashmiri infinitives.
pattern. A few of the most common verbs have irregular forms: i'ta 'having come' (⟨i⟩), kai 'having done' (⟨kar⟩), thi 'being, having become' (⟨h⟩), which functions as the perfective participle for as- 'be(ANIMATE)', ḥ- 'be(INANIMATE)', as well as h- 'become'.

The perfective participle has the following functions. (a) It serves as a base for the perfect tenses, which consist of perfective participle plus finite forms of as- 'be(AN)', or ḥ- 'be(INAN)'. For example, present perfect kai a'-am 'I have done', du'i ši'u 'it is burned'; past perfect-ACTUAL kai ay'is 'I did/had done', du'i asis 'it was burned'; past perfect-INFERENTIAL kai as'ta him 'I had done (reportedly)', du'i šia'la 'it was (inferential) burned'.

(b) The perfective participle plus finite forms of parik 'to go', possibly dek 'to give', thek 'to put' form compound verbs in the sense commonly used in South Asian studies. (See Hook 1974, 1976; Masica 1976.) For example, au' du'i par-au' (bread burn go) 'the bread burned'.

(c) It functions as a conjunctive participle ("absolutive" in some literature), again in the sense well understood in South Asian studies. In this function it conveys meanings of anteriority, manner, circumstance, and cause or reason, and is used as a generalized adverbializer. When it is used in this function I shall

*The range of meanings of the INFERENTIAL forms will be discussed in section 2.1.3.
refer to it as the "conjunctive participle" (CP).

(d) Followed by piST'au 'after', it is used to construct subordinate temporal clauses. (e) It expresses the complement of the phasal verb khuly'ek 'to finish', e.g. nives'i khuly-em' 'I will finish writing'.

(f) It cannot be used attributively or to form participial relative clauses.

(2) The imperfective participle consists of stem, with stress on the formant vowel, plus -man. This formation is entirely regular, e.g. kar-i'-man 'doing' (<kar'-ik 'to do'), par-i'-man 'going' (<par-ik' 'to go'), sawz-a-i'-man 'making, constructing' (<sawz-ek' 'to construct, make').

The imperfective participle has the following functions. (a) In construction with the past-ACTUAL and past-INFERENTIAL forms of as- 'be(AN)' and ə- 'be(INAN)' it forms the past imperfective-ACTUAL and past imperfective-INFERENTIAL tenses. For example, a krom kar-i'man ay'is 'I was working (direct knowledge)'.

(b) It is used adverbially, e.g. tro-i'man par-au' 'He/she went, crying', but not adjectivally: *tro-i'man su'da 'crying child(ren)'.

(c) In construction with finite forms of i- 'go', it forms a compound verbal construction with quasi-aspectual functions: chak d-i'man iu'-dai '(Evening) shade is in the process of falling'.

Since the forms consisting of the imperfective participle plus finite forms of 'come' seem less well integrated into the Kalasha system than their Khowar
Kalasha verbs fall into four classes with regard to past participle formation. (a) stem plus -ta/-da, di-'ta 'given', ka'da 'done'; (b) in -(i)la, qa'la 'gone', hu'la 'become', pha'tila 'distributed, divided', phuc'ila 'asked'; (c) in -alya, e.g. nisa'lya 'made sit down, seated', sawza'lya 'constructed'; (d) stem plus -una, nisu'na 'seated', prasu'na 'asleep'. Verbs belonging to class (c) are basic transitives or -a-causatives, and those in class (d) are usually intransitive.

The past participle is (a) the base for the PAST-INFERENTIAL tense. In the first and second persons, specification for person and number of the agent is achieved by attaching the Present/Future-NON SPECIFIC forms of he 'become'(cf. 1.5.3.3.). For example se ga'la 'he went', a ga'la him 'I went (without realizing it)'.

(b) It functions as an attributive adjective, e.g. ni'gila pyala' 'washed cup'. (c) It also forms participial relative clauses, e.g. tai ka'da krom bo pruST 'the work you did is very good'.

counterparts in imperfective participle plus 'come', I have not included them in the basic system or represented them on the schematic representation of the Kalasha verb system.

*See Morgenstierne (1973:231) for historical discussion of these forms.

*In these transitive/causative formations the palatalization has developed as follows: -a'-ila > -aly'a, in which the [+ high] feature moves from the stem formant -i, which is subsequently lost, to the following consonant.

*It is important to note, vis-a-vis the question of split ergativity in South Asian languages, that, although Kalasha's case marking in matrix sentences is completely
(4) The Kalasha infinitive formant is -k, e.g. par-ik' 'to go', kar'-ik 'to do'. The infinitive functions as a noun, and takes the same case endings and postpositions as other inanimates, e.g. ik'-as pati 'for the sake of coming'. (a) Thus used, it forms the base of many subject and object complement structures. (b) The abilitative construction, INF plus bha' 'be able', e.g. (a) a' ma krom kar'-ik bha'-am 'I can do this work', and a necessitative, INF(-as) baS, e.g. mai catrau' parik-baS' 'I have to go to Chitral', utilize the infinitive. (c) In an inflected form it is used to construct infinitival relative clauses. (See Ch. 6.) (d) Coupled with gh~an (say(P/F-NON-SPECIFIC-3p) 'it is said', it yields a construction with present/future-non specific time reference and inferential semantics. This is discussed in Section 2.2.4.1.2. (e) Compounded with -we~ 'time of (V-ing) 'it forms temporal subordinate clauses.

(5) There is a non-finite form in -un, e.g. sapra'-un 'found', umra'-un 'opened', which I shall provisionally call the passive participle. This parallels the Khowar forms in -in and -onu in form, but seems more restricted in function, being but infrequently encountered. In construc-

NOM-ACC, when the past participle functions to form participial relative clauses, the agent is encoded with an OBL form, e.g. mai ni'qila pyala' 'the cup I washed'. Participial relative clauses are treated in Ch. 6.

*Infinitives in -k also characterize the Dardic languages Khowar, Gawar-bati (southwest), Paśai, and Gilgit Shina, the Nuristani Prasun, and Iranian Wakhi. See Ch. 7 for discussion of this as a sub-areal feature.
tion with par- 'go' it forms a kind of "passive". The meaning of this "passive" is the (negative) abilitative one often encountered in other South Asian languages, e.g. iy'a darwaza' ne umra'-un par-iu' 'this door can't be opened (because it is stuck too tight, or the wood is swollen)'.

(6) Necessitative (participle): A form consisting of verb root plus -e'lyi expresses necessity or compulsion, e.g. kar-e'lyi 'must be done, must do'.

Deverbal nominal formations include (7) an agent noun in -aw, e.g. jan chalawaw' 'one who takes lives', and (8) a quasi-desiderative form in -a'lyak with the meaning 'desire to V, feeling of V-ing', e.g. tua'lyak 'desire to eat', pia'lyak 'desire to drink'.

2.1.3. Indicative system

2.1.2.1. Basic tense-aspect-mood forms.

Kalasha has nine basic tense-aspect forms in the indicative. They are exemplified here for the verb par- 'go' in the first person singular.

1) PRESENT/FUTURE-NON-SPECIFIC: (henceforth P/F-NS) 
   par-im' 'I go, I will go'

2) PRESENT/FUTURE-SPECIFIC: (henceforth P/F-S) 
   par-im'-dai 'I am going, I will be going'

3) PAST-ACTUAL: (henceforth PST-A) 
   par-a' 'I went'

4) PAST IMPERFECTIVE-ACTUAL: (henceforth PST IMPFV-A) 
   pari'man ay'is 'I was going'

5) PAST IMPERFECTIVE-INFERENTIAL: (henceforth PST IMPFV-I) 
   pari'man as'ta him 'I was going'

6) PRESENT PERFECT (henceforth P PERF) 
   pai a'-am 'I have gone'
7) PAST PERFECT-ACTUAL: (henceforth PST PERF-A)
   pai ay'-is 'I had gone'

8) PAST PERFECT-INFERENTIAL: (henceforth PST PERF-I)
   pai as'ta him 'I had gone'

9) PAST-INFERENTIAL: (henceforth PST-I)
   ga'la him 'I went'

   (1) The P/F-NS forms consist of the verb stem plus present system personal endings (see 1.5.3.3.). They have the following range of functions. In matrix clauses they are used for (a) generic statements - general truths (1), (b) habitual present (2), (c) non-specific future (3), (d) habitual or iterative future (4), and (e) in negative statements about the future (5). In subordinate clauses they appear (f) in either the protasis (6-a) or apodosis (6-b) of realis conditionals, (g) in the apodosis of irrealis conditionals (7), and (h) in complement clauses of verbs of fearing (8-a) and in "until" clauses (8-b).

1) nyu au' bo zu-el' [S:mb] buttermilk bread very eat(Cs)(P/F-NS)-3s 'One feels like eating a lot of bread with buttermilk'
   (Lit: 'Buttermilk makes one eat a lot of bread')

2) ki'ya galak'se paš'-iu aš'ı-ai dy-el [S:bkw] whatever see(P/F-NS)-3s mouth-LOC put(P/F-NS)-3s 'Whatever she sees she puts in her mouth.'

3) A: saif'ulla kawa' [S] S. where 'Where is Saifullah?'
   B: iu' iu' [Sisw] come(P/F-NS)-3s 'He'll come; he'll come'

In (3) the second speaker does not know when the subject is coming; contrast this with (11) below, in which the

10 Out of a corpus of 120 conditional sentences, gathered from at least four sources, in 103 of them the verb in the apodosis is in this form.
specific time of action is known by the speaker.

4) atrek' mastruk'-asa te har ad'u-a in [E:bk]
next month-LOC they every day-LOC come(P/F-NS)-3p
'Next month they will come every day.'

5) a co'po So baja' ne im [E:bk]
I(NOM) morning six o'clock not come(P/F-NS)-1s
'I won't come tomorrow at 6 o'clock'

6-a) tu peša'ur pe par-is' a tai taada ta'ha
you P. if go(P/F-NS) you(OBL) with him(OBL)
hat'ya paysa' anz-em' [E:bk, mb]
for money send(P/F)-1s
'If you go to Peshawar I will send money for him with you.'

6-b) rat baS'ik prau pe haw'-au
night rain fall(PST-A)-3s if become(PST-A)-3s
jowari' xarap' hin/*hin-dai [E:bk, mb]
maize spoiled become(P/F-NS)-3p/*P/F-S
'If it rains tonight the maize will be spoiled.'

Notice that in this case the specific form is not appropriate, since if the event in a condition is uncertain, the possible event in the consequence clause cannot be specific.

7) a ne kas'ik . bha'-am dya'pa a
I not walk(INF) be able(P/F-NS) otherwise I
i-m [S:bkw]
come(P/F-NS)-1s
'I can't walk, otherwise I would come.'

8-a) a bihim'-dai ki mai A'gu oš
I(NOM) fear(P/F[S])-1s that my fingers cold
thi trup-en' [E:bk]
become(CP) hurt(Cs)(P/F-NS)-3p
'I am afraid that my fingers will get frostbitten'
(Lit: 'I am afraid that my fingers will get cold and hurt.')

8-b) aya' apau' de tai xat del šamon'
here wait(IMP) you(OBL) letter give(P/F-NS)-3s until
'Wait here until he gives you the letter'¹¹ [E:bk, mb]

(2) The P/F-S forms consist of the P/F-NS forms plus

¹¹This sentence is one of Hook's (1978) diagnostic sentences for the perfective.
the specificity marker -dai. They express: (a) ongoing present action (present progressive), (b) iterative (specific) present, (c) specific immediate future, (d) specific non-immediate future, (e) a present-perfect progressive sense, and (f) are used in sentences which question or challenge the ability or reason for doing a specific action. These uses are illustrated in examples (9) - (14) respectively.

9) kawai’ par-is’-dai [S] whither go(P/F-S)-2s ‘Where are you going?’

10) ō'je se har a’du-a iu’-dai [S:bk] now he every day-LOC come(P/F-S)-3s ‘Now he comes every day.’

11) tai putr ubuj-u’-dai rat [Morg.1973:17] you(OBL) son be born(P/F-S)-3s night ‘Your son will be born tonight.’

12) co’po pu’ra So baja’-an iu’-dai [E:bk] morning exact six o’clock-OBL come(P/F-S)-3s ‘Tomorrow morning he is coming at exactly 6 o’clock’

13) cop’-au and-ei’ tro’-iu-dai [E:bk] morning-ABL here-LOC cry(P/F-S)-3s ‘She has been crying since morning.’

14) khyē kar’-is-dai . . . tu kawalyi’ek how do(P/F-S)-2s you alone ‘How (can) you do (it)?! You are alone.

(3) The forms of the PST-A consist of a- augmented or unaugmented stem plus the preterital personal endings. They are used in the following meanings: (a) recent or immediate past action (15), (b) immediate future (16-a, b), (c) in the protasis and apodosis of both realis and irrealis conditional sentences (17-a, b, c), (d) instantaneous punctual present (18), (e) with verbs
denoting durative actions or states, to mean the inception of the action/state (19-a, b).

15) 6'je-mi' par-au' [S]
    now EMPH go(PST-A)-3s
    'He just left.'

16-a) kaw-ai' par-a' [S]
    whither go(PST-A)-2s
    'Where are you going?' (uttered just as the addressee is leaving)

b) a'bi par-o'mi [S]
    we(NOM) go(PST-A)-1p
    'We are just leaving' (uttered just as the speakers are going out the door)

17-a) bitr pe haw'-al-au' jahas' iu'\[E:mb\]
    clear sky if become(PST-A)-3s plane come(P/F-NS)-3s
    'If it is clear, the plane will come'

b) talei-o wehëk' ik ne abha'-imi
    there-ABL-o upstream come(INF) not be able(PST-A)-1p
    dya'pa ab'i as'ta we'a kai o'mi dya
    otherwise we also upstream to come(PST-A)-1p CTF
    'We weren't able to come upstream to the cattle house from there; otherwise we too would have come upstream.'
   [T:O:sj]

c) a daulatman' pe haw'-is a to zamin'
    I rich if.become(PST-A)-1s I that(ACC) land
    agr-is' dya [E:bk, mb]
    take(PST-A)-1s CTF
    'If I were rich I would have bought that land.'

18) o, arzan' ama'-an [S]
    oh azan say(PST-A)-3p
    'Oh, they are giving the call to prayer'
    (uttered just as the prayer call had begun)

\[E:mb\]The form haw'-al-au' consists of //haw'-au + haw'-au// which in normal speech is reduced as seen. The rule I > -w/\# is explained by the velarized character of this sound in Kalasha. I have considered /l/ as the underlying form on the basis of forms like chu 'daughter (NOM)', chul-as 'daughter'(OBL), which Morgenstierne derives from a form like *jhu`, with \# > r/l.

\[E:bk, mb\]The form arzan' (<azan' a recent borrowing meaning the Muslim call to prayer) is interesting in that it illustrates the tendency in Kalasha to create consonant clusters from simple consonants.
19-a) su'da aDuD'-au [S]
    child sleep(PST-A)-3s
    'The child went to sleep.'

b) su'da atro'-au [S]
    child cry(PST-A)-3s
    'The child began to cry.'

(4) The PST IMPFV-A forms consist of the imperfective participle plus the PST-A form of animate or inanimate 'be'. They carry (a) past habitual (20-a) and iterative (20-b), (b) past progressive (21), and (c) past conative (22). They also seem to occur (infrequently) in the protasis of realis (23-a) or irrealis (23-b) conditionals, or the apodosis of irrealis conditionals (23-c).

20-a) japoni' bo DAu' zu-i'man ay'-is [S:bk]
    japanese much beans eat(PST IMPFV-A)-3s
    'The Japanese man used to eat a lot of beans.'

b) par tu har a'du-a dawtar'-e
    last year you(NOM) every day-LOC office-LOC
    par-i'man ay'-i [E:bk]
    go(PST IMPFV-A)-2s
    'Last year you went to the office every day.'

21) a sabak' may-i'man ay'-is [E:bk]
    I(NOM) lesson read(PST IMPFV-A)-ls
    'I was studying.'

22) a draZn-i'man ay'-is ajo'na on'
    I(NOM) go out(PST IMPFV-A)-ls guests come(PST-A)-3p
    'I was about to leave/leaving (when) guests came.'

23-a) se-mi pe ne bhai'man ay'-is
    he-EMPH if not be able(PST IMPFV-A)-3s
    ha'-au warek' kas kiraye'-an hiu' [T&C 1987:207]
    become(PST-A)-3s other someone hired become(P/F-NS)-3s
    'If they aren't able to (do it) themselves, someone else will be hired.'

14Trail and Cooper (1987:142) give what I have as draZnik', a simple verb meaning 'to go out', as draS nih-ik', two words meaning 'to go out quickly'. I am not sure which is the correct analysis. Peter Hook (p.c.) adds that in Kashmiri dr- is the past stem of nyeer- 'go out'.

b) tu peša'ur pari'man ay'i dyapa a as'ta
you if P. go(PST-A)-2s CTF I also
da y[a [E:mb]
come(PST-A)-ls CTF
'If you had been going to Peshawar, I would also have
gone.'

c) as'a āgār'-e Sula' chal-au' dya au'
he fire-ABL wood pu(PST-A)-3s otherwise bread
dui'man asis' [S:bk, E:mb]
burn(PST-A)-3s
'He pulled some wood out of the fire, otherwise the
bread would have burned.'

(5) The PST IMPFV-I consists of the imperfective participle plus the PST-I forms of animate or inanimate 'be'.

It is used for (a) continuous actions unseen by the speaker
taking place in the recent (24) or distant (25) past, and
(b) in the apodosis of contrafactual conditionals (26).

24) a dj-o re'Dio kO ar'-is dos peša'ur
I(NOM) now-PST-A radio ear do(PST-A)-ls yesterday Peshawar
bo baS'ik d-i'man šia'la [E:bk]
much rain fall(PST IMPFV-I)-3s
'I just listened to the radio. Yesterday it was
raining a lot in Peshawar.'

25) a'śa bo Sumber'lahur' apau' d-i'man as'ta
he(NOM) very before Lahore stay(PST IMPFV-I)-3s
'A long time ago he lived/was living in Lahore.' [E:bk]

26-a) š-ate' pai dayi'milyi hat'ya ne las-a'lya
EMPH-they goats D. to not let go(PST-I)-3p
'They didn't let the goats go to Dayimili;
da y n-i'man-o as'ta [TO:sj]
otherwise take(PST IMPFV-I)-3p
'otherwise they would have taken (them there).'

b) a tara' ne par-a' tara' pe para' a
I there not go(PST-A)-ls there if go(PST-A)-ls I
lAi' gi'ri hi'man as'ta him [S:bk, E:mb]
beaten become(PST IMPFV-I)-ls
'I didn't go there. If I went/had gone (?) there I
would be/would have been (?) beaten.'

10The form lAi gi'ri hi'man as'ta him 'I would have
been beaten' is the only occurrence in my corpus or which I
have been able to elicit of the (passive?) form in V(CP)-
In sentence (24) we have a situation in which the speaker did not previously know that it had been raining in Peshawar, and only learned this after listening to the radio. Reporting information just found out is one of the most typical semantic functions of the inferential forms. Compare (24) with (27) in which the state of affairs described is the speaker's own bodily sensation of cold.

27) doS mai bo os kar-i-man
    yesterday I(OBL) very cold do(PST IMPFV-A)-3s
    as-is'/*si-a'la [E:bk, mb, sj]
    /*PST IMPFV-I
    'Yesterday I was feeling very cold.'

The inferential form si-a'la is not possible here since if the speaker was feeling cold yesterday he would have realized it at that time. One's own physical sensation is not something that could be learned about only later.

(6) The PRESENT PERFECT is formed from the perfective participle plus present tense forms of 'be', animate or inanimate. It can convey at least three types of meanings. (a) With verbs denoting durative actions, it expresses a state (28); while with non-durative verbs it expresses past actions with present relevance (29). (b) The "experiential perfect" sense (cf. Comrie, 1976:58ff) is also conveyed by this form (30).

28) drami'y-a tik Du'Di a'-an [S:bkw]

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giri BE/BECOME, which was cited in LSI (VIII.2:76) as the "passive" construction. It appears that it is (now) a lexical survival only.
29) ek məstruk’ Sumber’ mai baaya pəşa’ur-ei
one month before I(OBL) brother Peshawar-ABL
i’ta a’-aʊ [E:bk]
come(P PERF)-3s
‘One month ago my brother came from Peshawar.’ (and he
is still here).

30) a pəj So chaT jahas’-una nisi’ a’-am [Simb]
I(OBL) 5 é times plane-LOC sit(P PERF)-ls
‘I have ridden (lit. ‘sat’) in a plane five or six times.’

(7) The PST PERF-A is constructed with the perfective
participle plus the PST-A forms of animate or inanimate
‘be’. It is used for (a) with durative/stative verbs to
describe states which obtained in the past (31, 35) and (b)
with non-durative verbs to report past actions either with
(32-a) or without (32-b) continued relevance. The PST
PERF-A forms can also appear in the apodosis of realis
conditionals (33).

31) a Du’Di ay’-is hEy’ru a’-la [E:bk]
I(NOM) sleep(PST PERF-A)-ls thief come(PST-I)3s
‘I was asleep/sleeping (when) a thief came.’

32-a) doS par-im’ ghöi mai ay’-is [S]
yesterday go(P/F-NS)-ls say(CP) say(PST PERF-A)-3s
‘Yesterday she said she would come.’ (but so far she
hasn’t)

b) żo’śi banda-ik’-a krAkA’ pai ay’-is [S]
Zhoshi instruct(INF)-PURP K. go(PST PERF-A)-3s
‘He went to Karakal to call them to participate in
Zhoshi.’

33) baza’ pe uśluha’i ay’-ini ha’au
arms if bruise(PST PERF-A)-3p become(PST-A)-3s
mum khaś’-an [T&C:226; E:mb]
was rub(P/F-NS)-3p
‘If they have bruised their arms, they rub wax (on

16The verb as- ‘be’ (ANIM) has only one form in the
P/F tense. Hence the specific/non-specific opposition is
neutralized with this verb.
(8) The PST PERF-I consists of the perfective participle plus the PST-I forms of animate or inanimate 'be'. It is used to express (a) past actions not witnessed by the speaker (34), and (b) past perfect unwitnessed action—that is, action which happened prior to a reference point (in the Reichenbachian sense) which is itself in the past (35). (c) PST PERF-I forms can also appear in the protasis of realis conditionals, e.g. (36).

34) to moc ku'ra pa'si as'ta [Eibk] that(ACC) man who see(PST PERF-I)-3s 'Who saw that man?'

35) phàD chi'ni mizok' guum ū'la storage bin break(CP) mouse wheat eat(PST-I)-3s a jag-es' guum ū'i aš-is' I look(PST-A)-1s wheat eat(PAST PERF-A)-3s mizok' Zot guum ū'i as'ta [Bibk] mouse already wheat eat(PST PERF-I)-3s 'A mouse/mice broke the storage bin and ate the wheat. (When) I looked, the wheat was eaten. The mouse had already eaten the wheat.'

36) tu pe talai whāi asta-his haw'-au you if there fit(PST PERF-I)-2s become(PST-A)-3s toa is'a insan'-as mon sahi' [T5:fs] then this(OBL) human-OBL word right 'If (it turns out that) you fit into there, then this human's word is correct.'

(9) The PST-I tense is based on the past participle. Person and number marking in 1st and 2nd persons are supplied by appending the PST-I forms of hik 'become' to the past participle; there is no overt indication of person/number for 3rd sg. and pl. The PST-I has a variety of functions, all of which relate to the basic semantic distinction between the inferential and the actual forms—that of action directly known vs. action not directly known
by the speaker. This, and not time depth, is the operative semantic parameter. Thus the PST-I forms can be used for reporting actions taking place in both the recent and more distant past, provided that the speaker learned about them other than by direct observation. (a) Example (37) illustrates its use to report an action in the recent past.

37) a aya'a  ฎāgar' Zot ka'da [S:bk]  
I(NOM) here come(PST-A)-is fire already do(PST-I)-3s  
'I came here. (Someone) already made the fire.'

(b) PST-I forms also occur when a speaker observes a state resulting from an event which took place in his absence, as in (38-a and b):

38-a) payp'-una uk CuCu' hu'la [S, E:mb]  
pipe-LOC water dry become(PST-I)-3s  
'(I see that) the water has dried up in the pipe.'

38-b) aj'ab krom ka'da his [Trail, unpublished text]  
remarkable work do(PST-I)-2s  
'You have done a remarkable job!'

(38-a) was uttered when the speaker walked up to the water pipe and was surprised to find that there was no water in it; (38-b) conveys a sense of pleasurable surprise, and is intended as a compliment.

(c) These forms also carry the main burden of narration in storytelling, whether about the real world to relate actions unseen by the speaker, or about the imaginary world. Example (39-a) is from a story about the real world, and (39-b) is about the realm of legend and myth.

39-a) tara' para'e te-o pai tara' ne  
there go(PST-A)-when they-go goats there' not  
ni'la [TO:sj]  
take(PST-I)-3s  
'When I went there, (I found that) they hadn't taken the goats there.'
b) ek kursi'-una Sa nis-u'na [T4:fs]
   one chair-LOC king sit(PST-I)-3s
   'The king sat down on one chair.'

(d) PST-I forms can appear in the protasis of realis conditionals, as in (40) and (88) below.

40) ki mai mon galyat' šial'a haw'-au
   if I(OBL) word wrong be(PST-I)-3s become(PST-A)-3s
   tu mai žu [T5:fs]
   you I(OBL) eat(IMP2s)
   'If my word turns out to be wrong, you eat me!'

(e) With first person agents, the inferential form gives a sense of unconscious or inadvertent action.

Consider examples (41-a,b,c), all of which are actual utterances recorded in context.

41-a) atra' thai a'-am ţga' ne thi
   there put(PRES PERF)-1s aware not become(CP)
   phato' ga'la-him [S:bk]
   then go(PST-I)-ls
   'I put it there. Then without remembering (it), I left.'

b) a ţga' ne hu'la-him [S:bkw]
   INOM) aware not become(PST-I)-1s
   'I didn’t remember (unintentionally) (to get up and make your breakfast).'

c) tai Tayp atra' as'ta thay-o [S:sjf]
   you(OBL) tape recorder there also put(CP)-o
   DuD'-ila-him
   sleep(PST-I)-ls
   'I must have put your tape recorder there and gone to sleep (without realizing it).'

d) mai chu tai ja di'-ta-him-e
   I(OBL) daughter you(OBL) wife give(PST-I)-ls-when
   ţţg kar'-iu [Morg. 1973:22]
   war do(P/F-NS)-3s
   'When I give my daughter to you as wife, he will make war (on me).'

In (41-a) the speaker took off his watch and put it on a rock to wash his face. Then he accidentally got up and left without remembering to put it back on. In (41-c) the
speaker, having gone to sleep inadvertently, experienced surprise when he realized upon awakening where he had put the tape recorder. The force of the inferential with first person agent can also extend to unwillingness, as in (41-d).17

This development with first person agents is also noted in Lhasa Tibetan by DeLancey (1985-a:59). With first-person (and with second person subjects in yes/no questions) the choice of direct experience or new/indirect knowledge auxiliary forms reflects volitionality: "-gyi-’dug and -gi-red occur with non-volitional actors, and -gyi-yod and -qi-vin with volitional actors". Precisely the same semantics is also noted in Turkish. Aksu-Koc and Slobin (1982:172) have an example almost identical in context and semantics to (41-c), which I reproduce here: uyu-mus-um (sleep-mig-1sg) 'I must have fallen asleep,' which a speaker might say upon awakening sprawled over his books.

2.1.3.2. The inferential/actual opposition in non-past tenses. The inferential/actual opposition is morphologically coded only in the past-tense basic forms. The opposition, however, functions as well in the non-past

17In this connection, note the following commentary on Panini’s rule III.1.115, referring to the Sanskrit perfect, which is established to have had inferential (in the sense being used here) meaning: "The perfect in the first person can be used only when the speaker was in a distracted state of mind or was unconscious when the event took place or when he wants utterly to deny something that he has done." (Meenakshi 1983:162). This describes precisely the same semantics as that attested for the Kalasha inferential forms with first person subjects.
tenses. Coding of the inferential is achieved in two
different ways, which are distinct in function.

2.1.3.2.1. The use of hu'la. The first strategy
involves the use of hu'la, the PST-I 3rd person form of hik
'to become'. In addition to its regular function in the
Kalasha verb system, this form functions to extend the
inferential vs. actual experience opposition into the non-
past tenses. When it so functions in normal discourse and
conversation, or in narration of directly experienced
events, the general meaning generated is that the speaker
has just found out about (i.e. was not aware of before) the
content of the assertion. The specific shades of meaning
can range from simply new information, hearsay, to mild
surprise, regret, or annoyance. These meanings are almost
identical to the senses identified by Slobin and Aksu (1982
passim) for the Turkish evidential particle -mi$. They
find that -mi$ conveys inference, i.e. information conclu-
ded on the basis of indirect evidence, hearsay, surprise,
irony, and compliments. The same complex of meanings is
discussed for the inferential members of actual/inferential
pairs in Lhasa Tibetan by DeLancey (1985-a, b, 1986).18

I give here examples of each of these shades of
meaning in constructions with hu'la.

18The category of "consciously known but unassimilated
information" is also grammaticized in Korean with the
particle -kun (Lee 1985). Thurgood (1986:216-7) refers to
the grammaticization of a similar category in Akha (Tibeto-
Burman). See also Bashir (1988-b) for more discussion of
this in Kalasha and Khowar.
42) **new information**

se pesaur jel-una a'-au  hu'la  [E:bk]  
he P. jail-LOC be-AN(P/F)-3s become(PST-I)-3s  
'He is in jail in Peshawar.' (I just found out.)

43) **inference**

se ne i-u'  hu'la  [E:bk]  
he not come(P/F-NS)-3s become(PST-I)-3s  
(It seems that) 'He won't come'

Sentence (43) could be uttered in a situation when B_1 has told A that he or someone else won't come. A, the speaker of (43), then tells this to C, using *hu'la* to indicate that this is second-hand information.

44) **surprise**

mo'-ta rageS'Ti nis'-dai  hu'la  
no(IMP)-TOP early take(P/F-S)-2s become(PST-I)-3s  
'You don't say! You are taking them out (too) early'  
(T: Trail)

45) **regret**

a galyati' kai a'-am  hu'la  [S]  
I(NOM) mistake do(P PERF)-is become(PST-I)-3s  
'I have made a mistake.'

46-a) **annoyance**

ko Dud'-iu  hu'la  [S]  
why sleep(P/F-NS)-3s become (PST-I)-3s  
'Why is he sleeping?'

b) tai bo ta'sa paysa' di-ely'i  
you(OBL) much he(OBL) money give(NEC)  
hu'la  mai bo afsus'  [S:bk]  
become(PST-I)-3s I(OBL) very sorry  
'You have to give him a lot of money. I am sorry (to learn of it).

In (46-a) the sense conveyed is that the person mentioned shouldn't be sleeping—that it is an inappropriate time for sleeping.

Co-occurrence possibilities of *hu'la* with the nine basic tense forms are very instructive. With the exception of one or two examples on which informants disagree, the pattern of my data shows that *hu'la* can oc-occur with all
the tense forms except the PST IMPFV-A, the PST PERF-A, and the PST-A. Examples (43) and (46-a) above show hu'la with a P/F-NS verb, (44) with a P/F-S form, and (45) with a P PERF form. Now in (47) we see it co-occurring with a PST PERF-I verb.

47) du kaw Sumber' ek dur kai
two years before one house do(PERF PPL)
$ia'la hu'la [E:bk, mb, sj]
be-INAN(PST-I)-3s become(PST-I)-3s
'Two years ago a house was built.'

In (48) it is found with the PST IMPFV-I.

48) se prehåk par-i'man as'ta hu'la [E:bk]
he downstream go(PST IMPFV-I)-3s become(PST-I)-3s
'He was going downstream.'

Example (49) shows that hu'la can co-occur with the PST-I tense, but not with the PST-A.

49) mai daada a'ma krom ka'da/*ar'-au
my father this(ACC) work do(PST-I)/(A)-3s
hu'la [E:mb, bk, sj]
become(PST-I)-3s
'(It turns out that) my father did this work.'

Informants' comments about why hu'la does not sound right with the PST PERF-A and PST IMPFV-A, demonstrated in (50) and (51), are revealing.

50) *du kaw Sumber' ek dur kai a$is' hu'la [E:bk, sj]
two years ago one house do(PST PERF-A)-3s hula
*Two years ago a house was made (and I just found out about it).

51) *se prehåk par-i'man ay'-is hu'la
he downstream go(IMPFV-A)-3s hula
*'He was going downstream (and I just found out about it.)

Speakers are reluctant to combine hu'la with forms in a$-is 'be-INAN(PST-A)-3s' and ay'-is 'be-ANIM(PST-A)' because these two forms carry a strong sense of actuality. That
is, if a speaker uses these forms it is implied that he already knows about the content of the utterance.

The explanation for this lies in the fact that the opposition INFERENTIAL/ACTUAL is morphologically indicated only in the past tenses. Thus in these tense forms the actual and inferential forms are equipollently marked for actual and inferential meaning respectively. hu'la can combine with any of the non-past forms, which indicate but are not marked for actual as opposed to inferential semantics, because a corresponding basic [+INFERENTIAL] form is not available. Thus hu'la combines with the P PERF tense to yield an inferential interpretation since for the present perfect tense there is no basic INFERENTIAL form available. But with the PST-A, PST PERF-A, and PST IMPFER-A, since the corresponding inferential forms do exist, hu'la is not admissible. These ACTUAL forms are sharply differentiated in meaning, expressing only firsthand experience. Thus the marked meaning of direct experience is incompatible with the inferential meaning added by hu'la. Where only one form exists for a given tense, that form is not specified for actuality vs. inferentiality and allows hu'la with the accompanying meaning differentiation. This is the case with the P/F-S, P/F-NS, and P PERF forms. In this aspect of its use, hu'la can be seen to complete the paradigm with regard to the inferential/actual opposition.

In the context of storytelling, i.e. narration of events not directly known by the speaker, hu'la has another
function. For story events with past time reference and the vantage point of the narrator conceived of as outside the story, the PST-I tense is regularly used. When the narrator wants to use a narrative present—a form whose reference point is for stylistic reasons shifted so that the time of narration is conceived of as being within the story (which by definition does not belong to the realm of direct experience), he can do this by using hu'la to achieve an inferential version of the narrative present. This usage occurs quite frequently in (legendary/mythical) storytelling. For example, (52):

52-a) pha'to beru'-as mru'-an par'i
then husband-PS3s hunting go(P/F-NS)-3s
hu'la har copa [T3:fs]
become(PST-I)-3s every morning
'And then her husband would go hunting every morning.'

b) tara' pai halyin'-dai hu'la [T2:bkw]
there go(CP) bring(P/F-S)-3p hula
'They would go there and bring them.'

c) cewbew' as'ta khuly thi si'an hu'la [T2:bkw]
clothes also finish(P PERF)-3p hula
'(Her) clothes were also (completely) worn out.'

In the (a, b, and c) sentences we have the P/F-NS, P/F-S, and P PERF plus hula respectively.

2.1.3.2.2. The infinitive + ghban construction.

Another way of achieving a specific kind of inferential meaning in the non-past tenses is to employ a construction which consists of the infinitive of the verb expressing the

1 The form par'-i hu'la is equivalent to par-ju' hu'la, and means something like 'And then her husband goes hunting every morning.' (narrative present usage)
semantic core of the assertion, and ghō'-an, the P/F-NS 3rd pl. of the verb ghō'ik 'to say'. The tenses where one would thus expect to find this formation are the P/F-NS, P/F-S, and P PERF. Now since the P/F-S consists of the P/F-NS + -dai which attaches only to finite forms in that tense, the P/F-NS and P/F-S fall together in the infinitive. The P PERF, however, consisting of the PFV PPL + a finite form of 'be', has an infinitive of the form PFV PPL + 'be(INF)'. As expected, we do have INF + ghō'an constructions with present and present perfect interpretations, as in (53-a, b) and (54-a, b)\(^2\)

53-a) **Present-Animate agent**

se/*to miSTeri' kar'-ik ghō'-an [E:bk]  
he(NOM/*ACC) teaching do(INF) say(P/F-NS)-3p  
'(I hear that) he is a teacher.'

b) **Present-Inanimate agent**

ne. šik ghō'-an mai putr [S:bk]  
not be-INAN(INF) say(P/F-NS)-3p my son  
'(I hear that) there isn't any, my son.'

54-a) **Present Perfect-Animate agent**

se miSTeri' bo wat kai ayik ghō'-an  
he teaching much time do(CP) be-ANIM(INF) say(P/F)-3p  
'(I hear that) he has been a teacher for a long time.' [E:mb, bk]

b) **Present perfect-Inanimate agent**

krAkA uk chi šik ghō'-an [E:mb, bk]  
K. water cut(CP) be-INAN(INF) say(P/F-NS)-3p  
'(I hear that) the water is cut off in Karakal.'

It is significant that these constructions are not accepted for the imperfective tenses, viz. (55).

\(^2\)Formally, PFV PPL + be(INF) represents a falling together of both P PERF and PST PERF forms. I do not have information, however, on whether (54-a, b) can also have past perfect readings, e.g. '(I hear that) he had been a teacher for a long time.'
This is consistent with the fact that in both the imperfective tenses, which are [+PAST], the inferential/actual opposition is expressed morphologically.

This construction is highly specific; that is, the only form of 'say' which is used is the third person plural of the P/F-NS tense, ghō'-an, without overt expression of an agent. Other tense forms of ghō-ik 'say', as in (56) are not acceptable.

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The PST-A form, aghō'-an, is not acceptable in any sense, and ghō-i'man ay'ini (PST IMPFV-A), though not strictly ungrammatical, gives a sense different from the one we are investigating. Instead of a general hearsay meaning translatable as a vague 'I hear that', it means something like 'the people say', in which the agents who say, though not mentioned, are part of the conceptual framework. The

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Notice that in (53) and (54-a) the case of the subject of the infinitive is nominative, with accusative ungrammatical. This fact would appear to pose a problem with respect to one of the concepts of the government-binding framework. That is, in this scheme, infinitives are considered to be [-INFL] (inflection), and it is INFL which is considered to assign nominative case to the subject of a sentence. If this is so, then the question is: how does se get its indisputably nominative case? If to (ACC) were grammatical, one might argue that this was a case of "S-bar deletion", and that ACC case was assigned by the matrix verb, ghō'-an in this case, but this avenue is not open. One other possibility suggests itself. Perhaps it might be argued that this should be considered a passive construction despite the active appearance of the verb.
INF + ghMan construction conveys inferential (specifically hearsay) information, and is a non-factive mode of expression. That is, the speaker is not committed to the truth of the assertion.\textsuperscript{22}

2.1.3.3. Presumptive construction. Recall from Ch.1 that the particle -tik conveys a presumptive meaning, something like 'According to the current state of my knowledge and experience, I presume that/it must be/probably is the case that [9]. See examples (15-17) in Ch. 1. Since this construction is part of the system pertaining to the epistemological status of assertions in Kalasha, it is treated here as a category of the same nature as the inferential/actual opposition.\textsuperscript{23} The -tik construction conveys direct experience/knowledge, but is non-factive.\textsuperscript{24}

\textit{ghMan}. Then ghMan, as a passive verb, would assign NOM case to \textit{se} much as in the English construction 'He is said to be a teacher.' This is an interesting possibility in view of my informant's insistence that \textit{gh\textsuperscript{a}}-an does not mean 'they say', but something more like 'I hear that'.

\textsuperscript{22}This turn of phrase is due to Vijayarani Fedson.

\textsuperscript{23}Interestingly, Nichols (1986) finds that in Chinese Pidgin Russian the meanings which are here differentiated as "hearsay", "inference", "surprise", "new information", and "presumption" are all encoded by a single marker. I take this as independent support for the grouping of these categories together on the epistemological axis.

\textsuperscript{24}It seems to me that -tik may be a reflex of Skt. iti. Other attested reflexes of iti include Pali iti, ti, icc; Prakrit ii, i, ti, itti, tti; Asokan iti, ti. Sinhala vi, a "particle indicating the end of direct speech or added to a predicative noun in a statement (e.g. uu hora vi 'He is a thief.')" (Turner 1562). The fact that tik can occur following any sentence constituent would continue the multi-functional aspect of iti; and the presumptive meaning
2.1.4. Non-indicative system

In this section I discuss the following verb forms:
(1) imperative, (2) interrogative, (3) hortative, (4) optative (5) subjunctive, and (6) necessitative. The semantic commonality of these forms is that they all pertain to the "reality status" of the action--that is to the possibility/probability/necessity (i.e. existential or deontic modality) of its realization.

2.1.4.1. Imperative. Second person singular imperatives are formed in several ways. (i) The imperative form consists of the verb root, e.g. zu 'eat!' (<zu-), pi 'drink!', de 'give!', dye 'put!', tye 'beat!'. This class consists of monosyllabic vowel-final roots. (ii) Imperative forms are identical with the verb stem (root + formant vowel): par'-i 'go!', kar'-i 'do!', upr-ai' 'pick up!', chal-ai' 'take out!'. Verbs with stem formant -ai- (>e- in NOM form of INF) are either basic transitives or transitive/causative derivatives of basic intransitives, viz., nas'-i 'die!', and nas-ai' 'kill!' Types (i) and (ii) are the regular formations. (iii) A small class of verbs forms the second person sg. imperative in -Vs. These could develop as a specialization of iti's function of marking "mental speech". The semantic contribution of [S] tik is: "According to my current knowledge and experience, I presume that [S] is the case". The fact that the usual quotative functions (direct and indirect speech, complementizer, naming, etc.) are fulfilled by ghÓi (CP from ghÓik 'to say') would force any reflex of iti to find another semantic niche. Also, the fact that marking of inferentiality status is so central in Kalasha would make retention of a particle likely to participate in this system likely.
include upaC'-as 'open (your) eyes!' (< upaC'-), sambi'-es 'put on (item of clothing)!', səqa'-as 'hear!', mə'-as 'speak!'.

(iv) The verb h- 'become' forms its second person singular imperative irregularly: ha 'become!'

The second person plural imperative of all verbs is identical in form with the second person plural of the P/F-NS form. For verbs in types (i) and (ii) above, this form regularly ends in -a, e.g. par'-a 'you people go!' From class (i) the verbs dek 'to give', tyek 'to beat', and dyek 'to place' take det, tyet, and dyet respectively. These are the P/F-NS 2p forms for these verbs also (cf. conjugation class 5).

Morgenstierne (1973:22) based on forms recorded in 1929, has a small set of verbs with P/F-NS-2p in -ou'/-eu' (cf. conjugation class 7 in Ch. 1). These are par- 'go', i- 'come', kar- 'do', nis- 'sit', bih- 'fear', h- 'become'. At that time he also notes, however, that par- 'go' and kar- 'do' also have alternate forms in -a. Today (1987) the -eu forms appear to survive only with i 'come' and nis-

26 Other forms recorded by me are: niunj'-as < ni(h)unj'-'settle down'), pad'-as (< pad'- 'break wind'), luhi-es' (< luhi-'hide (intr.)'), sawz-es' (< sawz- 'build, make'), pala'-as (< pala'- 'run away'). According to Trail (ms) the verb upaC'- 'open eyes' can also be used with the regularized formation upaC'i, as in type (ii). From this it appears that these irregular forms are giving way to the regular pattern of (ii). See also Ch. 1 above on the shift of Class 7 verbs to Class 4. Morgenstierne (1973:222) gives gre'-as 'take!', as in type (iii), whereas during my fieldwork I have heard only the regular(ized?) gri 'take!' which falls in type (i).

27 hik also constitutes an (exceptional) finite conjugation class. Cf. 1.5.3.3. above.
'sit' from this group, par-, kar-, and h- forming their P/F-NS-2p forms regularly. I am not sure of the position of bih- 'fear'.

At the same time, Morgenstierne noted what he called an irregular imperative formation eu 'you people come!'. However, in view of the above generalization, this is not irregular, as it is identical to the P/F-NS-2p form of the same verb. In my field work I have noted that some second person pl. imperatives in -eu still exist. I have recorded the following (quite frequent) forms: pre (sg), and preu (pl.) (< par- 'go'?). Their use is illustrated in (57).

57) pre ū / pre'u ū'-a
go(IMP-s)/ eat(IMP-2s)/ eat(IMP-2p)/ eat(IMP-2p)
'Come (with me) and eat!' The meaning of this form is something like 'Come with me' and it might be used, for instance, when taking a small child by the hand and coaxing him to eat. Perhaps these are ultimately traceable to a transitive/causative derivative from the root par- 'go'.

A first person plural imperative is also encountered, e.g. parik' 'let's go!', nisik' 'let's sit down!'. This is identical to the P/F-NS-1p form.

The negative particle used with imperatives and hortatives is mo, distinct from ne in indicative sentences, e.g. mo cuT'i 'don't touch (it)'.

2.1.4.2. Interrogative. An indicative sentence can

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27 Trail (1988:72), making a similar suggestion, lists an infinitive prek, but I have heard only the forms pre and preu.
be turned into a yes-no question by suffixing the particle
-\( a \) or -\( e \) to the finite verb. This -\( e \) or -\( a \) is always
unstressed, but sometimes lengthens the vowel of the
immediately preceding syllable. See (58 - 60).

58) a'sa istri'za tai jaa-(y)a\(^28\) [E:bk]
that woman your wife-Q
'Is that woman your wife?'

59) tu to istri'za gU'ak jhon'-is-e ne'[E:bk]
you that(ACC) woman child know(P/F-NS)-2s-Q not
'Do you know that girl?'

60) payp'-una uk i-u'-daay-e [S:z]
pipe-LOC water come(P/F-NS)-3s-Q
'Is water coming in the pipe?'

The interrogative particle also appears with substantive
questions, as in (61).

61) khy\# his-daay-e [S:z]
how become(P/F-S)-2s-Q
'What are you doing?!'

Sentence (61) is said by an annoyed elder sister to a
crying baby; the implication is 'How badly you are
behaving!'.

2.1.4.3. Hortative. A form which I am labelling
"hortative" is constructed by suffixing -or'i to the finite
verb form.\(^29\) For states or actions that have not yet been
realized, this form indicates the speaker's wish that a
certain situation obtain; for those that have already

\(^28\)The [y] glide represents the consonantal quality
developed in final /i/ because of lengthening before a
following vowel.

\(^29\)Morgenstierne calls this form "optative", and gives
it as -uri. He has one or two examples from the P/F-NS
tense (his "aorist"). This form may be cognate to the
Khowar form siur cited by Morgenstierne (1947:25)for 3s of
'be-INAN'.
happened, it conveys a sense of satisfaction. Sometimes
its force is like that of an optative; sometimes closer to
that of an imperative. Its use with the P/F-NS tense is
illustrated in (61) – (68). It can co-occur with first,
second, and third-person verb forms (cf. 66).

61) atra' si'u-or'i [S:mbg]
there be-INAN(P/F-NS)-3s-HORT
'Let it be there/leave it there.'

62) se par-iu'-or'i [S:mb]
he(NOM) go(P/F-NS)-3s-HORT
'Let him go/he should go.'

63) mai hardi' phat h-iu'
my heart half become(P/F-NS)-3s my brother-PSIs
het žar iu'-or'i [S:mb]
letter quickly come(P/F-NS)-3s-HORT
'I am feeling lonely. (I wish that) my brother's letter
would come soon.'

64) 3gar'-una baza' mo žal'-iu'-or'i
fire-LOC arm not reach(P/F-NS)-3s-HORT
'Don’t let her arm get in the fire!' [S:bk, E:mb]

65) rakmat'-as kai mā-as
do ser alyu'
R.-OBL to speak(IMP2s) two seers potatoes
on'-iu-ori [E:j]
bring-INAN(P/F-NS)-3s-HORT
'Tell Rahmat to bring two seers of potatoes.'

66-a) a cit'-im-dai (ki) mai putr skul-una
I(NOM) think(P/F-S)-ls (that) my son school-LOC
hat'ya par-iu'-or'i [E:j, mb]
to go(P/F-NS)-3s-HORT
'I want my son to go to school.'

b) šuru'-am-or'i
gbōi cit'-is-dai [S:bkw]
fall(P/F-NS)-1s-HORT COMP think(P/F-S)-2s
'You want to fall/You are looking for a fall.'

c) tu and-ai' is'-or'i
gbōi cit'-im-dai
you here-LOC come(P/F-NS)-2s-HORT COMP think(P/F-S)-1s
'I want you to come here.' [E:mb]

30 The verb on'ik 'to bring' is used with inanimate
patients only. For animate patients the appropriate verb
is halyik 'to bring'.
d) išlyeg'i šuru'-as-or'i [S:mb]  
slip(CP) fall(P/F-NS)-2s-HORT  
'May you slip and fall!' (imprecation)

e) ogoeg'-in sum mo SaT'-an-or'i 
ghōi each other-OBL with not fight(P/F-NS)-3p-HORT COMP  
koš-iš' ar'-is [E:mb, bk]  
attempt do(PST-A)-is  
'I tried for them not to fight with each other.'

67) mai hat'ya cir hiu'-dai moTer' ūar  
I(OBL) to late become(P/F-S)-3s jeep quickly  
iu'-or'i [E:bk, mb]  
come(P/F-NS)-3s-HORT  
'I am getting late. (I wish that) the jeep would come soon.'

68) mai ja warek' badša-as di'ta  
my wife another king-OBL give(PST-I)-3s  
tayar' hiu'-or'i (Morg. 1973:23) ready become(P/F-NS)-3s-HORT  
'He gave my (promised) wife to another king; let him be ready (for war).'

With the PST-A tense, we have examples like (69) and (70).

69) haw'-al-or'i [S:bk] (<haw'-au + ori)  
become(PST-A)-3s-HORT  
'(I am glad that) it has happened.'

70) A: ko par-au' [S:bk]  
why go(PST-A)-3s 'Why did he go?'  
B: par-au'-or'i  
go(PST-A)-3s-HORT 'He has gone! Good, so be it!'

Apparently it is possible for -or'i to co-occur with the PST PERF-A verb, as in se pay ay'is-or'i 'He has gone, good', which is accepted by both of my main informants, but I have no examples of this combination from texts or actual utterances. My informants are all in agreement that this form does not co-occur with the P/F-S, the PST IMPFV-A, and the PST IMPFV-I forms. Thus (71), (72) and (73) were all unacceptable.
71) *par-in'-dai-or'i  [E:bk, mb]
72) *par-i'man ay'-is-or'i  [E:bk, mb]
73) *par-i'man as'ta-or'i  [E:bk]

They differ on the acceptability of -or'i with the PST PERF-I, the PST-I, and the PRES PERF. Since it belongs to the same semantic dimension, i.e. modality, as the imperative, necessitative, and the subjunctive forms, it cannot co-occur with any of these. Thus, *pa'ri-or'i (go-IMP2s-HORT), *par'ik-baS-ori (go-NEC-HORT), *pariely-i-ori (go-NEC-HORT), *(pe) par-au' haw'-au-ori (go-SUBJ-HORT). It also does not co-occur with hu'la, since the meanings are incompatible. hu'la says that the speaker has just found out about the existence of a state of affairs, while -or'i expresses the speaker’s desire that a certain state be realized, or satisfaction that it has occurred.

2.1.4.4. Optative. A construction formed with the particle pe 'if' and the P/F-NS expresses a meaning which is closer to the 'wish' than the 'exhortation' end of the semantic scale. Its closest English rendering is something like 'would that . . .', or "I wish (mildly) that . . .'. Its use is illustrated in (74) and (75). 31

74) bo  hu'luk kar'-iu-dai  žar  pe chak
very heat  do(P/F-S)-3s quickly if evening shade
dyel [S:bk, mb]
fall(P/F-NS)-3s

31These sentences, with implied verbs of 'wishing', which, in the same way as verbs of 'fearing', take complements with [-DURATIVE] verb forms, suggest by extension that the possibility of adding complements of verbs of 'wishing' to the diagnostic battery for perfectivity begun by Hook (1978) is worth investigating.
'It is very hot. (I wish that) evening shade would fall soon.'

2.1.4.5. **Subjunctive.** Subjunctive forms typically are used for those situations which are reported as not fully realized; they comment on the possibility status of the action or state referred to. Subjunctive force is achieved in the Kalasha verbal system with the form haw'-au 'became' (PST-A-3sg < hik 'to become'), which follows the finite verb at the end of the sentence. Finite verbs of any tense can be given subjunctive force by adding haw'-au. Conditional sentences are also formed with haw'-au, plus the particle pe 'if', which is a special case of its general subjunctivizing function. In the next set of examples, (76) - (85), all of which involve matrix or embedded questions, haw'-au imparts a sense of the speaker's tentativeness, uncertainty, or puzzlement about some aspect of the action or state of affairs being referred to. This will be made clear by the examples.

76) P/F-NS, present time reference
   a ne jhon'-im se kawa' apau' del
   I(NOM) not know(P/F-NS)-1s he where stay(P/F-NS-3s)
   haaw 32 [E:mb, bk]
   become(PST-A)-3s
   'I don't know where he lives.'

77) P/F-NS, future time reference
   mai hat'ya ki'ya mahalyum' cop'o ku'ra
   I(OBL) to what knowledge morning who
   in haw'-au [E:bk]
   come(P/F-NS)-3p become(PST-A)-3s

32haaw = haw'-au in rapid speech.
‘How should I know who will come tomorrow?’

78) P/F-S
kaw-ei’ ūsamōn’ aṣrafī’ i’ya har’-iu-dai
where-ABL so much gold coins he take(P/F-S)-3s
haw’-au [T13: ]
become(PST-A)-3s
‘From where could he be taking so many gold coins?’

79) PST-A
to  ṣ-aya’ thai aṣ-is’ .Unsupported:je mahalyum’ ne
it(ACC) EMPH—here put(PST PERF-A) now knowledge not
se khy’i haw’-al-hau (<haw’-au haw’-au>) [S:bk, mb]
how become(PST-A)3s become(PST-A)-3s
‘It was put right here. Now I don’t know what
happened to it.’ (what could have happened to it)

80) PRES PERF
a cei kōDok’ ne sapr-em’-dai se kawa’
I(NOM) tea container not find(P/F-S)-ls she where
thai-al-hau (<//thai a’-au haw’-au//) [S:bk]
put(PRES PERF)—become(PST-A)-3s
‘I can’t find the tea container. Where could she
have put it?’

81) PST IMPFV-A
se ki’ya kar-i’man ay’-is haw’-au se
he what do(PST IMPFV-A)-3s become(PST-A)-3s he
mai kai ne mai a’-au [E:mb, bk]
I(OBL)to not say(PRES PERF)-3s
‘Whatever he was doing, he hasn’t told me.’

82) PST IMPFV-I
ki’ya jhon’-ik se kawai’ par-i’man as’ta
what know(P/F-NS)-lp he where go(PST IMPFV-I)-3s
haw’-au [E:bk, mb]
become(PST-A)-3s
‘Who knows where he was/had been going?’

83) PST PERF-A
a mai galyi’ ne sapr-es’ ki’ya
I(NOM) I(OBL) watch not find(PST-A)-ls what
jhon’-ik ku’ra to hai ay’-is
know(P/F-NS)-lp who it(ACC) take(PST PERF-A)
haw’-au [E:mb, bk]
become(PST-A)-3s
‘I couldn’t find my watch. Who knows who took it?’

84) PST PERF-I
ki’ya jhon’ik se kawai’ pai as’ta
what know(P/F-NS)-lp he where go(PST PERF-I)-3s
haw’-au [E:bk, mb]
become(PST-A)-3s
‘Who knows where he went/had gone?’
85) PAST-A
a mai galyi' ne sapr-es' ki'ya jhon'-ik
I my watch not find(PST-A)-1s what know(P/F-NS)-1p
ku'ra to ha'da haw'-au [E:mb, bk]
who it(ACC) take(PST-I)-3s become(PST-A)-3s
'I couldn't find my watch. Who knows who took it?'

The subjunctive also appears in expressions other than questions, like (86) indicating probability but uncertainty, (87) with an indefinite quantity, and (88) conditional sentences.

86) tre caw bojei' bribo' hin
3 4 bags walnuts become(P/F-NS)-3p haw'-au [S:bkw]
become(PST-A)-3s
'There will probably be three or four bags of walnuts.'

87) ki'ya ajat' aal(h)au'33 ajat'
what use come(PST-A)-3s-become(PST-A)-3s use
kar'-i [S:bk]
do-IMP2s
'Use whatever you need.'

88) a'sa pruST pe sia'la haw'au
that good if be(INAN)(PST-I)-3s become(PST-A)-3s
a on'im [S:bk]
I(NOM) bring(P/F-NS)ls
'If that turns out to be good, I will bring it.'

2.1.4.6. Necessitative. The necessitative mood is represented by two distinct constructions, which, according to all my informants, have very similar semantics. The first construction involves the morpheme -e'lyi which is suffixed to the verb stem, e.g. kar-e'lyi (kar- 'do') 'one must do; (it) must be done', karawa(y)'-e'lyi 'one must have s.o. do; one must get s.t. done' (kar-aw-a'- 'do-CS').

33a'al(h)au' = //a'-au + haw'-au/>. 
The -e’lyi form of the verb is invariant for person and number; when an agent, i.e. the person by whom the action is to be done, is expressed, it is in the OBL case. There is no verb agreement with the agent, (or with the object), the auxiliary always taking the 3s INAN form.

(89) tai/*tu bo paysa’ ta’sa di-e’lyi [E:bk, mb] you(OBL/*NOM) much money he(OBL) give-NEC
‘You have to give him a lot of money.’

Since -e’lyi does not carry tense specification, in order to use it with past time reference, a finite auxiliary must be pressed into service. It can occur with the P/F,34 PST-A, and PST-I forms of ‘be-INAN’, as demonstrated in (90) - (92) respectively.

(90) tai bo paysa’ di-e’lyi (si’u) [E:bk, mb] you(OBL) much money give-NEC (be-INAN(P/F)-3s)
‘You have to give a lot of money.’

(91) şa’ša krom hi-e’lyi as-is’ [S:mb] EMPH-that work become-NEC be-INAN(PST-A)-3s
‘That work should have been done.’ (implied that it was not.)

(92) tai bo paysa’ di-e’lyi şia’la [E:bk, mb] you(OBL) much money give-NEC be-INAN(PST-I)-3s
‘You had to give a lot of money (and I just learned about it).’

Since the paradigm of şik ‘be-INAN’ is defective, containing only P/F, PST-A and PST-I forms, the remaining tense forms and meanings are supplied by employing the forms thi (PFV PPL) and hi’man (IMPFV PPL) from the paradigm of h- ‘become’. Thus, P PERF di-e’lyi thi şi’u, PST PERF-A di-e’lyi thi asis’, and PST PERF-I di-e’lyi thi

34P/F-S and P/F-NS are not differentiated for şik and asik. In the P/F, the auxiliary şi’u ‘is’ is not normally used, but it is not ungrammatical.
sia’la. They differ on the acceptability of the PST IMPFV-A and the PST IMPFV-I forms with -e’lyi, that is on (?) di-e’lyi h-i’man asis’ ‘It was becoming necessary to do it’, and (?) di-e’lyi h-i’man sia’la ‘It was becoming necessary to do it (and I just found out about it)’(?)

The P/F-NS and PST-A of hik are also employed as auxiliaries. Thus we can also have a form with unambiguous future meaning, as in (93):

93) mai dus wakhily’ him ghōi I(OBL) friend lawyer become(P/F-NS)-1s say(CP)
cit’-i’u ta’sa bo talyim’ kar-e’lyi think(P/F-NS)-3s him(OBL) much studying do-NEC
h-ιu’ [E:bk, mb] become(P/F-NS)-3s ‘My friend wants to become a lawyer. He will have to study a lot.’

The PST-A form of hik ‘become’ also occurs quite frequently in the e’lyi construction.

94) tok thi asis’ chala-e’lyi haw’-au [S:mb]
   wet become(PST PERF)-3s pull-NEC become(PST-A)-3s ‘It had gotten wet; it had to be taken out.’

The most frequently encountered forms in actual discourse are the P/F, without auxiliary, the PST-A of hik, haw’-au ‘became’, and the PST-A of sik, asis’ ‘was’.

Necessititative constructions with -e’lyi can, however, combine with the subjunctive mood, especially in conditional sentences. For example (95) and (96):

95) mai bo krom śi’an a ne I(OBL) much work be-INAN(P/F)-3p I(NOM) not
   jhon’-im ki’ya krom Sumber’ kar-e’lyi know(P/F-NS)-1s what work first do-NEC
   haw’-au [E:mb, bk] become(PST-A)-3s
   ‘I have a lot of work. I don’t know what I should do first.’
96) tai paysa' ta' sa pe di-e lyi haw'-au 
you(OBL) money he(OBL) if give-NEC become(PST-A)3s 
zar de [Ebk, mb] 
quickly give(INF-2s) 
'If you have to give him any money, give it quickly.'

The second type of necessitative construction consists
of the infinitive, either in the NOM or OBL form, followed
by the morpheme baS.33 (97-a, b) illustrate this double
possibility.

97-a) mai par-ik-baS' 
I(OBL) go-INF-NEC 
'I have to go.'

b) mai par-ik'-as baS 
I(OBL) go-INF-OBL-NEC 
'I have to go.

In this construction also, the agent, if expressed, is
(usually) in the OBL case.36 baS may also appear with
other tense forms of 'be' or 'become'. (98) and (99) show
the PST-A of 'become', and (100) the PST-A of 'be'.

98) te par-ik-baS' haw'-an [S:mb] 
they(NOM) go-INF-NEC become(PST-A)-3p 
'They have to go.' (i.e. have entered into the state
of having to go.)

99) cewbew' mBD-ik-baS' haw'-an [E:mb] 
clothes wash-INF-NEC become(PST-A)-3p 
'The clothes need to be washed.' (have entered into
the state of needing to be washed.)

100) ta' sa seh ne kar-ik-baS' asis' [E:bk, mb] 
he(OBL) so not do-INF-NEC be-INAN(PST-A)-3s 
'He shouldn't have done like that.' (but he did)

It will be noticed that the INF-baS construction is

33The question of why both INF(NOM) and INF(OBL) can
occur is explored later.

36But see example (98) below. Notice also that in
(98) and (99) the finite verb haw'-an (3p) agrees in number
with the (NOM) subject.
often the semantic equivalent of the Urdu or Panjabi
INF(OBL)-waalaa construction. For example (99) above is
the exact equivalent of the Panjabi kapRe tön-wale ho gae
'The clothes need to be washed.' It also often gives the
sense of 'worth V-ing', or 'fit to V', as in (101) and
(102).

101) žuk'-as baS ne' [S]
eat-INF-OBL NEC not
'It is not worth eating' /* 'One should not eat it.'

102) a ki'ya Sa hik'-as baS moc ne'
I(NOM) what king become-INF-OBL NEC man not
a garip' moc [T15: ]
I(NOM) poor man
'I am not a man fit to be king; I am a poor man.'

It also conveys the sense of 'about to V', as in (103):

103) se bo lehas' našık-baS' [S:bk, mb]
he(NOM) very sick die-INF-NEC
'He is very sick - about to die.'

The word baS in Kalasha has two poles of meaning,
which may or may not be derivable one from the other. In
one usage baS is a noun meaning 'share' or 'portion'. In
the other it is the modal particle indicating necessity.
Under one hypothesis, these can be considered to be the two
extremes of a continuum of meanings, and it is possible to
see how the meaning of 'necessity' could develop from the
more concrete meaning of 'share'. The following examples--
(104 - 112) are given in order of decreasing concreteness.
If the hypothesis suggested above is correct, they would
then show various stages of the shift in meaning toward the
more abstract 'necessity' pole.\textsuperscript{37}

104-a) te tan moc'-una zamin' du baS ka'da
they(NOM) own among land two shares do(PST-I)3p
'They divided the land into two shares among themselves.' (T&C 1987:22)

b) gog'-as baS [S:bk]
snake-OBL share
Lit. 'the snake's snare'; (Id. refers to the last of a clutch of baby birds; a runt, weak and unable to take care of itself; fit (only) to be eaten by a snake.)

105-a) ko ta'sa hat'ya dur'-a baS [S:bk]
why he(OBL) for house-LOC share
'Why should (we keep) a share in the house (i.e. food and lodging) for him?'

b) tro'-ik tai hat'ya baS thi si'u [S:bk]
cry-INF you(OBL) to NEC be-INAN(P PERF)-3s
'You are always crying' (said when scolding a child)
(Lit. 'It has become necessary for you to cry.' or 'Crying has become your share/lot.'

106-a) ja-baS' 'one who is like a wife, a female paramour'
[E:mb]

b) se bo lehas' - naš-ik-baS' [S:bk]
he(NOM) very sick die-INF-NEC
'He is very sick - about to die.' (=91 above)

107) žuk'-as baS ne' [S:mb, bk]
eat-INF-OBL NEC not
'It is not fit to eat.'

108) muT'-a ha bo ši-an ki'ya ajat'-as
Tree-LOC knots much be-INAN(P/F)-3p what need-OBL
baS ne' [T&C 1987:289]
NEC not
'On the tree there are many knots; they are of no use.'

\textsuperscript{37} Peter Hook (p.c.) points out that in Marathi the word bhaaṅ 'share, portion, part' shows a similar relation to a necessitative construction. It is also possible that the more concrete meaning of 'share' evolved from the less concrete meaning of 'necessity'. The foregoing discussion is based on one possible hypothesis about the origin of the necessitative meaning of the particle baS in Kalasha. In the concluding chapter, I discuss another historical scenario for this particle.
109) i'ya (d)za cru'ka thi s'H u a'la this curry sour become(PRES PERF)-3s it(ACC)
uyaz-ik'-as baS [S:bk, mb]
spill-INF-OBL NEC
'This curry is spoiled; it should be thrown away.'

b) cewbew' saw mën-ik'-as baS [S:mb]
clothes all wash-INF-OBL NEC
'The clothes all need to be washed.'

110) mai par-'ik'-as baS [S]
I(OBL) go-INF-OBL NEC
'I have to go.'

In many situations involving the concepts of necessity and compulsion, the semantics of -e'lyi and baS overlaps. In my Kalasha materials baS occurs more frequently than -e'lyi, and with a wider range of meanings. When I have asked various informants about the difference in meaning between -e'lyi and baS, I have had the following replies:
(a) "There is no difference"; (b) "If I were angry I would be more likely to use -e'lyi than baS;" (c) in a contrast like that in (111).

111) ajon-on' pruST au' di-e'lyi/dik baS' [E:bk]
guests-OBL good bread give-NEC/NEe
'One should give good food to guests.'

di-e'lyi means right now, immediately, while dik baS' means in general, not urgently or specifically now. If you were saying that we must give a good meal to the guests right now, you would be likely to use di-e'lyi, but dik baS if you were explaining that this is a practice to be followed in general. This example in (112) is consistent with this distinction; the context is that a father is scolding his son after seeing the son roaming around idle not doing any work.
I am not sure how far the comment in (c) can be generalized, but if it turns out that it can in fact be applied to most situations, it may represent a differentiation of these two forms in terms of specificity, a semantic dimension which we have already seen to be operative in the verb system of Kalasha. This hypothesis, however, requires further investigation.

Thus in my materials there is some indication that when the necessity involved arises purely from outside objective causes and when no emotional investment in the outcome is involved, or when there is no sense of urgency, then INF(-as) baS is more likely to be selected. If there is a sense of urgency or of internal moral or emotional necessity, then the probability of the occurrence of -e'lyi increases. Again, however, this suggestion is provisional.

With regard to the syntax of baS constructions and the question of why sometimes the INF is in its NOM form and sometimes OBL, I offer the following observations. (1) The INF(NOM)-baS and the INF(OBL) baS patterns have different stress contours. In the INF(NOM)-baS pattern, the string constitutes a single phonological unit with the primary stress on baS'. The verb retains only secondary
stress on the root. In the INF(OBL) baS construction, on the other hand, the verb stem has the primary stress, on its final syllable, and baS an independent, secondary stress. The verb and baS do not constitute a phonological unit. Thus INF(NOM)-baS' appears to constitute a compound word, as it does in jabaS' 'female paramour'. Such an analysis would make it exactly parallel to compounds of the type INF(NOM)-wew', meaning 'at the time of V-ing'. INF(OBL) baS would have the structure of a NP, with the INF(OBL) modifying the noun baS.

This analysis may also contribute to an explanation of why the object (patient) of the infinitivized verb can sometimes appear in the NOM and sometimes in the ACC, as shown in (113) - (115).

113) i'ya histik-baS' ho'ma ajat' ne' [S:bk]
   this(NOM) throw-INF-NEC we(OBL) need not
   'This is to be thrown away; it is of no use to us.'

114) a'ma as'ta gaStr-o karik-baS' [T&C 1987:230]
   this(ACC) also quickly-~ do-INF-NEC
   'This also must be done quickly.'

115) i'ya/a'ma piran' mÖdik-baS' [E:mb]
   this(NOM)/ACC shirt wash-INF-NEC
   'This shirt needs to be washed.'

In (113) and the NOM patient version of (115) the construction appears to be that of an equational sentence, in which both constituents are conceived of as purely nominal. In (114) and the ACC patient version of (115), on the other hand, the structure appears to be different. The

39Recall that NOM and ACC can only be distinguished if the present-near or distant demonstrative in the singular is present in the phrase.
structure of the nominal sentence type is represented in
(116-a) and that of the verbal type in (116-b).

\[
\begin{array}{cc}
\text{(a)} & \text{(b)} \\
S & S \\
NP & NP \\
\text{i'ya piran' } m\text{"Dik-baS} & \text{(agent) } NP & V \\
\end{array}
\]

\[
\text{a'ma piran' } m\text{"Dik baS}
\]

In other words, it appears that the conceptualization
varies from nominal to verbal sentence type. Perhaps this
syntactic wavering is a result of the transitional nature
of the construction, i.e. is symptomatic of a noun in
transition to becoming a modal particle.\(^3\)

2.1.5. Semantic oppositions

The Kalasha verb system can be informally described
with reference to the semantic parameters of ASPECT
(durative or non-durative, and perfect or non-perfect);
TENSE (past or non-past), SPECIFICITY (specific or non-
specific), INFERENTIALITY (inferential or actual), and
MODALITY (=REALITY, referring to indicative vs. various
kinds of non-indicative meanings). The nominal category of
ANIMACY intersects each of these dimensions.

Terms related to aspectuality will be used as follows.

For the general definition of aspect, I adopt Comrie's
(1976:3) statement; thus "aspect" will refer to "different
ways of viewing the (internal) temporal constituency of an
event". For the categories and markedness relations found

\(^3\)Or vice versa. Another hypothesis is discussed in
7.2.3.
in Kalasha, the analysis in Friedrich (1974) is more immediately relevant. Thus the basic opposition in Kalasha is between durative and non-durative aspectual categories. Non-durative forms are further subdivided into perfect and non-perfect categories. "Perfect" is a complex category that "combines aspect, tense, and yet other domains" (Friedrich 1974:516). Rather than referring to the (internal) structure of an event, the perfect category looks at the relation of "a state to a preceding state" (Comrie 1976:12)—to the external relations of an event.40

Oppositions can be characterized as privative or equipollent. In a privative opposition one member of the opposition is marked, the other unmarked. The marked pole can be used only in its own meaning, while the unmarked member in addition to conveying its own meaning can (sometimes) take on the meaning of the marked pole. In an equipollent opposition, on the other hand, both members of the opposition are equally marked and neither can be used in the meaning of the other pole. In a discussion of markedness, it is important to distinguish two different meanings of "marked". "Marked"₁ refers to the distributional pattern of a feature (semantic features in the present discussion) within a system, and is the basis for the definitions of privative and equipollent oppositions. "Marked"₂ often means something like "bearing

40"Prospective" is a mirror-image of "perfect", in that it looks at the relation of a state to a future state. It often has the translation 'to be about to V'.
101

morphological material which specifically encodes a given feature". Though a given form is often marked in both sense 1 and sense 2, this is not necessarily the case. In this discussion I shall use "marked" in sense 1 only, and for sense 2 I shall use the phrase "morphologically coded".

The aspectual system of Kalasha is schematized as follows. Categories are assigned <+> or <+> values in terms of the marked category.

```
+DUR   -DUR
+DUR
PAST     NON-PAST
+INFER.  -INFER. (P/F-S)
pariman asta him  pariman avis

+PERF   -PERF
PAST     NON-PAST
+INFER.  -INFER. (PRES PERF)  +INFER. -INFER. (P/F-NS)
pai aam  parim
(pST PERF-I)  (PST PERF-A)
pai asta him  pai avis

-DUR
PAST     NON-PAST
+INFER.  -INFER. (PST-I)  (PST-A)
pai aam  parim
(pST-I)  (PST-A)
gala him  para
```

Durative is the marked member of a privative basic aspectual opposition.\textsuperscript{41} This means that [+DURATIVE] forms

\textsuperscript{41}It is possible to make a very similar analysis cast in terms of a marked imperfective and an unmarked non-imperfective pole. But because of (a) the terminological convolutions caused by doubly negative category names like [-IMPERFECTIVE], which is not equivalent to "PERFECTIVE", and (b) the importance of stressing the difference between the Kalasha system and a Slavic-type system, I have chosen
are specifically marked for durativity, while with [-DURATIVE] forms no reference is made to the durativity status of the action encoded. Consider the [+DUR] PST IMPFV-A and PST IMPFV-I forms, which can only be used in the durative past progressive, habitual, iterative or conative meanings.\(^{42}\)

The clearest example of this is perhaps the P/F-NS [-DUR] forms, which are used both with non-durative meaning in general truths/timeless statements,\(^{43}\) complements of 'fear' verbs, and in subordinate 'until' clauses,\(^{44}\) and with the potentially durative present habitual sense.

The P/F-S forms, classified here as [+DUR], present an
to work with the Friedrichian terms durative and non-durative. Note that the category [-DUR], [-PERF] corresponds structurally to Friedrich's aorist. It includes the P/F-NS, which was called "aorist" by Morgenstierne, the PST-A, which corresponds to the Peresian form Windfuhr discusses as "aorist", and the PST-I.

\(^{42}\)Hook's (1978:99-100) observation that in Hindi, Russian, Modern Greek, and Pashto verbs with a conative sense must be in their imperfective forms can, given the conceptual overlap between "durativity" and "imperfectivity", be seen as relevant here.

\(^{43}\)Imperfective is considered by some to be the unmarked member of the aspectual opposition in Russian (Comrie 1976:112). It has been observed that in Russian and Urdu, general/timeless truths are expressed with imperfective forms (Masica, p.c.). What this suggests to me is that general/timeless statements will tend to be expressed with the unmarked member of an aspectual opposition, whether it is perfective or imperfective, durative or non-durative.

\(^{44}\)Hook (1978) points out that clauses dependent on verbs of fear and "until" clauses in Russian, Hindi, Modern Greek and Pashto take verbs in their perfective forms. Adapting this observation to the durative/non-durative opposition, we find that in Kalasha 'fear[S]' and 'until[S]' constructions take [-DURATIVE] verbs.
interesting situation. With present time reference, these forms convey progressive (durative) meaning (cf. 9, 10, 13); but with future time-reference (cf. 11, 12) the meaning of the -dai marker is specificity, rather than durativity. This apparent counter-example to my claim for the marked status of DURATIVE is probably indicative of shifting categorial alignments within the Kalasha verb system. That is, the -dai marker may be in the process of shifting from marking durativity to marking specificity, or from marking specificity to marking durativity.48

Comrie (1976:114) points to a "greater likelihood of morphological irregularity in the unmarked forms." As noted above, the [+DUR] forms are completely regular, while in the unmarked [-DUR] forms, particularly PST-A and PST-I, and also forms constructed with the perfective participle, irregularities do occur.

The durative also qualifies as the marked member on the morphological criterion of quantity of phonological material (Comrie 1976:114). According to this criterion, unmarked categories are likely to have less morphological material than marked. Comparing the [+DUR] and the [-DUR] forms in Kalasha, e.g. pari'man [+DUR] and pai [-DUR] we see that the [+DUR] forms are indeed longer.

The PAST/NON-PAST morphological opposition conditions the distribution of the SPECIFIC/NON-SPECIFIC and ACTUAL

48It appears that in the Khowar system the structurally analogous marker -an marks durativity more often than specificity.
INFERENTIAL oppositions. The PST PERF-A and -I, the PST IMPFV-A and -I and the PST-A and -I are marked for past, and the P/F-S and -NS and PRES PERF for non-past.

The SPECIFICITY/NON-SPECIFICITY opposition is marked only in the [-PAST] forms. The [+SPECIFIC] P/F tense, e.g. a kar'-im-dai 'I am doing, I will do' can only be used when the meaning is specific. Its direct counterpart, the [-SPECIFIC] P/F tense, e.g. a kar'-im 'I do' is only used for non-specific meanings. All the other tense forms, are undifferentiated for this parameter.

With regard to the parameter of INFERENTIALITY (with actual and inferential poles), Comrie (1976:108) defines inferential forms as indicating "that the speaker is reporting some event that he has not himself witnessed, but

**The distinction which I am calling specific/non-specific was noted by Morgenstierne, who refers to my P/F-S tense as the 'definite present' (1973:228). I consider the distinction to be one of specificity rather than definiteness for the following reasons. The primary semantic distinction is between specific and non-specific expressions. A specific expression is one for which the speaker knows or has in mind a particular referent, and a non-specific expression one for which he does not. For example, the sentence 'I am looking for a book' can mean that I am looking for a particular book (specific) or that I am just looking for any book, perhaps some light fiction to pass the time on a journey. (non-specific). Notice that the specificity/non-specificity distinction involves only the speaker. Specific expressions in turn can be either definite or indefinite, depending on whether the particular referent has been previously identified or introduced into the discourse. If it has, the expression is definite, e.g. 'I am looking for the book' (definite) implies that the hearer knows which book is being referred to, while 'I am looking for a book' (specific, non-definite) does not. Since the distinction between the P/F-S and P/F-NS forms in Kalasha is one which is relevant only to the speaker's state of mind, I consider it one of specificity rather than of definiteness.
about whose occurrence he has learned at second-hand (though without, incidentally, casting any doubt on the reliability of the information). While in the context of Kalasha this is not incorrect, it is by no means a complete characterization of the range of functions of inferential forms. We shall see that the inferential forms convey a range of meanings, which may originally have evolved from the single semantic distinction of seen/unseen, but which have differentiated into a complex of related but distinct meanings, so much so that the inferential range of the axis of EXPERIENCE has differentiated into two distinct levels.

INFERENTIAL and ACTUAL forms are not differentiated in the NON-PAST forms, which are coded for specificity. In the past tenses actual and inferential forms are sharply differentiated in meaning, and not substitutable for each other. Thus the INFERENTIAL/ACTUAL opposition is an equipollent one, and it is morphologically expressed (only) in the past tense forms.

Notice that the coding of the ACTUAL/INFERENTIAL and the SPECIFIC/NON-SPECIFIC oppositions is in complementary distribution across tense; the SPECIFIC/NON-SPECIFIC opposition is coded in the non-past and the ACTUAL/INFERENTIAL opposition in the past tenses. This suggests the proportional relationship: inferentiality:past :: non-specificity:present. It is for this reason that I consider both of these semantic
parameters to participate in the axis of EXPERIENCE.\textsuperscript{47}

To summarize the semantic featural specifications for the nine basic verb forms:

\begin{center}
\begin{tabular}{|l|c|c|c|c|c|}
\hline
Informal Name & Aspect & Tense & Inferentiality & Specificity \\
\hline
P/F-NS & -DUR & -PERF & NON-PAST & 0 & -SPECIFIC \\
P/F-S & +DUR & -PERF & NON-PAST & 0 & +SPECIFIC \\
P PERF & -DUR & +PERF & NON-PAST & 0 & 0 \\
PST-A & -DUR & -PERF & PAST & +ACTUAL & 0 \\
PST-I & -DUR & -PERF & PAST & +INFERENTIAL & 0 \\
PST PERF-A & -DUR & +PERF & PAST & +ACTUAL & 0 \\
PST PERF-I & -DUR & +PERF & PAST & +INFERENTIAL & 0 \\
PST IMPFV-A & +DUR & -PERF & PAST & +ACTUAL & 0 \\
PST IMPFV-I & +DUR & -PERF & PAST & +INFERENTIAL & 0 \\
\hline
\end{tabular}
\end{center}

2.1.6. Application of Windfuhr's tense-aspect-mood model

In this section I locate the Kalasha verbal formations with reference to the semantic axes of the tense-aspect-mood model developed by Windfuhr (1985, 1987) (cf. 1.3.2. above). This is a conceptual structure in which the dimensions of human cognition reflected in the grammatical categories of aspect, mood, and tense are given a geometrical representation.

The model postulates four mutually intersecting semantic axes, along which points representing specific

\textsuperscript{47}This fact about Kalasha lends independent support to the direction of analysis adopted in Windfuhr (1985, 1987), in which the gradations of the EXPERIENCE axis are conceived of as analogous to referentiality distinctions. As noted above (n. ) my (re-)interpretation of this strategy involves the notion of specificity rather than of definiteness.
values can range. These are the axes of (1) ASPECT, (2) REALITY, (3) EXPERIENCE, (4) NARRATION. In the following characterization of these axes, which is based on my understanding of the motivation for, aims of, and potential value of the model, I have departed somewhat from the original conceptualization by Windfuhr.

The axis of ASPECT refers to the ways in which the internal temporal structure of an event is referred to (Comrie 1976, passim). Cross-linguistically, typical basic values for this axis are imperfective and perfective or durative and non-durative.

The axis of REALITY pertains to the degree to which an action or state is represented as realized in the world, i.e. whether or not it has come to pass, and if not, the degree of probability or necessity that it will. This axis thus relates to the dimensions of meaning referred to as existential and deontic modality (cf. Lyons 1977:681-2). Typical values for this axis in the verb systems of many languages are indicative and subjunctive, denoting actions or states that are either asserted to have taken place or be certain to occur, or presented as more or less probable.

The axis of EXPERIENCE refers to the relation of the referent event to the experience or knowledge state of the speaker. It is thus an axis along which the values range

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**The reader should note that this discussion is conceptually independent of the preceding discussion of the markedness status of the formal oppositions. Thus the terminology employed here is not necessarily identical to that in the preceding section.**
over differing epistemological statuses. It encodes different values of epistemic modality. Typical values along this axis are actual as opposed to indirect or hearsay knowledge. Involved in the category of epistemic modality as coded on the axis of EXPERIENCE are matters of (a) the speaker's commitment to the truth of the assertion, (b) the source of evidence for the assertion (e.g. visual/aural, hearsay), (c) the type of evidence for an assertion (direct/indirect), (d) the specificity or non-specificity of the conceptualized action/event, and (d) the degree of integration of the assertion into the speaker's existing knowledge and belief system.

The axis of NARRATION can be best described at this point as an axis encoding the relation of the narrated event to other events (speech act or other narrated events), along which values range in respect of their relation to these event-external reference points. In the model as it applies to Kalasha, this axis turns out to reflect the continued relevance/non continued relevance distinction associated with the concept of PERFECT vs. NON-PERFECT. This reflects the common insight that PERFECT embodies characteristics both of deictic and aspectual categories.

It is profitable to examine the categories represented in this model in terms of Jakobson's (1957) taxonomy of verbal categories. In that schema, verbal categories are
distinguished by their reference to (a) a narrated event, (b) a speech event, (c) a participant in the narrated event, and (d) a participant in the speech event.

The dimensions of this model can be characterized in terms of Jakobson's distinctions. Thus ASPECT and REALITY refer to the narrated event alone; while EXPERIENCE and NARRATION involve the relation between the narrated event and other entities. Aspectual categories encode only the internal structure of the event itself. Categories on the axis of REALITY refer only to the ("objective") existence-status of the event, while the axis of EXPERIENCE includes categories referring to the existence of the event in relation to the ("subjective") world of the speaker (i.e. his system of knowledge and beliefs and thought processes).

Taken together, the categories represented on the four axes of the model partition the subset of verbal "function-space" dealt with as follows:

<table>
<thead>
<tr>
<th></th>
<th>Connector</th>
<th>Non-connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>NARRATION</td>
<td>ASPECT</td>
</tr>
<tr>
<td>Existence</td>
<td>EXPERIENCE</td>
<td>REALITY</td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The functional commonality of ASPECT and REALITY—that they are both non-connecter categories—may explain why some categorial values, e.g. the progressive, possess characteristics of membership in both types of categories.

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*Since all categories are concerned with narrated events, they may be subdivided into those which do and those which do not involve the participants of the narrated event.
Fig. 1, which is slightly modified from Windfuhr's original version, schematizes the four axes of the model.\textsuperscript{30}

\begin{center}
\begin{tikzpicture}
    \node (A) at (0,0) {REALITY};
    \node (B) at (0,2) {NARRATION};
    \node (C) at (0,4) {EXPERIENCE};
    \node (D) at (2,2) {ASPECT};

    \draw [->] (A) -- (B);
    \draw [->] (B) -- (C);
    \draw [->] (A) -- (D);
    \draw [->] (B) -- (D);
    \draw [->] (C) -- (D);
\end{tikzpicture}
\end{center}

Fig. 1. Tense-aspect-mood model (modified)

The specific structure of the Kalasha verb system is represented in Fig. 2 below.\textsuperscript{31}

\textsuperscript{30}In Windfuhr's (1985, 1987) diagrams the lines referring to REALITY, NARRATION, and EXPERIENCE refer to axes while that pertaining to ASPECT represents a boundary. In this diagram, all the lines on the paper represent axes.

\textsuperscript{31}In Figures 2, 3, 4, and 5, solid circles represent the present location(s) of attested forms, while an empty circle represents the reconstructed location of the original position of a form within the system. Dashed lines represent motion within the system, the arrow indicating its direction. The appearance of a given form at more than one point signifies its multi-functional value within the system.

Note also that the axis of ASPECT in my diagrams (this chapter) is perpendicular to the aspectual axis in Windfuhr's diagrams (Figs. 2, 3, 4 in Chapter 1).
Kalasha Verb System

Hortative

NECESS₁

NECESS₂

Imperative

pari-ori

pari-elyi

pari baS

pari

pari-elyi ašis

pari baS ašis

pari-elyi hauw

pari baS hauw

pari-elyi thi ŝiu

pari baS thi ŝiu

pari-elyi hula

pari baS hula
When referring to these diagrams, I shall use the term "level" to refer to the horizontal planes which intersect the vertical axis of EXPERIENCE, (e.g. the plane defined by points ABCD). To refer to vertical planes intersecting the horizontal axis of REALITY I shall use the term "degrees" (e.g. plane BFGC). Values along the the ASPECTUAL axis shall be called "aspects".

Examining the diagram, we see that five epistemological levels can be defined along the axis of EXPERIENCE. They are: (1) the [=SPECIFIC] [ØACTUAL/INFERENTIAL], level (plane ABCD). This level contains the P/F-S forms in -daï, and is assigned the highest value for actuality because it requires that the utterance be the product of both direct knowledge and reference to a specifically known event. (2) On the SECOND level (plane EFGH) the forms are [ØACTUAL/INFERENTIAL] and [-SPECIFIC]. (3) The third level (plane IJKL) contains forms which are [+ACTUAL] and [ØSPECIFIC] (4) At the INFERENTIAL level (plane MNOP) verb forms are specified [+INFERENTIAL], [Ø SPECIFIC]. (4) The "lowest" level (plane QRST) represents the formations with hula. This level represents a differentiation of the inferential range corresponding to the development of the

---

52 The constructions with -tik and INF qhMan also function as values of the axis of EXPERIENCE, but since they are achieved by syntactic means rather than constituting basic morphology, for the sake of achieving cross-linguistic comparability I have not included them in this diagram of the (morphological) verb system.
semantics of the "unprepared mind". At this level a new feature, which for lack of a better name I call "new information" is generated.


The recognition of the hula form as occupying a distinct plane of EXPERIENCE taken together with the formal combinatorial properties of hula suggest that the set of hula forms may be in the process of evolving to occupy a position leftward of the PHENOMENAL/DEICTIC degree on the axis of REALITY. This situation is represented in Fig. 3.

Fig. 3. Future(?) of Kalasha Verb System

This in turn suggests that sets of forms (or, in terms of this model, "planes") can shift in function from one axis to another. If this diachronic hypothesis turns out to be correct, it would result in a new opposition—between (subjunctive) forms in hawa紫外线 (PST-A) and (new information) forms in hula紫外线 (PST-I)—in which the forms originating in the inferentials acquire the semantics of assertion while those derived from the non-inferential forms have the semantics of dubitativeness.
Along the axis of REALITY Kalasha has eight degrees. I shall discuss them in order of decreasing reality (as defined above). (1) The leftmost degree is the PHENOMENAL/DEICTIC (plane AEHD). At this degree are found the progressive and the perfect forms. Classifying the progressive as a degree of reality may require a bit of explanation, but the evidence for its validity is compelling. The characterization of the progressive as representing "phenomenal" as opposed to "structural" reality is originally due to Goldsmith and Woisetschlaeger (1976, 1982). Analyzing the English progressive, they demonstrate convincingly that the progressive expresses an event as phenomenal, that is happening during a (bounded) interval of time; a structural description of an event, on the other hand, captures its permanent "structural description". Discussing Teheran Persian, Windfuhr (1985:421) notes that the normal imperfective forms may express habitual or progressive action, but that a new periphrastic progressive construction has developed, which is affirmative only, and is confined to the indicative. It is thus a subset of or a "disambiguation of the indicative," and represents a further differentiation along the axis of reality.

In my own work on Kalasha, I have noted that the [+DUR] forms in V-iman ayis and -dai carry a strong sense of reality with them. Note first that the PST IMPFV-A and PST IMPFV-I forms do not co-occur with -ori, the hortative marker. Examples (72) and (73) are repeated here.
116

72) *par-i’man ay’is-or’i *‘He was going - good’
73) *par-i’man as’ta-or’i *‘He had been going - good’

Nor does the P/F-S, one of the functions of which is to encode progressive meaning in the present, seem to co-occur with -or’i. Example (71) is also repeated here for reference.

71) *par-in’dai-or’i *‘They are going - good.’

Second, the IMPFV-A and -I tenses do not co-occur with the INF + ghā’an construction (55 above). Third, the co-occurrence of [+IMPFV] forms with -el’yi was accepted by only one of my informants, rejected by the other. Fourth, although I have no statement definitely rejecting the possibility, the necessitative construction with baS does not occur with the imperfective in any of my materials.

(2) The second degree on the REALITY axis is the STRUCTURAL/PREDICTIVE/(OPTATIVE) degree, in which we find the P/F-NS, PST-A, and PST-I forms of the indicative. These forms are the aspectually least-marked ([−DUR], [−PERFECT]) forms, which give the structural description of an event in terms of the essence of the actions involved. They acquire past, present, and future time reference by virtue of their function in a discourse situation.

(3) The POTENTIAL/CONDITIONAL degree is that at which some aspect of the realization of an event is represented as uncertain. (4) Irrealis forms are distinct from POTENTIAL/CONDITIONALS, although constructed on the base of the STRUCTURAL degree. (5) Next to the right on the
reality axis is the hortative degree. At this value we find the forms in -or'j, which express the speaker's wishing/urging that a situation come about.

(6) The next degree is that represented by the -e'lyi forms, expressing what I will call "subjective deontic necessity". Since there is some indication that the speaker appears to have more emotional investment in the realization of the action, and since the morphology is different, I have differentiated it from degree (7), that of "objective deontic necessity", expressed in the INF-as bas construction. (8) Finally we find the imperative forms.

Along the axis of ASPECT Kalasha distinguishes DURATIVE and NON-DURATIVE poles. On this diagram, the aspectual axis is represented by the line running NW<->SE. The forms in -iman + 'be' and the P/F-S in -dai are marked [+DURATIVE], all others being unmarked.

The axis of NARRATION (running SW<->NE) can be considered as an axis of relation. Relative position on this axis can be interpreted as differing values of either anteriority/posteriority, or continued relevance. The points I, U, and V represent the forms marked [+PERFECT], those which encode a past action with continued relevance. These are a subset of the aspectually unmarked [-DURATIVE] class.

To summarize: Kalasha formally distinguishes eight values along the axis of REALITY. Furthest to the left is
the progressive, the most "real" of all. Moving rightward
the values decrease in reality from definitely realized to
potentially realized, to unrealized with differing degrees
of probability or necessity of realization. Along the axis
of EXPERIENCE there are five levels; along the ASPECTUAL
axis two values, and along the axis of NARRATION there seem
to be three values.

2.2. Khowar

2.2.1. Stem-formation

As in Kalasha a basic distinction can be made between
classes of verbs for which all the forms are constructed
regularly on a single stem, and those whose past stem
includes the relic of a historical a- augment. The list of
verbs with these augmented past stems is much shorter than
it is in Kalasha. For regular verbs, stems consist of
root + -ı for intransitives, and root + -e'i for
transitives and causatives.

2.2.2. Non-finite verbal formations

Khowar has the following non-finite verbal forms.

(1) The perfective participle regularly consists of root
plus -ı, e.g. kor-ı 'having done', or (for a few, very
common verbs,) -ti, e.g. bi-ti 'having become'.

These include kor- 'do', past stem ar-; e- 'be (inanimate)', past stem oš-; br- 'die', past stem obret-;
šib- 'eat', past stem oyg-.

Other past participles in -ti are qiti 'having
come', angii'ti 'having brought', diti 'having given', zuti 'having eaten'. See Morgenstierne (1947:27) for historical
discussion. The perfective participle of rek 'to say' is
irregular: re 'having said'.
perfective participle has the following functions. (a) The three perfect tenses, present perfect (kori asum' 'I have done'), past perfect-actual (kori asitam' 'I had done'), and past perfect-inferential (kori asak bire'tam 'I had done/did (reportedly)') consist of this participle plus finite auxiliary elements. (b) The perfective participle in construction with the explicators 'go', 'leave/release', or sometimes 'sit' forms a compound verb in the usual South Asian sense. For example, tu puli' bis (you burn will-go) 'You will get burned (be careful).'. (c) It functions as a conjunctive participle (CP), linking two clauses or imparting various adverbial meanings. (d) As in Kalasha, with the verb khulye'ik 'to finish' it forms the complement of the phasal conception 'to finish V-ing'. (e) With 'come' it apparently can form a continuative, assertative form parallel to that constructed with the imperfective participle (cf. (g) below). e.g. kori hat'am 'I have been doing continuously (starting in the past and continuing to the present)'.

(2) An imperfective participle is formed from root plus -au', e.g. kor-au' 'doing'. The imperfective participle occurs in the following constructions. (1) It is the base of the imperfective tenses: (a) past imperfective-actual, korau' o$otam 'I was doing', (b) past imperfective-inferential korau' asitam/astam' 'I was doing (reportedly), (c) present perfect progressive korau' asum' 'I have been doing (intentionally), (d) past continuous
imperfective-inferential korau' asak' bire'tam 'I was doing (mistakenly)', (e) past habitual korau'tam 'I used to do'.
(f) It can be used adverbially, e.g. DaQ keLau baGai (child cry(IMPFV PPL) go(PST-A)3s) 'The child went away crying'.
(g) With 'come' and 'go' it forms a type of compound verb construction, with quasi-aspectual force, e.g. korau' ha'tam 'I continued to do (starting in the past and continuing into the present)'. These forms thus constitute an ASSERTATIVE degree of reality, stressing the ongoingness and durativity of the action. Aside from locating them in the schematic diagram of the Khowar verb system, I do not discuss them at length in this work.

(3) A second form of what appears to be the imperfective participle consists of verb root plus -a'wa, e.g. kor-a'wa. According to my informants the two forms kor-au' and kora'wa are interchangeable only in certain situations. The second imperfective participial form (a) forms a second past imperfective-inferential tense: kora'wa bire'tam 'I was doing (wrongly)'. (b) It can also be used adverbially: boGa'wa ta-t paysa' dom 'As (i.e. when) you/I are/am going, I will give you some money.' (c) It can be used to form participial relative clauses: tu ra'wa kitab-o tonie'itam (you(NOM) read(IMPFV PPL) book-OBL lose(PST-A)-1s) 'I lost the book which you used to read.'

(4) The regular formation of the past participle is in -iru e.g. gan-iru 'taken' (,gan-). Some verbs have a PST
PPL in -rdu, e.g. ka-r’du ‘done, did’ (<kor-), ra-r’du ‘said’ (<rek 'to say'). The past participle is (a) the base of the following tenses: (i) the past-inferential, e.g. boGdu ‘he went away’ (unseen by me), (ii) the past perfective-inferential kardu’ bire’tam ‘I did (reportedly)’, (iii) past counterfactual-actual kardu’ osotam ‘I would have done (intentionally), (but didn’t)’. (b) It is used as a substantive, e.g. birdu ‘dead person’. (c) It is used attributively, e.g. haya’ chir’du išnya’ri ‘This is a broken thing’. (d) Participial relative clauses can be constructed with this form, e.g. tu fuTu paše’iru DaQ ‘the boy to whom you showed the photograph’. (5) One passive participle is made from verb root plus -o’nu, e.g. koro’nu. The passive participle in -o’nu is (a) the base of the passive voice: boxt-o haya’ lyakhon’u boy-an’ ‘The stone is being placed here’; (b) Some relative clauses can be constructed using this form, e.g. ta fuTu paše-o’nu biru’ DaQ (you(OBL) photo show(PASS PPL) become(PST PPL) boy ‘The boy who was shown a photograph by you’.

(6) An alternate form of the passive participle is in -in, e.g. niveśin’ ‘written’ (<niveś- ‘write’). The form in -in also participates in formation of the passive voice: boxt-o haya’ lyakhin’ boy-an’ ‘The stone is being placed here.’

(7) The infinitive is formed from stem plus -k, e.g. korik ‘to do’, kore’ik ‘to have someone do’. It
participates in many subjective and objective complement structures: (a) the expression of ability—INF plus bik 'be able', e.g. hes haya' kor-o korik'-o boi 'He can do this work', and (b) the expression of obligation or necessity—INF(OBL) plus baS, e.g. ma pe'a'ur-o-t bik-o baS (I(OBL) Peshawar(OBL)-DAT go(INF)-OBL NEC. 'I have to go to Peshawar.'

Deverbal nominals include (7) an agent noun in -ak, e.g. kor-ak' 'a doer, one who is able to do'. The agent noun in -ak (a) participates in a series of tense aspect forms which, in addition to their tense aspect marking, carry the additional meaning of 'being a V-er, i.e. one who is able to V.' These forms are: (i) past habitual-inferential korak' bire'tam 'I was habitually doing/a doer (without realizing it), (ii) past habitual-actual korak' osotam 'I used to be a doer/able to do (but no longer), (iii) present habitual/abilitative-actual korak' asum' 'I am a doer/can do', (iv) present habitual/abilitative-inferential korak' asak' bire'tam '(I just realized that) I am a doer/able to do', (v) presumptive korak' boi 'He must be a doer'. (b) It is also used to form some types of relative clauses, e.g. rah-en boGak' mos 'the man walking in the road'.

(8) The deverbal nominal in -a'ru, e.g. piya'ru 'desire to drink' is cognate in form and function with the

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bik 'be able' is homophonous with bik 'become' in some tenses.
Kalasha quasi-desiderative construction in -a'lyak. For example, ma paloG' oce' draC žiba'ru goyan' 'I feel like eating apples and grapes.' (Lit. 'to me apples and grapes desire to eat is coming.')

2.2.3. Indicative system

Khowar's basic set of indicative tense-aspect forms are described and illustrated here. There are three simple forms, i.e. those consisting of verb stem plus personal endings. These are:

1. **Present/future-non specific**: (P/F-NS)

   kom 'I do, will do'

The P/F-NS is formed from the verb stem plus the following person/number suffixes:

<table>
<thead>
<tr>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>-m</td>
</tr>
<tr>
<td>2.</td>
<td>-s</td>
</tr>
<tr>
<td>3.</td>
<td>-r</td>
</tr>
</tbody>
</table>

P/F-NS forms are used both with future meaning (117), and in the sense of a generic/habitual present (118 - 119).

117) hase' peša'ur-o-te no bir [if]
     he P.-OBL-DAT not go(P/F-NS)-3s
     'He will not go to Peshawar.'

118) puši no waxir [sn]
     cat not bark(P/F-NS)-3s
     'A cat doesn't bark.'

119) awa hamiš chuc-o Choi baja riphom' [wur]

---

*The decision to call this form "present/future-non specific" was made on the basis of the following considerations: (a) Morgenstierne (1947:21) calls this form an "aorist", which "is used as an indefinite present and as a future". (b) In order to preserve legitimate parallelism with the Kalasha tense names. I note, for the record and for future consideration, however, that my informants consistently refer to this form as the "future".*
I always morning-OBL six o’clock get up(P/F-NS)
‘I always get up at six o’clock in the morning.’

(2) Present/future-specific: (P-S)
  koman ‘I am doing’

The specific present/future consists of the P/F-NS forms
plus the suffix -an, analogous to the Kalasha P/F-S forms
in -dai. (120-a, b) are examples of its use.

120-a) ta brar hani’se kyaaG koy-an [wur]
      you(OBL) brother now what do(P/F-S)-3s
      ‘What is your brother doing now?’

b) chuci sot baja mehtar broz-ote rahi boyan
   morning seven o’clock Mehtar B.-to leave(P/F-S)-3s
   ‘The Mehtar is leaving for Broz tomorrow morning at
   7 a.m.’ [O’Brien 1895:47]

(3) Actual Past: (PST-A)
  are’tam ‘I did’

PST-A forms consist of the past stem plus the marker //-
  ist-//- plus the preterital personal endings:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Sg.</td>
<td>Pl.</td>
</tr>
<tr>
<td>1.</td>
<td>-am</td>
</tr>
<tr>
<td>2.</td>
<td>-au</td>
</tr>
<tr>
<td>3.</td>
<td>-ai</td>
</tr>
</tbody>
</table>

Examples follow in (121).

121-a) awa hatoGo sum just hot-am [wur]
      I(NOM) he(OBL) with met become(PST-A)-ls
      ‘I met him (just a few minutes ago).’

Although I have found (in older texts) a few
examples of this form with future time reference, its use
with future meaning seems less frequent than the use of the
comparable Kalasha forms in -dai with future time
reference. This suggests to me that the categorial
distinctions in Kalasha and Khowar may not be entirely
identical. This perceived difference on my part is
reflected in the different treatment of the P/F-S forms in
the model diagrams of the Kalasha and Khowar verb systems.

In normal speech //-ist-// is reduced by varying
degrees, becoming -st, or -t- in some words. The degree of
reduction also varies from dialect to dialect.
b) hase' lahur-o-te baGai [ys]  
he L- OBL-DAT go(PST-A)-3s  
'He went to Lahore.'

Participial tenses consist of the perfective,  
imperfective, or past participle plus finite forms of 'be'  
and/or 'become'.\(^1\) Forms constructed on the perfective

\(^1\)Paradigms of 'be' and 'become' are given here for reference.

<table>
<thead>
<tr>
<th>Paradigm of as'ik 'be(ANIMATE)'</th>
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<tbody>
<tr>
<td><strong>Present</strong></td>
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<tr>
<td>Sg.</td>
</tr>
<tr>
<td>1. asum'</td>
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<tr>
<td>2. asus'</td>
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<td>3. asur'</td>
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<tr>
<td>Pl.</td>
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<tr>
<td>1. asus'i</td>
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<tr>
<td>2. asum'i</td>
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<td>3. asun'i</td>
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<tr>
<td><strong>Past</strong></td>
</tr>
<tr>
<td>1. asitam</td>
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<tr>
<td>2. asitau</td>
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<td>3. asitai</td>
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<table>
<thead>
<tr>
<th>Paradigm of šik 'be(INANIMATE)'</th>
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<tbody>
<tr>
<td><strong>Present</strong></td>
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<tr>
<td>1. -</td>
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<td>2. -</td>
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<td>3. šer</td>
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<tr>
<td><strong>Past-Actual</strong></td>
</tr>
<tr>
<td>1. ošotam</td>
</tr>
<tr>
<td>2. ošau ([ošo])</td>
</tr>
<tr>
<td>3. ošoi</td>
</tr>
<tr>
<td><strong>Past-Inferential</strong></td>
</tr>
<tr>
<td>1. -</td>
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<tr>
<td>2. -</td>
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<tr>
<td>3. širai'</td>
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</tbody>
</table>

The past-actual paradigm of šik requires further comment. Obviously, since if 1st and 2nd person forms  
exist, these forms are no longer restricted to inanimate  
subjects. (Interestingly, O'Brien (1895) listed no 1st and  
2nd person forms.) These forms are regularly used as  
auxiliaries in forming participial tenses, and can also  
appear as finite verbs with animate subjects, viz. awa i  
waxta i Sapik paciak-o go'na Sadar' ošotam (I one time one  
bread baker with servant was) 'At one time I was a servant  
with a baker.' (Endresen and Kristiansen 1981:223) This is  
further illustrated by the following sentence: awa juwan  
ošotam/*asitam 'I was a young man' [rkb]. According to my  
informant, asitam is not correct in this sentence, and is
participle are the following:

(4) **Actual Present Perfect**: (PRES PERF-A)
    kori asum' 'I have done'

This form consists of PFV PPL plus present tense forms of
    as'ik 'be'.

122) awa hatoGo' sum just biti asum [wur]
    I(NOM) he(OBL) with met become(P PERF)-1s
    'I have met him (so I know him).'</n
(5) **Actual Past Perfect**: (PST PERF-A)
    kori asitam 'I had done'

The PST PERF-A is formed from the PFV PPL plus past tense
    forms of 'be'.

123) angi'ti asitam [rkb]
    bring(PST PERF-A)-1s
    'I had brought it.'/*I had been bringing it/*I used
    to bring it.'

(6) **Inferential Past Perfect**: (PST PERF-I)
    kori asak biretam 'I had done (without realizing it)'

This form consists of PFV PPL plus agent noun of asik 'be'
  plus PST-I forms of bik 'become'.

used only by non-native speakers, especially in a mixed
  language environment like Chitral town.
  Some speakers also have a (regularized?) 3rd sg. form
  osotai, but this is not considered acceptable by all
  speakers.

Paradigm of bik 'become'

**Present/Future-Non specific**

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
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<tbody>
<tr>
<td>1.</td>
<td>bom</td>
<td>bosi</td>
</tr>
<tr>
<td>2.</td>
<td>bos</td>
<td>bomi</td>
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<tr>
<td>3.</td>
<td>boi</td>
<td>boni</td>
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**Past-Actual**

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<tbody>
<tr>
<td>1.</td>
<td>ho'tam</td>
<td>ho'tam</td>
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<tr>
<td>2.</td>
<td>hou</td>
<td>ho'tami</td>
</tr>
<tr>
<td>3.</td>
<td>hoi, hor</td>
<td>ho'ni</td>
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</table>

**Past-Inferential**

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<tbody>
<tr>
<td>1.</td>
<td>bire'tam</td>
<td>bire'tam</td>
</tr>
<tr>
<td>2.</td>
<td>bira' (biret'au)</td>
<td>bira'mi (biretami)</td>
</tr>
<tr>
<td>3.</td>
<td>birai'</td>
<td>bira'ni</td>
</tr>
</tbody>
</table>
Forms constructed with the imperfective participle are:

(7) **Present Perfect Habitual**: (P PERF HAB)

\[ \text{korau asum'} \]  'I have been doing'

The P PERF HAB is formed from the IMPFV PPL + present tense forms of 'be'.

(8) **Past Habitual$$1$$**: (PST HAB$_1$)

\[ \text{korau tam} \]  'I used to do'

This form is constructed from the IMPFV PPL plus the following endings.$^{22}$ It is illustrated in (126-a).

\[
\begin{array}{ll}
\text{Sg.} & \text{Pl.} \\
1. & \text{-tam} & \text{-tam} \\
2. & \text{-tau} & \text{-tami} \\
3. & \text{-tai} & \text{-tani} \\
\end{array}
\]

126-a) \[ \text{hase' noGor'-'a payra' korau' tai [rkb]} \]

\[ \text{he(NOM) fort-LOC watch do(PST HAB$_1$)-3s} \]

'He used to do sentry duty at the fort (and no longer does).'

(9) **Past Habitual$$2$$**: (PST HAB$_2$)

\[ \text{koraur/korauni} \]  'He/they used to do'

126-b) \[ \text{hase' noGor'-'a payra' kora'ur [rkb]} \]

\[ \text{he fort-LOC watch do(PST HAB$_2$)-3s} \]

'He used to do sentry duty at the fort.'

This form appears to be an isolated relict, existing only

---

$^{22}$These endings incorporate a reduced form of the preterite marker //ist// plus the preterital person/number suffixes. Whether or not they should be analyzed as reduced forms of the past tense of 'be', (i.e. osotam/asitam > -tam) is not clear.
for the third person singular and plural.

(10) **Actual Past Imperfective**: (PST IMPFV-A)
    korau' ošotam 'I was doing'

The PST IMPFV-A consists of the IMPFV PPL + past tense forms of the inanimate form of 'be'.

(127) hase gyaw'a awa nivešau' ošotam [if]
    he(NOM) come(IMPF PPL₂) I write(PST IMPFV-A)-ls
    'When he came I was writing.'

(11) **Inferential Past Imperfective**₁: (PST IMPFV-I₁)
    korau asitam 'I was doing(reportedly)/would have done'

This form is made from the IMPFV PPL + past tense forms of 'be(ANIMATE)'. Its indicative use is exemplified in (128-a), and in (129-b) it appears in an irrealis conditional.

(128-a) hase' gyaw'a a'wa nivešau' asitam' [if]
    he come(IMPFV PPL₂) I write(PST IMPFV-I)
    'When he came I was writing (reportedly).

b) tu hani'se no giru'-a awa Galat'
    you(NOM) now not come(PST CTF) I mistake
    kor-au' asitam [if]
    do(PST IMPFV-I)
    'If you hadn't come now, I would have done it wrong.'

The difference between (127) and (128-a) is that (127) reports a situation in which the speaker was aware at the time he was writing that a visitor had come, while in (128-b) he found out later that a visitor had come while he (the speaker) was writing.

(12) **Inferential Past Imperfective**₂: (PST IMPFV-I₂)
    korawa biretam 'I was doing (mistakenly)'

PST IMPFV-I₂ forms are constructed from the IMPFV PPL₂ plus the PST-I forms of bik 'become'.

(129-a) awa Galat' koraw'a bire'tam [rkb]
    I correct do(PST IMPFV-I₂)-ls
    'I was doing (it) wrong (and didn't realize it at the time but found out when someone told me).'
b) *awa poraw'a bire'tam* [rkb]
   I sleep(PST IMPFV-I\textsubscript{3})-1s
   'I would have gone to sleep (e.g. if I hadn't found out that there was something I had to do).'

c) *awa plyakh-o nuroGi' Chake'awa bire'tam*
   I spark plug-OBL upside down put in(PST IMPFV-I\textsubscript{3})-1s
   jam belut' misri' payda' hoi [rkb]
   fortunately mechanic appear(PST-A)-3s
   'I was about to put the spark plug in upside down, when fortunately a mechanic appeared.'

(13) Inferential Past Imperfective\textsubscript{3}: (PST IMPFV-I\textsubscript{3})
   korau asak bire'tam 'I was doing (mistakenly)'

The third PST IMPFV-I form consists of the IMPFV PPL\textsubscript{1} plus the agent noun of asik 'be'(ANIMATE) plus the PST-I forms of bik 'become'.

130) *awa korau' asak' bire'tam* [rkb]
   I do(PST IMPFV-I\textsubscript{3})-1s
   'I was/have been doing it (mistakenly/unwittingly) (and just found this out).'</n
   Forms built with the past participle (and the agent noun) are:

14) Past-Inferential (PST-I)
   bo\textsubscript{Gdu} 'he/they went'

This form, consisting of the past participle without any person/number markers, appears to occur with all persons and numbers. I give examples for 3rd sg. and pl. and 2nd sg.

131-a) *tet-an angar' bo\textsubscript{Gdu} diga angar no they-OBL fire go(PST-I) again fire not lardu [Morg 1947:27]
   find(PST-I)
   'Their fire went out; they couldn't find a fire again.'

b) *ju rafeq-an . bira'ni bathan'-ari bo\textsubscript{Gdu} two companions were country-ABL go(PST-I)
   safar'-o-te pon-a bi boh xezm\textsubscript{A}tiru' journey-OBL-DAT road-LOC going very tired become(PST-I)
   'There were two companions. They left their country on
a journey. (While they were) going on the road, they became very tired." [Endresen and Kristiansen 1981:221]

c) șer-žeri bodol' ma žan-e tu kuri' boGdu
lion-cub B. my soul you where go(PST-I),
'My lion-cub, Bodol, my soul, where have you gone?'
[Wazir Ali Shah and Morgenstierne 1959:56]

With transitive verbs, the subject takes either NOM (132-a) or OBL (132-b) case.\textsuperscript{68}

132-a) hase' rardu [if]
he(NOM) say(PST-I)
'He said.'

b) hatoGo' rardu [if]
he(OBL) say(PST-I)
'He said.'

(15) Past Perfective/Contrafactual: (PST PFV/CTF)
kardu oșotam 'I had done, would have done'

This form consists of the PST PPL plus the past tense forms of 'be(INANIMATE)'.

133) awa hatoGo' diru oșotam [rkb]
I him(OBL) beat(PST PFV/CTF)-is
'I was about to beat him (but I didn't--either because of internal change of mind or because of receiving some external information).'

\textsuperscript{68}The OBL subject is semantically different from the NOM subject usage. According to one informant, the difference between (132-a) and (132-b) is that (132-b) stresses what is said, while (132-a) stresses the agent. The following pair further illustrates the point:

a) bap rardu ki thi\textsuperscript{i} niše [rkb]
old man say(PST-I) COMP stay(CP) sit(IMP2s)
'The old man said, "Sit quietly".'

b) bap-o rardu ki kuche'\textsuperscript{i} kucha'\textsuperscript{i} [rkb]
old man-OBL say(PST-I) COMP stretch(CP) boil
'An old man said, "From scratching you have a boil".'
(Proverb meaning, "You have created trouble for yourself.")

In other words, the OBL subject construction is more patient-oriented, or "like a passive" than the NOM subject construction. It may be that this construction represents the relic of a former incipient ergative-like development which stopped before reaching the stage of those NIA languages with (tensually/aspectually) split-ergativity.
(16) **Past Perfective-Inferential:** (PST PFV-I)

kardu biretam 'I did (reportedly)'

This form is made from the PST PPL plus PST-I forms of bik 'become'.

134-a) hase' paLoG-o žurdu birai' [rkb]

he(NOM) apple-OBL eat(PST PFV-I)-3s

'(I just learned that) he ate the apple.'

b) oho' tonje'iru bire'tam [rkb]

oh ruin(PST PFV-I)1s

'Oh, I have ruined it (and I just discovered this after seeing the bad results).'</n

(17) **Inferential Structural:** (STRUCT-I)

korak birai 'He is a doer/can do (I just realized it); he will do (I just realized it); he used to do (I just realized it).'

This form is the agent noun plus PST-I of bik 'become'.

135-a) awa jam korak' bire'tam [if]

I good do(STRUCT-I)-1s

'(It turns out that) I am doing well.'

b) pesa'ur-o-te no boGak' birai' [if]

P.-OBL-DAT not go(P/F-I)3s

'He is not going to Peshawar (reportedly)'

c) har wezen-a hase nahang' i moš-o i pay-o every evening-LOV that ogre one man-OBL one goat-OBL randežu korag biray kabab do(STRUCT-INF)-3s

'Every evening the ogre used to make kabobs from one man and one goat.' [Endresen & Kristiansen 1981:222]

(18) **Inferential Perfective:** (PFV-I)

kardu asak biretam 'I have done it (wrongly)'

The PFV-I is constructed from the PST PPL plus the agent noun of asik 'be(ANIMATE)' plus the PST-I of bik 'become'.

---

**In this example the original transcription has been retained. The form korag' is certain to be the agent noun with phonetic voicing before a voiced consonant. Note that (135-b) is an instance of the narrative present in an inferential (not directly experienced) context (cf. Kalasha example 52 above).**
136) awa kardu asak' bire'tam [rkb]
I do(PST PFV-I)-ls
'(It turns out that) I (am one of those who) have done it (mistakenly).'

In addition to this basic set of tense-aspect forms, there are three more partially parallel sets of what are functionally tense-aspect forms. One is constructed from the agent noun in -ak plus finite forms of 'be' or where necessary to fill out the paradigm 'become'. These forms in general add the meaning of 'to be a V-er', or 'to be able to V'. For example (137):

137) awa khawar' lyu dyak asum'[rkb]
I(NOM) K. speak(AG NOUN) be-ANIM(P)-ls
'I am a Khawar speaker (i.e. I am able to speak Khowar.)'

A second set of forms consists of the imperfective and perfective participles plus forms of gik 'to come'. (cf. above for the corresponding Kalasha forms.) One such pair of forms is illustrated in (138).

138-a) awa korau' gom-an [if]
I(NOM) do(IMPFV PPL) come(P-S)-ls
'I have been doing it for some time (and will probably go on doing it).

b) awa hatoGo sum mulaQat himiSa kori go'man [sn]
I him with meeting always do(PFV PPL) come(P/F-S)ls
'I have been meeting him (on a regular basis) in the past (and now also).'

These forms in gik 'come' and bik 'go' are comparable in both form and (aspectual) function to the Urdu and Hindi forms kartaa aaya and kartaa gaya respectively. The range of gik forms appears in Fig. 3, but a full illustration and discussion of them is beyond the scope of the present work.

It would appear that there may also be a parallel set of forms in PFV PPL plus bik as in (?) awa mulaQat kori bim 'I will go on (regularly) meeting him', but I have no example of such a form.
Yet a third set of forms consists of the imperfective participle plus finite forms of bik 'go', e.g. (139).

(awa) korau' boGak' bire'tam
I(NOM) do(IMPFV PPL) go(PORT NOM) become(PST-1)-is
'(It turns out that) I have been doing it for a long time.'

The Khawar verb system can be informally described in terms of a tensual opposition between PAST and NON-PAST; a basic aspectual opposition between DURATIVE and NON-DURATIVE, with further differentiation of the DURATIVE into habitual, progressive, and assertative continuative, and with a crosscutting distribution of PERFECT and NON-PERFECT; and an epistemological opposition between the direct experience ACTUAL and the INFERENTIAL categories. Progressive is treated as it is for Kalasha, both as an aspectual category and as a degree of reality, for much the same reasons.

2.2.4. Non-indicative system

Khawar has five morphologically distinct non-indicative forms. (1) Immediately to the right of the STRUCTURAL/PREDICTIVE degree on the axis of REALITY are found the sets of forms employed in irrealis conditions. The true subjunctive forms are used in the apodosis of contrary to fact conditional sentences at the level of direct (non-inferential) experience, illustrated in (140).**

**The characteristic subjunctive suffix is -es-. The paradigm is illustrated for korik 'to do'.

<table>
<thead>
<tr>
<th>Sg.</th>
<th>Pl.</th>
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<tbody>
<tr>
<td>1. koresam</td>
<td>koresam'</td>
</tr>
</tbody>
</table>
134

140) ta ban no diru'a sabaq-o-te no you(OBL) punishment not give(CTF) lesson-OBL-DAT not boGe'su [if]
  go(SUBJ)-2s
  'If you had not been punished you would not have gone to school.'

Forming a minimal pair with this sentence is (145), in which the PST IMPFV-I form of the type korau asitam is used to represent the same situation, but at the inferential level.

141) ta ban no diru'a sabaq-o-te no you(OBL) punishment not give(CTF) lesson-OBL-DAT not boGau' asitau [if]
  go(PST IMPFV₁)-2s
  'If you had not been punished you would not have gone to school.'

The difference between (140) and (141) is that in the former, with the subjunctive in the apodosis, the speaker knew that this would be the consequence at the time of punishment, while in (141), with the inferential form in the then-clause, he only realized that this consequence resulted from his action afterwards - on the basis of some information acquired after administering the punishment.

The form consisting of past participle plus -a, e.g. kardu-a, is used in the protasis of both actual and inferential irrealis conditionals. This use can be seen in (140) and (141) above. It can also convey the sense of an unfulfilled wish, as in (142).

2. koresu' koresi'mi
3. koresir' koresi'ni

*I am most grateful to Inayatullah Faizi for this minimal pair, which illustrates the meaning difference between these two forms so nicely.*
142) awa hataGo’ kardu’a [rkb]
   I that(OBL) do(CTF)
   'Would that I had done that!'

(2) The imperative/hortative degree is represented by a suppletive paradigm with forms functioning as imperatives for all persons except first singular. The imperative/hortative degree is represented by a suppletive paradigm with forms functioning as imperatives for all persons except first singular. The imperative/hortative degree is represented by a suppletive paradigm with forms functioning as imperatives for all persons except first singular. The imperative/hortative degree is represented by a suppletive paradigm with forms functioning as imperatives for all persons except first singular. The imperative/hortative degree is represented by a suppletive paradigm with forms functioning as imperatives for all persons except first singular.

(3) An optative form exists, but so far as I have been able to determine, only for the verb bik 'to become' (bai 3sg, bani 3pl.). This form occurs in the complement clauses of verbs of wishing, requesting, and ordering; and in matrix clauses with an optative sense. These usages are illustrated in (143) and (144) respectively.

143) hokumat’ hokum prai ki ta
government order give(PST-A)-3s that you(OBL)
bandi’ koro’nu bai [rkb]
arrested do(PASS PPL) become(OPT)
'The government ordered that you be arrested.'

144) chuci-o Tem-a igan’ ay’kun saf-o-t
morning time-LOC one each egg all-OBL-DAT
diy(o)’nu bai [rkb]
give(PASS PPL) become(OPT)-3s
'In the morning time one egg should be given to each one.'

As in Kalasha, there are two types of necessitative

The personal endings used with imperative-hortatives are:

<table>
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<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
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<tbody>
<tr>
<td>1</td>
<td>Ø</td>
<td>-si</td>
</tr>
<tr>
<td>2</td>
<td>-e(h)</td>
<td>-ur’/-or/-awer’</td>
</tr>
<tr>
<td>3</td>
<td>-ar’</td>
<td>-a’ni</td>
</tr>
</tbody>
</table>

According to Morgenstierne (1947:21-2), the first plural form is homophonous with the "aorist" (=my P/F-NS). The 3rd sg. and pl. forms are historically descended from ancient subjunctives. He also notes a 3rd sg. hortative form šiur’, in the sentence Quwatin-o-te šiur’ ke . . . .' 'It behooves the rich that . . . .' (attested in the translation of the Ganj Pakhto by Khan Sahib Abdul Hakim Khan. Calcutta, 1902). This form may be cognate with the Kalasha hortative forms in -ori, which, however, are much more fully developed (preserved?).
constructions—(4) one in INF-o baS, and (5) a second in -eli(k). Their use is illustrated in (145) and (146).

145) ma peša'ur-o-t bik-o baS [rkb]
I(OBL) P.-OBL-DAT go(INF)-OBL NEC
'I have to go to Peshawar.'

146) pušur' nig-e'li(k) [rkb]
meat wash-NEC
'The meat needs to be washed.'

When asked about the difference in meaning between the forms in -eli(k) and those in baS my informant said that there was no difference, both forms applying equally well in situations involving either internal or external compulsion. Further textual study may shed light on the distribution of these forms. Regarding the alternation of -eli and -elik, the historically prior form seems to be -elik. This variant is more common in Upper Chitral, considered to be the Khawar-speaking heartland, than in Lower Chitral.**

Applying the tense-aspect-mood model to the Khawar verb system, we obtain the structure represented in Figure 4.

**This form appears to be borrowed from Turkic. For a discussion of this point, see 7.2.3. below.
<table>
<thead>
<tr>
<th>Khowar Verb System</th>
<th>IRREALIS</th>
<th>IMPER/HORT</th>
<th>OPTATIVE</th>
<th>NECESS₁</th>
<th>NECESS₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koresam</td>
<td>Šar</td>
<td>Pass</td>
<td>Korik</td>
<td>Korik-o</td>
<td>bās</td>
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<td>Koraw asitam</td>
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<tr>
<td>Korawa Diretam</td>
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</tbody>
</table>
2.3. Comparison of the Kalasha and Khowar systems

Let us compare the Kalasha and Khowar verb systems, considering each of the conceptual axes in the model. We note that the axis of REALITY shows eight morphologically distinguished degrees in both Kalasha and Khowar.\(^7\)

The epistemological axis of EXPERIENCE has five levels in Kalasha, and four in Khowar.\(^1\)

With regard to ASPECT, Kalasha has a two-way privative opposition between marked durative and unmarked non-durative, with a further differentiation of the non-durative into perfect and non-perfect forms. Khowar has a basic two-way opposition between durative and non-durative with further differentiation of the durative into habitual, progressive, and continuous categories. In Khowar the PERFECT/NON-PERFECT opposition cuts across both durative

\(^7\)Degrees of reality for purposes of analysis in terms of this model are defined as morphologically, rather than semantically distinct. The consequences of this decision are as follows. Since future meaning in Kalasha is represented by the P/F-S or P/F-NS forms, a separate degree for FUTURE is not established. On the other hand, since there are two distinct necessitative morphemes in both Kalasha and Khowar, there are two degrees for NECESSITATIVE in both languages. In Khowar, since realis conditionals are expressed with forms identical to the simple PST-A, a separate degree is not established for CONDITIONAL reality. In Kalasha, on the other hand, since conditional forms are expressed with the subjunctive, they do occupy a position distinct from the structural degrees.

\(^1\)If the distinction between Khowar kom with present time reference and koman were taken (as for Kalasha) to be one of specificity, then the number of levels of EXPERIENCE would be four. If it turns out to be better analyzed as an aspectual difference, or a progressive marking as I have considered it here, then the number of levels in Khowar is three. This question requires further research for a more definitive resolution.
and non-durative aspects (viz. the P PERF HABITUAL forms).

Thus we see that in Kalasha the epistemological axis of EXPERIENCE is somewhat more elaborated than that of Khowar, while in Khowar the aspeetual axis, particularly in the durative range, shows greater differentiation. The following tabular comparison of the basic forms of both languages reveals the elaboration of the Khowar aspectual system. In the left-hand column are given the basic Kalasha forms. Directly opposite each, in the right-hand column, is given the semantically corresponding Khowar form. It will be seen that there are eight basic Khowar forms for which there are no corresponding simple Kalasha equivalents.

<table>
<thead>
<tr>
<th>Actual level</th>
<th>Kalasha</th>
<th>Khowar</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/F-NS</td>
<td>kar’-im</td>
<td>kom</td>
</tr>
<tr>
<td>P/F-S</td>
<td>kar’-im-dai</td>
<td>kom-an</td>
</tr>
<tr>
<td>PRES PERF</td>
<td>kai·a’am</td>
<td>kori asum’</td>
</tr>
<tr>
<td>PRES PERF HAB</td>
<td>-</td>
<td>korau’ asum’</td>
</tr>
<tr>
<td>PAST-A</td>
<td>a’ris</td>
<td>are’tam</td>
</tr>
<tr>
<td>PAST HAB₁</td>
<td>-</td>
<td>korau’ tam</td>
</tr>
<tr>
<td>PAST HAB₂</td>
<td>-</td>
<td>koraur/korauni</td>
</tr>
<tr>
<td>PAST PERF-A</td>
<td>kai ay’is</td>
<td>kori asitam</td>
</tr>
<tr>
<td>PAST IMPFV-A</td>
<td>kari’man ay’is</td>
<td>korau’ ošotam</td>
</tr>
<tr>
<td>PST PFV-A</td>
<td>-</td>
<td>kardu ošotam</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inferential level</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRUCTURAL-I</td>
</tr>
<tr>
<td>PAST-I</td>
</tr>
<tr>
<td>PAST IMPFV-I₁</td>
</tr>
<tr>
<td>PAST IMPFV-I₂</td>
</tr>
<tr>
<td>PAST IMPFV-I₃</td>
</tr>
<tr>
<td>PAST PERF-I</td>
</tr>
<tr>
<td>PAST PFV-I₁</td>
</tr>
<tr>
<td>PAST PFV-I₂</td>
</tr>
</tbody>
</table>

With regard to degrees of reality, an important difference between the development of the REALITY axis in
Kalasha and in Khowar is that in Khowar the IRREALIS degree is more sharply differentiated from the POTENTIAL-HYPOTHETICAL: the subjunctive forms are used almost exclusively in contrafactual situations. In Kalasha the situation can be described as follows: the forms which express the POTENTIAL-HYPOTHETICAL degree of reality and the IRREALIS are both (semi-agglutinative) developments of the basic structural degree. The POTENTIAL/HYPOTHETICAL degree ("subjunctive" and "optative" consist of the structural degree plus pe for the optative, pe hawau for the conditional or hypothetical; and the irrealis degree is constructed from the structural forms plus dya/dvapa. The status of these particles is midway between analytic and morphological accretion.

A particularly interesting comparison can be drawn between the full range of constructions used in Kalasha for inferential meanings and those used in Khowar for the same semantic range. First, we saw above that Kalasha verbs are morphologically specified for inferentiality-actuality only in the past tenses. The semantic distinction between inferential and non-inferential meanings, however, is maintained throughout the whole system. Recall that the means employed to do this was to append hula, the PST-I 3rd sg. of hik 'to become' to non-past finite forms. Turning to Khowar, we see that of the eight [+INFERENTIAL] forms, six of them are constructed with participle, agent noun, or participle plus agent noun plus the PST-I of bik 'to
become' in all persons and numbers. The PST IMPFV-Iₙ, korau' asitam, acquires its [+INFERENTIAL] meaning by contrast with the [+ACTUAL] korau' osotam. The eighth, the PST-I, consists of the past participle, and acquired its inferential semantics from the old parokSa meaning of the OIA perfect (see below).

Thus we have complete semantic parallelism, in that the direct/inferential opposition is maintained throughout the tenses in both languages, with the same range of possible meanings, but formal non-parallelism. The formal non-parallelism consists in the fact that in Kalasha

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In contrast to the situation in Kalasha, the verb as'ik 'to be-animate' has only one past tense form, i.e. asitam 'I was', for both actual and inferential meaning. Šik 'to be-inanimate' also has only one past tense form, viz. osot 'it was', for both actual and inferential meaning. The uses of these past tense forms and the system of oppositions have readjusted themselves so that the past tense forms of šik have become applicable to animates. That is to say, in the case of the PST IMPFV-I korau osotam, a form originally marked for the animacy/inanimacy opposition has switched its function to operate within the actual/inferential opposition. This makes two forms— asitam and osotam available for the past auxiliary. Where a pair of forms exists, one in asitam and one in osotam, as with the pair korau asitam/korau osotam the form in asitam has taken on inferential meaning. This semantic change is indicated on the verb system diagram by a dashed line showing the reconstructed diachronic movement of the form korau asitam from its position of (formal) systemic origin to the (semantic) niche it now occupies. It appears that korau osotam has "displaced" korau asitam, forcing it into what appears to be the closest available semantic niche in the verb system, and thus filling a gap in the system at the inferential level. Where such a pair does not exist, as with kori asitam/kori osotam, asitam retains its actual experience semantics. The gap in the system, that is, the inferential counterpart of kori asitam, is filled by a form constructed from the agent noun of asik and the PST-I form of bik, in this case kori asak biretam. See note 61 above also.
inferentiality is encoded both by full paradigms employing the forms of 'be' marked for [+INFERENTIAL] and [+ACTUAL] meaning, and by hula, the PST-I form of 'become', while in Khwar, (with the exception of the PST-I and the PST IMPFV-I), bir-, the PST-I form of 'become', is the sole means of coding inferentiality.

This raises interesting diachronic questions: Is the present shape of the Kalasha PST-I the result of a (recent) collapsing of PST-I forms which formerly included the PST-I of hik 'become'? That is, are forms like asta-him, gala-him, in which him appears to be the P/F-NS-1s of hik 'become', perhaps collapsed versions of *asta hula-him or *gala hula-him? There are some indications that this could be the case. First, such a change would involve only loss of redundant morphology. Since the PST-I form is already marked for [+INFERENTIAL] by virtue of its stem selection, the morpheme hula would not serve any essential function. What is not redundant, however, is the person and number marking supplied by the -him component. So, possibly the PST-I was originally of the form *gala hula-him, and the 1st and 2nd persons have subsequently lost the morpheme hula. A second consideration arises from comparison of the set of sentences displayed in (146). a dita him (*hula) a gala him (*hula)

\[\text{73Here the asterisk } \text{indicates hypothetical reconstructed forms.}\]

\[\text{74In (146) the } \text{indicates forms not accepted by informants.}\]
'I gave (reportedly)'

mai daada ama krom kai asta hula
mai daada ama krom kada hula
'My father had done/did this work (reportedly)'

Notice that in the first person **hula** may not follow the
finite form, while in the third it may. This may reflect a
situation reconstructable as:

* gala hula him > gala him\(^7\)
* dita hula him > dita him
* dita hula > dita (hula)

Unfortunately I do not have any evidence, positive or
negative, as to whether forms like (?) **gala hula him** are
acceptable as alternate forms of **gala him**.\(^7\)

Even if this hypothesis is correct, the non-
parallelism remains, since Kalasha but not Khowar has both
[+INFERENTIAL] and [+ACTUAL] forms of 'be' (cf. 1.5.3.3.
for the paradigms).

The historical development seems to be as follows.
The seen/unseen distinction was present in OIA. Deshpande
(1981:62) based on analysis of Panini's rules P.3.2.111,
and P.3.2.115, concludes that in Vedic Sanskrit the three
preterital tenses were specified as follows:

<table>
<thead>
<tr>
<th></th>
<th>aorist</th>
<th>imperfect</th>
<th>perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>+past</td>
<td>+past</td>
<td>+past</td>
<td></td>
</tr>
<tr>
<td>+recent</td>
<td>-recent</td>
<td>-recent</td>
<td></td>
</tr>
<tr>
<td>+/-seen</td>
<td>+seen</td>
<td>-seen</td>
<td></td>
</tr>
</tbody>
</table>

\(^7\)\(\star\) in this paradigm indicates hypothetical
reconstructions.

\(^7\)This gap can easily be remedied by further
fieldwork. One possibly relevant bit of information is a
form cited by Trail and Cooper (1987:301), **hula hik**, which
is glossed as an "alternate pronunciation of **hula**". There
is, however, no illustrative sentence for this form.
The +/-seen distinction, in the absence of any mention of it, appear not to have existed in the non-past tenses; In later Sanskrit, however, and in MIA and NIA, this distinction is lost.\(^7\) In Kalasha the old -\(\text{-ta}\) participles (>PST-I forms) took on the paroksa (unseen>inferential) value, while the finite preterite (PST-A) which developed from the aorist and imperfect retained the [+seen] (+ACTUAL) specification. Thus it appears that in Kalasha the (basic) actual/inferential distinction is inherited from OIA, while its later development and the proliferation and elaboration of its semantics has taken place under the influence of Turkic (or, less probably, Tibeto-Burman). The hula 'become' morphological stratum with its associated semantics thus seems to be a later accretion.

Since most of the function of marking inferentiality in Khowar is accomplished by the PST-I of 'become' bir-, the question of the historical relationship between Kalasha hula and Khowar birai presents itself. In Khowar, bik 'become' appears to be the only verb for which complete person-number paradigms for both actual and inferential past tenses is coded in basic morphology (biretam PST-I vs. hotam PST-A). Other PST-I forms employ the bare past

\(^7\)Emeneau (1966:124) says, "... the general equation in meaning of the three past tenses, imperfect, perfect, and aorist in classical and epic Sanskrit is certainly different from the Rigvedic state of affairs." Meenakshi's observation (1983:162) that "a few instances are available in the Epics where the perfect is used in the first person, but none of them (satisfies the condition in Panini III.2.115)" (cf. note 17 above) is consistent with this.
participle in all persons and numbers. Further actual/inferential contrasts are accomplished by appending bir- to non-finite forms. Now bir- appears to be formed from the past participle (cf. OIA -ta participle) plus preterital person-number endings, in the same way as Kalasha PST-I forms consist of the past participle plus personal endings (for 1st and 2nd persons). The fact that bir- is the only form so constructed in Khowar suggests its acquisition as a result of influence from Kalasha hula. Once the PST-I form bir- had entered the language, inferential counterparts for all tense-aspect forms could be constructed regularly from it. This regularity, both of the bir- forms themselves and of the paradigms constructed with them, also points to the more recent (re-?) introduction and spread of inferentiality marked forms in Khowar as compared to Kalasha.

2.4. Comparison of Kalasha and Khowar with other verb systems

Juxtaposing the diagrams representing the Kalasha and Khowar systems with those for prototypical Turkic and Iranian (Ch. 1, Figs. 3 and 4), we note that for Persian there are two levels of EXPERIENCE, and three DEGREES on the axis of REALITY. For Turkic, two levels of EXPERIENCE are identified, and in a complete representation of Azari Turkic there would be seven positions along the axis of
Now let us examine a representation of the verb system of Urdu and Hindi, using the same model. This is displayed as Figure 5 below.

A few comments on the treatment of various categories are in order. First, in this analysis the forms based on the -ta participles, variously called in the literature "present" or "imperfective" participle, have (a) because of their participating in a full set of forms parallel to those formed on the -va participles (cf. "past" or "perfective" participle), and (b) because the distinction between the -ta and the-va forms is neither only tensual nor only aspectual, I have considered the -ta forms as [-specific] and the -va forms as [+specific].

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78 Windfuhr (1987:14) lists these as: Progressive, Deictic, Structural, Predictive, Necessitative, Adhortative, and Optative. Figure 2 in Ch. 1, based on his Figure 6 (1987) shows only four of these.

79 This diagram originated in a list of verb forms supplied by Peter Hook to Gernot Windfuhr, to whom I am grateful for sharing them with me. This schematization, however, includes additional forms supplied by me, and differs considerably from a suggested draft version prepared by Windfuhr.
Second, since the INF(OBL)-waalaa forms in Urdu have two distinct though related semantic functions—they encode both a necessitative meaning, e.g. *veh kapRe dhonewaale haa* 'These clothes need to be washed', and a predictive-prospective meaning as in *max pesawar jaanewaala haa* 'I am about to go to Peshawar'—they appear at at the PREDICTIVE (the prospective meaning) and the NECESSITATIVE values on the axis of REALITY.

In terms of the axes of the model, the salient features of the Urdu system are summarized here. On the axis of REALITY Urdu has eight degrees: ASSERTATIVE, PHENOMENAL, DEICTIC/STRUCTURAL/(REALIS)CONDITIONAL, IRREALIS, POTENTIAL/HYPOTHETICAL, PREDICTIVE, NECESSITATIVE/PREDICTIVE, and IMPERATIVE. Note that the left side of the REALITY axis is highly differentiated, having both distinct PHENOMENAL and ASSERTATIVE degrees.

The aspectual axis is also highly differentiated. There are several degrees of imperfectivity: the unmarked imperfective constructed with the -ta participle; iteratives consisting either of the -va participle plus the imperfective of the verb karnaa 'to do' plus a finite form of 'be', or or the -ta participle plus finite forms of rahnaa 'stay'; and the progressive formed from the verb root plus a finite form of the verb rahnaa 'to stay, remain'. I have ranged the perfective compound verb forms in verb root plus finite form of 'go'/'give' along this axis also because in Hindi and Urdu these must be
considered central to the morphology of the verb system.\textsuperscript{66} Note that some of this extreme differentiation has been assigned to the axis of REALITY and some to ASPECT. It is possible also that the difference between the -\(ta\) and the -\(va\) forms could be located on the ASPECTUAL axis.

On the axis of EXPERIENCE there are three levels: \([-\text{specific}] \sqsubset [-\text{presumptive}], [+\text{specific}] \sqsubset [-\text{presumptive}], \text{and} \ [\emptyset \text{specific}] \sqsubset [+\text{presumptive}].\) The presumptive meaning is seen in a sentence such as \(\text{woh aa rahaa hogaa 'he must be/is probably coming'.}\) Inferentiality is not coded in basic verb morphology in Urdu and Hindi.

The axis of NARRATION, which reflects relations of events to other events, reflects the opposition between continued relevance to present and past situations.

Comparing the structure of Kalasha's verb system with that of Urdu, we note striking differences. The most noticeable is the absence in Urdu of the morphological category of inferentiality which is so pervasive in both the Kalasha and the Khawar systems. A second difference is the greater elaboration of the left sides of the axis of REALITY in Urdu than in either Kalasha or Khawar. A third noticeable difference between Kalasha and Urdu is the greater elaboration of the aspectual axis in Urdu, especially in the imperfective area. Khawar's position with respect to this is intermediate between Kalasha and

\textsuperscript{66} For discussion of the perfective nature of these compound verb forms see Hook (1978, 1985).
Comparing the structures of the verb systems of all these five languages, we notice several things: (1) The axis of REALITY shows differing segmentation and degrees of differentiation in these languages. The proliferation of forms at the left end of this axis is unique (among these languages) to Urdu, (unless the Khowar forms in IMPFV PPL plus gik 'come' and bik 'go' are truly comparable in importance to the corresponding Urdu forms). It may be also that these Khowar forms represent some influence from Urdu. The fact that these forms are less integrated into the verbal system in Kalasha than in Khowar would seem to suggest such a hypothesis. The treatment of IRREALIS differentiates Kalasha from Khowar. Figure 6 schematically compares the partitioning of the axis of REALITY for these five languages.
<table>
<thead>
<tr>
<th>Language</th>
<th>Phenomenal/Deictic</th>
<th>Structural/Predictive</th>
<th>Potential</th>
<th>Irrealis</th>
<th>Hortative</th>
<th>Necess-Sitativè 1</th>
<th>Necess-Sitativè 2</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kallasha</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khowar</td>
<td>Assertative</td>
<td>Deictic/Phenomenal</td>
<td>Structural/Predictive/Potential/</td>
<td>Irrealis</td>
<td>Optative</td>
<td>Necess-Sitativè 1</td>
<td>Necess-Sitativè 2</td>
<td>Imperative</td>
</tr>
<tr>
<td>Urdu</td>
<td>Assertative</td>
<td>Phenomenal</td>
<td>Deictic/Structural</td>
<td>Irrealis</td>
<td>Hypothetical</td>
<td>Predictive</td>
<td>Necess-Sitativè</td>
<td>Imperative</td>
</tr>
<tr>
<td>Persian</td>
<td>Phenomenal</td>
<td>Deictic</td>
<td>Potential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkic</td>
<td>(Phenomenal)</td>
<td>Structural</td>
<td>Predictive</td>
<td>Hortative/Imperative</td>
<td>Necess-Sitativè</td>
<td>Optative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 6. - Comparative Partitioning of Reality Axis
Kalasha and Khowar are similar in the pervasiveness of inferentiality in the system. In Persian the category of inference is confined to the past tenses whereas in Turkic languages it is generalized "to express what may be called relative evidence." In this respect, both Kalasha and Khowar are closer to the Turkic pattern than to either the Iranian or that variety of Indo-Aryan exemplified by Urdu or Hindi. It is a matter of historical record that various groups of Turkic-speaking peoples have migrated into the Chitral area at various times. Given that history shows long proximity between speakers of Turkic languages (e.g. Kirghiz, Uighur) with the Wakhi and Khowar speaking areas, it seems that convergence phenomena involving Turkic languages and Wakhi, Khowar and Kalasha are worth closer study.

\footnote{Windfuhr (1985:431) referring to Haarmann (1970) on the Turkic languages.}
CHAPTER 3

TRANSITIVITY AND CAUSATIVITY RELATIONS

3.0. Theoretical background and plan of chapter

Transitivity and causativity relations formally marked on the verb, in particular morphological causatives, have attracted much attention from South Asianists. Their salience in the morphology of the better studied languages of the area, for example Urdu kaTnāa 'to be cut', kaaTnāa 'to cut', katwaanaa 'to have (s.o.) cut' has led Masica (1976, Chapter 3) to examine these constructions as potential defining features for the South Asian linguistic area. He finds (ibid.:103) that while these constructions are not uniformly distributed in the languages of the area, and morphological causative development is not an area-defining feature, the "Indian subcontinent is one of the main centers for the development of causative morphology in the Old World." (ibid.:100) As such it is one of the core areas of the most intensive development of causative morphology, i.e. the development of second causatives (e.g. Urdu khilaanaa 'to feed', khilwaanaa 'to have s.o. feed; to have fed').

How do the relatively less studied NWIA ("Dardic")
languages fit into this larger picture? These languages are represented in Masica's study only by relatively limited data on Kashmiri and Shina. Based on these data, the situation with respect to causatives in the NWIA borderland region is unclear. For example, the Shina data would seem to put NWIA into the anti-causative area which includes almost all of northern Eurasia, but outside of the second causative region. Kashmiri, on the other hand, has second causatives but no synchronic anti-causatives. More recent research indicates, however, that the Shina situation is more complex, and that formally double causative forms do exist.¹

Before proceeding further, let me specify the senses in which I shall be using the key terms in this chapter. Following Masica, and to facilitate integration of these data into the discussion begun by him, I shall also use the set of terms and symbols which he has adopted from the work of Nedyalkov and Silnitsky². Recapitulating Masica's summary, (ibid.:55-6), the key terms are:

\[ V_1 = \text{non causal verbal base (transitive or} \]

¹Forms in which the causative morpheme -ar- is doubled are exemplified by marararoiky 'to have s.o. killed by s.o.'. Compare (a) and (b).

a) mas dono maarēegas (\[//mararoiyk// 'to kill'] [maz]
   I-ERG bull die-Cs-PST-lsg
   'I killed the bull.'

b) mas - dono maarrēegas (\[//marararoiky//]) 'to have [maz]
   I-ERG bull die-Cs-Cs-PST1sg killed by s.o.')
   'I got the bull killed (by s.o.).'

intransitive) $V_1 = a$ derivative of $V_2$; first degree causative

$V_2 = a$ derivative of $V_3$; second degree causative

in which subscripts indicate the derivational degrees. The superscripts \( ^{\text{intransitive}} \), \( ^{\text{transitive}} \), \( ^{\text{first causative}} \), \( ^{\text{second causative}} \), and \( ^{\text{anti-causative}} \) indicate "intransitive", "transitive", "first causative", "second causative", and "anti-causative" respectively.³ An anti-causative derivative is an intransitive verb which is derived from a basically transitive verb base. Anti-causatives thus have lower valence but are (morphologically) more complex than the basic transitives from which they are derived. So, for example, anticausative derivation is symbolized by $V_1^{\text{transitive}} > V^{\text{anti-causative}}$.

One of the objectives of this chapter is to make a contribution toward filling out the picture for the NWIA languages by enabling data from Kalasha and Khowar to be

³In this discussion "transitive" and "intransitive" refer only to valences, i.e. the number of participant roles in the case frame of a verb: an intransitive verb has valence 1, a transitive valence 2, a ditransitive valence 3, etc. Conceptual refinements of the type discussed first by Hopper and Thompson (1980) are not considered here.

The term "causative" will be used to refer to matters of form or morphology—either to derivational stage, e.g. "first causative", or to the morphemes \(-\text{aw}-\) and \(-\text{aw}-\). Thus a given form may sometimes be referred to by either "first causative" (a morphological/formal description) or "derived transitive" (a term referring to valency), depending on the exigencies of the context. To refer specifically to the semantics of cause and effect relations I will use capitalized "CAUSATIVE". It will often be the case, however that a given form is both "causative" and "CAUSATIVE". The reader should note that in my discussion neither "causative" nor "CAUSATIVE" is assumed to be synonymous with "valence-adding".
taken into consideration. A second aim is to point out some of the unique fine-grained features of Kalasha causative constructions. Given that the "Dardic" region is linguistically so complex, both genetically and geographically, identification of some of these more fine-grained features may prove helpful in teasing out the characteristics of this transitional zone with respect to larger sprachbund configurations.

In the first section I discuss the morphology of Kalasha transitivity-causativity sets. The second section deals with syntactic points, the third with some semantic and diachronic questions, and the fourth with areal and typological ramifications.

3.1. Morphology
3.1.1. Derivational processes

3.1.1.1. -a'- causatives. There are two causative-derivation processes in Kalasha. The first-level process--addition of a transitivizing morpheme -a' (< OIA -a'ya)---operates on both intransitive and transitive roots. With most intransitives, e.g. verbs of motion like uST'-'rise, get up'-a' can be added, creating a transitive stem, uST-a'-'to raise, lift'. Transitive roots, e.g. hōD-'skin (an animal)' or pi-'drink' may or may not allow the valence increasing morpheme, depending on further semantic subclassification. The verb hōD-'skin', for example, does

There may be a small class of intransitives which do not allow transitivization with -a'; cit-'think' may be one such verb.
not allow this derivational step, so we do not get *hbd'ek* (< hbd-a'-ik), but the verb pi- 'drink' does, giving the pair pik and piek' (< pi-a'-ik) 'to cause to drink'.

Transitive roots which allow this valence-increasing derivation with -a'— fall into two sub-types. One is a class of verbs denoting actions performed on the exterior surface of the human body; the other refers to actions performed on the interior of the body, either physically or mentally. With the first subset of verbs the meaning of the basic form is to perform a given action on one's self, while the derived form means to perform that same action on another person. This is the "anti-reflexive" semantics noted by Nedyalkov and Silnitsky (1973:18). The prototypical example of this class is sâbi'ik 'to put on

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^At this point the reader may be wondering why I have chosen to describe this first-level valence adding derivation as the affixation of -a'— rather than simply in terms of infinitives in (')-ik(') and those in -ek'. The reason is that the -a'— shows up in several places in the surface morphology of Kalasha. First, there are a few transitive verbs which have two alternate forms in the infinitive, e.g. Ziga'ik/Zige'ek', both forms of which mean the same 'to smoke (pipe or hookah)', of khoša'ik/khosek' 'to choose, like, love'. Second, there are a few transitives which have only an infinitive in -a'ik—, e.g. sâqa'ik 'to hear, feel' or hara'ik 'to swallow'. Third, when the infinitive of transitive verbs in -ek' appears in its oblique form or in certain compounds, the -a'— shows up. For example: from naš— 'die', we have naš'ik 'to die', and našek' 'to kill'. But in the oblique INF in the postpositional phrase naša'ik-as pati 'for the sake of killing', or in the compound naša'ik-wew 'time of killing', the -a'— shows up. When the infinitive of thek 'put' is in NOM form it appears as thek, as in: bo moc alyu' thek ne jhon'an [Simb] 'Not many people know how to store potatoes', but in OBL form as tha'ik as in alyu' thaik'-as tarika' sehê ši'ü [Simb] 'the method of storing potatoes is like this'. It also shows up regularly in the second (-aw— causatives.
(one's own clothes)', and säbiek' 'to put clothes (on someone else)'. The second sub-type includes the class of verbs called "ingestive" by Masica (1976:58). With this set of verbs the meaning of the basic form is to do the action oneself, e.g. 'to drink', and that of the derived form either to help or make someone else do the action by contactive causation, e.g. piek' 'to make drink', or 'to help to drink', or Cic'ik 'to learn' and Cic'ek' 'to teach'.

Conjunct verbs--those consisting of a nominal or adjectival element with the semantically bleached verbs 'become' creating intransitives and 'do' creating transitives--achieve this first level of causativization in several ways. (1) N hik > N -ek' e.g. Duk hik 'to meet (e.g. on the road) and Dukek' 'to bump against something', (2) N hik > N hek as with  åga' hik 'to be/stay awake' and åga' hek 'to awaken', (3) N hik > N ka'rik, e.g. payda' hik 'to appear', payda' ka'rik 'to produce, cause to appear', (4) N hik > N karek' as with just hik 'to come together (of people)' > just karek' 'to join together (of people)'. The fact that four different forms of derivation can be identified here does not mean that there are four distinct meanings, each one associated with one form. It is a result of the fact that a first causative from hik can be achieved either morphologically in hek or analytically in ka'rik, and also that sometimes kar'ik and its first causative karek' often have the same meaning.

3.1.1.2. -aw- causatives. The second level of
causative derivation involves the morpheme -aw- (< OIA -aapava-). Verb root + -aw- + -a' + -ik yields a second causative derivative, e.g. karawa'ik 'to have done (by someone); to make someone do'. The formation of these second causatives is regular; infinitives all terminate in -awa'ik, and -aw- causatives do not have augmented past stems. This process is very productive in Kalasha. It seems that almost all verbs can form second causatives in -aw-; those few that were rejected by my informant involved internal mental or physical states. For example, from zrand hik 'to be startled' we have zrand kar'ik 'to startle', but *zrand karwa'ik was not accepted, I suspect for pragmatic rather than other reasons. The same applies to roS hik 'to be angry', roS ka'rik 'to be angry, ~karek' and *roS karawa'ik.

In order to express the idea of causing someone to be angry, a different construction is used. The first causative of the verb 'bring (inanimate object)' (on'ik) < on'ik) is employed as the analytic "empty" causative verb instead of karik. For example: a a'sa kahar' onem 'I will make him angry (intentionally, as by teasing)' (Literally, 'I will make him bring anger.'). A similar idiom, using 'come', 'bring', and 'cause to bring' to denote involuntary vs. controlled anger and the notion of causing to become angry is also employed in Burushaski. Compare (a - c).

a) *-moos juuyas 'to become angry (involuntarily)' (lit. 'anger come affecting s.o.').
   pfute buit i-moos diimi
demon very 3s-anger come(PST)3s
   'The Div became very angry.'

b) *-moos dusuuyas 'to become angry (with some control)' (lit. 'to bring anger affecting bringer'.
   ine guus mu-moos dusu boom
   the woman 3s,hf-anger bring(PST PERF)-3s,hf
   'This woman became angry.'

c) *-moos di'atsas 'to make s.o. angry' (lit 'to make s.o. bring anger affecting causee').
   a-moos a-t-a-atso
Regarding the formation of -aw- causatives with new borrowings, new verbs are entering the language not as basic verbal roots but in the form of conjunct verbs, i.e. adjectival or nominal element plus (most often) a finite form of hik or kar'ik; e.g. madat' hik 'to be of help to someone (by helping him to do a piece of work)' and madat' kar'ik 'to help someone (e.g. financially). madat' kar'ik forms the second causative madat' karawa'ik from the -aw- causative of kar'ik.

Should -aw- second causatives be considered as derived from (basic) intransitives or from (derived) transitives? There is both formal and semantic evidence that Kalasha -aw- causatives are better conceived of as derived from transitives. The first point is that all -aw- causatives terminate in -awa'ik in which we see the morphemic sequence -aw + a' + ik (aw + transitivizer + infinitive formant).

Second, in the case of two sets of verbs in which the first derivative shows a stem change from the basic intransitive, the causative form incorporates the transitive version of the stem rather than the intransitive. One set has unstressed -u- or -i- in the intransitive stem but stressed -a'- in the transitive stem. For example: uzukik' 'to spill (intrans.)' but uzak'ik 'to spill (transitive) > uzakawa'ik 'to get spilled (by someone)', but not

1s-anger NEG-d-1s-bring(CS)imp
'Don't annoy me!'
Examples are from Lorimer (1938.III:268). Transcription has been normalized in accordance with the system used in this dissertation; glosses are Lorimer’s.
*uzukawa'ik*. The second group involves the presence of a nasal in the transitive but not in the intransitive stem, as in *chi'ik* 'to break (intrans.)' and *chin'ik* 'to break (trans.)' > *chinawa'ik* 'to get broken (by someone)', but not *chiawa'ik*. Up to this point this observation could be interpreted in two different ways. One line of reasoning is to argue that in these pairs the transitive is the basic form and that -aw- causatives are derived from basic forms, be they transitive or intransitive. The alternative position is that since the -aw- causative is clearly in these cases derived from the transitive, to argue that -aw- causatives are derived from transitives, whether they are basic or derived. The second position, it seems to me, is preferable. There are cases when the semantics of the -aw- forms is related more closely to that of the transitive than the (basic) intransitive. For example, the verb *cimikik*' means 'to shine (of a star or mirror)'. The first causative *cimikek*' means specifically 'to shine a mirror (at someone, to attract his attention, tease, etc.)', not *'to cause (a star, mirror) to shine*', and the second level -aw- causative *cimikawa'ik* means 'to have someone shine a mirror at someone'.

3.1.2. Transitivity sets

Having introduced the two derivational processes, I now discuss types of transitivity sets found in Kalasha.

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*This point is discussed in 3.1.2.2. in connection with anti-causatives.*
3.1.2.1. Two-member sets.

Intransitive and -a'-causative only:

(1) Most intransitives can enter into 3-member sets, but a few simple verbs with stressed roots appear not to allow second causatives, e.g. užlu'ik 'to be bruised', užluhek 'to bruise', but not užluawa'ik 'to get s.o. bruised (by s.o.).' (2) Some basically intransitive conjunct verbs also may not allow secondary causativization: e.g. roS hik 'to be angry', roS ka'rik 'to be angry', but not *roS karawa'ik. If classes (1) and (2) really do not allow -aw- causatives, they are in any case numerically quite small.

Transitive and -a'-causative only:

(3) The only basic transitive verb of the stressed root type I have encountered for which a causative in -aw- was not accepted is praSm'ik 'to forget', from which I have praSmek 'to make s.o. forget', but not *praSmawa'ik 'to have someone cause s.o. to forget' or 'to cause (indirectly) to forget'.

Transitive and -aw'-causative only:

(4) I have found two basic transitives with unstressed roots which appear only to have the -aw- causative. These

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The 'x' reflect rejection of these forms by my main informant as well as non-occurrence (so far) in any sources available to me. I do not reject the possibility, however, that some of his judgements may have been governed by cultural or pragmatic rather than strictly "grammatical" factors. At this point I am inclined to think that -aw- causativization is completely productive in Kalasha, restrained only by the kinds of factors alluded to above.
are *halik' 'to bring (animate object)', and *nik 'to take away (animate object)'. From these basic transitives we have *haliawa'ik and *niawa'ik respectively, but not *halek' and *niek'.

(5) A number of root-stressed basic transitives allow causativization with -aw-, but not derivation of a stem in -a'. They include verbs like pis'ik 'to grind', and SδSδk'ik 'to sweep', from which are derived pisawa'ik 'to get ground by someone' and SδSδkawa'ik 'to have swept by someone' but not *piSek' or *SδSδkek'.

3.1.2.2. Three-member sets.

Intransitive, Transitive, and CAUSATIVE:

(6) Some primary intransitives with unstressed roots allow two degrees of causative derivation. This class is fairly numerous. It includes some of the most common verbs, e.g. nisik' 'to sit', nisek' 'to seat', nisiawa'ik 'to have seated by someone'; 'to get s.o. to sit'.

(7) From many root-stressed basic intransitives are derived both a first-order causative in -a' and a second-order derivative in -aw-. This is the most frequently occurring derivational pattern. Note that in this class the stress shifts from the root to the stem-formant vowel. For example: uTik'ik 'to jump', uTikek' 'to help someone

9The fact that out of the sixteen verbs which I have found of the class (6) type, six of them have an extra /i/ in the -a' - and -aw- causatives, e.g. prekik' > prekiek'/prekiawa'ik 'to fall > fell > have felled (a tree)' suggests that these are probably disyllabic i-final roots in which the root-final -i has coalesced in some cases with the -i of the infinitive formant -ik.
or an animal jump', and uTikawa'ik 'to have helped to jump by someone'.

(8) Some conjunct verbs form three-member sets in which the intransitive consists of N/ADJ hik 'to become', the (suppletive) transitive is N/ADJ ka'rik 'to do', and the CAUSATIVE is N/ADJ karawa'ik, as with the set madat' hik 'to be of help to someone (in doing a piece of work)', madat' kar'ik 'to help someone (financially)', and madat' karawa'ik 'to have helped by someone'.

(9) Other conjuncts also have three-member sets, but of a mixed type with the second member constructed by -a'- derivation instead of with the analytic form kar'ik. Exemplifying this class is Dób hik 'to be lost, to die', Dóbek 'to lose, ruin', Dóbawa'ik 'to have s.o. ruin'; 'to have ruined'.

(10) The classification of the next set is problematic. While synchronically they appear to be three-member sets derived from basic intransitives, there is reason to suppose that historically the intransitives in these sets may have been derived from the transitives by a formerly productive process of anti-causative formation. In this class I have so far found five verbs. The intransitive, transitive and CAUSATIVE members of the sets have the following phonological shapes.

V-intrans. (C) u/i C u/i C -ik
V-trans. (C) u/i C -a' C -ik
V-caus. (C) u/i C a C -aw-a'-ik
The roots in each case are disyllabic, with the stress in the transitive form falling on the root-final syllable. In the intransitive forms, which I think are historically derivable from the transitives, the unstressed vowels of both root syllables are alike, apparently by a vowel-harmony process after loss of stress. These five verbs are:

- **uzuk-ik'** 'to spill (in.)'
- **uzak'-ik** 'to spill (tr.)'
- **uzakawa'-ik** 'to have spilled (cs.)'
- **niwir-ik'** 'to separate (in.)'
- **niwar'-ik** 'to separate (tr.)'
- **niwarawa'-ik** 'to have separated (cs.)'
- **utruk-ik'** 'to split, tear (cloth) (in.)'
- **utrak'-ik** 'to tear (cloth) (tr.)'
- **utrakawa'-ik** 'to get s.t. torn by s.o. (cs.)'
- **udhulik'** 'to tear (cloth) (in.)'
- **udhal'-ik** 'to tear (cloth) (tr.)'
- **udhalawa'-ik** 'to get torn by s.o. (cs.)'
- **upuC-ik'** 'to come up, off (grass, or bread off cooking iron)'
- **upaC'-ik** 'to pull up, off (grass, bread)'
- **upaCawa'-ik** 'to get pulled up by someone'

(11) A second problematic class includes two verbs in which the transitive root contains a nasal element which is not present in the (derived) intransitive, but appears in the -aw- causative. With these verbs, the transitive stem appears semantically prior to the intransitive. These verbs may, however, be vestiges of an ancient class which formed their active/causative (as opposed to middle) stems

\[\text{\textsuperscript{10}This loss of stress and reduction to identity with the vowel of the root-initial syllable is reminiscent of the vowel-shortening process in anti-causative formation in Urdu, Hindi, Panjabi, etc... e.g. Urdu d\textit{honaa} 'to wash (trans)' \rightarrow d\textit{hulnaa} 'to get/be washed', Panjabi \textit{toNaa} 'to wash' \rightarrow \textit{t\textsuperscript{u}pNaa} 'to be/get washed'.}\]
by nasal infixation (cf. Kurylowicz 1919:208); also the nasal infixing (7th, rudh-) class of Sanskrit). They are:

- chi'-ik 'to break, be cut off'
- chin'-ik 'to break (tr.)'
- chinawa'ik 'to get broken by someone'
- du'-ik 'to get burned (hand, bread)'
- dyOk'ik 'to burn (hand, bread) (tr.)'
- dyOkawa'ik 'to get burned by someone'

(12) The verb nihik' 'to come out' has a unique development in the transitive form, which appears to be formed by reduplication.

- nih-ik' 'to come out'
- ninih-ek' 'to make come out', 'to take away (animate object)'
- niniawa'ik 'to have taken out or away by s.o.'

"Semi-transitive", Transitive, and Causative

This class is not distinguished formally from three-member sets in which the base form is a full transitive. These are considered together under (13).

(13) This class includes the verbs the semantics of which I introduced in section 3.1.1. above, that is, verbs which denote operations performed on the human body by human agents. My sample includes seventeen verbs of this type, including five "ingestives"—'see', 'eat', 'drink', 'learn', and 'understand'. These verbs are:

- grik 'to take, grasp'
- griek' 'to hit (of a bullet, stone, knife, branch hitting s.o. or s.t.)'
- griawa'ik 'to have s.t. taken or grasped by s.o.'
- bhon'ik 'to tie for self'

\[\text{With grik 'take' the semantic development of the first causative form is idiosyncratic and that the meaning of the second causative is taken from the base form.}\]
bhonek' 'to tie for s.o. else'
bhonawa'ik 'to get tied by s.o. else'

nig'ik ‘to wash (one’s own body or an object)’
nigek 'to wash (other’s body)'
nigawa'ik 'to have washed by s.o.'

nij'ik ‘to take off (self’s item of clothing)’
nijek 'to take off (other’s item of clothing)'
nijawa'ik 'to have something taken off by s.o.'

iSpaZ'ik 'to comb (self’s hair)'
iSpaZek' 'to comb (other’s hair)'
iSpaZawai'ik 'to have hair combed by s.o.'

draz'ik ‘to load on self’s back’
drazek’ ‘to load on another’s back’
drazawa'ik ‘to get loaded on s.o.’s back by another’

di’ik ‘to put on self’s shoes or socks’
diek’ ‘to put on another’s shoes or socks’
diawa’ik ‘to have shoes or socks put on by someone’

sâbi’ik ‘to put on self’s item of clothing’
sâbiek ‘to put on other’s item of clothing’
sâbiawa’ik ‘to have item of clothing put on by s.o.’

khaS’ik ‘to rub something on self’
khaSek’ ‘to rub something on other’
khaSawa’ik ‘to have something rubbed by someone’

tap’ik ‘to warm self or object in sun, fire’
tanek’ ‘to warm other in sun, fire’
tapawa’ik ‘to get warmed in sun, fire by s.o.’

buT’ik ‘to braid self’s (hair)’
buTek’ ‘to braid other’s (hair)’
buTawa’ik ‘to get hair braided’

pik ‘to drink’
piek ‘to make s.o. drink’
piawa’ik ‘to get s.o. to drink indirectly’

żuk ‘to eat’
żuek ‘to give an appetite, (to feed?)’
żuawa’ik ‘to have fed, to get s.o. to eat indirectly’

jhon’ik ‘to know, understand’
jhonek’ ‘to explain, cause to know; seem, appear’
jhonawa’ik ‘to have explained by s.o.’

\[This \text{ semantic development is discussed in 3.4.3.}\]
CiC'ik 'to learn'
CiCek' 'to teach'
CiCawa'ik 'to have taught by s.o.'

praS'mik 'to forget'
praSmek' 'to cause to forget'

paš'ik 'to see'
pašek' 'to show'
pašawa'ik 'to get shown by s.o.; to cause to see'

Four member sets

(14) A few conjunct verbs have four different forms in a transitivity-CAUSATIVITY relationship: for example, (a) isprap' hik 'to feel sleepy', isprap' ka'rik 'to feel sleepy', isprap karek' 'to feel sleepy', and isprap' karawa'ik 'to put s.o. to sleep'; (b) istori' hik 'to ride a horse', istori' kar'ik 'to have s.o. ride a horse', istori' karek' 'to make s.o. ride a horse', istori' karawa'ik 'to have s.o. (made to) ride a horse'. (c) just hik 'to be joined together, united', justek' 'to join together', just karek' 'to join together', just karawa'ik 'to have joined together by s.o.. (d) ñga' hik 'to be alert, awake', ñga' hek 'to waken or alert', ñga' karek' 'to alert or awaken', ñga' karawa'ik 'to have awakened by s.o.'.

The explanation for the existence of four-member sets is not that Kalasha has three levels of causativization, but that with some conjunct verbs both the morphological -a

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13It is difficult to say at this point whether there is any real difference in meaning among isprap hik, isprap karik, and isprap karek, for example. The problem is discussed later, in section 3.3.3.3.
and -aw derivational processes and the analytic hik \textgreater kar'ik process are operative. Since kar'ik itself is subject to both -a' and -aw causativization, the number of theoretically possible forms is seven. Thus for a conjunct verb the intransitive form of which consists of N/ADJ hik, there are the following theoretical possibilities: N/ADJ-ek\textsuperscript{14}, N/ADJ hik, N/ADJ hek, N/ADJ hiawa'ik\textsuperscript{15}, N/ADJ ka'rik, N/ADJ karek', N/ADJ karawa'ik. So far I have not observed any set with more than five of these possibilities realized.

As far as the semantics of these doublet forms is concerned, in most cases two or even three of the forms appear to have (almost?) identical meanings. For example, in set (e) above both ãga' hek and ãga' karek' mean 'to waken someone'.

3.1.2.4. Five-member sets

(15) One such set has come to my attention. It contains the verb vat hik 'to remember (non-volitionally)', vat kar'ik 'to remember', yadek' 'to remember (volitionally), vat karek' 'to remind', vat karawa'ik 'to have reminded by

\textsuperscript{14}In conjuncts whose first causative is of the form N/ADJ-ek' we see the causative morpheme functioning as a verbalizer. Other examples of this are: whâk' 'place' \textless whânek' 'to fit', e.g. e'mi bun ne whâen'-dai warek' o'ni 'These boots don't fit: bring some others.', and tripek' 'illness, sickness' (Morg. 1973:147) \textgreater tripek' 'to hurt, pain'. This is a frequently attested function of causative morphemes. The aw causative morpheme does not appear to have the verbalizing function.

\textsuperscript{15}The form hiawa'ik does exist. (See example 34-a below.)
someone'. The use of these various forms is illustrated in examples (1-5).

1) se mai yat haw'-au [S:bk]
   he(NOM) I(OBL) memory become(PST-A)-3s
   'I remembered him' (Lit. 'He came to mind.')

2) a tai yat kar'-im-dai ne praS'm-im-dai
   I(NOM) you(OBL) memory do(P/F-S)-is not forget(P/F-S)-is
   'I remember you ... I won't forget you.'

3) a tai yad-em'-dai [E:bk]
   I(NOM) you(OBL) remember(P/F-S)-is
   'I remember you.' (i.e. 'I am thinking about you; I won't forget you.')</n
4) a tai yat kar-em'
   I(NOM) you(OBL) memory do(Cs)(P/F-NS)-is
tu praS'm-is-dai [S:bk]
you(NOM) forget(P/F-S)-is
   'I will remind you; you are forgetting.'

5) a ta'sa SaTawai' tai yat
   I(NOM) him(OBL) by
   kar-aw-a'-am [E:bk]
do-Cs-(P/F-NS)-is
   'I will get him to remind you.'

3.1.3. Relation to the Kholodovic typology

I summarize in Table 1 the fifteen morphological types identified above, characterizing each one in terms of the typological categories introduced in section 3.0.

Table 1. Summary of Morphological types

<table>
<thead>
<tr>
<th>Class</th>
<th>Phonological Shape</th>
<th>Kholodovic Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>'-ik &gt; -ek'</td>
<td>$V_1^{st} &gt; V_3^h$</td>
</tr>
<tr>
<td>2)</td>
<td>N/ADJ hik &gt; N/ADJ ka'rik</td>
<td>$V_1^{st} &gt; V_3^h$</td>
</tr>
<tr>
<td>3)</td>
<td>'-ik &gt; -ek'</td>
<td>$V_1^{st} &gt; V_3^h$</td>
</tr>
<tr>
<td>4)</td>
<td>'-ik' &gt; -aw-a'ik</td>
<td>$V_1^{st} &gt; V_3^h$</td>
</tr>
<tr>
<td>5)</td>
<td>'-ik' &gt; -aw-a'ik</td>
<td>$V_1^{st} &gt; V_3^h$</td>
</tr>
<tr>
<td>6)</td>
<td>'-ik' &gt; -ek'</td>
<td>$V_1^{st} &gt; V_3^h &gt; V_2^{st}$</td>
</tr>
</tbody>
</table>
So, in terms of the typology adopted here, we see that Kalasha has both first and second causatives from both transitive and intransitive bases. Also, there may be vestiges of an earlier anti-causative formation process.

Khawar, on the other hand, has only one degree of causative formation. From the basic verb *posik* 'to see', we have *pase'ik* 'to show; have shown' but no further derivation. Thus this single form does duty for both contact and indirect causation.\(^{17}\) The following three

\(^{10}\)Parentheses indicate that this process is no longer productive.

\(^{17}\)Morgenstierne derives the Kho. causatives from OIA -aapaya (1947:20), but given that Kal. has clear reflexes both of -aapaya in the -aw- causatives and of -a'ya- in the -a'- causatives, it is not clear to me why derivation from -a'ya is not equally likely.
examples illustrate this.

6) awa kitab'-o poš'itam [rkb]
   I(NOM) book-OBL see(PST-A)-is
   'I saw the book.'

7) awa kitab'-o ta paše'itam [rkb]
   I(NOM) book-OBL you(OBL) see(CS)(PST-A)-is
   'I showed you the book.'

8) hatoGo' Cake'i kitab'-o ta paše'itam [rkb]
   him(OBL) by book-OBL you(OBL) see(CS)(PST-A)-is
   'I had him show you the book.'

Functional second-degree causatives are achieved by
suppletion in a few cases, e.g. brik 'die', marik 'kill',
mare'ik 'cause to kill'. Khowar does not have an anti-
causative formation process.

3.2. Syntax

The agent of CAUSATIVE verbs in finite sentences--
whether \( V_j \) or \( V_k \), whether derived from \( V^\text{in} \) or \( V^\text{er} \)--is
always in the NOM case.

\( V^\text{in} > V_j^k \): Patients (i.e. "causees") of derived
transitives in -a'-' are marked in the same way as patients
of primary transitives. Full NP's standing alone are
marked with NOM case, which is indistinguishable from ACC
for full nouns (9), or for a few verbs, OBL (as in 10).^{18}

9) ghrast pai udrus-el' [S:bk]
   wolf(NOM) goats(NOM) scatter-Cs(P/F-NS)-3s
   'A wolf will scatter goats.'

10) sud-on' istori' kar-ek' [S:bk]
    children-OBL horseback do-Cs(P/F-NS)-lp
    'We will make the children ride horseback.'

^{18}Whether a given verb takes a NOM (ACC with demon-
stratives) or an OBL direct object seems to be lexically
determined. A few verbs of 'beating' or 'striking' take
OBL objects.
If a noun is modified by the near singular or distant, not-in-sight singular demonstrative, the demonstrative is marked ACC. Third person pronouns (identical with the demonstratives) take ACC case if ACC and OBL are distinguished, OBL when they are not (cf. 11). First and second person pronouns take OBL case, which is indistinguishable from ACC for 1st and 2nd persons (12). Proper names take NOM case (13).

11) a a'la tupek' gri bihes' [S:bk]  
I(NOM) him(ACC) gun with fear-Cs(PST-A)-ls  
'I frightened him with a gun.'

12) a tai yat kar-em' [S:bk]  
I(NOM) you(OBL) memory do-Cs-(P/F-NS)-ls  
'I will remind you.'

13) saushe'ni khâgar' chala'i dyai' tre chela flashing sword pull out(CP) put(CP) 3 pieces  
do(PST-I)3s  
'Pulling out the sword "Flashing" and striking (him), he cut him into three pieces.'

\[ V_1 < V_2 < V_3 \]: In the case of transitives with first order -a' causatives—the anti-reflexives and "ingestives"—full NP’s, proper names, and third person as well as first and second person "causees" take OBL marking. These cases are illustrated in (14 – 18) respectively.

14) a gag'-as uk pi-em'-dai [S:bk]  
I(NOM) cow-OBL water drink-Cs(P/F-S)-ls  
'I am giving the cow water to drink.'

15) a salyim'-a a'ma krom CiC-em' [S]  
I(NOM) S.-OBL this(ACC) work(NOM) teach(P/F-NS)-ls  
'I will teach this work to Salim.'

16) a ta'sa mai kitap' paše-es' [E:bk]  
I(NOM) him(OBL) I(OBL) book(NOM) see-Cs-(PST-A)-ls  

\[ ^1 = tvai 'hit(CP)' \]
'I showed him my book.'

17) mai paśa'i [S]
   I(OBL) show(IMP-2s)
   'Show it to me.'

18) a tai a'la jhon-em' [S:bk]
   I(NOM) you(OBL) him(ACC) know-Cs(PF-NS)-1s
   'I will introduce him to you.' (Lit. I will bring it about that you know him.)

The anti-reflexives, which usually pertain to a part of the body surface rather than to the whole person, behave as illustrated in (19) and (20).

19) a suday'ak-as ru nig-es' [E:bk]
   I(NOM) baby-OBL face(NOM) wash-Cs(PST-A)-1s
   'I washed the baby's face.'

20) suday'ak-an ka'lun di-ek' [S:bk]
    children-OBL shoes put on-Cs(P/F-NS)-1p
    'We will put shoes on the children.'

Vₚ₋ₖ': With -aw- causativization, the causee, if expressed at all, can be encoded in three ways: (a) NP(OBL), (b) NP(OBL) SaTawa'i, (c) NP(OBL for pronouns/NOM for full nouns) kai ma. The postposition SaTawa'i is the conjunctive participle of the -aw- causative from Sat'ik 'to stick, adhere, attach to' (SaTek 'to stick to (tr.) > SaTawa'ik 'to cause to stick to'). The phrase kai ma (Lit. 'having spoken to') consists of the element kai 'to', which appears to be a frozen form of the conjunctive.

20) Regarding the form mai 'my' in this sentence, Kalasha makes very limited use of a reflexive possessive form. When it is employed, it is perceived as a non-indigenous construction. The normal way to express reflexive possession is with the normal OBL personal pronouns.

21) In (19) and (20) it is not clear whether the OBL marking on suday'ak 'child' is to be interpreted as "possessive" or "dative".
participle of *kar’ik* ‘do’, and *ma* is transparently the
conjunctive participle of *mak* ‘to speak’.22

Examples (21-23) illustrate these three ways of
indicating the causee (intermediate agent) in -aw-
causative constructions.

21) mai *samond’ au’ pac-aw-a’-i* [OBL]
I(OBL) so much bread cook-CS(PST-A)-2s
‘You got me to cook so much bread.’

22) darzi’-as SaTawa’i ek piran’ sawz-aw-a’-am [E:bk]
tailor-OBL by one shirt make-CS(P/F-NS)1s
‘I will get a shirt made by the tailor.’

23) k-as *kai ma* kar-aw-a’-ik [S:bk]
who-OBL to speak(CP) do-CS(P/F-NS)-1p
‘Who shall we get to do it?’

In (21) we have simply the OBL case of the causee NP.

With this sentence, one might wonder whether the sentence
is ambiguous between the benefactive reading ‘You got so
much bread cooked for me’ and the causative reading, but it
is not. The benefactive reading would be expressed by the
sentence *tu mai hat’ya *samond’ au’ pacawa’i*, in which the
postposition *hat’ya* ‘for, to’ gives unambiguous benefactive
semantics. In (22) we have NP(OBL) SaTawa’i; and in (23)
the intermediate agent is marked with *kai ma*.

With SaTawa’i the causee takes the appropriate case
termination, according to whether it is full NP, proper

22Employment of the phrase ‘having spoken to’ is a
mechanism employed in other languages, e.g. Telugu *tup ceppi* ‘having spoken to’ (Cf. Rao and Bashir 1985) to
indicate an intermediate agent in constructions expressing
distant causation.

23The *d* in *samond* is an excrescent consonant. It
frequently appears in the environment (CV)CVn __’# V. Cf.
also *sen* ‘bed’ > *sen(d)’-una* ‘bed-LOC’. 
name, kinship term, or pronoun. Kinship terms, instead of the normal OBL case terminations for animates, take the pronominal suffixes, as described in 1.5.3.2. above. In (22) we saw SaTawa\'i with a full noun. In (24 - 27) I illustrate it with pronouns, kinship terms, and proper names respectively.

24) a\'sa SaTawa\'i a khUj nig-aw-a\'-am [E:bk]
   him(OBL) by I(NOM) cap wash-Cs(P/F-NS)-is
   'I will get him to wash the cap.'

25) aay-as SaTawa\'i to p\dj baj\'a
   mother-PS3s by him(ACC) five o'clock
   uST-aw-a\'-'is [S:bk]
   get up-Cs(PST-A)-is
   'I got his mother to get him up at 5 o'clock.'

26) a tai aay-au SaTawa\'i to p\dj
   I(NOM) you(OBL) mother-PS2s by him(ACC) five
   baj\'a uST-aw-a\'-'is [E:bk]
   o'clock get up-Cs(PST-A)-is
   'I got your mother to get him up at 5 o'clock.'

27) salyim\-'a SaTawa\'i pai car-aw-a\'-am [E:bk]
   S-OBL by goats graze-CS(P/F-NS)-is
   'I will get Salim to graze the goats.'

3.3. Semantics

The cross-linguistic polysemy of causative morphemes has often been noted. Nedyalkov and Silnitsky (1973:17-19) classify CAUSATIVE meanings along two parameters: factitive-permissive (i.e. making vs. allowing someone to do something) and distant-contact. Then they identify the following specific types of valence-increasing CAUSATIVE meanings: (a) CAUSATIVE proper, as in 'burn (in.)' vs. 'incinerate'; (b) comitative-CAUSATIVE, as in 'talk' and 'talk with'; (c) anti-reflexive, as in 'put self's clothes on' vs. 'put another's clothes on'; (d) instrumental, as in
'wash' vs. 'wash with something'; (e) affective-CAUSATIVE, as in 'become light' vs. 'light up, illuminate'; (f) addressive, as in 'buy', and 'buy for someone'; and (g) as in 'work' vs. 'treat, process'.

First I shall discuss the semantics of the causative morpheme -ā'ə- and then that of -aw- causatives.

3.3.1. Semantics of -ā'- causatives

In terms of the categories listed in the preceding paragraph, the first-level -ā'- causatives involve contact rather than distant causation. For example, from naT'ik 'to dance' we have first causative naT(h)ek' which can mean either 'to make someone dance (by taking him by the hand and moving around with him, as when playing with a baby)' or 'to chase someone'. The -aw- causative naThawa'ik 'to cause s.o. to dance (at a distance); to cause s.o. to chase s.o.; to cause s.o. to run away', on the other hand, denotes distant causation, either through the agency of a second person (or causee), or simply at physical remove, by verbal instruction as opposed to physical manipulation.24

Some but not all -ā'- causatives can have permissive as well as factitive meaning. In (28), for example, the -ā'- causative of šuru'ik 'fall'--šuruęk' 'to cause to fall'--means 'drop, allow to fall' rather than 'make fall'.

28) e'mi šuru-en' [S:mb, bk]

24An interesting exception to this generalization is found in the sentence a kas SaTawa'i tai āqa' hiem' 'I will have someone waken you' (< āqa' hik 'to wake up'). In this sentence hek, the -ā'- derivative of hik 'become', is functioning as though it were an -aw- causative.
they(NOM) fall-Cs(P/F-NS)-3p
'They will let (her) fall.' (said about children who didn't know how to hold a baby properly)

Also, the intransitive labE' hik 'to play' has first causative labE' hek 'to allow to play'. Importantly, from las'ik 'to escape' we have lasek' one meaning of which is 'to let someone go (somewhere)', but whose meaning has broadened to mean 'to allow to V' in general (cf. 29).

29) phao zu'-una suday'ak-as mo las-a'i [Sibk, mb]
soil eat(INF)-LOC baby-OBL not allow-IMP2s
'Don't let the baby eat dirt!'

Moving on to the more specific kinds of meanings, we find that -a'- causatives can, of course, have CAUSATIVE-proper meaning, as with naš'ik 'die', našek' 'kill'. Some can have comitative-CAUSATIVE meaning; for example, from kas'ik 'to walk, move' we have kasek' 'to make walk around'; to walk around with, escort. The anti-reflexive meaning of -a'- causatives was discussed in section 3.1.1 above and illustrated in (19) and (20). Verbs in which this meaning develops, like sâbi'ik 'to put on (clothes)', are listed in section 3.1.1 under class (12). I have not observed the instrumental-CAUSATIVE meaning in any of my examples. Nedyalkov and Silnitsky do not specifically mention a benefactive meaning, but perhaps this is to be subsumed under their addressive category. Specifically "benefactive" semantics is not an intrinsic property of the causative morpheme, but arises as a function of the interaction of context and the specific meaning of the verb.

For example, from uTikik' 'to jump ' we have uTikek' which
often means 'to help (an animal) jump (over an obstacle)'.

This meaning arises in the context where (i) it is desirable that the animal jump over the obstacle, and (ii) it is having difficulty in doing so, as in example (30).

30) a’la bat’yak alyei’ thi atra’ kai that(ACC) baby goat there-ABL from there to uTikes’ [Eibk] jump-Cs(PST-A)-is
'I helped that baby goat jump from there to there.'

Nedyalkov and Silnitsky's last category, affective CAUSATIVE may be represented in the pair mʊD’ik 'to wash, scrub' > mʊDek' 'to knead, massage (hides, to process them into leather, to thresh (grain)'.

One important class of -a'- causatives in Kalasha does not fit into any of Nedyalkov and Silnitsky's valence-increasing categories, but we find very similar phenomena discussed by them under the valence-decreasing category which they call "passive" (op. cit.:20). A class of verbs involving involuntary sensations, both physical and mental, has evolved, so that what are semantically stative or intransitive situations are represented by what are formally first causative derivatives. For example, mai kralel’-lai (lit. 'It is making me cough') is the normal way to say 'I am coughing (involuntarily)'. This class will be discussed in detail in section 3.3.3 to follow.

Agents of -a'- causatives can be either animate or inanimate, and even if inanimate, either specific or non-specific.

3.3.2. Semantics of -aw- causatives
The -aw- causative morpheme denotes distant rather than contact causation. As noted above, this distancing may take the form of employing an intermediate agent (causee) or simply of effecting causation by indirect rather than physical means. A few examples will illustrate this in context.

31-a) a'sa sunda'-as ustat' har ad'u-a du mil
that child-OBL teacher every day-LOC two miles
ady-awa'-u-dai [E:bk]
run-Cs(P/F-S)-3s
'That boy's teacher is having him run two miles every day.'

b) nasir' kai maž Sula' on-awa'-yis [E:bk]
    N. to say(CP) firewood bring(CS)(PST-A)-3s
i) I got Nasir to bring firewood.
ii) I got Nasir to get s.o. to bring firewood.'

In (31-a) the boy's instructor is not taking him by the hand, nor in the most natural reading is he having a third party (causee) make the boy run. The intermediate agent meaning is possible, but not necessary. In (31-b) there are only two participants--the speaker and the addressee (Nasir); a reading introducing a third, intermediate agent is not accepted.

32) DakTar'-as baza' paš-aw-a'-i ghoš mai sum
doctor-OBL arm see-CS-IMP2s say(CP) I(OBL) with
salya' ar'-au [E:bk]
advice do(PST-A)-3s
'He advised me to show my arm to a doctor.'

In this situation (32) the action of having a doctor look at his arm is such that the subject could not possibly have it done by an intermediate agent. The meaning imparted by the causative morpheme is one of distancing, or respect/politeness. In (33), below, the distancing consists in the
fact that the doctor is instructing the subject to eat rather than feeding him by hand.

33) Daktar' mai mos zu-aw-a'-u-dai [E:bk]
   doctor I(obl) meat eat-Cs(P/F-S)-3s
   'The doctor is having me eat meat.'

34-a) ek uT as'ta ta'sa uT'-as wal
   one horse be(PST-I)-3s that(obl) horse-obl guard
   hi-awa-ila tu i'sa wal ha
   become-Cs(PST-I)-3s you this(obl) guard become(IMP2s)
   ghdoi se ta'sa wal hu'la [T9:kn]
   say(CP) he that(obl) guard become(PST-I)3s
   'There was a horse. He had him guard that horse, saying “You guard it”. He became its guard.'

b) du ga'Da moc tara' payda' hu'la
   two old men there appear(PST-I)-3p
   hu'l-e au' dai ta'si silyok'
   become(PST-I)3p-when bread give(CP) them(obl) story
   di-aw-a'-ila [T11:sk]
   give(CS)(PST-I)-3s
   'Two old men appeared there. When they appeared, after giving them bread, she got them to tell their stories.'

In (34-a) it is explicitly stated that the agent got someone to guard the horse by telling him to. There is clearly no intermediate agent involved. Similarly, in (34-b) the force of the -aw- causative is that the subject persuaded the old men to tell their stories.

35) ghdoi a'-au-e taly-ei' chin'a bazay'ak
   say(P PERF)-3s-when there-ABL cut(PST PPL) arm
   gri-aw-a'i a'-au [T21: ]
   grasp-Cs(P PERF)-3s
   'When he spoke, he handed them the cut(-off) hand from there (to hold).'

The context of (35) is that the clever hero is deceiving his captors into thinking that he is still present behind a wall by holding out to them, from behind the wall, a cut-off arm, which they think is his. While they are holding the cut-off arm, the hero escapes. Clearly, no intermediate agent is involved. The distancing in this case is both
verbal and physical; the hero is hiding behind a wall.

It seems to me that instead of considering -aw- as a specifically valence adding morpheme, we should think of it as having a more general function—that of distancing the causal agent, the primary agent, from the result of his initiating a causal chain. Thus -aw- derivation can be thought of as something like [transitive action] + [distancing of the causal agent from the result], instead of the specific addition of an intermediate agent. Nor should we think in terms of "demotion" of the initial agent into the causee, which seems to be the assumption in most theoretical work on causative structures. Under the analysis that I am proposing, the causee never in any sense "was originally" the primary agent, so the question of "demotion" doesn't arise.\footnote{It is for this reason that I analyze -aw- causatives as including two morphemes: aw + a', rather than a unitary -awa'. The meaning constitution of -aw- is distancing, and that of -a' is transitivizing. This analysis is parallel to that proposed for Hindi by Pray (1970) which also differentiates a causative morpheme -aav from a suffix -aa which functions as a verbalizer, as in filmaa- 'to film'. Common to both these analyses is differentiation of the set of functions which attach to what seems to be the reflex of OIA -a'ya and those of the reflex of -aapaya.}

Examining -aw causatives with reference to Nedyalkov and Silnitsky's list of specific semantic developments, we find that they may be either factitive (as in \ref{ex:36}),

\begin{verbatim}
36) a'sa Satawa'i alyu' niCu-awa'-ik [E:bk]
   she(OBL) by potatoes peel-Cs(P/F-NS)-lp
   'We will get her to peel the potatoes.'
\end{verbatim}

or permissive, as in \ref{ex:37}.  

or permissive, as in \ref{ex:37}.  

In (37) the context is that a little girl is asking her mother to let her cook some bread too. The development of "permissive" meaning with -aw- causatives is a consequence of its distancing function.

The semantics of the -aw- causatives is far more regular than that of the -a'- derivatives. They have CAUSATIVE proper meaning, as in (36) above. They do not, however, have comitative-CAUSATIVE meaning; this is precluded by the fact that they encode distant rather than contact causation. Those forms also do not carry the anti-reflexive meaning, which is neutralized in the -aw- causatives. Nor are instrumental, affective-CAUSATIVE, addressive, or affective meanings conveyed by -aw- causatives.

3.4. Areal and typological ramifications

What insights can we draw from this study of Kalasha causatives for the study of areal phenomena in this region? Three characteristics of Kalasha causatives are, I think, potentially mappable features which could lead to a finer-grained determination of the geographical distribution of typological features related to causatives. These are (1) the formation of the agentive postposition; (2) anti-reflexive semantics of an extended class of verbal notions;

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26 In this case it appears that the second-level causatives could be derivable equally well from the original transitive or from the first-level causative.
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(3) the causative involuntatives.

3.4.1. The agentive postposition

As noted above, the postposition used in Kalasha with the intermediate agent when it is expressed is SaTawa'i, which is the -aw- causative form of SaT'ik 'to adhere to'. The South Asianist reader will immediately note that this word is the semantic equivalent of the ubiquitous lagna >lagna of Urdu and Hindi. In Khowar also, the exactly equivalent form is used to mark the causee: Cake'i (CP < Cake'ik, Cs. of Cokik 'to stick to'). Its use is illustrated in example (38).

38) awa hatoGo' Cake'i korum kore'itam [rkb]
   I(NOM) he(OBL) by work do-Cs(PST-A)ls
   'I got him to do the work.'

In the Dangarikwar (=Phalura) of Byori, the postposition marking the causee in this kind of construction is Sawaa, from the causative of the verb Saa- 'to stick to, etc.'. This set is illustrated in (39-a, b, and c).

39-a) mi goST'-a ñgar' Saa'Tu [gs]
   my house-LOC fire attach-PST(ms)
   'My house caught on fire.'

b) mi goST'-a ñgar' Saauu'Lu [gs]
   my house-LOC fire attach-Cs-PST(ms)
   'He set my house on fire.'

c) thi nawkar'-a Saa'wa kram thauu'Lu [gs]
   you(ERG) servant-OBL by work do-Cs-PST(ms)
   'You got the servant to do the work.'

In Gilgit Shina also, we have a similar but slightly different development of an agentive postposition from the basic transitive verb meaning 'to attach'. The basic transitive is Soicky 'to attach (tr.)', from which is
derived an intransitive *Sākoiky* 'to be attached (in.)' It is from *Sākoiky* that the agentive postposition *Sēe* has developed. It is illustrated in example (40).

40) ma-s jamaat Sēe ca thareégas [maz] I-ERG wife by tea make-Cs-PST-1s 'I got tea made by my wife.'

This is a natural semantic development of one of the specific senses which the verb *lagnaa* has been demonstrated to have developed—that of being engaged in an activity—(Shapiro ms:6). In fact, a similar usage shows up in colloquial Panjabi, e.g. (41).²⁷

41) muNDa laa-ke samaan cukwaa boy attach-Cs(IMP2s)-CP baggage lift-Cs(IMP2s) 'Get a boy to move the baggage.'

Nevertheless, this sort of agentive postposition seems to be rather restricted geographically in the NWIA region. Other languages in the region employ postpositions having

²⁷In Marathi and Dakhani Urdu there is a slightly different development of the *lagnaa* equivalent in causative constructions. In these languages the equivalents of *lagaanaa* and *lagwaanaa* respectively have come to be used in periphrastic causative constructions. Kachru (1986:168) gives the examples which I reproduce here. (a) shows the morphological Marathi construction and (b) the periphrastic construction, which carries coercive meaning.

**Marathi**

a) mii tyaacyaa kaDuun kaam karavla [=K's #12] I he by job do-caused 'I had him do the work.'

b) mii tyaalaa kaam karaaylaa laavla [=K's #13] I he DAT job do DAT engaged 'I made him do the work (coercive)'

d) māT nawkar se kamraa saaf karne lagvaaii (f.sg. AGR with subject) [=K's #14] 'I had the servant clean the room.'
other origins. Kashmiri marks the causee with either DAT case or DAT plus a derivative of the word 'hand', as in (42), which is reproduced from Hook and Koul (1984:102).

42-a) su chu ben-i keim karina:va:n ti bey-is ni he is sister-DAT work making do and brother not 'He is making sister do the work and not brother.'

b) su chu no:kr-as athi keim karina:va:n he is servant-DAT hand work causing to do 'He is having the work done by the servant.'

The Shina of Gurez also uses a word meaning 'by the hand of', as in (43):

43) jok the~ tikki saz~ hat'yb what you(AG-2) bread sister(GENsg) by hand the'ya: da: [Schmidt 1985:42 =#19] got done-2sgm Q 'Did you get the bread made by sister?'

In the Shina of another village in the Gurez region, the idiom is still 'by the hand of', but the lexical item is different, as in (44).

44) sesy theyo’ mye dast~ unu krom [ag]28 he-ERG, got done I-OBL hand this work 'He got this work done by me.'

Since the idioms are different both in Gilgit Shina and in the Skardu area varieties, this usage appears to be a Kashmiri-influenced feature.

Yet another variation shows up in Kamviri (Strand 1985:56), which employs the form va'reiti ‘having shown’ to mark intermediate agents. The form in Domaki also appears to be derived from a form of 'see' (cf. 45).

28Thanks are due to Abdul Ghaffar of Village Ranjata for this example.
45) u tus dyikayraii’ suna’ dur-wa-as [hj]\(^{29}\)
   I you having shown (?) dogs drive away-Cs-Fut-1s
   ‘I will get you to drive away the dogs.’

Yet another group of languages employs semantically
opaque ablative case suffixes. These include two dialects
of Shina spoken in the upper Indus valley near Skardu.

Example (46) is from village Satpara.

46) mu-su tu-nyo anu klum thaya’-ar-emos [gm]\(^{30}\)
   I-ERG you-ABL this work do-CS(Fut-1s)
   ‘I will get you to do this work.’

Example (47) is from village Tandal.

47) raziya’ mu-s tu-lyo anu kom thaeremus [g]\(^{31}\)
R. I-ERG you-ABL this work will get to do
‘Raziya, I will get you to do this work.’

Wakhi employs either simple OBL or an ablative ambiposition
to mark a causee. The simple OBL is illustrated in (48-a)
and the ablative ambiposition in (48-b).

48-a) wuz taw- lokhpaar wuzduk remim [zi]
   I(NOM) you-OBL clothes will get washed
   ‘I will get you to wash my clothes.’

b) wuz ts -taw-en lokhpaar wuzduk remim [zi]\(^{32}\)
   I(NOM) ABL-you-ABL clothes will get washed
   ‘I will get you to wash my clothes (and noone else)’

According to my informant, the difference between (48-a)
and (48-b) is that (48-b) stresses the personal identity of
the causee, while (48-a) does not.

\(^{29}\)For this example I am grateful to Habibullah Jan of
village Mominabad.

\(^{30}\)This sentence is due to Ghulam Mehdi, of the Forest
Department in Skardu.

\(^{31}\)This example is from Golam, a resident of village
Tandal.

\(^{32}\)For the Wakhi examples I thank Zafar Iqbal, Manager
of the Northern Areas Transport Corporation, Gilgit.
Burushaski shows a variety of strategies. In Hunza Burushaski we can have either an ablative ending or a NOM case for the causee, as in (49-a and b).

49-a) jaa un-tsum huk ee-skarts-am [skb]
I(ERG) you-by dog 3s-drive away(P)-ls
'I will get you to drive away the dog.'

49-b) jaa un gute duro goo-c-am
I(ERG) you(NOM) this work 2s-do(P)-ls
'I will get you to do this work.'

Tiffou and Pesot (1983:60) have pointed out for Yasin Burushaski that when the patient is inanimate, as in (49-b) the pronominal prefix refers to the causee, 'you' in this case; but when the patient is animate, as in (49-a), the pronominal prefix may refer either to the patient, in this case 'dog', or to the causee if the causee is conceived of as the affected participant. The same principle appears to be operating here in Hunza Burushaski. When the causee is encoded by the pronominal prefix, the ablative postposition does not occur, and when the pronominal prefix refers to the patient of the verb, the ablative postposition may appear.

The situation in Yasin Burushaski is unique. In that variety the intermediate agent is marked by a form of the verb d'-waQal 'to engage s.o. in s.t.; to make s.o. do s.t.'. The form employed is what Tiffou and Pesot (1983:49) call "Nominal IV", but which appears to be in some respects the analogue of the conjunctive participle of NIA languages. This form agrees, by pronominal prefixation, with the causee; its use is exemplified in (50).
50) jaa un du-koo-waQal huka oo-skarhc-am [ah]³³
I(ERG) you by 2s dogs 3p-drive away(P)-is
'I will get you to drive away the dogs.' ³⁴

From the data presented here it appears that the use of an agent-marking postposition based on the equivalent of 'cause to attach' is geographically fairly restricted in NWIA, being confined to Kalasha, Khowar, Gilgit Shina, and Dangarikwar. Given that other dialects of Shina do not show this development, that all the languages where it appears are adjacent to the Khowar-speaking area, and that both Kalasha and Dangarikwar speakers are all bilingual in Khowar and their mother tongues, this local development appears likely to be the result of Khowar influence. The time depth of this construction in Khowar itself needs to be established.

3.4.2. Anti-reflexives

Two sets of -a- causatives are especially interesting in Kalasha. One is the set of anti-reflexive causatives and its relationship to the set of "ingestives". The second is the class of verbs of involuntary physical or

³³I am indebted to Abdul Hamid of Gilgit for this example.

³⁴The fact that no more primitive meaning is attested for this word is consistent with the fact that the causative construction in Burushaski is semantically different from those in Shina and probably most of the other languages discussed in this dissertation. The Burushaski causative is what Lorimer called "active" as opposed to "passive". He said: "Causatives of transitive verbs differ in Burushaski from Shina and Khowar. In Burushaski you cause someone (emphasis mine) to do something, while in Shina and Khowar you cause something (emphasis mine) to be done by the instrumentality of someone". (1935, 1:88).
mental sensation or action, or illness and its relation to the class of "dative subject" verbs.

3.4.2.1. **Anti-reflexives in Kalasha.** Recall that the set of "ingestives" and the transitives from which "anti-reflexives" are derived pattern together in their morphology and in the case-marking of their causees. These are illustrated again here for convenience: (51) and (52) show an "ingestive" verb and its -ə'- causative; (53) and (54) exemplify a reflexive and anti-reflexive pair.

51) a ukg pi-m'-dai [S] I(NOM) water drink(P/F-S)-ls 'I am drinking water.'

52) a gag'-as uk pi-em'-dai [E:bk] I(NOM) cow-OBL water drink-Cs(P/F-S)-ls 'I am giving the cow water to drink.'

53) kanday'ak gri Sis iSpa'Z-is [E:bk] comb with head comb(P/F-NS)-ls 'I will comb my hair with a comb.'

54) kanday'-ak gri a'sa Sis iSpaZ-ek' [E:] comb with he(OBL) head comb-Cs(P/F-NS)-lp 'We will comb his hair with a comb.'

While at first glance these appear to be two separate semantic classes, the division between which is whether the action in the derived form is performed by the agent (self) or by the causee (other), if we consider the semantics of the actions, these two classes can be seen to be the two extremes of a continuum, and the fact of whether with the derived forms the semantic kernel of the action is performed by self or other turns out to be a consequence of whether the action is body-external or body-internal and whether it is physical or non-physical.
Basic meaning: put clothes on self    eat    learn
Derived meaning: put clothes on other    feed    teach

Thus, an external, physical action can be performed on someone else; an internal, physical action cannot be performed on someone else but the second person can be physically manipulated to facilitate his doing it. Nor with an internal, non-physical event can the action be done on the other, but he can be brought to do it by direct intervention, either physical or mental.³⁵

3.4.2.2. Anti-reflexive semantics in other languages.

First, with respect to anti-reflexive semantics associated with the causative morpheme, we see it to be well developed in Kalasha. In this discussion I shall mean by "anti-reflexive" the use of the causative morpheme for verbs like 'put on clothes'—not just for the "ingestive" end of the continuum. Specifically anti-reflexive semantics is associated with causative morphology in several other languages that I have examined. In Waigali³⁶ (Edelman 1982:81) causative stems in -l- participate in pairs like...

³⁵Hook (1984:97) had made a similar observation with regard to Kashmiri causatives, considering that "ingestion is nothing more than a special case of 'reflexion' ...", reflexive action being defined as "action oriented towards the agent". The present observation with regard to Kalasha was arrived at independently, based on the salience of this class in Kalasha, and the identical phonological, morphological, and case marking behaviors of the first causatives of the "ingestives" and of the anti-reflexives.

³⁶The local name for Waigali is kala' Sa alaa (Strand 1973:302).
those in (55-a and b).

  hands wash-Cs-P-1s  
  'I am washing somebody else's hands.'

  b) dojst pala: m [Edelman 1982:81]  
  hands wash-P-1s  
  'I am washing my own hands.'

In the Zhonchigal dialect of Waigali, the causative morpheme is w and the pair in (56-a and b) contrasts in precisely this way.

56-a) amic: om [Edelman 1982:81]  
  'I am getting dressed'

  b) amicew: am [Edelman 1982:81]  
  'I am dressing someone.'

According to Richard Strand, the same is the case for this verb in the Kamviri dialect of Kati. See (57-a, b).

57-a) bA.san o Amji-na-m [Strand p.c.]  
  clothes put on-PRESENT-1s  
  'I am getting dressed/putting on my clothes.'

  b) juk-to bA.san o Amji-o:-na-m  
  girl-to clothes put on-Cs-PRESENT-1s  
  'I am dressing/putting clothes on the child.'

In Urdu and Hindi also, it appears that this semantic development is present to a certain extent. Compare (58-a and b).

58-a) mâr kapRe pahn -rahaa hûû  
  I(NOM) clothes put on-P PROG-ism  
  'I am putting on my clothes.'

  b) mâr bacce-ko kapRe pahn-a a raha hûû  
  I(NOM) child clothes put on-Cs-P PROG-ism  
  'I am putting clothes on the child.'

37 In Strand's orthography, <A> = [a], <a> = [i], <.> = junction, and <.:> signifies contrastive length. The causative morpheme represented as oj < ov < Skt. a: p. (p.c.)
It is not the case in Khowar, however, where we have the situation demonstrated in (59-a, b, and c).

59-a) awa tan banyan’-o nizi’tam [rkb]  \[I(NOM) own sweater-OBL take off(PST-A)-ls\]  'I took off my sweater.'

b) (awa) DaQ-o zap-an nizi’tam [rkb] \[I(NOM) boy-OBL clothes-OBL take off(PST-A)-ls\]  'I took off the child's clothes.'

c) (awa) ta Cake’i DaQ-o zap-an \[I(NOM) you(OBL) by child-OBL clothes-OBL take off-Cs-PST-A-ls\]  'I got you to take off the child's clothes.'

Here the causative morpheme does not carry anti-reflexive meaning.

In Gilgit Shina the causative morpheme appears not to carry this meaning. Sentence (60-a) with the basic transitive means either 'I braided my own hair' or 'I braided someone else's hair', and the causative sentence in (60-b) can be used with either 'my own' tan or 'your' tay.

60-a) ma-s jakuur būyis-g-is (būyiky 'to braid') [maz] \[I-ERG hair braid-PST-1s\]  'I braided my/someone's hair'

b) ma-s tay/tom jakuur būy-ar-eeg-is (<būyaroiky) \[I-ERG your/self's hair braid-Cs-PST-1s\]  'I got your/my own hair braided (by someone else)'

Kashmiri also does not employ its causative morpheme

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39 Thanks for these Shina data are due to Mohammad Amin Zia of Gilgit. The research in which he cooperated was carried out by Peter Hook and this writer during the summer of 1987 as the first phase of the linguistics component of an Interdisciplinary Study of Pakistani Culture, organized by Wilma Keston and jointly sponsored by the University of Pennsylvania and the Lok Virsa Institute in Islamabad with funding from the Smithsonian Institute. I take this opportunity to thank all the institutions and individuals who facilitated this work.
other NIA languages it has been lost.

and come to involve a larger class of verbs whereas in some
that this particular intentation type was survived in Kalasha
implying I get dressed, is a middle verb in English, whereas
further, Harm (1967:109) notes that in Albanian verb

3.4.3. Involuntary causatives
This is a class of first causative verbs denoting

Language contact in the Dardic region should yield clues about this aspect of the history of

and lexical distribution of anti-reflexive causatives

Involuntary causatives

involve a more detailed picture of the geographical

To dress involuntary causation

If the causative morpheme occurs with this verb, giving

Elder sister is putting on her clothes.‘
Sheela is putting on her clothes.
(61-a)

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states, like 'stumble', 'vomit', 'sneeze', 'cough', 'feel cold', 'have a fever', 'have an appetite' and many more.41 One is immediately struck by the overlap of this list with the set of what are usually referred to by South Asianists as "dative subject" verbs.42 In this section I shall explore the relation between this class of involuntative causatives and the dative subject construction. I begin with an overview of the main ways of expressing bodily and emotional states in contemporary Kalasha, focusing on the syntactic mechanisms by which the semantic parameter volitional/non-volitional is encoded.

3.4.3.1. Types of volitionality opposition in Kalasha

In the Kalasha of today there are four types of formal oppositions one of the functions of which is to differentiate the reporting of involuntary (unavoidable) and volitional (or neutral with respect to volitionality) actions.43

The first type is that represented by the pair of basic verbs bom'ik 'to vomit' and bomek 'to cause to vomit'. The intransitive member of the pair is used with a NOM subject, which is also the experiencer, and with which

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41 Some of these verbs were noted by Morgenstierne (1973:224), who correctly observed that these forms were probably causatives.

42 Or "quirky case" verbs in the government-binding analytical tradition.

43 This discussion is based on as many verbs displaying this behavior as I could collect. Thus it is an attempt to be complete rather than representative.
the verb agrees in person and number (cf. 62)

62) a bom'im-dai [Eibk]
   I(NOM) vomit(P/F-S)-ls
   'I am vomiting.'

This sentence focuses on the physical action itself, rather than on the reason for it. With regard to volitionality, it suggests that the experiencer has potential control over the action.** The causative counterpart is used with an OBL experiencer and can be used with or without an agent (i.e. cause of the action/experience, not the experiencer) expressed, as in (63) and (64).

63) mai bomel'-lai [S]
   I(OBL) vomit-Cs-(P/F-S)-3s
   'I am vomiting.'

64) mai tabyat' xarap' thi bom-el'-lai [Eibk]
   I(OBL) condition bad become(CP) vomit-Cs-(P/F-S)-3s
   'Because I feel bad I am vomiting.' (Lit. 'My condition having become bad it is making me vomit.')

In (64) the cause is overtly expressed, but in fact the most frequently encountered type of utterance is that represented in (63), in which the force of the causative verb is that the speaker is vomiting involuntarily for some unspecified reason. Focus is on the involuntariness of the action rather than on its mechanics. Notice that this opposition is effected by -a' - causative derivation in

**My informant has made this comment explicitly on several occasions. For example, he said that ?a kral'im-dai 'I am coughing' (NOM subject) is strange because: "Who coughs intentionally/by himself (lit. xud baxud)?" Similarly for ?a ronz'im-dai 'I am shivering' "Who shivers intentionally?", and ?as'a hik'iu-dai 'he is hiccoughing': "no-one hiccoughs intentionally".
basic verbs.\footnote{Cardona (1978:13), discussing relations between causatives and passives in Indo-Iranian, discusses the use of constructions in which šray-\text{-}i and cet-\text{-}i, which are formally causative, are used in the senses ‘make to be heard, to be heard of, to be famous’, and ‘make to be perceived, to appear’, a development very close to the kind of involuntative semantics under consideration here.}

A list of basic verbs whose -\text{a}'- causatives display this semantics follows.

**Both members of the pair observed**

<table>
<thead>
<tr>
<th>Basic verb (volitional)</th>
<th>Gloss</th>
<th>-\text{a} derivative (non-volitional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ron'zik</td>
<td>to shiver</td>
<td>ronzek'</td>
</tr>
<tr>
<td>bom'ik</td>
<td>to vomit</td>
<td>bomek'</td>
</tr>
<tr>
<td>źik'ik</td>
<td>to pant</td>
<td>źikek'</td>
</tr>
<tr>
<td>jhon'ik</td>
<td>to know</td>
<td>jhonek'</td>
</tr>
<tr>
<td>chńik'ik</td>
<td>to sneeze</td>
<td>chńek'</td>
</tr>
<tr>
<td>iślyeq'ik</td>
<td>to slip</td>
<td>iślyagek'</td>
</tr>
<tr>
<td>krat'ik</td>
<td>to laugh</td>
<td>kratek'</td>
</tr>
<tr>
<td>khral'ik</td>
<td>to cough</td>
<td>khralek'</td>
</tr>
<tr>
<td>pad'ik</td>
<td>to break wind</td>
<td>padek'</td>
</tr>
<tr>
<td>bihik'</td>
<td>to fear</td>
<td>bihek'</td>
</tr>
<tr>
<td>hńc'ik</td>
<td>to hiccough</td>
<td>hńcek'</td>
</tr>
<tr>
<td>draž'ik</td>
<td>to stretch</td>
<td>dražek'</td>
</tr>
<tr>
<td>žuk</td>
<td>to eat</td>
<td>žuek' ‘to feel appetite’</td>
</tr>
<tr>
<td>praS'mik</td>
<td>to forget</td>
<td>praSmek'</td>
</tr>
<tr>
<td>grik</td>
<td>to grasp</td>
<td>griek' ‘to get hit’</td>
</tr>
<tr>
<td>jhon'ik</td>
<td>to know</td>
<td>jhonek' ‘to seem’</td>
</tr>
<tr>
<td>mutr'ik</td>
<td>to urinate</td>
<td>mut'ra lasek'</td>
</tr>
<tr>
<td>a'śi bihoc'ik</td>
<td>to open mouth</td>
<td>a'śi bihocek'</td>
</tr>
<tr>
<td></td>
<td>wide/to yawn</td>
<td></td>
</tr>
</tbody>
</table>

**One member of the pair observed**

- to be numb/ painful with cold
- to pain, hurt
- to stumble (khur) Dukek'
- to be drowsy
- to be dizzy
- to blink ec phikek'

The second way in which this semantic opposition is...
effected is by the employment for one semantic pole of what I will call indigenous or early conjunct verbs. These are formed from the semantically bleached *dyek* ("put", 'place'; strike, beat) or *grik* ("to take, seize") with the NOM case of the sensation or action nominal and either an OBL experiencer or locative expression referring to a specific part of the experiencer's body. Verb agreement is third person singular regardless of the person and number of the experiencer. This collocation encodes involuntary sensations or afflictions. The opposite

\[\text{**Trail and Cooper (1987:148) give this verb as *dyek* 'put, place'. Morgenstierne (1973:97) gives the root as *di-* 'to strike, shoot' (< OIA *dha*: (T6145)). It is clear from the range of examples given by both authors that the same verb is in question. The semantics of this root and its various reflexes is further complicated by the fact that forms of 'give' (< OIA *dai*) and forms from OIA *dha*: in the meaning of 'beat' have fallen together in some tenses.}\]

\[\text{**Hock (1981:12) notes a Vedic form *srad dha*: 'believe' (lit. 'belief put') which he classes as an "affected agent verb". He comments that "It seems that the compound of *srad* 'belief' and *dha*: 'put' has become lexicalized in the meaning 'believe'. On p. 16 (ibid.) he also notes a form *pari dha*: 'to put on, clothe'. Perhaps these Vedic conjuncts in *dha*: contribute to the the historical antecedence of these early conjunct verbs in Kalasha. Cardona (1978), a discussion of *dha*: and *kr*- as (complementary) causatives to *as*- , discusses another aspect of the history of *dha*: and its reflexes which may be relevant to the Kalasha situation.}\]

\[\text{**Weather phenomena are also expressed with this indigenous type of conjunct verb. A partial listing of these (Trail and Cooper 1987:116) is given here:}\]

\[\begin{array}{ll}
\text{sì'rA dyek} & \text{to blow (wind)} \\
\text{bhOjau' dyek} & \text{to occur (earthquake)} \\
\text{kir'ik dyek} & \text{to fall (snow)} \\
\text{baS'ik dyek} & \text{to fall (rain)} \\
\text{tdo'cik dyek} & \text{to flash (lightning)} \\
\text{DiDayOg' dyek} & \text{to rumble (thunder)} \\
\text{suir'yi dyek} & \text{to rise, shine (sun)} \\
\text{mastruk' dyek} & \text{to rise, shine (moon)}
\end{array}\]
semantic pole (volitional) is encoded most often by a basic transitive verb with NOM experiencer and verb agreement with the experiencer. In (65–69) I illustrate four pairs of expressions, one involuntary and one volitional; in the (a) sentences the action is involuntary, and in the (b) sentences volitional.

65-a) mai phuS gri ši’u (T&C 1987:62; E:bk):* I(OBL) blowing seize(P PERF)-3s 'I am panting/out of breath.'

b) a ²gar’ phuS’im-dai [S] I(NOM) fire blow(P/F-S)-is 'I am blowing the fire (to make it light).'

66-a) ša’sa phušik’ gandur’yak dyel’-lai [E:bk] EMPH-that flower fragrance put(P/F-S)-3s 'That flower smells sweet.'

prelik’ dyek 'to shine (light)'
bhas dyek 'to radiate (heat)'
peSgar’ dyek 'to fall (dew)'

Although the verb dyek 'put, place' is originally lexically transitive, the existence of a causative counterpart of these semantically intransitive sentences with weather verbs suggests that they are now perceived as purely intransitive. Thus we can have a sentence like (a):

(a) baS’ik khodai’ di-əl’ khoday’-as hok’um order rain god fall-Cs(P/F-NS)-3s god-OBL
pe haw’alaau’ baS’ik
if become(PST-A)-3s become(PST-A)-3s rain
dyel [S:bk]
fall-Cs-(P/F-NS)-3s
'God makes the rain fall. If it is God’s order, it will rain.'

in which a causal agent, i.e. God, is overtly expressed.

49This notation indicates that the example was first observed in Trail and Cooper’s dictionary, then verified with my own informant. In the case of examples cited from Trail and Cooper’s dictionary, my hearing of the words usually agrees with theirs, and I have retained their spelling. Where there is a significant difference, I have spelled the word as I heard it. One consistent difference is that instead of spelling words ending in a final vowel sound with ɣ or ʷ, I have spelled them with the vowel, i or u in most cases.
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b) a gambu’ri gandur’yk i-em’-dai [S:bk] I(NOM) flower fragrance come(Cs-P/F-S)-1s 'I am smelling the flower.'

67-a) a’sa lac dyai śi’u [E:bk] she(DBL) shame put(P PERF)-3s 'She feels ashamed/shy (because of natural shyness or some embarrassing situation).

b) šum krom kai-o te lac as’ta ne bad deed do(CP)-q they(NOM) shame also not jhon’an-dai [S] know(P/F-S)-3p 'Even after doing a bad deed they don’t feel ashamed.'

68-a) mai kO’-una prau [S] I(DBL) ear-LOC fall(PST-A)-3s 'I heard it.'

b) mai mon kO kar’i [S] I(OBL) word ear do(IMP2s) 'Listen to what I say!'

This is not to say that all the conjuncts in nominal of sensation plus dyek or grik have exact volitional counterparts in basic transitive verbs with NOM experiencer subjects, but that enough of them do to suggest that this formal opposition is functional in the language. A list of the verbs falling into this type follows.

<table>
<thead>
<tr>
<th>Basic verbs</th>
<th>Some conjuncts (volitional)</th>
<th>Gloss</th>
<th>Early conjuncts (non-volitional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>corresponding pairs directly observed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phuS’ik</td>
<td>to blow</td>
<td>phuS grik ‘to pant’</td>
<td></td>
</tr>
<tr>
<td>gandur’yak iek’</td>
<td>to smell</td>
<td>gandur’yak dyek</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(sweet)</td>
<td>gandur’yak kar’ik</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>to smell (bad)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>gon dyek</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kaT’ar kar’ik</td>
<td></td>
</tr>
<tr>
<td>lac jhon’ik</td>
<td>to feel shame</td>
<td>lac dyek</td>
<td></td>
</tr>
<tr>
<td>kO kar’ik</td>
<td>to listen/hear</td>
<td>kO-una dyek</td>
<td></td>
</tr>
<tr>
<td>ger kar’ik</td>
<td>to understand</td>
<td>darak’-una dyek</td>
<td></td>
</tr>
</tbody>
</table>

| one member observed |
| iška’ dyek         | to sigh                      |
| khō̂ kar’ik        | to curse                     |
| diCik’             | to hate                      |
srôk kar’ik to snuff, sniffle
Sôk’ik
khaly jagek’
gàzek’
yadek’
cit’ik
israp paś’ik
sâga’ik
to taste
to think of (in a dream), remember
to remember, call to mind
to think
to dream
to hear, feel
to feel pain, dyi’li dyek
throbbing,
in head
to feel pain khila’ dyek
in body
to feel pain phas grik
in side
to like phon dyek
to feel pins capacunDa’li dyek
and needles
to feel numbness Sôg grik
to be dizzy SîS cakel’ dyek

Notice that in the set of verbs discussed in the previous paragraph ten of the non-volitionals are in N-dyek, three in N-qrik, and two in kar’ik. All these have OBL experimenters. Of the volitionals there are eleven basic verbs with NOM experiencer subjects, one with NOM experiencer subject and N-dyek, and four with NOM experiencer subjects and N-karik.

The reader will ask why I have grouped these sets of verbs together as constituting an opposition type, given that not all of them show direct correspondences of a volitional (or +control) and a non-volitional member. The answer is complicated. The first reason is that with the

My informants stated that this was a Khowar rather than an original Kalasha expression. Compare the Kalasha expression in the first opposition class SîS qherek’.

Both of these are doublets with dyek forms, gandur’yak kar’ik ‘to smell (in.)’; kat’ar kar’ik ‘to stink’ was objected to by one of my informants, but occurs spontaneously in a text.
early conjunct verbs in (lexically transitive) dyek and grik denoting involuntative there are no corresponding conjunct verbs constructed with an originally intransitive verbalizer. Thus this group of non-volitional verbal concepts stands isolated on that side. Also, the group of volitionals is unique in that it consists mostly of basic transitives with nominative subjects; the few conjunct verbs in kar'ik and dyek also do not have corresponding non-volitional verbs formed with an intransitive verbalizer (e.g. hik). Thus this class stands alone for the same reasons that the non-volitionals in dyek and grik do. But as can be seen from the four pairs of examples given above as (65) - (68) the two classes complement each other, and complete the functional opposition for the type of structure represented by N-dyek/grik.

The second reason is that both of these groups of verbs involve original Kalasha words; recent borrowings do not enter into formations with dyek and grik, nor are any recent borrowings among the basic verbs. The reader can verify this for himself by examining the lists of verbs on which this analysis is based.

These two types of opposition—one effected entirely by morphological alternation in basic verbs, and the other by a complementary relationship between a set of indigenous conjunct verbs and a set consisting mostly of basic

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*Later conjuncts in kar'ik, on the other hand, do form pairs with verbs in hik.*
transitive verbs of perception or mental activity—
represent the earliest layer of involuntative/volitional
constructions.

The third type of opposition is represented by the
triplet ano’ra kar’ik ‘to be hungry (Lit. ‘hunger do
[tr.]’), ano’ra karek’ ‘to be hungry (Lit. ‘hunger do
[cs.]’), and ano’ra hik ‘to be hungry (Lit. ‘hungry
become’). ano’ra kar’ik and ano’ra karek’ are both used
with OBL experiencer and third person singular verb
agreement, e.g. mai ano’ra kar’iu-dai ‘I am feeling
hungry’, mai ano’ra karel’-lai ‘I am feeling hungry’.
ano’ra as’ik/hik is accompanied by a NOM experiencer with
which the verb agrees, e.g. a ano’ra thi aam ‘I am hungry
(Lit. ‘have become hungry’). Some verbs participating in
this type of opposition are listed here.

<table>
<thead>
<tr>
<th>N-hik</th>
<th>Gloss</th>
<th>N-(hik)/karik/karek</th>
</tr>
</thead>
<tbody>
<tr>
<td>+/- volitional</td>
<td></td>
<td>non-volitional</td>
</tr>
<tr>
<td>both members of opposition observed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tramo’na asik/hik</td>
<td>to be cold</td>
<td>tramo’na/karik/karek</td>
</tr>
<tr>
<td>ano’ra asik/hik</td>
<td>to be hungry</td>
<td>ano’ra karik/karek</td>
</tr>
<tr>
<td>awe’ri asik/hik</td>
<td>to be without breakfast</td>
<td></td>
</tr>
<tr>
<td>Daan asik/hik</td>
<td>to be thirsty</td>
<td>Daan karik/karek</td>
</tr>
<tr>
<td>DuD’ik</td>
<td>to lie down</td>
<td>isprap’ karik/karek/</td>
</tr>
<tr>
<td>isprap’-una parik</td>
<td>to sleep, sleep</td>
<td></td>
</tr>
<tr>
<td>paš’ik</td>
<td>to go to sleep</td>
<td>hik, ‘to be sleepy’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ec’-a hik</td>
</tr>
<tr>
<td>one member observed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lahas’ hik</td>
<td>to be sick</td>
<td></td>
</tr>
<tr>
<td>khapha’ asik/hik</td>
<td>to be angry</td>
<td></td>
</tr>
<tr>
<td>berchik’</td>
<td>to be tired</td>
<td></td>
</tr>
<tr>
<td>khesmat’ hik</td>
<td>to be tired</td>
<td></td>
</tr>
<tr>
<td>agra’ik</td>
<td>to get tired</td>
<td></td>
</tr>
<tr>
<td>tsatsir’ik</td>
<td>to be satisfied</td>
<td></td>
</tr>
<tr>
<td>sarasap’ parik</td>
<td>to hear, understand</td>
<td></td>
</tr>
<tr>
<td>šarmanda’ hik</td>
<td>to be ashamed</td>
<td></td>
</tr>
<tr>
<td>grök’ik</td>
<td>to snore</td>
<td></td>
</tr>
</tbody>
</table>
to be startled

zrant'ik

to have diarrhoea

bud'ik

julap' SaT'ik, karik/karek

to belch

glyok karik/karek

to feel cold

oš karik/karek

to be tickled

tikiti'gi karik/karek

to yawn

hai karik/karek

to feel hot

hu'lu karik/karek

to feel like

V-alyak hik/karik/
V-ing

(karek)

This represents a transitional stage in which the function of the morphological relationship between kar'ik and karek' is changed so that it no longer represents the involuntative/volitional contrast that it did with bom'ik and bomek'. In the present triplet, both ano'ra kar'ik and ano'ra karek' encode involuntary action, and ano'ra as'ik/hik is neutral with respect to volitionality. When I have tried to determine the semantic difference between ano'ra kar'ik and ano'ra karek', the responses have been varied. Some people say there is no difference; others say it is a matter of dialect, with people in Bumburet using the karek' forms more often than Rumbur people; yet another has said that the form in karek' conveys a sense of more forcefulness and urgency than the form in kar'ik. Thus for example mai Daan kar'iu-dai (with kar'ik) would mean 'I am thirsty' (but moderately so), while mai Daan karel'-lai would mean 'I am thirsty (urgently so)'. The variety of responses as well as the blurred lines of the volitional non-volitional opposition, are, I think, symptomatic of the transitional state which this type of opposition represents in the evolution of the relationship between semantic parameters and formal structures in Kalasha.
There are even a few verbs in this class in which the involuntative action has three possible forms, N-karik, N-karek, and N-hik with OBL experiencer. To this type also belong the expressions in OBL experiencer with verb root-al’yak meaning ‘to feel like V-ing’, as in mai zual’yak ne kar’iu-day ‘I don’t feel like eating’. Some of the forms in -alyak allow all three verbalizers—hik, karik, and karek, e.g. bomal’yak hik/karik/karek ‘I feel vomiting coming on’; others allow only hik and karik, e.g. bihal’yak hik/karik ‘I am feeling afraid’; and still others appear to allow only hik, e.g. kratal’yak hik ‘I feel like laughing’. These uses of N-hik with OBL experiencer foreshadow the next stage of the development we are tracing.

The fourth and most recent type of opposition is of the type that will be recognized as that found in the "dative subject" vs. nominative subject distinction in many South Asian languages. This is exemplified in Urdu, for example by the pair of sentences shown in (69-a and b).

69-a) mujhe Gussa aayaa
I(DAT) anger come(PST)-msg
‘I felt angry (involuntatively)’

b) us-ne mujh par Gussa kiyaa
he-ERG I(DAT) on anger do(PST)msg
‘He was angry at me (with some control)’

In Kalasha this type of opposition is represented by pairs like cir hik ‘to be late (involuntarily)’ and cir kar’ik ‘to be late (with some control)’. cir hik occurs with OBL experiencer in a postpositional phrase and third person singular verb agreement, while cir kar’ik takes a NOM
experciencer with which the verb agrees in person and number. This verb pair behaves as shown in (70-a and b)

70-a) tai hat’ya cir  haw’-au [S:bk]
you(OBL) for late become(PST-A)3s
‘You are getting late (involuntarily)’

b) cir  mo  kar’i [S]
late not do-IMP2s
‘Don’t be late!’

Almost all of the verb pairs that participate in this fourth type of opposition are recent conjunct verbs which form pairs of the form $V^1r$ [N-hik/sik] and $V^w$ [N-karik], in which the N-hik forms take OBL experciencer and the N-karik forms take NOM experciencer. Recall that the earlier conjunct verb type in N-dyek/grik with an OBL experciencer did not have an intransitive counterpart. Some verbs participating in this type of opposition are given here.

<table>
<thead>
<tr>
<th>N-karik (volitional)</th>
<th>Gloss</th>
<th>N-hik (non-volitional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>roS karik</td>
<td>to be angry</td>
<td>roS hik</td>
</tr>
<tr>
<td>kahar’ karik</td>
<td>to be angry</td>
<td>kahar’ hik</td>
</tr>
<tr>
<td>bawar’ karik</td>
<td>to trust, believe</td>
<td>bawar’ hik</td>
</tr>
<tr>
<td>yakin’ karik</td>
<td>to believe</td>
<td>yakin’ hik</td>
</tr>
<tr>
<td>cir karik</td>
<td>to be late</td>
<td>cir hik</td>
</tr>
<tr>
<td>dragaST dyek</td>
<td>to be starving</td>
<td>dragaST Sat’ik</td>
</tr>
<tr>
<td>khošek’</td>
<td>to like</td>
<td>khoš hik</td>
</tr>
<tr>
<td>ajat karik</td>
<td>to need, use</td>
<td>ajat’ hik</td>
</tr>
<tr>
<td>khošani’ karik</td>
<td>to be happy</td>
<td>khošani’ hik</td>
</tr>
</tbody>
</table>
| mut’ra karik         | to urinate | mut’ra lasek’^3

This pair represents a mixed type, in which the volitional member is constructed with karik but the involuntative member with the causative of las’ik ‘to escape’. I have included it in this class because of the [+ control] meaning of the karik form. The basic verb mutr’ik falls in the earlier type.
Only involuntative member observed

<table>
<thead>
<tr>
<th>to be sad</th>
<th>khapha' g hik</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>hardi' khapha' hik</td>
</tr>
<tr>
<td>(&lt; Kho.)</td>
<td></td>
</tr>
<tr>
<td>to be sick</td>
<td>lahazi' SaT'ik</td>
</tr>
</tbody>
</table>

All this is not to suggest that the earlier type of opposition—effected by -a'—causative morphology—is no longer alive in the language and has been replaced by "dative subject" type constructions, but that these three stages, which I have outlined represent identifiable phases in the evolution of these constructions, and successive accretions, all of which are simultaneously present. This analysis does claim, however, that the "dative subject" type is now productive, and predicts that when new verbs enter this language, the involuntary/volitional parameter will be encoded in them by pairs of conjunct verbs in hik and karik with OBL and NOM experiencers respectively for involuntary and experiencer-controlled actions.

I summarize the salient points of the preceding discussion in the following diagram.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>NOM experiencer</th>
<th>OBL experiencer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V&lt;sub&gt;1&lt;/sub&gt;&lt;sup&gt;n&lt;/sup&gt; &lt;---same verb---&gt; V&lt;sub&gt;k&lt;/sub&gt;&lt;sup&gt;h&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOM experiencer</td>
<td>OBL experiencer</td>
</tr>
<tr>
<td></td>
<td>V&lt;sub&gt;r&lt;/sub&gt;&lt;sup&gt;h&lt;/sup&gt; &lt;---different verb---&gt; V&lt;sub&gt;r&lt;/sub&gt;&lt;sup&gt;h&lt;/sup&gt; (early conjunct verbs)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 2</th>
<th>NOM experiencer</th>
<th>OBL experiencer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V&lt;sub&gt;1&lt;/sub&gt;&lt;sup&gt;n&lt;/sup&gt; &lt;---different verb---&gt; (V&lt;sub&gt;h&lt;/sub&gt;&lt;sup&gt;k&lt;/sup&gt;&lt;sup&gt;n&lt;/sup&gt;) V&lt;sub&gt;r&lt;/sub&gt;&lt;sup&gt;h&lt;/sup&gt; V&lt;sub&gt;k&lt;/sub&gt;&lt;sup&gt;h&lt;/sup&gt; (karik conjunct verbs)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 3</th>
<th>NOM experiencer</th>
<th>OBL experiencer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V&lt;sub&gt;r&lt;/sub&gt;&lt;sup&gt;h&lt;/sup&gt; &lt;---same verb---&gt; V&lt;sub&gt;1&lt;/sub&gt;&lt;sup&gt;n&lt;/sup&gt; (later conjunct verbs in karik/hik)</td>
<td></td>
</tr>
</tbody>
</table>
Thus we see that the simplicity of the earlier (stage 1) system in which a causative relationship morphologically encoded expressed the volitionality distinction, is restored in state 3, where a causative relationship analytically encoded performs the same function. Notice also that although the volitional experiencer is in NOM case at all three stages, in stage 1 it was with an intransitive and in stage 3 with a transitive; while the non-volitional experiencer, OBL at all stages, occurred with a formally causative verb at stage 1 and with a formal intransitive at stage 3. This reversal of verb transitivity relations is a result, at least partly, of the development of the N-hik and N-karik type of conjunct verb, which in turn reflects both the general trend in NIA to analyticity and, more specifically, recent influences from Urdu and Khowar.

3.4.3.2. Causative involuntatives in other languages.

Kalasha is not alone in having a set of involuntative verbs constructed with causative morphology. Gilgit Shina has a set of at least twenty-one such verbs (Hook and Zia 1987).

This property of Shina causatives was noted by Grierson briefly in the LSI 8(2):166. "By adding ar' to the root we make it either causal or passive. Thus šidoiki, 'to strike'; šida'roiki 'to cause to strike, or 'to be struck'. In the present definite and imperfect i's is substituted for ar', but not, apparently in the present-future." Past tenses have ar', for which Grierson gives the following forms: šidar'äm 'I am being struck, will be struck', šidar'eegas 'I was struck', šidar'eegaanus 'I have been struck', and šidar'eegaasus 'I had been struck'.
experiencer usually appears in the NOM rather than the OBL case. For example, (71).

71) ma Som-ar-eégi-n \[Hook and Zia 1987:1\]
I(NOM) tire-Cs-PST3s-PR-3s
'I’m tired.’

If we compare Hook and Zia’s list of twenty-one verbs with the list of Kalasha causative verbs of bodily state we find considerable specific semantic overlap (eight of the Shina verbs match specifically with Kalasha involuntative causative expressions).

In Kashmiri also a construction which is formally transitive or causative but semantically intransitive is encountered in expressions of impersonal action. Hook (1986) is an analysis of the syntactic properties of these constructions, one example of which is reproduced here as (72).

72) vakhit-i brö:NTh buDir-0:vu-n-akh tsi [Hook 1986:184]
time-ABL before age-Cs-3sAG-2sNOM you(NOM)
‘You’ve aged before your time.’

In this sentence -0:vu- is a causative morpheme and -n- is a third singular pronominal suffix of the type which usually is coreferential with agents in ergative tenses in Kashmiri.\(^{59}\) It seems clear that these constructions in Kashmiri represent another development of the same process observed in Kalasha causatives of involuntary action.

In the Burushaski of Gilgit involuntary physical actions like vomiting, sneezing, coughing, pain, shivering,

\(^{59}\)For detailed analysis and discussion of the intricacies of the pronominal suffixing system in Kashmiri see Hook and Koul (1984).
can be expressed with sentences like (73-a),

73-a) je xus åa-t-imi [skb]e
   I(NOM) cough PP1s-do(PAST)-3s(hm, y or x)
   'I coughed (involuntarily).'

while the corresponding volitional action is expressed with (74-b).

74-b) ja xus et-am [skb]
   I(ERG) cough do-PST-1s
   'I coughed (intentionally).'

In (74-a) the pronominal prefix åa- encodes what I have elsewhere called an "affected" participant. This is a series III pronominal prefix (Berger ms:4.2.2.), which have long vowels with stress on the first mora. These prefixes are coreferential with affected participants who may be beneficiaries, causees, or, as in the above example, non-volitional experiencers. Thus (75)

75) gòo-t-am [Berger p.c.]
   2s-do(PST)-ls
   a) 'I caused you to do it.'
   b) 'I did it for you.'

can have either the causative (a) or the benefactive (b) reading.

It may be that Urdu and Hindi also display (vestigial?) traces of this semantic development. For the

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I am grateful to Sherbaz Khan Bercha, of the Gilgit Public Library, for these Burushaski data.

See Bashir (1985) for a discussion of the parameter of "affectedness" with reference to the semantics of the Burushaski verb system.

There is evidence from the Aliabad dialect of Burushaski that the concepts of causee and beneficiary are conceptually distinct, viz. gòptam 'I caused you to do it', and gò-étam (< qoo-r etam 2s-DAT do(PST)-ls 'I did it for you'). (Berger p.c.)
verbs of perception 'see' and 'hear' we have constructions
like those in (76-a and b), and for 'to be known as, be
called', the originally causative kahlaanaa (< kahnaa 'to
say' (76-c).

Scattered throughout the literature on IA languages
there are references to the identity of semantically
passive or intransitive and formally causative morphology.
These are discussed under two general heads: (a)
"Potential/necessitative passives" with -w-, e.g. Tessitori
(1914:#140) for Old Rajasthani, Hoernle (1880:325); (b) aa
passives, e.g. Saksena (1937:290-1) for early Awadhi and
Tiwari (1960) for Bhojpuri. At issue is whether one or
both of these classes of constructions are (historically)
derived from causatives. Hoernle, followed by Tessitori,
derives potential passives from -aapa- causatives. Bloch
(1914:241), following Beames, disagrees, arguing that
potential passives are derived from the OIA -tavya
gerundives. This seems to be correct with regard to the
potential/necessitative passives.

Passives in -aa- which are distinct from the
"potential/necessitative" passives, are found in Early
Awadhi (Saksena 1937:240-1) and in Bhojpuri (Tiwari
1960:165). For example, Modern Bhojpuri: aneti calalaa se
adimii pamc me bejai haa kahaalaa 'A man is said to be bad
in society by living dishonestly'; or Kabir, "Bijaka mula",
(p. 24) so bana dekhata jiwa Deraanaa 'The soul was
frightened seeing that forest.' Saksena (1937:291) cites
among others the following forms: lai aaneu 'was ashamed
(Jaayasii, p. 179), juDaanaa 'became afraid' (p. 58, l. 5); Nur muhammad bhulaanee 'became forgetful' (p. 15, l. 23).
The occurrence of the involuntary predicates 'be ashamed',
'be frightened', and 'become forgetful' here is interesting
in view of the Kalasha situation.

With regard to the historical origin of the -aa-
passives, Tiwari (1960:165) reproduces Chatterji's
(1926:928-9) argument for the derivation of these forms
from OIA denominative -aaya- (as opposed to derivation from
causative -aapaya). Given that one of the functions
typically performed by causative morphemes is to create
demoninative verbs, this is not inconsistent with the
thesis of identity of causative and passive morphology.
The question then becomes whether this identity is
explained by the cross-linguistic propensity of causative
morphemes to this particular polysemy, or whether it is a
phenomenon of the type found in Kalasha.

Nedyalkov and Silnitsky (1973:20-1) discuss several
non-IA languages in which the causative morpheme is
associated with a decrease in the original syntactic
valence, which they call "passive". They cite examples of
76-a) koi aawaaz sun-aa-i detii
some sound hear-Cs-CP give-P-3s
'I heard something (involuntarily).'

b) duur se ek makaan dikh-aa-i de rahaa thaa
distance from one house see-Cs-CP give(PST PROG)3s,m
'A house was visible in the distance.'

c) yih muhalla puraanii anaakalii kah-laataa hai
this neighborhood old A. say-Cs-PRES IMPERF-3sm
'This neighborhood is called "Old Anarkali".'

In Dravidian Telugu, the normal verbs for 'see',
'hear', and 'seem' are old causatives: kanipincu 'to see
(lit. to cause to see)', vinipincu 'to hear (Lit 'to cause
to hear'), and anipincu 'to seem' (Lit 'to cause to say')
are the normal verbs for these basic non-volitional
perceptual notions.

The situation in Khowar, however, is different from
that in Kalasha. Although there are situations where
derived transitive verbs, which in Khowar have the same
morphology as CAUSATIVES, can be used with situations
this type of development from the languages Evenki, Moxa,
Karalpak, and Manchurian. They also note that even in
Chinese, with an analytic causative construction, an "empty
causative verb" kiao can be used to achieve a passive
meaning.

Masica (1976:177-8) also comments on the recurring
cross-linguistic identity of causative and passive
morphology; he cites Tuvinian, Manchu, Korean and certain
Mon-Khmer languages of Viet Nam, Georgian, and Bilin.
Citing cases of the resemblance of the causative morpheme
of one language to the passive morpheme of a neighboring
language, e.g. Baluchi causative -en and Brahui anti-
causative -eng, he suggests that "what seems to be implied
is a stage - protohistorical, deep-transformational, or
even present-surface - when there is a category identified
simply as change of verbal valence, for which the
directionality of change (addition vs. subtraction) is
specified later." (Ibid.:178)

involving involuntary bodily states, this is not the normal way of encoding these situations, and the use of causative morphology implies that the speaker has a specific agent in mind. Examples (77-a and b) illustrate this.

77-a) awa khaph-im-an (<khophik' 'to cough') [rkb]
   I(NOM) cough(P/F-S)-1s
   'I am coughing'

   b) ma khop-e'-ir-an (<khope'ik 'to make cough')
   I(OBL) cough-Cs(P/F-S)-3s
   'It is making me cough.' [rkb]

If (b) is used, it suggests that some specific agent, which can be animate or inanimate, is part of the conceptualization; in Kalasha the meaning is not of specific agent but of involuntary action. Also, this type of construction is less frequent than it is in Kalasha.

3.4.3.3. Causative involuntatives in diachronic perspective. We have seen that originally causative morphology not infrequently tends to develop into involuntative constructions. In Kalasha we have traced the stages of a system based on involuntative constructions with causative morphology evolving into one in which dative subject constructions are the productive type. The history of English affords a well-studied example of the evolution of dative subject (called "impersonal" in that context) constructions into "personal" (i.e. nominative subject) constructions.  

Klaiman's 1976 study of the volitionality parameter and the dative subject construction in Bengali demonstrates that the formal mechanism of dative subject

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See, for example, McCawley (1976), Allen (1984).
was not associated with the semantic parameter of volitionality "until sometime after the early middle Bengali period" (1976:125). Tantalizingly though, that study does not say anything about how volitionality was encoded before it became associated with the dative subject construction.

Taken together, these synchronic cross-linguistic glimpses at involuntative causative constructions, and the diachronic observations on the shifting associations of the volitionality parameter with causative morphology, dative subject, and nominative subject constructions, suggest that the use of causative morphology to encode involuntary action is a frequently adopted strategy in languages the other systems of which provide the necessary conditions for its development.

What are some of the conditions that allow (or

Thd dative subject construction appears not to be original in Indo-Aryan. Hook (1982:30) notes that "a comparison of the construction in Sanskrit with modern Indo-Aryan shows a dramatic broadening of its scope". At the time of Pāṇini (ca. 500 B.C.) the dative construction applied only with the verb 'to like, be pleased', and appears to have been an innovation at that time (ibid.:36, n.3).

The dative subject construction also seems not to be indigenous to Tibeto-Burman. DeLancey (1985:58) notes that Lhasa Tibetan has a few dative subject predicates but fewer than in Western Tibetan dialects, e.g. Balti, which is geographically closer to other South Asian languages. Verbs of perception and cognition, for which non-volitionality is indicated by the dative subject construction in Balti, take ergative experiencers in Lhasa Tibetan with volitionality contrasts indicated in part by interaction with the evidentiality system. (See Ch. 2 above).

It is also not indigenous to Burushaski, in which the primary mechanism for encoding involuntary experience is pronominal prefixation.
predispose a language to) this development? First, a language must have a morphological means of expressing causativity relations. Second, the requirement that the causal agent be animate or even specific must be lost, as it has in Kalasha and in Gilgit Shina and Kashmiri. Third, it may be the case that the causative morpheme must be specified for contact as opposed to distant causation. Perhaps in order for this to happen with a given causative morpheme a new (second) causative morpheme (or analytic mechanism) which is specified for distant causation must enter the language. In Kalasha the -aw- causative morpheme meets this description. Kashmiri, which also allows double causativization, also has this characteristic. So does Telugu, with its several layers of causative morphology---(p)incu, as well as its analytic causatives. If this is so, we should find that involuntative meanings will develop only in languages with more than one (historically) identifiable layer of causative morphology/(formal mechanism).

These observations also suggest that causative involuntatives may represent one stage in an evolutionary cycle, at least two other (potential) stages of which are represented by dative experiencer and "personal" (i.e. nominative experiencer) constructions.
4.1. Definitions

The compound verb is a complex verbal construction consisting of the verb stem/conjunctive participial form plus a finite verbal element, which bears tense/aspect and person-number marking. These finite elements belong to a limited set of verbs, usually basic verbs of motion or action verbs with a strong directional component in their meanings. 'Go', 'throw', 'leave behind', 'put', 'sit down', 'give', and 'take' are among the verbs most commonly encountered as vectors, the term I shall use to denote these finite elements. The first, non-finite component will be called main verb. In Hindi and Urdu aa jaanaa ('come-GO' > 'come'), rakh lenaa ('put-TAKE' > 'take'), rakh denaa ('put-GIVE' > 'put') are typical compound verb collocations. The critical feature of the compound verb construction is that this second, finite verbal element, the vector, has been semantically bleached (to a greater or

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1In some South Asian languages the conjunctive participle is homophonous with the bare stem.

lesser extent), and the specific lexical semantic load is carried by the first (non-finite) element (the main verb), while the vector contributes more abstract (grammatical) meaning. (Masica 1976:141). Example (1) illustrates the appearance of the compound verb in Urdu, a language in which the compound verb system is highly developed.

1) māṁ ke aap kaa kaam kar diyaa [Hook, 1974:18] I ERG your work do-gave 'I did your job.'

In this sentence the main verb is kar 'do' and the vector verb is diyaa 'gave'.

The compound verb is one of the characteristic but not defining features of the South Asian linguistic area. Compound verbs are found in the Indo-Aryan, Dravidian, Tibeto-Burman and Munda languages of South Asia, in Iranian and Turkic languages immediately to the north in Central Asia, and in Korean and Japanese and some Tibeto-Burman languages. These constructions are so salient a feature of some languages of South Asia that they have been intensively studied, especially for Dravidian languages and for Hindi. Compound verb constructions in the "Dardic"

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3Masica (1976), Chapter 5.

4Hook (1974) is pre-eminent among these studies for Hindi; it examines, evaluates, and moves forward on the basis of all previous work on the Hindi compound verb. For Dravidian languages there is Fedson (1981) on the compound verb in Tamil; and recently a cross linguistic statistical study by Singh, Subbarao, and Bandyopadhyay focussing on the polar verbs (i.e. main verbs) that can co-occur with various vectors in a sample of seven South Asian languages.
languages, however, have as yet received little attention. This section is then a first approximation to a characterization of compound verb constructions in Kalasha and Khowar. I shall first describe the occurrence and semantics of compound verbs in Kalasha, and then in Khowar. Based on the insights gained from the study of compound verbs in these languages, I suggest an additional perspective on the function of compound verbs in other languages.

4.2. Compound verbs in Kalasha

4.2.1. Vectors identified

In Kalasha, I have identified compound verbs with the vectors 'go', 'put' and 'give'. This is not to claim that this is an exhaustive list, but it indicates that the construction definitely exists. The use of 'go' is illustrated in (2), 'put' in (3) and 'give' in (4).

2) baaba' -a cei uzuki' -par -au' [S, E:mb]
   sister-OBL tea spill -go(PST-A)-3s
   'Sister's tea spilled.'

3) su'da šurua'i-atha' -i [S:bk, E:mb]
   baby fall-Cs-put(PST-A)-2s
   'You let the baby fall.'

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6Grierson briefly mentions them in Kashmiri (LSI 8.2:311), giving the forms wasith pyon 'to fall down' (= Hindi gir paRNA); trowith tshunun 'to throw away' (= H. phêk denaa); ganDith dyun 'to tie up' (= H. bêxdh denaa). A recent dissertation (Kaul 1985) which I have not yet seen, also treats compound verbs in Kashmiri.

6There is also a construction consisting of the imperfective participle in -iman plus finite forms of 'come' which contributes aspectual meanings, but since it does not meet the formal definition established for the compound verb for purposes of this study, I shall not discuss it here.
The correct formal definition of the compound verb in Kalasha is somewhat problematic. For the 'give' compounds, it seems that imperative plus vector, rather than conjunctive participle plus vector, is the correct analysis. For most verbs, second person singular imperative, and conjunctive participle are homophonous, but with the main verb 'do', since the conjunctive participle form kai is irregular, we can differentiate between the conjunctive participle form on the one hand and the imperative on the other. Examples (4-a and b) in which the forms kar'ı-de and par'a-de rather than *kai-de shows up tells us that for the 'give' compounds at least the definition cannot be limited to the conjunctive participle. This conclusion is also corroborated by the form i-de 'come (lit. 'come-give') (not *i'ta-de) which occurs in another of my examples. Since in my data the 'give' forms occur only in the imperative singular, it appears that the 'give' compounds should, in the absence of evidence to the contrary, be analyzed as imperative of main verb plus imperative singular of vector.

The situation with the 'go' and 'put' compounds is different, however. We have the collocation phas phas thi gal'a, 'He broke into pieces', in which the form thi is the
unambiguous conjunctive participle, not the root or imperative form of hik 'become'. 'go' and 'put' compounds, therefore, must be defined as conjunctive participle plus vector.

From the evidence I have so far—(a) lack of clear examples in my corpus, and (b) rejection by informants in constructed test sentences—it appears that the vectors 'throw, leave' (histik), and 'take' (grik) probably do not occur in Kalasha. Examples (5) and (6) show the test

7In my corpus of thirty texts plus elicitation data there are a few examples of strings which look as though they might be compound verbs, but might also be reporting sequences of two actions. I give these here.

(i) with grik 'to take'
   a) kai-o beru'-as ik'-as Tem'-un-o to do(CP)-3s husband-PS3s come(INF)-OBL time-LOC-3s put him(ACC) gher'i phus'i suzhik' kai jip'-ai dyai again blow(CP) needle do(CP) pocket-LOC put(CP) gri a'-au [T10:3s] take(P PERF)-3s 'Having done (that), when it was time for her husband to come (home), she again blew (on) him, changed him into a needle, and put it in her pocket, (and kept it?).'

(ii) with hist'ik 'to throw, leave behind'
   b) s-isa rajuk'-as hat'ya pe hok'um ar'-i haw'-au EMPH-this rope-OBL to if order do(PST-A)-2s SUBJ thamam' duniya' bon'i hist'-iu bon'i all world tie(CP) throw(P/F-NS)-3s tie(CP) hist'il-e se tu to cikast' dek throw(PST-I)-3s-when you it(ACC) defeat give(INF) bha'-as [T17:mz] be able(P/F-NS)-2s 'If you order this rope it will tie up (and throw down?) the whole world. When it ties up (and throws down?) (everyone) you will be able to defeat (the demon).'

   c) bon'i laTora'i ahist'-au-e ragE'ak-as kai tie(CP) roll up(CP) throw(PST-A)-3s-when stick-OBL to ama'-u ki tu usT'i a'sa tye [T17:mz] say(PST-A)-3s COMP you get up(CP) him(OBL) beat(IMP2s) 'When (it) rolled up (and threw down) (the demon), he said to the stick, "Get up and beat him!".'
sentences used.

5-a) *a su'da hu'ti-ahist'-is [E:*mb]
    I child send -throw(PST-A)-ls
    *'I sent the child away.'

b) *to moc naṣa'i-ahist'-is [E:*mb]
    that man kill -throw(PST-A)-ls
    *'I killed that man.'

c) *a mes pruST kai-ahist'-is [E:*mb]
    I table good do-throw(PST-A)-ls
    *'I fixed the table.'

d) *a śen paTaka'i-ahist'-is [E:*mb]
    I bed move -throw(PST-A)-ls
    *'I moved the bed.'

e) *a sabak' Ci'Ci-ahist'-is [E:*mb]
    I lesson learn-throw(PST-A)-ls
    *'I learned the lesson.'

6-a) *a palow' żu'i-agr-is' [E:*mb, *bk]
    I apple eat -take(PST-A)-ls
    *'I ate the apple.'

b) *a cei pi -agr-is' [E:*mb, *bk]
    I tea drink-take(PST-A)-ls
    *'I drank the tea.'

c)?a cewbew' sambi' -agr-is' [E:*bk, ?mb]
    I clothes put.on -take(PST-A)-ls
    *?,'I put on my clothes.'

While a sentence like (7) is grammatical, its meaning is of two sequential actions, not the unitary conception required

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d) khâgar'-an tyai to naṣa-u du khâDa
    sword-INST beat(CP) him(ACC) kill(PST-A)-3s two halves
    kai ahist'-au [T19:nk]
    do(CP) throw(PST-A)-3s
    'Beating him with a sword, he killed him. He cut him into two halves (and threw him down?).'

In these sentences it is not clear whether two-action sequences, e.g. 'tied up and threw down' or single actions 'tied up', as in (b), are intended.

°Sentence (6-c) was rejected by one informant, while the other said that while it was not totally impossible it would be very unusual and she would not say it herself.
for compound verb interpretation.

7) a gon’a muT chin’i-ahist’-is [E:mb]
I big tree cut -throw(PST-A)-1s
a) ‘I cut the big tree and threw it.’
b) ‘I cut down the big tree.’

4.2.2. Some syntactic properties

The usual order of main verb and vector can be reversed, as in (8) and (9).*

8) Tim’-una par-is’ du’i [S, E:mb]
stove-LOC go-(P/F-NS)-2s burn
‘You will burn yourself on the stove!’

9) heh de -lu’i di aay-au hat’ya
heh heh, give-look(IMP 2s) now mother-PS2s for
tro’i [T15:mb]
cry(IMP2s)
‘Heh heh, now cry for your mother.’

Such reversal is not frequently encountered; these examples would indicate that, as in Hindi or in Panjabi¹⁰, the reversed order marks heightened vehemence or emotion.

No element can intervene between the main verb and the vector verb. If any particle or adverb is introduced in this position it has the effect of decomposing the compound verb and forcing a two-action interpretation. Thus the insertion of ne ‘not’, as in (10), destroys the compound verb.

10) ?cei vi’Si ne par-au’ [E:mb]
tea boil not go(PST-A)-3s

¹°This, however, is not the same as the "true" reversal discussed in Hook (1974:8-9, 55-65), in which the desinence occurs on the main verb rather than the vector, as in us ne jhatke se lagaam khIic dii/de khIicii ‘He jerked on the reins’ (p. 54).

¹°For example the sentence oh-tä gyaa aa ‘He has arrived (lit. he-TOP went-come)’ (said with emphatic finality).
*a) 'The tea did not boil over.'
*b) The tea boiled but did not go over the top.'

The same applies to the particles -a, -ta, and -mi.11

11-a) *au du'i-o par-au' [E:mb]
      bread burn-g go(PST-A)-3s
      *a) 'The bread burned.'
      ?b) 'The bread burned and left (of its own volition).' 

b) *au' du'i-mi' par-au' [E:mb]
      bread burn-mi go(PST-A)-3s
      *a) 'The bread really burned.'
      ?b) 'The bread just burned and then left.' 

b) tau' du'i-ta par-au' [E:mb]
      bread burn-ta go(PST-A)-3s
      *a) 'The bread burned'.
      ?b) 'The bread burned and left.' 

The two-action readings forced in these cases are semantically strange; they imply that the bread is an animate agent walking away on its own.

However, with de compounds it appears that the cajolative particle na(a)/nee can intervene between the imperative main verb and de, as in (12).

12) i -na-de mai sum a tai
    come(IMP2s)-CAJ-give(IMP2s) I(OBL) with I you(OBL)

    paś-em' niś-an' de-m [T7:kn]
    see(Cs)(P/F-NS)-ls sign give(P/F-NS)-ls
    'Come on with me. I will show you.'

4.2.3. Kalasha compounds are genuine compound verbs

In order to demonstrate that these main verb-vector sequences are indeed compound verbs, I shall invoke the

11 The particle -g when attached to any conjunctive participle in a conjunctive participle, matrix verb sequence has the effect of forcing an unambiguous sequential rather than manner or cause reading on the relationship between the conjunctive participle and the matrix verb. (cf. 1.5.3.4.)
three defining characteristics of this construction, identified by Hook (1974:94, 119). The first requirement is that the vector verbs be grammaticized, i.e. that they have lost their original lexical meaning. To this I would add the further clarification that this grammaticization result in the conceptualization of an action reported by a compound verb sequence as unitary, not as a sequence of two actions. The second diagnostic of compound verbs is that they are sensitive to negation, tending, with certain well-defined exceptions, not to occur in negative assertions. The third requisite is that the construction be generalizable, not confined to a few listable lexical items.

The three vectors 'go', 'put', and 'give' do meet the grammaticization criterion. First let us consider the situation with regard to 'go'. While in sentence (14) it might be argued that 'go' retains too much of its original motional meaning to be a true vector,

14) 'aya' islye'gi-par-is' [S, E:mb, sj]
   here slip -go(P/F-NS)-2s
   'You will slip here!' (a warning)

in (15) this potential objection does not arise.

15) au' du'i-par-au' [S, E:sj, mb]
   bread burn-go(PST-A)-3s
   'The bread burned.'

There is no motion involved in this action; second, it is not possible to consider this sentence as reporting two actions 'The bread burned and went away'.

With 'put' the case for grammaticization is even
The verb *thek* in its use as a main verb is lexically marked for an inanimate patient. Thus it cannot appear with an animate patient as demonstrated in (16).

16) a suʿda ʿsenʿ-una *athe-s'/nise-s' [E:mb]
   I child bed-LOC *put/seated
   'I put/seated the child on the bed.'

Yet when used as a vector verb, as in (17) it can appear with a main verb taking an animate patient, e.g. 'children'.

17) a sud-on' khūdiʾ-athe-s' [E:mb]
   I children-OBL call -put(PST-A)-ls
   'I called the children (but I shouldn't have).'</n
It can, of course, also be used with main verbs taking inanimate patients, as in (18).

18) a plots DuDuraʾi-athe-s' [E:mb]
   I ball roll-Cs -put(PST-A)-ls
   'I let the ball roll away.'

Example (18) also demonstrates the impossibility of considering that *thek* retains its literal meaning of 'put' in this construction. The actions of losing control of the ball, which is rolling away, and 'putting' it somewhere to keep are mutually exclusive. The same point argues that a conceptualization of two separate actions is impossible here.

Now let us look at 'give'. Usages such as the actual utterances recorded in (19) and (20) show that de (*give*) is not to be taken in its literal meaning.

19) thaʾi-de [S, E:sj, mb]
   put -give
   'Put it down!'

20) thaʾi-de [S, E:sg, mb]
   put -give
   'Give it to me!'

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12 Dead animals and humans are treated grammatically as inanimates.
20) nisi'-de [S, E:ṣj, mb]
sit –give
'Sit down!' (spoken impatiently)

In neither of these cases are two separate actions conceptualized; in (19) the single action is of putting something down, and in (20) of sitting down. Nor is the allo-benefactive sense that is often found with 'give' compounds in Hindi, Panjabi, Urdu, and Tajik Persian for example, present in these cases. It is interesting to note also that the Kalasha 'give' compounds are formed from both transitives (19) and intransitives (20).\textsuperscript{13}

The second indicator of compound verb status involves sensitivity to negation. Compounds with parik 'go' were not accepted when negated. So, corresponding to (15) au dui parau 'the bread burned' we do not get (21)

21) *au ne du'i-par-au' [E:*mb, *bk]
bread not burn-go(PST-A)-3s
*'The bread did not burn.'
or (22) corresponding to the positive cei vIS'i parau 'the tea boiled over'.

22) *cei ne vIS'i-par-au' [E:*mb, *bk]
tea not boil -go(PST-A)-3s
* 'The tea did not boil over.'

The placement of the negative element before the compound verb complex can also, depending on the semantics of the individual verb, transform a compound verb into a two-
action reading. For example, for (21) the only possible reading would be 'The bread went away without burning', in which the unitary conception of burning is replaced by a sequence of actions, which in this case does not make sense in the real world.

Compounds in de 'give' are also sensitive to negation. Although acceptability judgements varied on some of my examples, informants agreed that a negated counterpart of (19) does not work. Thus (24) was not accepted.

24) *mo thai-de [E:*bk, *mb]
   not put -give(IMP 2s)
   *Don't put it down.'

If the negative is inserted between the main verb thai and the vector de to give (25)

25) thai mo de [E:mb]
   put not give(IMP 2s)
   *i) 'Don't put it down.'
   ii) 'Having put it down, don't give it.'

the compound verb is again destroyed, leaving a two-action sequence with the meaning shown in (25-reading ii)14

The same is also true of thek 'put' compounds.

Corresponding to (3) su'da surua'i atha'i 'You let the baby fall', we do not have a negated version like (26).

26) *a su'da ne suru-a'i-athe-s' [E:*mb]
   I child not fall-Cs -put(PST-A)-1s
   'I didn't let the baby fall.'

This sentence is not possible with any interpretation, since even the two-action reading 'I put the baby down without letting her fall' is ruled out by the fact that

14also with change in phonological contour from that of the compound verb sentence.
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Thek cannot have an animate patient. With an inanimate
patient, as in (27), breaking the compound with a negative
can result in the two-action reading (27-b).

27) a) palow' ne brik'i athe-s' [E:mb]
    I apples not sell put(PST-A)-1s
    *a) 'I did not sell the apples.'

b) 'Without selling the apples I put them away.'

The third criterion—generality—operationally
defined as occurring with more than five main verbs, is
also met by these three vectors. parik' 'go' occurs freely
with intransitives given the correct context and
communicational intent of the speaker. I have examples
attested with the main verbs du'ik 'to burn', pal'ik 'to
fall', CuCu' hik 'to dry up', puri hik 'to fill up
(intrans.)', khyec hik 'to get wet, soaked', išlyeq'ik 'to
slip', uzukik' 'to spill', viš'ik 'to boil (intrans.)',
gryek hik 'to dry, get seasoned', SuS'ik 'to dry up', phas
phas hik 'to break into pieces, get smashed', lyep hik 'to
be smashed, crushed', bišik' 'to break (intrans.), bilyik'
'to melt (intrans.)', prikik' 'to fall down (wall, tree)',
DuDurik' 'to roll (intrans.)', utrukik' 'to tear', phala'ik
'to be extinguished (fire)', sas lu'i hik 'to become
exhausted (idiom)', uphuik' 'to fall out (hair)', oš hik
'to get cold'.

The 'go' vector does not combine with transitives. An
try to combine parik' with šuruek' 'to let slip, to
drop', the derived transitive (first causative) of šuru'ik

'to fall, slip', as in (28) was rejected,

28) *su'da šurua'i par-au' [E: bk]
   child slip-Cs go(PST-A)-3s
   *'The child slipped (and fell).' 

and su'da šurua'i athau' 'He let the baby fall/dropped the baby' (cf. 3 above) was proffered instead.

'Put' (thek), on the other hand, combines with transitives such as šuruek 'to drop, let fall', hist'ik 'to throw', hut'ik 'to send (ANIM object)', brîk'ik 'to sell', chin'ik 'to break (trans.)', dek 'to give', DuDurek 'to roll (trans.), lašek 'to let go, loose', paTakek 'to move', khûDiek 'to call, summon', našek 'to kill', uzak'ik 'to spill (trans.)', paš'ik 'to see', and sâga'ik 'to hear'. It combines also with causatives in -aw-, as in example (29).

29) a dalaba'sa histi-awa'ì- athe-s' [E: mb]
   I sweepings throw-Cs -put(PST-A)-ls
   *'I got the sweepings thrown away (mistakenly).'

With most of the "ingestive" verbs, however, it appears less compatible; the test sentences shown in (30-a, b, c, and d) were not accepted.

30-a) *a sabak CiC'ì- athe-s' [E: mb]
      I lesson learn-put(PST-A)-is
      *'I learned the lesson (mistakenly).'

b) *a au' żu'ì- athe-s' [E: mb]
      I bread eat -put(PST-A)-is
      *'I ate bread (mistakenly).'

c) *a cei pi - athe-s' [E: mb]
      I tea drink-put(PST-A)-is
      *'I drank tea (mistakenly)'

d) *a bô'jaw sâga'ì- athe-s' [E: mb]
      I earthquake hear -put(PST-A)-is
      *'I felt the earthquake (mistakenly).'
If the context is precisely right, however, sometimes the verbs paš'ik 'to see' and sāga'ik 'to hear' can combine with thek. The precise context that allows this will be discussed in connection with the semantics of these constructions.

Notice that all of the compound verbs in thek illustrated so far have animate agents. However, in a very interesting type of sentence, we have the possibility of thek compounds with the same set of causative involuntatives discussed in Ch. 3, and with some weather verbs. Recall that though they are semantically intransitive these verbs are lexically transitive, or morphologically so (first causative derivatives in -ā'‑), and that the agents are necessarily inanimate. I illustrate these below. In (31) and (32) appear basic transitives with inanimate agents.

31) mahC mai cōD'i-atha'-u [E:mb] 
chilies I(OBL) sting-put(PST-A)-3s
'The chilies burned me (i.e. my mouth) (spoken with dismay).'

32) āgar' mai dyQ'ki-atha'-u [E:mb] 
fire I(OBL) burn -put(PST-A)-3s
'The fire burned me.'

Derived transitives occur in (33) and (34).

33) mai khur trupa'i-atha'-u [E:mb] 
I(OBL) foot pain-CS-put(PST-A)-3s
'My foot hurt me (annoyance, dismay)' 

34) mai tramo'na gria'i -atha'-u [E:mb] 
I(OBL) cold grab-CS-put(PST-A)-3s
'I got a fever (lit. 'cold caused to seize me')'

Example (35) illustrates the semantically bleached weather verb dyek ('put, place').
35) bo kir'ik dyai-atha'-u [E:mb]
much snow fall-put(PST-A)-3s
‘A lot of snow has fallen (rueful surprise)’

The co-occurrence of these verbs with thek, which otherwise forms compound verbs only with transitives, is a further bit of evidence for the originally transitive/causative nature of these (now semantically intransitive) constructions.

The verb ‘give’ dek can combine with more than a small listable set of main verbs in fixed collocations. ‘Give’ compounds are attested with both transitives and intransitives, e.g. with dek 'to give', kar'ik 'to do', thek 'to put', nisik' 'to sit', jiek' (=jagek') 'to look at', hist'ik 'to throw', ik 'to come', and lui-'look!' 4.2.4. Kalasha compound verbs are systematic

Having established that these are genuine compound verbs, let us now investigate their systematicity in Kalasha. For while it may be true that language A and language B both have compound verb constructions, it may be the case that while they are tightly integrated into the semantic system of one language, i.e. highly systematic, they are less so in the other. Hook (1977), discussing this question with reference to Marathi, Hindi, and Gujarati, demonstrates that compound verbs, though present in Marathi, are less tightly integrated into the Marathi system than in Gujarati or in Hindi. Two of the criteria employed in that study (ibid.:5-6) are as follows. (1) If compound verbs are systematic, it will be the case that for
nearly every simple verb there is at least one corresponding compound verb. (2) If compound verbs are systematic, i.e. interact closely with the other semantic systems of the language, then factors enhancing or suppressing the incidence of compound verbs should be clearly identifiable. That is, the occurrence or non-occurrence of compound verbs should correlate positively or negatively with the appearance of other definable elements in the semantic system of the language. Sensitivity to negation is an example of such a correlation.

In assessing the systematicity of the Kalasha compound verb I shall employ these two criteria. Considering, then, the first question: for every non-compound verb in Kalasha is there at least one compound verb possible? At this stage of research on Kalasha it would be premature to attempt an unequivocal answer, but given the fact that parik 'go' occurs with many intransitives, thek 'put' with many (all?) transitives, with the productive class of -aw- causatives, and with weather verbs and causative involuntatives, and dek 'give' with both transitives and intransitives, it seems that a positive answer to the question is likely.

Turning now to the second criterion for systematicity, we ask: to what degree does the appearance of the Kalasha compound verb correlate with other identifiable semantic parameters? Three such factors will be considered: (a) the effect of negation; (b) co-occurrence possibilities
with hu’la (see Ch. 2 above); and (c) occurrence in various tense-aspect-mood forms.

Sensitivity to negation has been demonstrated above (4.2.3.) for all three vectors. Co-occurrence of the compound verbs with hu’la is highly constrained. For dek ‘give’, since I have only imperative attestations, co-occurrence with hula, which follows indicative forms, cannot be tested. Compound verbs with the vector parik’ ‘go’ appear not to accept hu’la. In addition to the fact that no such co-occurrences occur in my corpus, informants have rejected sentences designed to test this. In a sentence like (36), in which hu’la was not accepted, it is not possible to determine whether hu’la is rejected because of the PST-A form of parau’\(^{16}\) or because of the compound verb itself.

36) mai pi plots DuDuri’-para’-u (*hula) [S:mb] I(OBL) from ball roll -go(PST-A)-3s ‘The ball rolled away from me.’

In sentences (37) and (38) however, we have the P/F-NS forms bişi’ pariu’ and išlye’gi pariu’.

37) šehē mo kar’i pyalya’ bişi’-par-iu’ (*hula) thus not do(IMP2s) cup break-go(P/F-NS)-3s ‘Don’t do like that, the cup will break!’ [E:*mb, *bk]

38) se išlye’gi-par-iu’ (*hula) [E:*mb, *bk] he slip -go(P/F-NS)-3s ‘He will slip.’

Since it is sometimes possible for hu’la to co-occur with P/F-NS verbs, as in examples (42) and (45) from Ch. 2,

\(^{16}\)Recall from Chapter 2 that hula does not co-occur with PST-A verbs.
reproduced here as (39-a and b), we can conclude that it is probably the compound verb that is preventing the appearance of hula.

39-a) se ne i-u' hu'la [E:bk]
    he not come(P/F-NS)-3s become(PST-I)-3s
    'It seems that he won't come.'

b) ko DuD'-iu hu'la [S]
    why sleep(P/F-NS)-3s become(PST-I)-3s
    'Why is he sleeping?' (expresses surprise and slight annoyance)

Next, to consider compounds in thek 'put' and hu'la. The situation here is less clear. First, since all my examples of this construction are PST-A forms, which have been shown to correlate negatively with hula, it is not possible in this case to isolate the effects of compound-verb presence. Second, although almost all sentences involving compound verbs in thek 'put' with hula were rejected by both my main informants (e.g. 40), in a few cases sentences were deemed possible by one informant given a highly specific reading. One such example is shown as (41).

40) a dalaba'sa hist'i-athe-s'(*hula) [E:*bk, *mb]
    I sweepings throw -put(PST-A)-1s
    'I threw out the sweepings (mistakenly)'

41) a kitap' tas'a dai -athe-s' [E:mb]
    I book him(OBL) give-put(PST-A)-1s
    'I gave him the book (mistakenly, spoken with regret)

In the case of (41) the informant felt that hu'la, although not common in such a sentence, was not impossible; if used it added a stronger sense of regret to the utterance.

The third type of co-occurrences to be considered are those of the three vectors with various tense-aspect-mood
forms. If compound verbs are in fact systematic, we should expect to find a markedly non-random distribution across tense-aspect-mood forms; if they are non-systematic, no such correlations are predicted.

First to consider compounds with dek 'give'. All of my examples of dek compounds are imperatives. Two examples (cf. 42) in which the main verb appears in its imperative plural form but de remains in the singular suggest that de may, in fact, be invariable.

42-a) ahut'-au ki par'-a de send(PST-A)-3s COMP go(IMP2p) give(IMP2s)
aghô'-au ki mai a'sa put r ki'ya sawda' say(PST-A)-3s COMP I(DBL) this son any goods on'i a'-au [T26:bk]
bring(P PERF)-3s 'He sent him, (saying), "Go", he said, "(find out if) this son of mine has brought any goods."

b) to mahadeo ahôz'-au ki di jaga'-a then Mahadeo say(PST-A)-3s COMP now look(IMP2p)
de [Parkes, unpublished text (Birir)]
give(IMP2s) 'Then Mahadeo said, "Now look!"' (gloss mine)

Note that in the examples in (42) we have par'a de not *par'a det, and jaga'-a de not *jaga'-a det. An attempt to construct an indicative past-tense sentence was rejected (cf. 43-a).

43-a) *gon'a bat chom'-una thai-prau [E:*sj, *mb, *bk] big stone ground-LOC put -give(PST-A)-3s 'He put the big stone on the ground.'

This sentence was spontaneously repaired by my informant, who suggested (43-b), with the addition of -o, in its place.

b) gon'a bat chom'-una tha'i-o prau [S:mb] big stone ground-LOC put(CP)-o give(PST-A)-3s 'He put the big stone on the ground and gave it
Again, however, the insertion of any phonological material between the main verb and the vector destroys the compound verb, forcing the two-action reading. It is possible that further investigation will uncover contexts in which 'give' compounds may be acceptable in indicative tenses.\(^7\) It is also possible, however, that they are, in fact, only used in the imperative and that these 'give' compounds are either the vestiges of an old system involving the verb 'give' or the beginnings of a new one. With regard to the former possibility, one cannot help wondering whether there might be any connection with the present/future-specific marker -dai, which also looks as though it may have its origin in the verb 'give'. On the other hand, the -de compounds may be an independent (new?) feature of the language, with -de functioning as a sort of non-honorific addressive particle, corresponding in its use with imperatives to the politeness-affection marking particle -lya.

All except one of my attestations of thek-compounds are in the PST-A tense. The one non-past example (an elicited sentence) is shown in (44).

\(^7\)I have the following textual example:

a) tara'hali' ek gon'adreaw jao'-una kis'i there bring(CP) one big bushes thicket-LOC plow(CP) di'\(\)ta to 10 [T3:b] that(ACC) salt

'He took (a bull) there and sowed that salt in a big thicket of bushes.'

In this sentence di'\(\)ta could be the PST-I-3s of dek 'give' or of dyek 'put, place', which fall together in the past tenses.
not touch(IMP2s) you child fall-Cs-put(P/F-NS)-2s
'Don't touch (her); you will drop the baby.'

Given the semantic contribution of thek (to be elaborated in the next section), I would predict that most occurrences of these compounds will be in the PST-A tense.

Compounds with parik 'go' show several identifiable patterns in their distribution. Since in my corpus this is the most frequently occurring of the three vectors, it is possible to essay some tentative quantitative statements about their distribution. Considering spontaneous (as opposed to elicited) utterances only, I find the following distribution:

<table>
<thead>
<tr>
<th>Tense-aspect form</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/F-NS</td>
<td>2</td>
</tr>
<tr>
<td>P/F-S</td>
<td>2</td>
</tr>
<tr>
<td>PRES PERF</td>
<td>1</td>
</tr>
<tr>
<td>PST-A</td>
<td>9</td>
</tr>
<tr>
<td>PST-I</td>
<td>3</td>
</tr>
<tr>
<td>PST IMPFV-A</td>
<td>0</td>
</tr>
<tr>
<td>PST IMPFV-I</td>
<td>0</td>
</tr>
<tr>
<td>PST PERF-A</td>
<td>0</td>
</tr>
<tr>
<td>PST PERF-I</td>
<td>2</td>
</tr>
</tbody>
</table>

When sentences designed to determine whether the non-occurrence of the PST IMPFV-A, PST IMPFV-I, and PST PERF-A forms was simply a result of depending on a relatively small corpus were tested, informants mostly rejected the PST IMPFV-A (as in 45), and the PST IMPFV-I (as in 46).\(^{18}\)

45) as'a išlye'gi-pari'man ay'-is [E:i$mb, bk, sj]
   'he slip   -go(PST IMPFV-A)-3s
   'He was slipping.'

\(^{18}\)Peter Hook and Colin Masica independently comment that 'go' compound verbs tend not to occur with the progressive in Hindi and Urdu.
but mostly accepted the PST PERF-A, as in (47).

47-a) au’ du’i-pai as-is’ [E: bk, mb, sj] 
bread burn-go(PST PERF-A)-3s 
‘The bread had burned.’

b) as’a islye’gi-pai ay’-is [E: sj, mb, *bk]
he slip -go(PST PERF-A)
‘He had slipped.’

From these results I conclude that (a) compound verbs in parik’ ‘go’ tend to occur in the PST-A tense most frequently, and (b) probably do not occur in the PST IMPFV tenses. Possible reasons for this distribution will be discussed in the next section.

Compounds with parik’ ‘go’ were not accepted with haw’-au the subjunctive marker. (48) and (49) show these examples.

48) ki’ya jhon’-ek. se kai [*islye’gi parau’/what know(P/F-NS)-1p he where slip-go(PST-A)-3s
i’slye’g-is] haw’-au [E:mb, bk]
slip(PST-A)-3s become(PST-A)3s
‘Who knows where he slipped.’

49) tai au’ [*du’i-par-au’/your bread burn-go(PST-A)-3s/burn(PST-A)-3s if
haw’-au a tai de-m [E:mb]
become(PST-A)-3s I you(OBL) give(P/F-NS)-1s
‘If your bread burns, I will give you (some).’

The compound verbs, marked with *, were rejected, and the alternative simple verbs were spontaneously proffered to mend the sentences.

Based on the non-random distribution of co-occurrence with negation, hula, and various tense-aspect-mood forms observed for compounds with all three vectors, I think it
is safe to conclude that the compound verbs in Kalasha, though involving a small set of vectors, do behave systematically.

4.2.5. Semantic functions

The function of dek 'give' is not at all obvious. As noted above it does not have the literal sense of 'give', and it occurs with both transitives and intransitives. Since all of its appearances are with imperatives, we can conclude that it conveys an emphatic meaning, reinforcing the strength of the imperative. All of the contexts in which these compound verbs occur seem to involve either physical or figurative (mental) motion directed away from the agent of the verb or from his current location. This is easy to see in compounds with physical action verbs, e.g. 'give-give', 'throw-give', or 'come-give' as in (50), (51), and (52),

(50) uk de' de su'da mai [S:bkw, E:mb]
    water give-give(IMP2s) child I(OBL)
    'Give me some water, child.'

(51) as'a nazi' hist'i-de a'la [E:bk, sj, mb]
    that dirty throw -give(IMP2s) that(ACC)
    'That is dirty; throw it (away).'

(52) i'-de aya' i'ta a'la sawze'i
    come-give(IMP2s) here come(CP) that(ACC) make(IMP2s)
    'Come! Come here and fix it.' [T15:mb]

(53) jia'i-de rus'i jahas' iu'-dai [E:bk, sj, mb]
    look -give(IMP2s) russian plane come(P/F-S)-3s
    'Look - a Russian plane is coming!'

Examination of examples (51) and (53) also shows that allo-
benefactive cannot be a meaning common to all compounds in
dek. At this stage the most we can say is that dek
contributes (1) emphatic force (to imperatives), and (2) is
associated with actual or metaphorical motion away from the
actor or his current position.

The functions of parik' 'go' involve three components
of meaning: negative outcome, finality, and the property
of being (potentially) anticipated. In every example of
'go' compounds in my corpus except one, the outcome or
event reported is a negatively valued one. The fact that
with animate agents/experiencers the actions are all non-
volitional is probably causally related to this rather than
an independent parameter. Compounds with parik' 'go' occur
with concepts of burning (person, bread), slipping, drying
up (of crops), breaking into pieces, getting crushed,
boiling over, spilling, rolling away, falling down (wall),
tearing (cloth), being extinguished, getting exhausted,
falling out (hair), getting cold (tea). (54) and (55) are
typical exemplars.

54) au’ du’i-ga’la atra’ ko ne paś’-is
   bread burn-go(PST-1)-3s there why not see(P/S-NS)2s
   'The bread burned over there; why don’t you watch
   (it)?' [Sibkw, Eisj, mb]

With reference to negative outcomes and the vector
'go', Colin Masica notes the English... went and V-ed
construction. Myhill (1985) finds a positive correlation
between "unpleasantness" and the use of gonna as opposed to
will to express the future in English. Fedson (1981)
contains an interesting discussion of the use of 'go'
compound verbs in Tamil as warnings and with certain
classes of verbs in a negative valued meaning. She also
discusses a cross-linguistic tendency to associate 'go'
with negative valuation.
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55) paTŋgly-`a uk dyek ne haw-`au Su`Si-tomatoes-LOC water put not become(PST-A)-3s dry parin-`dai [S:bkw, E:si, mb] go(P/F-S)-3p
'The tomatoes didn’t get watered; they are drying up.'

The second semantic component of these verbs is a sense of finality or completeness of the action. (56) and (57) illustrate this.

56) as`a cew palyk`cak sia`la udulyi-`par-au` her dress thin be(PST-I) rip -go(PST-A)-3s 'Her dress was thin; it ripped.' [S:bk, E:mb]

57) uTi`ki tyai uTi`ki tyai[22] sas lu`i thi jump beat(CP) jump beat(CP) become exhausted-ga`la [Tl6:lg][22] (PST-I)-3s 'Jumping and jumping he got exhausted.'

Modification of compound verb sentences with adverbs denoting intensity of the action was not accepted by my informants. The (a) versions of (58) were rejected and the (b) versions offered to correctly express the thought.


b) au` kha`ca thi adu-`au [E:mb, bk]

[22] The form uTi`ki tyai (lit. 'jump-beat') looks like another candidate for investigation for possible compound verb status. I have no other examples of this type with 'beat', however, and this could be a conjunct verb formation analagous to the Punjabi chaal maarNaa (lit. 'jump-beat') 'to jump'.

[22] The phrase sas lu`i hik means idiomatically something like 'get exhausted, give up'. According to my informant, it is characteristic of Rumbur rather than of Bumburet speech. I do not yet understand the exact meaning of each component of the idiom. Peter Hook tentatively suggests that the metaphor originates in the practice of holding a finger (or a mirror) to the nose of a person who is dead or appears to be dead to "see his breath" (< sas 'breath?' and lui 'look?').
The bread burned badly.

The bread burned completely up.

The bread burned completely up.

It seems to me that the reason for this may be that the sense of completeness or finality is already carried by the compound verb, making this particular type of adverbial modification redundant or perhaps anticlimactic.

The third component of meaning common to all of these usages is that they all are uttered from the point of view of a prepared mind. I use this term with specific intent to contrast it with the term "unprepared mind" introduced by Slobin and Aksu (1982) in their discussion of the Turkish evidential particle miş. Just as a mind unprepared with reference to a particular event has no "premonitory consciousness" of that event, and the event is not "consonant with the current state of mind of the speaker",^23^ so the prepared mind is one into which the (possibility of) the event (to be) reported is already integrated, either by virtue of being anticipated, feared, desired, ordered ..., or by virtue of its being a natural, foreseeable consequence of a circumstance or action already realized.

Now let us re-examine sentences (54) - (57) in the light of this concept. In (54) the implication is that if

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^23^Slobin and Aksu's phrases.
one doesn't keep an eye on the bread while it is cooking, it is going to burn. Similarly in (55) if tomato plants are not watered, one can predict that they will dry up. Or, as in (56), if someone's dress is worn thin, its tearing is a natural consequence of this, and in (57), as a result of jumping and jumping (trying to catch a sunbeam), the subject of this sentence becomes exhausted. Informant comments about the use of sentences like *tu du'i paris'* 'you will get burned' or (58) are that they are uttered as warnings.

58) aya’ īşle’gi-par-is’ [S, Eisj, ㄇ] here slip -go(P/F-NS)-2s ‘You will slip here!’

A warning is an admonition to avoid an anticipated negative event—precisely the semantics of the prepared mind that we are discussing.

Recall also that compounds with *parik’* 'go' do not combine with *hu’la*. The reason for this, I believe, is that the meanings of these two elements are incompatible, *hu’la* signalling the unprepared mind and *parik’* the prepared mind. Compounds in *parik’* also do not combine with the subjunctivizing element *haw’-au* (cf. 48 and 49 above). This fact is also consistent with *parik’* 'go' as indicating a prepared mind, and with the sense of finality conveyed by *parik’*. If an event is already anticipated, already present in clear contour in the mind, then the tentativeness, the uncertainty, the hypotheticality carried by *haw’-au* the Kalasha subjunctive is incompatible with
that mind-set.

Now let us turn to the semantic function of compounds in thek 'put, keep'. These compounds do not occur frequently, and the following analysis is based on discussion with my informant about the various meanings of elicited examples. There appear to be two senses that can develop from compounds in 'put'. The first is of emphasis on the activity and completeness of an action, as in (59).

59) a kagas' nives'i-athe-s' [Emb]
   I letter write -put(PST-A)-ls
   a) 'I wrote the letter and put it down.'
   b) 'I have (really, completely) written the letter.'

Sentence (59) can have two readings: (a) the two-action reading, in which nives'i athes' is a two-verb sequence rather than a compound verb, and (b) a reading in which thek does not carry its literal meaning, but contributes a sense of definiteness or completeness to the action.

The second sense of the compound verb is more abstract. Consider the compound verb sentence in (60-a), for which the simple-verb version is (60-b).

60-a) a palow' brük'i-athe-s' [Emb]
   I apples sell -put(PST-A)-ls
   'I sold the apples (mistakenly).'</n
   b) a palow' abrik'-is [Emb]
   I apples sell(PST-A)-ls
   'I sold the apples.'

Given the nature of the act of selling, that is of effecting a (permanent) separation between the agent and the object of selling, thek in such contexts could not possibly have its literal meaning of 'put, keep'. What it does express is a sense of regret, which is based on
information acquired or a situation which developed after the act of selling. For example, this sentence (60-a) might be uttered if the speaker later developed a desire to eat apples and then recalled that he had sold them. He realizes after the fact that he made a mistake in selling the apples. Or, if some time later guests arrived to whom the speaker needed/wanted to serve apples and he remembered that he had sold them all, he might say (60-a), with the sense, born of hindsight, that he had made a mistake in selling them.

61-a) a dalaba' sa hist'i- athe-s' [E:mb]
   I sweepings throw-put(PST-A)-ls
   'I threw away the sweepings (mistakenly).'

   b) a dalaba' sa ahist'-is [E:mb]
   I sweepings throw(PST-A)-ls
   'I threw away the sweepings.'

Similarly with (61-a) and its semantically neutral simple-verb counterpart (61-b), the speaker could say the compound verb version if he had thrown away the sweepings and later realized that there was something he needed in them. This development of the sense of a mistake based on knowledge acquired later explains the preponderance of past-tense forms with these compounds. Sentence (62), literally 'I let the ball roll away',

62) a plots DuDura'i- athe-s'
   I ball roller-CS -put(PST-A)-ls
   'I let the ball roll away.'

reports a situation in which the speaker has hit the ball

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24 During the season of fresh fruits, these offerings of seasonal fruit to guests are almost obligatory forms of hospitality.
but it didn't go where he wanted it to. Again, the sense is of an action gone wrong, of an action having an unforeseen negative development. Example (63)

63-a) a tai paś'i-athe-s' [E:mb]
   I you(OBL) see -put(PST-A)-is
   'I saw you.'

   b) *a to moc paś'i-athe-s' [E:mb]
   I that(ACC) man see -put(PST-A)-is
   'I saw that man.'

is interesting in that it too points up the sense of action gone wrong. This sentence can be used, according to my informant, only in very specific contexts. First, it could only be said by a speaker addressing the person seen; i.e. only by a first person speaker about a second person object. Thus (63-b) is not acceptable. Second, it indicates that the speaker saw the hearer committing some sort of morally or legally reprehensible act. The sense is that the speaker saw the hearer inadvertently and wishes that he hadn't.

Recall that with bodily affliction and weather verbs, as in (31-35) above, the sense contributed by thek was one of the speaker's dismay. Since the agent in those sentences is not the speaker, the regret is not for unanticipated negative developments after his own act, but for unforeseen negative developments in the world as it impinges on him.

The semantic contribution of parik' was to indicate a negative consequence impinging on a mind prepared by foresight, while thek indicates a consequence perceived as
negative by hindsight.

'go' parik' [prepared mind] [negative consequence]

'put' thek [unprepared mind] [negative consequence]

Thus in Kalasha the formal mechanism of the compound verb has come to participate in that parameter—actual vs. inferential/prepared vs. unprepared mind—which is so salient in the semantic structure of this language. In spite of the fact that this opposition is already highly developed in the basic verb morphology, it finds yet another reflection in the compound verb system.

4.3. Compound verbs in Khowar

A brief examination of compound verb constructions in Khowar will not only provide some of the wider areal context for the discussion of Kalasha, but also affords some fascinating clues to specific puzzles about the Kalasha system.

In Khowar, compound verb constructions exist with the vectors 'go', 'leave, let go', and 'sit'. Sentences (64 - 66) exemplify compounds in 'go', 'leave, let go', and 'sit' respectively.

23 They appear not to be formed with 'put', 'give', 'rise', 'fall', 'throw', 'take', and 'see'. This tentative conclusion is based on rejection by my informants of some test sentences incorporating such constructions, as well as on wider discussion of the grammatical point involved. It was my-informants' considered opinion that compound verb constructions with these vectors did not exist. The possibility that other verbs which neither of us thought about function as vectors remains open.

The fact that there are no 'give' compounds in Khowar makes the exact status of the 'give' compounds in Kalasha even more interesting and puzzling.
64-a) tu pulis’ [if] you burn(P/F-NS)-2s 'You will get burned.'

64-b) tu puli’-bis [if] you burn-go(P/F-NS)-2s 'You will get burned.'

65-a) paloG’-an bezemi’t-am [rkb] apples-OBL sell(PST-A)-ls 'I sold the apples.'

65-b) thuu paloG’-an bezemi’-lak’it-am [rkb] alas apples-OBL sell -release(PST-A)-ls 'Alas, I sold the apples (by mistake).'

66) hase’ bok-o la’khi-niš-a’i [rkb] he(NOM) wife-OBL leave -sit down(PST-A)-3s 'He divorced his wife (the action has been completed).'

In (64) and (65) the (a) sentences show the simple version and the (b) sentences the compound verbs.

As has been demonstrated for Kalasha, the vectors which function in Khowar are grammaticized, having lost their original lexical meanings. Thus in (64) above, the meaning is the unitary conception 'You will get burned', not 'You will get burned and go'. In (65) the meaning contributed by the vector lak’ik' 'leave, let go' is of regret, and in (61) the vector nišik' 'sit down' contributes a sense of finality and completion. They appear to be general, occurring with large classes of main verbs. The rest of this discussion will consider them as genuine compound verbs.

Particularly interesting in the context of this study are the compounds in lak’ik 'let go, leave'. From examples like (65) above, (67) and others of this type, it appears that in Khowar lak’ik 'let go, release' has the same
semantics as the Kalasha compounds in *thek* 'put'.

67) thuu Daq'-o tei veše'i-lak'it-am [rkb]
    alas child-OBL there send -release(PST-A)-is
    'Alas, I sent the child over there (and realized
    later that I shouldn't have).'

That is, they indicate both a negative consequence and an unprepared mind with respect to that consequence. As in Kalasha, then, these Khowar compounds participate in the system of inferentiality-evidentiality which in Khowar also is a centrally important semantic parameter.

4.4. Another look at Hindi compound verbs

As this study of Kalasha and Khowar compound verbs and their semantic functions shows, the formal mechanism of the compound verb can be attracted to the semantic oppositions involved in the evidentiality system of a language. If we re-examine the results obtained thus far in the study of the Hindi compound verb (mainly Hook, 1974), I think a strong case can be made that in that language also, the compound verb mechanism is in some cases the vehicle of semantic distinctions pertinent to the evidentiality

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26 Why is it that the Khowar compounds in 'allow, let go' *lak'ik* have the same semantics as Kalasha compounds with 'put'? Given the fact that the two languages have been in recent close contact for centuries and that Kalasha speakers are all bilinguals, one might expect that the same vector should be employed in both languages. For this particular meaning—that of negative consequence for the unprepared mind. The fact that the Khowar verbs *lakhik* 'put' and *lak'ik* 'release, let go', are phonologically so close suggests that at some time in the past a confusion between these two may have taken place in the process of forming calques on the Khowar compounds. If a Khowar compound in *lak'ik* 'release, let go' were misheard as one with *lakhik* 'put' it might account for the Kalasha formations with 'put'.
system. When evidentiality and inferentiality systems are recognized to involve more than just direct experience vs. hearsay experience distinctions, that is, to have multiple ramifications including the "prepared mind" vs. "unprepared mind" distinction, then it can be seen that the compound verb systems in Hindi and Urdu participate in the semantics of evidentiality as well as that of aspect.

Hook (1974) contains numerous remarks and examples which adumbrate this conclusion. I now review a few of these. First let us consider some of the less common vectors. The verb nikal- (< 'come out') with its vector meaning of 'turn out to be' (ibid.:131-33) carries the meanings associated with the development of the inferential pole of this semantic dimension, the semantics of the "unprepared mind". The classes of meanings identified by Hook all point to this conclusion: the vector nikal- occurs with verbs of speaking involving unpredictable or involuntary utterances, with verbs denoting "sudden and startling appearance of sound or light", with verbs denoting outbursts of feeling, and carrying the meaning "with great ease" (i.e. lack of planning or foresight). One particularly revealing example is reproduced here as (68).

68) mān ṣaraab ke naše mē unhe na jaane kyaa kyaa kah niklaa [Hook, 1974:132]
   'God knows what I said to them while I was drunk.'

This example shows precisely the same semantics—unconscious action, lack of control, non volitionality—

and most probably Panjabi also.
which has been shown to develop with inferential forms and first person experiencers for Lhasa Tibetan (DeLancey, 1985-a) and for Kalasha (Chapter 2 above).

In contrast to nikal- ("come out") is the meaning carried by nikaal- ("to cause to come out")—that of "successfully overcoming some difficulty, resistance or unlikelihood" as in (69).

69) unhô ne madad de kar apne riśtedaarã ko is zindagi se ubhaar nikaalaa [Hook 1974:143]
‘By giving his relatives help he raised them up from this kind of life.’

where the appearance of the transitive form changes the semantics to that of the prepared mind.

The vector baiThnaa ‘sit’ carries a meaning of surprise and dismay felt after the fact, very much like that conveyed by Kalasha thek ‘put’ and Khowar lak’ik ‘leave, let go’. Consider example (70).

70) mäï kyaa kar . baiThaa
I what do(CP) sit down(PST 3sm)
‘What have I done!?’

An interesting usage of the vector rakh- ‘put, keep’ with intransitives, which Hook (1974:138-9) finds characteristic of the speech of Dehra Dun in the northwest sector of the Hindi area, is reminiscent of the semantics ([+negative] [+unprepared mind]) of the ‘put’ vector in Kalasha and Khowar. Of Hook’s eight examples, all eight report negatively valued events, and five of them (a, b, d, 

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28 I am grateful to Peter Hook for this example. baiThnaa ‘sit down’, having been dealt with at some length in Hacker (1958), is not treated in Hook (1974).
e, f) seem arguably to report events that were unanticipated by the speaker. I reproduce Hook’s example (a) here as (71).

71) gaaRii më gaRbaR ho -rakhii hai car in trouble(fs) become-put-P PERF(fs) 'Something’s gone wrong with the car.'

The three most common vectors are jaanaa 'go', lenaa 'take', and denaa 'give'. Usually compound verbs with these vectors do not occur in the negative. But there is a small class of exceptions, for example future imperatives, expressions of fear, jab tak 'until'. Example (72) illustrates one class of these examples.

72) mera dil kaa jap rahaa thaa ki kahii swaamii my heart tremble(PST PROG) COMP lest S. sacmuc aatmagaat na kar la [Hook 1974:212, ex. b] really suicide NEG do-take(SUBJ) 'I was worried to death that Swami might really commit suicide.'

In his discussion of these (exceptional) contexts in which compound verbs with these vectors do co-occur with negative elements, Hook finds that "the corresponding sentence without negation does not express the positive occurrence of an actual event but rather the eventual, contingent or conjectured occurrence of some imagined (emphasis mine) event (ibid.:209)". The key words are imagined and conjectured; these contexts all involve situations in which the speaker has already integrated the (possibility of the) event into his conceptual structure. They all involve, in other words, the prepared mind, which is associated with the evidential pole of this semantic dimension. In these constructions, contexts demanding the prepared mind
override the tendency of compounds not to occur with negation.

Another bit of evidence to review here is the contrast between environments requiring non-compound verbs—in statements reporting inventions, creations and discoveries (ibid.:240), generic and stative expressions (p. 243)—and those requiring the compound verb. For example, in (73) the compound verb does not work.

73) kalambas ne amrikaa ki khoj ki/
   Columbus-ERG A. of discovery(fs) do(PST)-fs
   *kar dii/*kar lii [Hook 1974:240]
   do-give(PST)/do-take(PST)
   'Columbus discovered America.'

Hook states explicitly that "in cases where the performance of an action is completely unforeseen by the speaker he may not use the compound verb", (ibid.:248), whereas the compound verb presupposes that the action is already pre-existing in some sense in the mind of the speaker. Yet, while pointing out that

"Of all these conditions, the most intriguing . . . the one by virtue of which the aspectual system of Hindi may very well depart from that of Slavic is that considered under the rubric "lack of prior knowledge". It is this condition (for simple manifestations of the verb) that suggests that the use of the compound verb depends on more than how the contour of the action is perceived by the speaker. It suggests he must also have presupposed or pre-entertained the existence of the entities his utterance describes." (316)

Hook concludes that the aspectual function of the compound verb is primary:

"the relation of compound verb to simple verb is a privative, aspectual one, with the compound verb expressing completion of action. . . . The other functions or meanings of the compound verb may be
What I should like to add to this dialogue on the compound verb, based on the insights gained from Kalasha and Khowar, is to take the argument one step further and say that the prepared mind vs. lack of prior knowledge semantics which clearly interacts at certain points with the Hindi compound verb system is not derived from an aspectual function, but is the manifestation of the independent semantic parameter of evidentiality-inferentiality in this language. This parameter is locatable on an analytic axis which deals with epistemology—the nature of the relation of the speaker's knowledge/belief state to the actions or entities reported. The category of aspect on the other hand deals with how the speaker elects to perceive the temporal structure of an event, and does not relate to questions of how the action is integrated (or not) into the speaker's knowledge and beliefs.

This provides an explanation, I believe, for that "certain residual preference for the compound which encompasses almost all verbal expression in Hindi," noted by Hook (ibid.:313). Discussing the three most frequently encountered vectors in Hindi, he continues:

"If the marked influence of no simple environment is present, if the sentence is fairly simple (agent-(object)-verb). . . and, most important if there is no special stress or emphasis on any particular element in the sentence, then for almost all speakers almost all sentences sound noticeably better under compound
manifestation (p. 313)

We have seen that the three most frequently encountered vectors in Hindi 'go', 'give', and 'take' are often associated with the evidential end of the evidential inferential dimension, the pole associated with the semantics of the prepared mind.

There appears to be some other cross-linguistic evidence of a tendency to associate 'go' to varying degrees with aspects of the semantics of the evidential pole (cf. direct knowledge, prepared mind). For example, in Tibetan (DeLancey 1985-a, b, 1986) the particle son (< perfective of 'go') is associated in the perfect with non first-person actors with evidential as opposed to inferential semantics. Consider examples (a) and (b) from Delancey.

a) k'yeran ril so [DeLancey 1985-b:60]
   you fall PERF/EVIDENTIAL
   'You fell down (I saw it).'</n
b) k'yeran ril bšag
   you fall PERF/INFERENTIAL
   'You fell down (I infer it).'</n
In a contrast involving a first-person actor, shown in (c) and (d), from Delancey 1985-b:64, we find son occurring with the particle na which carries a sense something like 'just as I thought would happen'.

c) qa ril-soŋ-na
   I fall-PERF
   'I did fall (just as I expected).'

c) qa ril byung
   I fall-PERF
   'I fell down.'

DeLancey notes that "this correlates well with the evidentiary use of son ... we find son used when the speaker is aware of the entire Cause-Effect chain from start to finish, i.e. from Source to Goal." He explains this by arguing that son in all of its uses identifies an actor as Source, and that "both Cause and its subcategory Agent are identifiable as subcategories of Source." (1985-b:63)

Myhill (1985) discussing the distribution of gonna and will as markers of future time reference in English, shows that the appearance of gonna is responsive to the variables (a) source of information reflected in the utterance: specific source vs. no particular source, and (b) agreement vs. (unilateral) decision. (1985:5). His figures shows that when a specific source of information is cited, gonna rather than will appears, and that when a prospective event is presented as the result of unilateral decision rather
residual preference for compound-verb expression over
simple, we can postulate a markedness relationship:
insofar as they participate in the evidentiality parameter
of the language, these compound verbs are semantically
unmarked with respect to the simple verb; and the reason
for this is that the evidential pole is semantically
unmarked with respect to the inferential. The semantics of
the prepared mind is unmarked with respect to that of the
unprepared mind.³⁰

than of agreement, gonna appears. Both of Myhill's
variables can be seen to be related to the speaker/agent as
knowledgeable source/agent-initiator of the prospective
action.

³⁰Peter Hook is not in concurrence with certain
aspects of this analysis, arguing (i) that the "no prior
knowledge" condition, which disallows the compound verb, is
of a different order than the semantics of the unprepared
mind, and (ii) that sometimes compound verbs with jaanaa
'go' express the semantics of the unprepared mind. He
cites examples such as (a) and (b) in support of this
argument.

a) sunitaa ke pātho anaayaas darvaaje kii aur baRh gaye
S. of feet suddenly door toward moved forward
'Sunita's feet suddenly moved toward the door.'
[from Subha, dopahr, aur şaam by Bindu Sinha]

b) par tabhii merii Mākhō ke saamne apne ghar kaa
but then my eyes in front of self's home of
naxsaa ghum gayaa
picture rose up [from Aakhirii caTTaan tak by Mohan.
Rakesh]

With regard to these examples, however, they are in my view
not counterexamples at all. In (a), for example, the
previous context of the story has been leading up to the
very act of going out the door. It is thus reporting an
event which has been (carefully) foreshadowed for the
character and for which the hearer/reader has been mentally
prepared. Similarly, with (b), in the context where the
character is visiting what he suspects to be a house of
prostitution, and hears a second person~ speak to a woman
holding a child in his~ own language, it is hardly
unexpected for a vision of his~ own home (and wife) to rise
up before his eyes.
It also suggests a reason why the manifestation of the evidentiality-inferentiality parameter in Hindi has been relatively little studied. Since it is not manifested in basic (simple) verb morphology (cf. Ch. 2), and since the compound verb, a morphologically more salient (and complex) feature of the language than the simple verb, corresponds in the majority of cases to the semantic pole unmarked with reference to the evidentiality-inferentiality parameter, there exists a "mismatch" between morphological and semantic markedness.  

4.5. The Tamil compound verb and inferentiality

Tamil has a highly ramified system of compound verbs, which convey a great variety of specific meanings including denoting resulting states, perfect, aspectual meanings, "status", voice, and manner of action (Fedson 1981:iv-v). In her discussion of the semantics of Tamil compound

With regard to the first point, I also point out that the "no prior knowledge" condition, if not identical to the semantics of the unprepared mind, is certainly a subset of that domain and therefore legitimately related to it. In general, I also point out first that my claim is not that association with the evidentiality-inferentiality parameter is not the only function of compound verbs, but another one of "the semantic distinctions that are projected onto the simple:compound opposition" (Hook 1974:198). Second, if with reference to the evidentiality-inferentiality parameter the evidential is the unmarked pole, one would expect that forms unmarked with respect to this parameter could sometimes occur in contexts having the semantics of the opposite pole.

31This situation is theoretically interesting in that it runs counter to the usual relationship observed between morphological and semantic markedness—that the semantically marked category contains more morphological material than the unmarked.
(serial) verb constructions, Fedson identifies several points at which the semantic parameter of evidentiality-inferentiality or prepared/unprepared mind interacts with the formal mechanism of the compound verb. I discuss three of these: constructions with (a) iru 'be'; (b) aaku 'become'; and (c) vai 'put'.

There exists a specifically inferential construction consisting of main verb CP plus iru 'be', about which Fedson says:

"The inferential construction indicates that the speaker infers from direct evidence or from other sources, that a certain situation held prior to the time of reference. . . . iru in the inferential does commit the speaker to the validity of what he is saying, but at the same time disavows first-hand knowledge . . . " (1981:48)

According to Fedson this is a common usage in all registers of Tamil. I reproduce one of her examples here as (74).32

74) piLLai-kku paZam puLitt- iru-kkiR-atu at-an-aal
child-DAT fruit be sour(CP) be-P-3sn that-INST
taan at-ai caapiTa-v-illai/caapiT-aamal
EMPH it-ACC eat(INF)-NEG eat-(NEG CP)
irunt-iru-kkir-atu (=Fedson's #83, p. 49)
be(CP)be-P- 3sn
'The fruit has evidently been too sour for the child, that's why he didn't eat/has evidently not eaten it.'

This construction is distinct from a specifically reportive (cf. "hearsay") morpheme -aam (= neuter future < aa/aaku 'become'), which indicates that an utterance is reported as second-hand information, and which does not commit the speaker to the truth of the statement.

32Transcription is as in Fedson (1981) in all the Tamil examples.
A compound verb construction consisting of main verb CP plus finite form of aaku 'become' is, according to Fedson, subject to two constraints. (1) The occurrence/situation reported must be "not new"; that is "when reporting the occurrence of a situation aaku conveys the nuance either that (a) something occurred as one might expect, given the circumstances, or that (b) something occurred which one hoped would occur." (2) It must be "not undesirable" to the speaker.

I quote Fedson's discussion of the "not new constraint" at some length here because of its remarkable similarity to the descriptions of the "not-unprepared mind" for Turkish and to Hook's characterization of the "no prior knowledge" environment which requires the non-compound verb in Hindi.33

"... a totally new discovery, the possibility of which was not ever suspected (e.g. the discovery of a new moon of Jupiter's), cannot be reported using aaku. If the milkman who normally comes at four o'clock, shows up at eight in the morning (unexpectedly), one can report his coming only with iru not with aaku or viTu. If, however, a genetic mechanism which triggers the growth of neoplastic as opposed to normal, cell growth were to be discovered, even if such a discovery were not specifically expected it is something which one might expect and as such, can be reported using aaku. If a missing person (whom one knew was missing) were found, as an event which one hoped might occur, rather than expected to occur, it can be reported with aaku. In such uses, aaku conveys the nuance that something has happened 'at last'. Routine situations can be reported using the construction, on the one hand, and on the other, momentous situations, which were not specifically

33The "Columbus discovered America" situation. See Ex. (73) above; also Hook (1974:242).
expected, but which are not totally new or unexpected, given the general knowledge of the speaker." (pp. 63-4)

The compound verb sequence main verb CP and the vector vai 'put' has a very interesting semantic development in Tamil. According to Fedson, its most general characterization is that "the action is viewed not in itself but in its result-producing capacity." (p. 263)

Whether the construction conveys intentional or unintentional production of these results depends, according to Fedson, on whether the sentence reports the actor's performance of an action with an eye to its result, or the speaker's view of an action as having led to a given (unintended) result. If a sentence concerns the actor performing the action denoted by the CP for the sake of its long-term results, the action is intentional (cf. "prepared mind"), as in example (75) (= Fedson's #51).

75) avan enta kaTai-y-il caikkil-ai koTu-tt-aan enRu he which shop-LOC cycle-ACC give-PST-3sm QUOT(CP)

kavanittu vaittu koN-T-aan (p. 263)
observe(CP) place(CP) hold-PST-3sm
'
... he observed (Res) (Act) which shop he gave the bicycle to (left it at). [A.1969:69]^{34}

In this sentence the action is undertaken with the intention of identifying the shop in the future. If, on the other hand, a speaker is viewing an action as having (unexpectedly) produced certain results, the use of vai 'put' conveys that the result was unintentional (cf.

^{34}(Res) and (Act) refer to Fedson's categories (result orientation) and (actor orientation).
"unprepared mind"). An example of this development is

given here as (76).

76) niinkal pala-peer mun-nilay-il kuRRA-vaalI-aay
     you-HON many-3pe front-state-LOC accused
     kaTT-unTu niR-kum nilai-y-ai eeRpaTutti
     be bound(CP) stand-nfut state-ACC create(CP)
     vai-tt-een-ee (= Fedson’s 524, p. 266)
     place-PST-1s-EMPHR [K.M.S. 1965:67]
     '(lit.) Alas, I created (Res) the state of your
     standing bound in front of many people as the
     accused.'

The context for this example is that the speaker, viewing
her action in hindsight feels that she has unintentionally
been the cause of the king’s disgrace, since he has been
arrested at the instigation of a jealous rival for her
attentions.39

Note that Fedson’s distinction between sentences
reporting on an agent performing an action in order to
cause a result and those reporting a speaker viewing the
result end of the causal chain is consistent with
DeLancey’s analysis of the relation between volitionality
and inferentiality. It points also toward an explanation
for the development of unprepared mind semantics in
association with the vector ‘put’ which we have noted in
Kalasha, Khowar and Hindi, as well as Tamil.

4.6. Typological and areal ramifications

The epistemological parameter of evidentiality-
inferentiality can, I shall assume, be taken as one which

39Fedson also has similar examples with 2nd and 3rd
person actors, in which the speaker and actor are
necessarily not the same person.
all languages will encode with one mechanism or another—whether lexical, morphological or syntactic. There is also accumulating cross-linguistic evidence that the evidential pole and the semantics of the prepared mind are causally linked and will tend to share the same formal expression. Thus if we find association of these two categories it is probably attributable to typological tendencies (or universals?) rather than to areal influences. What can be investigated as possible areal phenomena are the specific linguistic forms associated with this semantic complex.

The excursus into compound verbs in Khowar, Hindi and Tamil points up one way in which this can be begun. The formal mechanism of the compound verb has been shown to exist all throughout the "Indo-Turanian" area (Masica, 1983). The question we now need to address is this: with what specific semantics is this particular form associated—in each language where it is found, in the South Asian region, in various sub-regions? Just as Hook (1982) found that the perfective semantics associated in Hindi with the compound verb is effected by an ergative adverb po in the Marwari dialect Godwari, and that the compound verb in Marathi is not associated with perfectivity and anteriority as it is in Hindi, so this study of Kalasha and Khowar finds that the mechanism of the compound verb is associated with the semantics of evidentiality in Kalasha, Khowar and also Hindi and to some extent Tamil. We can begin to construct maps either focussing on the different semantics
associated with a given form, or taking a given semantic parameter, chart the differing formal mechanisms for its expression in the set of languages under study. The beginnings of such an endeavor might look something like this.

**Form - compound verb**

<table>
<thead>
<tr>
<th>Language</th>
<th>Associated semantics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalasha</td>
<td>inferential-evidential</td>
</tr>
<tr>
<td>Khowar</td>
<td>inferential-(evidential(?))</td>
</tr>
<tr>
<td>Hindi/Urdu</td>
<td>inferential-evidential aspectuality</td>
</tr>
<tr>
<td></td>
<td>anteriority</td>
</tr>
<tr>
<td>Marathi</td>
<td>(not aspectuality)</td>
</tr>
<tr>
<td>Tamil</td>
<td>perfect</td>
</tr>
<tr>
<td></td>
<td>resultant state</td>
</tr>
<tr>
<td></td>
<td>aspectuality</td>
</tr>
<tr>
<td></td>
<td>voice</td>
</tr>
<tr>
<td></td>
<td>manner of action</td>
</tr>
<tr>
<td></td>
<td>inferentiality-evidentiality</td>
</tr>
</tbody>
</table>

**Semantics - inferentiality/evidentiality**

<table>
<thead>
<tr>
<th>Language</th>
<th>Formal mechanism of expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalasha</td>
<td>basic verb morphology (all tenses)</td>
</tr>
<tr>
<td></td>
<td>compound verb system</td>
</tr>
<tr>
<td>Khowar</td>
<td>basic verb morphology (all tenses)</td>
</tr>
<tr>
<td></td>
<td>compound verb system</td>
</tr>
<tr>
<td>Hindi/Urdu</td>
<td>compound verb system</td>
</tr>
<tr>
<td>Persian</td>
<td>basic verb morphology (past tenses only)</td>
</tr>
<tr>
<td>Wakhi</td>
<td>basic verb morphology (perfect tenses only?)</td>
</tr>
<tr>
<td></td>
<td>(others?)</td>
</tr>
<tr>
<td>Tamil</td>
<td>compound verb system</td>
</tr>
<tr>
<td></td>
<td>-aam for reporting hearsay (others?)</td>
</tr>
</tbody>
</table>
CHAPTER 5
COMPLEMENTATION STRUCTURES

In this chapter I first introduce and illustrate the several complementation structures present in Kalasha, then comment briefly on how the distribution of Kalasha complements relates to Givon's "binding hierarchy" and typology of complements (Givon 1980). The second section focuses on the ghôî ("say") and ki complementizers, discussing their synchronic and diachronic relationships. In the third section I discuss the extended semantic development of ghôî in the context of SAY complementizers in South Asia and as reflecting possibly universal tendencies; and finally comment briefly on the increasing use of ki-clauses. Throughout the discussion the notion of complement I work with is a loose, semantically oriented one, rather than a syntactically defined one. Thus some of the structures I discuss as complements would not meet a syntactically specified definition like that in Shopen (1985 II:42)--"the syntactic situation that arises when a notional sentence or predication is an argument of a predicate".

5.1. Kalasha complement structures

Complement structures vary from those which retain all
the features of independent sentences to those which lose all sentential features and are reduced to nominalizations. An example of a fully sentential complement is 'I think he is a good man', while 'I disapprove of his administration of the program' illustrates the nominalized type. In a fully sentential complement the nominal arguments retain their independent clause marking, and the verb retains the categories of tense/aspect/mood and person-number marking. In a nominalized complement the subject or the object are genitive rather than nominative or objective NP's and the verb has become a noun.

In Kalasha there are (1) fully sentential complements, with which a complementizer most often but not always occurs; (2) modified sentential complements in which the verb, having lost its tense/mood specification and person-number marking, appears in its conjunctive participle form; (3) infinitival complements, some constructed with the OBL infinitive and some with the NOM infinitive; and (4) a few types in which the complement is an ordinary noun or adjective. By far the most numerous type is the fully sentential type with the complementizer ghʊi, which has developed from the conjunctive participle of ghʊik 'to say'.

5.1.1. Types of complements

5.1.1.1. Sentential complements. The most frequent pattern for sentential complements is [S] ghʊi V, in which [S] is the sentential complement, ghʊi is the complementizer, and V is the complement-taking predicate. In my
materials so far thirty-one predicate types appear with
complements of this form.\(^1\)

5.1.1.1.1. \([S]\) **ghöi** \(V\). Examples of this structure follow.

1) **SAY**
   a) uk ne on’i a’-am ghöi ma’u-dai \([S, E:mb]\)
      water not bring(P PERF)-is COMP say(P/F-S)-3s
      ‘She says she hasn’t brought water.’
   b) salyim’ tas’a kai im ghöi ne
      S. her(OBL) to come(P/F-NS)-is COMP not
      am-au’ \([S, E:bk, mb]\)
      say(PST-A)-3s
      ‘Salim didn’t tell her he would come.’

2) **THINK**
   a) ne suir’y-a dyek tic’ak kharap’ ghöi cit’-ik \([S:bk]\)
      not sun-LOC put(INF) little bad COMP think(P/F-NS)-1p
      ‘We think it is a little bad not to put it in the sun.’
   b) i’ya goik’ ghöi tu acit’-i \([S, E:mb]\)
      this bug COMP you(sg.) think(PST-A)-2s
      ‘You thought it was a bug.’

3) **WANT TO**
   a) a tai phuTu’chal-em’ ghöi citi’man ay’-is \([E:i]\)
      I your photo take(P/F-NS)-is COMP think(P/F IMPFV)-1s
      ‘I wanted to take your photograph.’
   b) tic’ak mon dem ghöi cit’-iu-dai \([S:bk]\)
      little speech give(P/F-NS)-is COMP think(P/F-S)-3s
      ‘She (the baby) wants to speak a little.’
   c) tu andai’ is’-or’i ghöi cit’im-dai \([E:mb]\)

\(^{1}\) These upper-case PREDICATES are intended to represent not specifically English words, but quasi-abstract predi-
         cates. For example, sentences for which the most natural English glosses are ‘think of V-ing’, ‘want to V’, and
         ‘like to V’, are all sometimes rendered with the verb **cit’ik**, whose meaning is broader than its original meaning
         of ‘think’. In example (a) its best gloss is ‘like to V’.

a) te bi’en draZni’ kas’-ik ghöi cit’-in \([S:mb]\)
   they out go out(CP) walk(P/F-NS) COMP think(P/F-NS)-3p
   ‘They (sheep and goats) like to go outside and walk
   around.’

Since the subject of this sentence is sheep and goats, we
know that neither can **ghöi** mean literally ‘having said’ nor can **cit’in** mean literally ‘they think’.
you hither come(P/F-NS)-2s-HORT COMP think(P/F-S)-ls 'I want you to come here.'

4) TELL
a) a saliym’a kai aya’i ghọi mai ay’-is [E:bk] I S.-OBL to here come(IMP2s) COMP say(PST PERF-A)-ls 'I told Salim to come here.'

b) as’a Sula’ on’iu-or’i ghọi tas’a daad-as he firewood bring(P/F-NS)-3s COMP his father-PS3s amau’ [E:bk, mb] say(PST-A)-3s 'His father told him to bring firewood.'

5) FEAR
a) šuru’-am ghọi bih-iu’-dai [S:bk, E:mb] fall(P/F-NS)-ls COMP fear(P/F-S)-3s 'She is afraid of falling.'

b) tu tas’a xat ne des ghọi mai Sǎg you him(OBL) letter not give(P/F-NS)-2s COMP my fear aš-is'. [E:mb, bk] be(INAN)(PST-A)-3s 'I was afraid you would not give him the letter.'

c) mai A’gu oš thi trup-en’ ghọi my fingers cold become(CP) hurt(P/F-NS)-3p COMP bih-im’-dai [E:bk, mb] fear(P/F-S)-ls 'I am afraid my fingers will get frostbitten.'

6) TRY
a) a’bi-ta a’la nas-ek’ ghọi kušiš’ ar’-imi we-TOP him(ACC) kill(P/F-NS)-1p COMP try do(PST-A)1p 'We tried to kill him.' [T15:mb] 2

b) ogoeg’in sum mo SaT’-an-ori ghọi košiš’ each other with not fight(P/F-NS)-3p-HORT COMP try ar’-is [E:bk, mb] do(PST-A)-ls 'I tried that they should not fight with each other.'

c) jit him ghọi har moc košiš’ kar’-iu every man try do(P/F)-3s ‘Every man tries to win.’

7) FORGET
a) a tai phuTu’ chal-em’ ghọi apraš’m-is [S, E:mb] I your photo take(P/F-NS)-ls COMP forget(PST-A)-ls

---

2This sentence is itself embedded within a larger quote, which constitutes evidence that ghọi does not mean literally 'having said'.

'I forgot to take your photograph.'

b) a warek' kaSôg' sambi'-em ghôi âga' ne
I different hat put on(P/F-NS)-is COMP alert not
hu'la-him [E:bk, E:mb]
become(PST-1)-is
'I forgot to put on my other hat.'

8) REMEMBER
a tai phuTu' chal-em' ghôi yat
I your photo take(P/F-NS)-is COMP memory
kai ay'-is [E:mb]
do(PST PERF-A)-is
'I remembered to take your photograph.'

9) KNOW
a) se ne iu' ghôi mai hat'ya mahalyum'
he not come(P/F-NS)-3s COMP I(OBL) for known
'I know that he won't come.' [E:j, mb]

b) nawkari' mai hat'ya hiu' ghôi
job I(DBL) for become(P/F-NS)-3s COMP
jhoni'man ay'-is [[E:bk, mb]
know(PST IMPFV-A)-is
'I knew I would get a job.'

10) BE ASHAMED
a) a kitap' kharap' kai a'-am ghôi se lac
I book spoiled do(P PERF)-is COMP he shame
jhon'-iu-dai [E:mb]
know(P/F-S)-3s
'He is ashamed of having spoiled the book.'

b) a mâ'ik ne bha'-am ghôi šarmanda'
I read(INF) not be able(P/F-NS)-is COMP ashamed
thi a'-au [E:j, mb]
become(P PERF)-3s
'He is ashamed of not being able to read.'

11) PROMISE
a tas'a hat'ya paysa' on'-im ghôi
I him(OBL) for money bring(P/F-NS)-is COMP
wakda' kai ay'-is [E:bk, mb]
promise do(PST PERF-A)-is
'I promised (him) that I would bring the money for him.'

12) CONSIDER
šum moc ghôi asmun' kai a'-am [E:bk, mb]
bad man COMP judgement do(P PERF)-is
'I consider that he is a bad man.'

13) FORCE
a) tas'a daad-as tas'a kai ja kar'-i ghôi
his(OBL) father-PS3s him(OBL) to wife do(IMP2s) COMP
majbur’ kai a’-au  [Emb, bk]  
obilged do(P PERF)-3s  
‘His father forced him to get married.’

b) as’a ja kar’-iu-or’i ghöi tas’a daad-as  
he(NOM) wife do(P/F-NS)-3s-HORT COMP his father-PS3s  
zor ar’-au  [E:bk, mb]  
force do(PST-A)-3s  
His father forced him to get married.’

14) PERSUADE/ADVISE  
a to mai sum nim ghöi salya’  
I him(ACC) I(OBL) with take(P/F-NS)-1s COMP advice  
ar’-is [E:bk, mb]  
do(PST-A)-1s  
‘I persuaded him to come with me.” (lit. ‘Saying, "I will take (you) with me," I persuaded/advised him.’)

15) BELIEVE  
as’a bo pruST moc ghöi a bawar’ kar’-im [E:bk, mb]  
he(NOM) very good man COMP I belief do(P/F-NS)-1s  
‘I believe he is a very good man.’

16) UNDERSTAND/RECOGNIZE/REALIZE  
a) as’a žot jaga’i hair’ou ghöi ger ar’-au [E:bk, mb]  
he quickly look(CP) thief COMP recognize(PST-A)-3s  
‘Looking at him, he quickly recognized/understood that he was a thief.’

b) i’ya baCa’ ghöi ajhon’-au [S:mb]  
he king COMP know(PST-A)-3s  
‘She recognized that he was a king.’

c) i’ya ne jhon’-iu suru’-am ghöi ne  
she not know(P/F-NS)-3s fall(P/F-NS)-1s COMP got  
john’-iu [S:bkw, E:mb]  
know(P/F-NS)-3s  
‘She doesn’t understand. She doesn’t understand that she will fall.’

Example (16-c) is spoken by a mother about her eight month old baby daughter, who is too young to have begun to understand or use specific words. This is another interesting bit of evidence for the grammaticization of ghöi, since in this case it could not possibly mean ‘say’

3The (a) sentence may be interpreted either as direct or indirect speech, depending on the context, while the (b) sentence has only the indirect interpretation.
or even 'think'. In this regard see also fn. 2.

17) SHOUT/SCREAM

a) Dar'an-as taada mo par'i ghōi hō'za kai flood-OBL near not go(IMP2s) COMP loudly khōōbi-es' [E:bk, mb]
call(PST-A)-1s
'I shouted not to go near the flood'

b) Dōb' haw'-is ghōi abayo' prāl'-e
lost become(PST-A)-is COMP shout give(PST-A)-3s-when s-ase' moc gher'i paida' haw'-au [Parkes, unpub. EMPH-that man again appear(PST-A)-3s text]
'When she shouted, "I am lost", that same man again appeared.'

c) mai A'gu-ei tu gria'-i ghōi žirik'
I(OBL) finger-LOC you grab-CS-(PST-A)-2s COMP shriek ar'-au [T3:fs]
do(PST-A)-3s
"You cut my finger," he screamed. (lit. 'You caused (the knife) to grab my finger.')

18) ADVISE

DakTar'-as baza' paš-aw'-a'i ghōi mai sum doctor-OBL arm show-CS-IMP2s COMP I(OBL) with salya' ar'-au [E:bk, mb]
advice do(PST-A)-3s
'He advised me to show my arm to a doctor.'

19) CRY/WEEP

uTiik'il-e mai waar'ees Dōb' haw'-au
cross(PST-I)3s-when I(OBL) falcon lost become(PST-A)-3s ghōi tru'ila [Morgenstierne 1973:18]*
COMP cry(PST-I)-3s

a) 'When it had crossed (he) wept, "My falcon is lost."

b) 'When it had crossed (he) wept that his falcon was lost.'

The two glosses given for this example indicate that, as with most ghōi complements of verbs of reporting either the direct speech or indirect speech interpretation is possible, depending on context.

20) SEEM

se pruST moc ghōi mai hat'ya saru'-iu-dai [E:bk, mb]
he good man COMP I(OBL) to seem(P/F-NS)-3s

*Transcription of this example normalized to system used for other Kalasha examples.
'It seems to me that he is a good man.'

21) **INTEND**

  a) *tas'a Chetr kabza' kar'-im ghôi mai maksat'*

  he(OBL) field capture(P/F-NS)-1s COMP I(OBL) aim

  as-is' [E:bk, mb]

  be(INAN)(PST-A)-3s

  'I intended/aimed to capture his field.'

  b) *ac kaw kawa' hat'ya pai ni-m ghôi this year where to goats take(P/F-NS)-1s COMP cit'is-dai [T & C 1987:276]

  think(P/F-NS)-2s

  'Where are you intending to take (your) goats this year?'

22) **BE ABLE**

  *doS Sula' on'-im ghôi ne yesterday firewood bring(P/F-NS)-1s COMP not abha'is [S:bk, E:mb]

  be able(PST-A)-1s

  'Yesterday I wasn’t able to bring firewood (although I wanted/intended to).'

23) **BE READY/EAGER**

  *... tas'a So'i gal'ê- e zu-m he(OBL) near go(PST-I)-3s-when eat(P/F-NS)-1s ghôi cak hul'ê...*[T27:mb]

  COMP ready become(PST-I)-3s

  'When he went near him, when he got ready to eat him...'

24) **DECIDE**

  *a pesa'ur ne par-im' ghôi faysalya' ar'-is [E:mb]

  I P. not go(P/F-NS)-1s COMP decision do(PST-A)-1s

  'I decided not to go to Peshawar.'

25) **WONDER**

  *mai gak kur'a lawa'i-aal haau ghôi my cow who steal(P PERF)-3s become(PST-A)-3s COMP cit'is-dai [S:mb]

  think(P/F-S)-1s

  'I wonder who stole my cow.'

26) **ORDER**

  *i'ya dukan' ban hiu'-or'i ghôi hokumat' this shop closed become(P/F-NS)-3s-HORT COMP gov’t.

  hok'um ar'-au [E:mb]

  order do(PST-A)-3s

  'The government ordered that this shop be closed.'

---

"lawai' aal haau = lawai' aau haw'au, in which haw'au indicates the subjunctive."
27) **BE GREEDY**

   i'ya saw'-in pi  šaśg'  istri'ža  žu-m  ghôi
   this all-OBL from greedy woman  eat(P/F-NS)-1s COMP
   i'ya bo  šaśgi'  kar'-iu  [Šbk, E:mb]
   she much greed  do(P/F-NS)-3s
   'This is the greediest woman of all. She is very greedy
   about eating/to eat.'

28) **ASK FOR/BEG**

   kitap' mai  del-or'i  ghôi aghaT'-is  [E:mb]
   book  I(OBL) give(P/F-NS)-3s-HORT COMP ask(PST-A)-1s
   'I asked him to give me the book.'

29) **REMIND**

   alyu'  on'iu-or'i  ghôi  ṣgah-es'  [E:mb]
   potatoes bring(P/F-NS)-3s-HORT COMP remind(PST-A)-1s
   'I reminded him to bring potatoes.'

30) **WARN**

   atra'  mo  par-iu'-or'i  ghôi  ṭas'a  khabardar'
   there not go(P/F-NS)-3s-HORT COMP him(OBL) warning
   ar'-is  [E:mb]
   do(PST-A)-1s
   'I warned him not to go there.'

31) **ALLOW**

   mai  chu  sukuly'-una  hat'ya  mo  par-iu'-or'i
   I(OBL) daughter  school-LOC to  not go(P/F-NS)-3s- HORT
   ghôi  ne  lasa'-au  [E:bk]
   COMP not allow(PST-A)-3s
   'He did not let his daughter go to school.'

5.1.1.1.2. **V [S] ghôi.** Word order in Kalasha, though
normally verb-final is fairly flexible, and the complement
is sometimes found extraposed to the right of the matrix
verb, giving the order V [S] ghôi. This pattern is thus a
word-order variant of the basic unmarked [S] ghôi V pattern
of 5.1.1.1.1.; the first six examples in this section are
variants of the first six in 5.1.1.1.1.

32) **SAY**

   ghoi'man  ay'-is  par-im'  ghôi  [S, E:mb]
   say(PST IMPFV-A)-3s go(P/F-NS)-1s COMP
   'He was saying he would go.'

This example is interesting in showing ghôik 'to say' used
both as a finite verb and as a complementizer in the same sentence. Probably this is possible here because of the extraposition of [S] ghōi, separating ghōi from V. Otherwise, I have no other examples with the sequence *ghōi
ghōi(V-fin). The usual sequence is ghōi amau'/ma'ila, in which one of the other verbs of saying, māik, is used.

33) THINK
   a sēhē cit'-im-dai salyim' rageST'i ne
   I thus think(P/F-S)-1s S. early not
   iu' ghōi [E:bk, mb]
come(P/F-NS)-3s COMP
   'I think Salim will not come early.'

34) WANT TO
   a citi'man a'y-is salyim' aya'
   I think(PST IMPFV-A)-1s Salim here
   iu'-or'i ghōi [E:bk, mb]
come(P/F-NS)-3s-HORT COMP
   'I wanted Salim to come here.'

35) TELL
   rakmat'-as kai ma'-as du ser alyu'
   Rahmat-OBL to speak(IMP2s) 2 seers potatoes
   on'i ghōi [E:j, mb]
bring(IMP2s) COMP
   'Tell Rahmat to bring two seers of potatoes.'

36) FEAR
   a bih-im'-dai ëje muc'-iu ghōi [E:j, mb]
   I fear(P/F-S)-1s now rain(P/F-NS)3s COMP
   'I am afraid it will rain now.'

37) TRY
   se bo kōsiš' ar'-au a ne pad'-im ghōi
   he much try do(PST-A)-3s I not break wind(P/F-NS)-1s
   'He tried very hard not to break wind.' [S:mb] COMP

Predicates in the next group of examples have the V [S] ghōi word-order variant; this does not mean, however, that this is the only possible order for them, only that I have not observed others in my materials.

*A seer is a unit of weight slightly less than one kilogram.*
38) **HOPE**

```plaintext
mai  omet' ši'u  žo'ši-una  sahi'  Tem'-una
I(OBL)  hope  be(INAN)(P/F)-3s  zhoshi-LOC  right  time-LOC
i-u'  (ghōi)  [E:bk, mb]
come(P/F-NS)-3s  (COMP)
'I hope he will come in time for Zhoshi.'
```

39) **DOUBT**

```plaintext
mai  šak  hi-u'-dai  se  paysa'  pištyak'
I(OBL)  doubt  become(P/F-S)  he  money  back
ne  de-l  (ghōi)  [E:bk, mb]
not  give(P/F-NS)-3s  (COMP)
'I doubt that he will give back the money.'
```

40) **INFORM**

```plaintext
saw'-in  khabar'  kar'-i  cop'-o  meTīg'  ši'u
all-OBL  news  do(IMP2s)  morning-o  meeting  be(P/F)-3s
(ghōi)  [E:bk, mb]
(COMP)
'Inform everyone that there is a meeting tomorrow morning.'
```

41) **CONVINCE**

```plaintext
a  as'a  pati-es'
I  him(OBL)  convince(PST-A)-1s  you(OBL)  goats  not
he  kai  ay'-is  ghōi  [E:bk, mb]
thief  do(PST  PERF-A)-1s  COMP
'I made him believe him that I didn’t steal his goats.'
```

42) **WHISPER**

```plaintext
a  kō'-una  kai  ama'-is  wareg'-in  kai  mo
I  ear-LOC  to  say(PST-A)-1s  others-OBL  to  not
ma'-as  ghōi  [E:bk, mb]
say(IMP2s)  COMP
'I whispered not to tell anyone else.'
```

43) **ASK**

```plaintext
a  tas'a  aphuc'-is  kai'-o  i-s  ghōi
I  him(OBL)  ask(PST-A)-1s  when-~  come(P/F-NS)-2s  COMP
'I asked him when he would come.'  [E:bk, mb]
```

44) **PLAN TOGETHER/CONSPIRE (to harm someone)**

```plaintext
bo  moc  tas'a  hat'ya  dro  abin'-an  to
many  men  him(OBL)  for  conspire(PST-A)-3p  him
naš-ek'  ghōi  [T&C 1987:143]
kill(P/F-NS)-1p  COMP
```

---

*According to my informant, this sentence implies that the speaker was, however, guilty of stealing the goats.*

*In this sentence ghōi is obligatory.*
Many men met together to plan how to kill him.'

45) **CHALLENGE**

chelyen’ pron aphaakhōi š-i'ya tromiš challenge give(PST-A)-3p A. EMPH-this evening tayar’ ha a’bi żāg kar’-ik ghōi ready become(IMP2s) we war do(P/F-NS)-1p COMP 'The villagers of Aphaa issued a challenge, "Be ready this very evening. We will make war (on you).' [Parkes, unpublished text, translation mine].

46) **AGREE**

Samnyo than ne prau bas'und S. consent not give(PST-A)-3s spring hi-u’ khodai’ khayr kai his ki’ya ne become(P/F-NS)-3s God blessing do(CP) nothing not ghōi [Parkes, unpublished text, translation mine] COMP 'Shamnyo did not agree, saying, "Spring will come. God having blessed (us) nothing (will happen)."

Note that in examples (38), (39) and (40) the ghōi complementizer was felt to be optional. Omission of the complementizer from this pattern gives the sequence V [S], of which I also have several examples.

5.1.1.1.3. V [S]. The three predicates KNOW, THINK, and TELL which have the more usual variants with [S] ghōi V, and V [S] ghōi, also display a V [S] pattern.

47) **KNOW**

mai hat’ya malyum’ ši’u se ne IOBL) to knowledge be(INAN)(P/F)-3s he not i-u’ [E:i, mb] come(P/F-NS)-3s 'I know he won't come.'

48) **THINK**

mai khyaly se ne i-u’ [E:i, mb]

*Whether this should be analyzed as the complement of a conjunct verb dro bin’ik 'to conspire', or as a purpose clause is not clear.*

10This example is interesting in that it incorporates the English loan-word 'challenge' into this structure. I take this as evidence for the continued productivity of the ghōi constructions.
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I(OBL) opinion he not come(P/F-NS)-3s
'I think he won't come.'

49) TELL
rakmat'-as kai ma'-as du ser alyu'
Rahmat-OBL to say(IMPERF2s) two seers potatoes
on'-iu-or'i [E:i, mb]
bring(P/F-NS)-3s-HORT
'Tell Rahmat to bring two seers of potatoes.'

50) BE HAPPY
mai hat'ya bo košani' haw'-au tai
I(OBL) for much happiness become(PAST-A)-3s you(OBL)
saw išnya'ri prust [E:j, mb]
all things good
'I am very happy that everything is well for you.'

51) REGRET
mai bo afsus' a ik ne abha'-is [E:bk, mb]
I(OBL) much sorrow I come(INF) not be able(PAST-A)-1s
'I regret very much that I couldn't come.'

52) ANNOUNCE
hukumat' elyan' kai a'-au cop'o cuTI'
gov't announcement do(PERFECT)-3s tomorrow holiday
'The government announced that tomorrow is a holiday.'

53) HEAR
mai kO'-una haw'-au sa'dar i-u'-dai
I(OBL) ear-LOC become(PAST-A)-3s president come(PAST-S)-3s
'I heard that the president is coming.' [E:mb, bk]

54) SUPPOSE
misaly' kar'i se voT'-una jit pe haw'-al-aau...
example do(IMPERF2s) he vote-LOC win if become(PAST-A)-3s
'Suppose that he wins the election ...' [E:bk, mb]
(lit. 'suppose if he wins in the election ...'

55) SEE
tu paši a'-as-e mai jarap' ku'ra lawa'-an
you see(PERFECT)-2s-Q I(OBL) socks who steal(PAST-A)-3p
'Did you see who stole my socks?' [E:mb]

5.1.1.4. [S] V. Inversion of the word order of
(55) for emphasis gives the pattern [S] V, shown in (56).

56) SEE
a pe lyaw-em'-dai-o a'sa pai jagal'-or'i
I if lie(PAST-S)-3s-Q he go(CP) look(P/F-NS)-3s-HORT
'Let him go and see whether I am lying!'\(^{11}\) (lit. 'If (you think that) I am lying, let him go and see (for himself).'[T15:mb]

5.1.1.1.5. \(V\) \(ki\) \([S]\) \(ghōi\) \(V\). In contemporary Kalasha the complementizer \(ki\) is also employed. \(ki\) has probably entered Kalasha from Khowar, which makes extensive use of \(ki\) as its primary complementizer. Its use seems to be increasing, possibly because of the increasing number of Kalasha speakers who know Urdu. The simultaneous presence of \(ghōi\), which is still the main complementation mechanism, and \(ki\) leads to a variety of mixed patterns. Among these, \(V\) \(ki\) \([S]\) \(ghōi\) \(V\) is especially interesting in that it shows a repetition of both verb and complementizer in a mirror-image pattern. Examples (57) and (58) illustrate this.\(^{12}\)

57) THINK
\[
\begin{align*}
\text{tai} & \quad \text{ki'ya khyaly ki a ne jhon'-im-dai} \\
\text{you(OBL) what opinion COMP I not know(P/F-S)-1s} \\
\text{ghōi} & \quad \text{cit'-is-day'-e} \quad \text{[Trail, unpublished text]} \\
\text{COMP think(P/F-S)-2s-Q} \\
\text{'}What do you think - that I don’t know anything!’
\end{align*}
\]

58) SPEAK
\[
\begin{align*}
\text{se} & \quad \text{phaker'-o ma'ila ki a tai beru'-o} \\
\text{the beggar-PST-I-3s COMP I you(OBL) husband-PST-I-3s} \\
\text{paś'i} & \quad \text{a'-am ek ra-nO'} \\
\text{one pine-beneath see(P PERF)-1s} \\
\text{śi'u} & \quad \text{a' am ek ra-nO'} \\
\text{si'u} & \quad \text{see(P PERF)-1s} \\
\text{ma'ila} & \quad \text{bed-LOC to put(P PERF)-3s you(OBL) husband-PST-I-3s COMP} \\
\text{[T2:bkw]} & \quad \text{ma'ila} \\
\text{say(PST-I)-3s} & \quad \text{'}The beggar said, "I have seen your husband. There is a place under a pine tree. He has been put on a bed there'}
\end{align*}
\]

\(^{11}\)Note the enclitic particle \(-o\), which here is attached to the \([S]\) constituent.

\(^{12}\)Notice that (57) also incorporates two question markers--\(ki'ya\) and \(-e\).
your husband," he said.'13

What seems to be happening here is that the speaker starts his utterance with a V ki construction, and after completing it, feels the need to complete it with a ghōi V sequence. That is, the competing pressures of the right-branching V ki and the left-branching ghōi V constructions result in his using a combination of both.

5.1.1.1.6. V ki [S] ghōi. This type represents another mixed structure, which results from beginning a sentence with V ki [S] and then partial completion with the ghōi V complementizer. This type occurs fairly frequently. Of the six examples of this pattern I have, four of them occur with predicates whose usual expression is with the [S] ghōi V pattern. (59 – 62) show these, and (63) and (64) involve other verbs.

59) SPEAK
piciśwew’-o ek. juwan’ mai’la ki da afterwards-0 one young man say(PST-I)-3s COMP here š-i’y-o sayra’ baS ghōi chom’-una thal’ya EMPH-this-0 Saira share COMP ground-LOC put(PST-I)-3s 'Afterwards one young man said, "Here, this is Saira’s share," and put it on the ground.' [T14:1g]

60) THINK
a citi’man ay’-is ki tu ta’sa xat I think(PST IMPFV-A)-is COMP you him(OBL) letter ne de-s ghōi [E:bk, mb] not give(P/F-NS)-2s COMP 'I thought you wouldn’t give him the letter.'

61) WANT
a cit’-im-dai ki mai putr skuyl’-una hat’ya I think(P/F-S)-is COMP I(OBL) son school-LOC to par-iu’-or’i ghōi [E:bk, mb]

The inanimate form of 'be' is used here because the woman’s husband is dead, and it is his dead body that is being discussed.
go(P/F-NS)-3s-HORT COMP
' I want my son to go to school.'

62) FEAR
a) a cit'im-dai ki mai A'gu os thi
I think(P/F-S)-1s COMP I(OBL) fingers cold become(CP)
trup-en' ghödi [E:bk, mb]
hurt(P/F-NS)-3p COMP
' I am afraid that my fingers will get frostbitten.'

b) mai Säg aš-is' ki tu ta'sa xat
I(OBL) fear be(INAN)(PST-A)-3s COMP you him(OBL) letter
de-s ghödi [E:bk, mb]
not give(P/F-NS)-2s COMP
' I was afraid that you wouldn't give him the letter.'

*Sentences (60) and (62-b) will be recognized as Kalasha versions of a negation of Peter Hook's test sentence 'I was afraid that you would give him the letter,' upon the results of which (cf. Hook 1985) he found "a regular progression in the frequency ratios of subordinate-main as opposed to main-subordinate clause orders as one proceeds from north to south within western Indo-Aryan (Sindhi, Kutchi, Gujarati, Marathi). Subordinate-main order is typical of Dravidian; main-subordinate of Persian" (1985:158). If Kalasha were subject (only) to the influences reflected in that geographical gradient, we would expect (almost) all subordinate clauses to follow the matrix verb, and sentences like (60) and (62-b) could be interpreted as evidence consistent with this. That is clearly not the case in Kalasha, as we have seen. I suspect that (60) and (62-b) have this particular form as a consequence of two facts: (a) they are elicited rather than spontaneously occurring sentences; (b) the sentence was presented in Urdu, which involved a ki clause. Note that clauses of 'fearing' and 'until' clauses in Kalasha do not take a negative element in their positive forms, as they do in Urdu and Hindi. Thus we have (a):

a) tai xat del šamon' aya' apau' de
you(OBL) letter give(P/F-NS)-3s until here wait(IMP2s)
'Wait here until he gives you the letter.'

As with other aspects of the language, however, we sometimes find Urdu-influenced mixed types, as in (b).

b) jabtak a ne im šamon' tu and-ei' mo
until I not come(P/F-NS)-1s until you here-ABL not
par'i [T&C 1987:108; E:mb (*ne)]
go(IMP2s)
'Don't leave here until I come.'

Just as with mixed complementation structures we find a duplication of the complementizer, so here we have both the Urdu jabtak 'until', which has carried along its negative element ne in this example, and the Kalasha šamon' which does not carry a negative. Incidentally, when presented
63) **REPLY**

... ta’sa kai jawap’ prau ki š-i’ya him(OBL) to reply give(PST-A)3s COMP EMPH-this kal’-a am’a jayga’ badely’ det ghōi year-LOC this(ACC) place change(IMp2p) COMP

‘He replied to him, “This very year change this place”.’

[Par克斯, unpublished text, translation mine]

64) **EXCLAIM**

pharyat’ ar’-au ki š-i’ya šihū’dyaka išnya’ri exclaim(PST-A)-3s COMP EMPH-this such a small thing sA šohū’ išnya’ri CPoi as’a ko naš-a’u such a big thing sting(CP) this how kill(PST-A)-3s ghōi [T16:lg] COMP

‘He exclaimed, “This is such a little thing. How (lit. why) could it kill such a big thing by stinging it?”’

5.1.1.1.7. V ki [S]. If the final ghōi of the previous type is deleted, we have the pattern V ki [S].

This is the final stage in the transition from the original left-branching structure to the right-branching ki-clause.

The following examples illustrate some predicates with pure ki clauses. All seven of the predicates illustrated here take [S] ghōi V complements also. (See 5.1.1.1.1. above.)

65) **SPEAK**

žuik’-ani aC’o wazir’ tas’a kai ma’ila eat(INF)-ABL after minister him(OBL) to say(PST-I)-3s ki phaker’ sayp tu šilyok’ kar’i mai hat’ya COMP beggar sir you story do(IMp2s) I(OBL) for aC’o bik de [T17:me] story give(IMp2s)

‘After eating the minister said to him, “Beggar, tell me a story - tell a story”.’

with the sentence in (b) my informant eliminated the negative element ne. What seems to be happening in (b) is that we are approaching a situation which could be reanalyzed as a relative correlative structure [jabtak S] [šamon’ S] in which šamon’ becomes a clause-initial, instead of clause-final, element.

13This sentence shows the same tendency noted above in connection with the V ki [s] ghōi V sequence—that of beginning a sentence with a non-indigenous structure and then reverting to an indigenous pattern to finish it off.
66) THINK
mai xyaly šiu' ki se waxt'-una ne I(OBL) opinion be(INAN)(P/F)-3s COMP he time-LOC not i-u' [Eːj, mb] come(P/F-NS)-3s 'I think he won't come on time.'

67) KNOW
tu jhon'-is-dai ki aj'-o tu juan' haw'-i you know(P/F-S)-2s COMP now-o you adult become(PST-A)-2s 'You know that now you are grown up.'
[Trail, unpublished text]

68) BE ASHAMED
se bo šarmanda' thi a'-au ki māik ne he very ashamed become(P PERF)-3s COMP read(INF) not bhai'man ay'-is [Eːj, mb] be able(PST IMPFV-A)-3s 'He was very ashamed that he couldn't read.'

69) BELIEVE
tai mondr'-as tha'ra tasalyi' ši'u you(OBL) word-OBL on satisfaction be(INAN)(P/F)-3s ki krom kar'-is [Eːbk, mb] COMP work do(P/F-NS)-2s 'I believe your word that you will do the work.'

70) UNDERSTAND
ghōi amal'-e to'a ajhon'-au istri'za thus speak(PST-A)-3s-when then know(PST-A)-3s woman baCa'-as chul'-as ki i'ya sahi' baCa' king-OBL daughter-PS3s COMP this real king a'-au mamulyi' moc ne [T17ːmz] be(ANIM)(P/F)-3s ordinary man not 'When he spoke thus then the woman—the king's daughter—understood that he was a real king—not an ordinary man.'

71) WONDER
a cit'-im-dai ki mai gak ku'ra lawai' a'-al I think(P/F-S)-1s COMP I(OBL) cow who steal(P PERF)-3s ha'au'' [Eːj, mb] become(PST-A)-3s 'I wonder who stole my cow.'

Here šilyok' is a loan from Khowar (≪ Kho. ŝiloG' 'story, tale'), and qCilik dek 'give a story' is the original Kalasha expression.

*lawai' aal haaw = lawai' a-au' haw'-au, in which haw'-au is the subjunctive marker.
5.1.1.1.8. [S ... V ki ... S] SPEAK. This structure is illustrated in (72) and (73).

72) hai mai lyoT khoda'i aghö'-au ki khoday'-as kai hai my great God say(PST-A)-3s ki God-OBL to 'Oh, my great God, he said to God...'' [T16:1g]

73) ghöi amau'-e e hakmak' aghö'-au ki thus speak(PST-A)-3s-when oh fool say(PST-A)-3s ki tara' pai sëhë' thi jiay'-o there go(CP) like this become(CP)-o s'-i'ya-ta tai peruk' s'-i'y-o tic'ak EMPH-this-TOP you(OBL) likeness EMPH-this-o little kol'yi ghöi ma'-as [T16:1g] crooked COMP say(IMP2s) 'When he spoke thus, he, said, "Hey simpleton, go there, look, and say thus,'This one is like you, but this one is a little crooked'".'

What is interesting here is the occurrence of the sequence aghö'au ki in (72) in a position such that ki does not precede (any part of) the complement clause. This happens because ki forms a phonological unit with the verb of speaking and not with the complement clause. This is also the case with ghöi and the verbs of speaking and cognition in the basic construction type (5.1.1.1.1.), and it appears that the newer construction with ki is mirroring the older one in this behavior. Constructions like (72-3) are fairly common in my texts.

5.1.1.1.9. [S] ghöi. Not infrequently we find a sentence consisting of just a complement S and ghöi, without a matrix verb. In this construction, exemplified in (74-76), the "missing" matrix verb is understood as meaning 'wants to V'.

74) janap' as'ta pim ghöi [S, E:mb] Janap also drink(P/F-NS)-1s COMP 'Janap also (says he) wants to drink (tea).'
75) 
gulyistan' pim'-dai ghōi [S, E:mb] 
Gulistan drink(P/F-S)-is COMP
'Gulistan (says she) wants to drink it.'

76) awaz' chala'-'am ghōi awaz' mai ne 
voice take out(P/F-NS)-is COMP voice I(OBL) not 
draзн-au' [Parkes, unpublished text, translation mine] 
come out(PST-A)-3s
'I wanted to cry out, but my voice wouldn't come out.'

In constructions like these, where ghōi is dissociated from 
an immediately following verb and its presence alone is 
enough to give the sense of 'want to', or 'intend to', we 
see a semantic stage transitional between ghōi as 
complementizer and ghōi as introducer of purpose clauses.

5.1.1.2. Reduced sentential complements. A few 
predicates take S-like complements in which the verb of the 
semantic complement appears in its conjunctive participial 
(CP) form. The CP has lost the verbal properties of tense, 
mood, person and number, but is still clearly a verbal 
form. The next two examples illustrate these complements.

77) ENJOY
a philyim' jagai' bo maza' kar'-'im [E:mb] 
I film look(CP) much enjoyment do(P/F-NS)-is
'I enjoy seeing films a lot.'

78) FINISH
a) Sumber' mastrup'-'asa a guum lei khuly-es' [E:bk] 
last month-LOC I wheat cut(CP) finish(PST-A)-is
'Last month I finished harvesting wheat.'

b) a nives' i pur'a ar'-'is [E:bk, mb] 
I write(CP) finished do(PST-A)-is
'I have finished writing it.'

Possibly one might argue that (77) is better analyzed as a 
CP main verb sequence in which the relationship between the 
predicates of subordinate clause and the matrix clause is 
causal. This may also be valid, but I present the example
here to invite discussion of the problem.

5.1.1.3. *Infinitival complements.* The second major complement type is that based on the infinitive. The infinitive is clearly a nominal form, taking case endings and postpositions, and often functioning as subject of a sentence. Infinitival complements fall into two classes: those based on the OBL infinitive, and those incorporating its NOM form.

5.1.1.3.1. Oblique infinitival complements.

5.1.1.3.1.1. Oblique infinitive plus postposition:

Two postpositions, *bat’i* ‘for, for the sake of’, and *bat’ya* ‘to, for’, are employed in these constructions. The following sentences display some of the predicates with which they are used. With the predicates of speaking *Tell*, *Decide*, and *Remind*, these constructions have only the indirect reported speech interpretation.

79) PREPARE
   dzukaik’-as bat’i tayari’ kar’-iu-dai
   push(INF)-OBL for preparation do(P/F-S)-3s
   "He is getting ready to push it." [T&C 1987:92]  

80) ALLOW
    mai daada mai to ja karik’-as bat’i
    I(OBL) father I(OBL) her(ACC) wife do(INF)-OBL for
    jazat’ prau [T&C 1987:109]  
    permission give(PST-A)-3s
    "My father gave me permission to marry her."

  17 The example was originally from Trail and Cooper (1987:92) who have *zuk-ek’-as*. They also have *zuk-ek’-as* in another version of the same sentence (p. 176). My informant, however, insisted on *dzukaik’-as* as the correct form; therefore the example has been so modified.

  18 Spelling and translation of the original slightly modified.
81) **TELL**

a salyim'ya kai aya' ik'as bat'i
I Salim-OBL to here come(INF)-OBL for
mai ay'-is [E:bk, mb]
speak (PST PERF-A)-is
'I told Salim to come here.'

82) **DECIDE**

a pesa'ur ne parik'as bat'i faysalya' ar'-is [E:bk, mb]
I P. not go(INF)-OBL for decision do(PST-A)-is
'I decided not to go to Peshawar.'

83) **REMEMBRANCE**

at onik'as bat'i a to 3gah-es'
floor bring(INF)-OBL for I him(ACC) remind(PST-A)-is
'I reminded him to bring flour.' [E:mb, bk]

84) **BE READY, EAGER**

a catrau' parik'as bat'i cak him'-dai [E:bk, mb]
I Chitral go(INF)-OBL for ready become(P/F-S)-is
'I am getting ready to go to Chitral.'

85) **BE READY, EAGER**

aghb'au-e se kakboi' cak haw'-au
speak(PST-A)-3s-when the leopard ready become(PST-A)-3s
zuik'as hat'ya [T4:fs]
eat(INF)-OBL for
'When he spoke, the leopard got ready to eat him.'

86) **GET A CHANCE**

tas'a hat'ya milau' hik'as bat'i na
him(OBL) for . meeting become(INF)-OBL for not
waasa hu'la [T17:mz]
chance become(PST-I)-3s
'He didn't get a chance to meet her.'

87) **GET A CHANCE**

ajad'ua uk gher'i au mai cewbew'
today water again come(PST-A)-3s I(OBL) clothes
m6Dik'as hat'ya CP hi'-u' [S:bk, E:mb]17
wash(INF)-OBL for chance become(P/F-NS)-3s
'Today the water came again. I will get a chance to wash clothes.'

From (84) and (85) and (86) and (87) we see that some
predicates, e.g. cak hik 'be ready, eager' and CP hik and
waasa hik both meaning 'get a chance' allow either bat'i or

17 CP may be the same as Trail and Cooper's CHQ 'leisure, free time' (1987:123); I am not sure which
spelling is correct.
5.1.1.3.1.2. Oblique infinitive with conjunct verb:

This class is also fairly well represented, including the predicates in the following examples. I include expressions in V-al'yak hik/kar'ik in the formal class of conjunct verbs because they consist of a nominal element plus the verbalizing element(s) hik/kar'ik 'become/do'.

88) TRY

as'a sud'a labEhek'-as kośiš' kari'man ay'-is
that baby play(CS)(INF)-OBL attempt do(PST IMPFV-A)-3s
'She was trying to play with the baby.' [E:bk, mb]

89) ORDER

Sai tas'a tyik'-as hok'um mai prau
king him(OBL) beat(INF)-OBL order I(OBL) give(PST-A)-3s
'The king ordered me to beat him.' [E:bk, mb]

90) FEAR

as'a catrau' parik'-as bihal'yak haw'-au [E:mb, bk]
he(OBL) C. go(INF)-OBL fear become(PST-A)-3s
'He was afraid to go to Chitral.'

91) ADVISE

se mai DakTar'-as baza' paś-aw-aik'-as saliya'
he I(OBL) doctor-OBL arm show-Cs(INF)-OBL advice
ar'-au [E:bk, mb]
do(PST-A)-3s
'He advised me to show my arm to a doctor.'

92) THINK OF/REMEMBER

krom karik'-as phak'um ko ne i-u' [S:bk, E:mb]
work do(INF)-OBL thought why not come(P/F-NS)-3s
'Why don't you (ever) think about working?'

5.1.1.3.1.3. Oblique infinitive with simple verb:

This class includes two basic phasal notions—'to be about to' and 'to begin to'. These two constructions are among the most characteristic of indigenous Kalasha style.

93) BE ABOUT TO

a) mucik'-as thi ści'-u
rain(INF)-OBL become(P PERF)-3s
muc'i-o ne ści'-u [S, S:mb]
rain(CP)-o not be(INAN)(P/F)-3s20
'It is about to rain, (but) it hasn't rained yet.'

b) pacik'-as 
  thi aš-is' [S]
  cook(INF)-OBL become(PST PERF-A)-3s
  'It was about to get cooked (but the process was interrupted).'

c) tu DuDik'-as
  thi a'-as [S]
  you sleep(INF)-OBL become(P PERF)-2s
  'You are about to go to sleep.'

d) hist'i jāgaly' khulyaik'-as ar'-au-e
  leave(CP) jungle finish(INF)-OBL do(PST-A)-3s-when
  diš kher gher'i a-u [T17:mz]
  terrible stench again come(PST-A)-3s
  'When he had left it (the desert), when he was about to come to the end of (lit. 'finish') the jungle, there again came a terrible smell.'

In (93-a, b, and c) we have 'be about to' with an intransitive verb, expressed with V(INF)-OBL hik 'become', while in (93-d) with a transitive, V(INF)-OBL kar'ik
'do'.21 'To begin to' is expressed with V(INF)-OBL dek
'give' (cf. 94).22

94) BEGIN TO

a) thay'-o mewa' žuk'-as 
  dit'a [Morg. 1973:22]
  put(CP)-o fruit eat(INF)-OBL give(PST-I)-3s
  'Having put it down, it (a dragon) began to eat fruit.'

b) hul'uk karik'-as prau [S]
  heat do(INF)-OBL give(PST-A)-3s
  'I began to feel hot.'

c) cei pik'-as
  " de [S:bkw, E:mb]

20 muc'i-o ne si'u is the present perfect of muc'ik 'to rain'. Note the insertion of the discourse particle o and the negative between the conjunctive participle and the finite components of this tense form.

21At this point I am not sure whether this example represents the general situation, or an idiosyncracy of this speaker.

22A parallel construction is encountered in Khowar and in Shina.
tea drink(INF)-OBL give(IMP2s)
'Start drinking (your) tea!'

5.1.1.3.1.4. Oblique infinitive with ADJ or N: A few predicates take semantic complements which consist of the OBL infinitive with matrix verbal concept expressed by an adjective, or a noun in the NOM or LOC case plus a finite form of 'be'.

95) BE ABOUT TO
da) baCai' khur-o'-te hik'-as tap [T16:lg]
   kingdom other-OBL-DAT become(INF)-OBL on the verge of
   'The kingdom is about to fall into someone else's hands (i.e. not my descendents').

b) digA priik'-as tap [E:mb, bk]
   wall fall(INF)-OBL on the verge of
   'The wall is just about to fall.'

The semantic difference between this construction and that in (93) seems to be one of immediacy or urgency. INF-as tap indicates more urgency than INF-as hik.

96) BE APPROPRIATE
   ja hik'-as munasip'-e [T17:mz]
   wife become(INF)-OBL appropriate-Q
   'Is it appropriate that she marry him?'

97) SAY
   tas'a So tarik'-an ik'-as mon aš-is'
   he(OBL) ó date-INST come(INF)-OBL word be(PST-A)-3s
   'He said he would come on the sixth (but he hasn't come yet).'
   [S:mb, E:bk]

98) INTEND
   mai tas'a Chetr kabza' karik'-as maksat'
   I(OBL) his(OBL) field capture do(INF)-OBL goal
   aš-is' [E:mb, bk]
   be(INAN)(PST-A)-3s
   'I intended to capture his field.' (Lit. 'My aim was to capture his field.')

99) DESERVE
   hom'a saza' dik'-as lyakat'-una ay'-ik

23khurote 'to another' is from Khowar khur 'other', plus the Kho. OBL marker -o plus the DAT marker -te.
5.1.1.3.1.5. Ablative infinitive: A final type of non-NOM infinitive complement is that represented in (100).

100) WARN
a e'lyi tara' parik'-ani xabardar' ar'-is [E:bk, mb]
I them there go(INF)-ABL warning do(PST-A)-is
'I warned them not to go there.' (Lit. I warned them from going there.)

5.1.1.3.2. Nominative infinitives. This is the most common type of infinitival complement, corresponding in frequency to the [S] ghO'i V sentential complements. It includes the basic phasal concepts 'begin to, start', 'finish', 'stop', and the abilitatives 'be able to', 'know how to', 'learn', and 'teach'. Some predicates taking this complement type follow.

101) BE ABLE
a) uk iSpo'na ne kai ru'i nigik' ne water hot not do(CP) face wash(INF) not
bha'-am [E:bk, mb]
'I can't wash my face without heating (the) water.'

b) A: tu kar'ik bha'-as-e [S]
you do(INF) be able(P/F-NS)-2s-Q
'Can you do it?'

B: ne bha'-am [S]
not be able(P/F-NS)-is
'I can't'

Note that the verb bha'ik 'be able' can be used without its complement, like the English can but unlike the Hindi, Urdu, Panjabi, etc. saknaa. When used in reply to a question it almost always occurs without the complement, as
in (101-b).24

102) BEGIN TO
   se kagats' niveš'ik šuruk' ar'-au [Eːj, mb]
   he letter write(INF) start do(PST-A)-3s
   'He began to write a letter.'

103) LOOK FOR/WANT TO (ironic)
a) tu tyek khoj'-is-dai [Sːbkw, Eːmb]
   you beat(INF) look for(P/F-S)-2s
   'You are looking for a beating.'
b) tu tro'ik khoj'-is-dai [Sːbkw, Eːmb]
   you cry(INF) look for(P/F-S)-2s
   'You want (an excuse) to cry.'

104) FINISH
   a) tu au'-gar'ik khulya'i-a [Eːbk, mb]
      you bread-make(INF) finish(PST-A)-2s-Q
      'Have you finished making bread?'
b) a niveš'ik pur'a ar'-is [Eːbk, mb]
   I write(INF) finished do(PST-A)-ls
   'I have finished writing.'

105) STOP
   tro'ik bas/ban kar'i mai SiS trup-el'-lai
   cry(INF) enough do(IMP2s) I(OBL) head hurt(P/F-S)-3s
   'Stop crying, my head hurts.' [Eːbk, mb]

106) KNOW HOW TO
   tu labE' karek': ne jhon'-is [Sːbkw, Eːmb]
   you play do(CS)(INF) not know(P/F-NS)-2s
   'You don’t know how to make (the baby) play.'

107) LEARN
   as'a moTer' kasek' ne CiC'i a'-au [Eːbk, mb]
   he jeep drive(INF) not learn(P PERF)-3s
   'He has not learned how to drive a vehicle.'

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24Peter Hook (p.c.) comments that constructions like (101-b) were possible in Vedic Sanskrit, and also that constructions with aanaa ‘come’ in the meaning of ‘to be able’ in Hindi and Urdu do not require that the infinitive be repeated in such questions. I give an example from Panjabi.

a) A: tanūn āgrezi paRhni aupndi e
   you-DAT English read(INF)fs come(P IMPFV)fs be-3s
   'Can you read English?'
B: ne aupndi
   not come(P IMPFV)fs
   '(No), I can’t.'
108) **TEACH**

a moTer' kasek' tas'a Cic-a`i a`-am [E:mb, bk]
I jeep drive(INF) him(OBL) learn-Cs(P PERF)-ls
'I have taught him how to drive a car.'

109) **THINK ABOUT/REMEMBER**

a cei pik phak'um ne kar`-im [E:i, mb]
I tea drink(INF) thought not do(P/F-NS)-ls
'I don't think about drinking tea.'

110) **REMEMBER**

tai phuTu' chala`ik mai yat a`s-is`
you(OBL) photo take(INF) I(OBL) memory be(PST-A)-3s
'I remembered to take your photograph.' [E:i, mb]

111) **FORGET**

a tai phuTu' chala`ik apraS`m-is [E:i, mb]
I you(OBL) photo take(INF) forget(PST-A)-ls
'I forgot to take your photograph.'

112) **LIKE**

mai catrau' parik` bo khoš [E:bk, mb]
I(OBL) Chitral go(INF) very pleasing
'I very much like to go to Chitral.'

113) **FEAR**

a) a tramaS`g`-una bi`en nihik` bih-im` [E:mb, ek]
I dark-LOC out go out(INF) fear(P/F-NS)-ls
'I am afraid to go out in the dark.'

b) mai catrau` parik`/`parik`-as bihal'y`ak kar`-iu-dai
I(OBL) C. go(INF)/OBL fear do(P/F-S)-3s
'I am afraid to go to Chitral.'  

5.1.1.4. **Nominalized complements.** Only a few predicates take nominal complements. The predicate ALLOW does this in three different ways. In the first construction, illustrated in (114), the verb stem is treated as a nominal, taking the LOC case ending. The verbs lasek' 'to let (go)', and dek 'give' are used in the meaning of 'allow'.

114) **ALLOW**

a) phao zu`-una suday`ak-as mo lasa`i [S, E:mb]
soil eat-LOC baby-OBL not let(IMP2s)
'Don't let the baby eat dirt (i.e. dust, soil).'  

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²²Compare (90) above. I do not know why the OBL INF was supplied in that example but rejected in (113-b).
b) mai krom-gar'-una ne del'-lai [S, E:mb]  
*I (OBL) work-do-LOC not give(P/F-S)-3s*  
'She doesn't let me work.'

c) anda'i pac'i-una ne den kur'a as'ta here ripen-LOC not give(P/F-NS)-3p who also  
żun su' da žun, pat'ua žun, catruma' eat(P/F-NS)-3p children eat Chitralis eat Katis  
żun [S, E:mb] eat  
'Here they don't let (the fruit) ripen. Someone or other eats it - the children eat it, the Chitralis eat it.'

If the verbal concept of the complement is GO, the verb  
'go' is omitted and a locative form of the noun expressing the goal of motion precedes the verb *lasek* 'to let (go)', as in (115).

115) ALLOW (TO GO)  
a) gag-o suir'yak-a lasa'-a [S, E:mb]  
cow-~ sun-LOC let go(IM2p)  
'Let the cow go in the sun.'

b) se chul'-as skuly'-ai ne lasel'-lai [E:bk, mb]  
he daughter-PS3s school-LOC not let go(P/F-S)-3s  
'He doesn't let his daughter (go) to school.'

An alternate way of expressing (115-b) is (116), in which the LOC noun is followed by *hat'ya* 'to, for'.

116) se tan chul'-as skuly'-una hat'ya ne  
he own daughter-PS3s school-LOC to not  
las-el'-lai [E:bk, mb]  
let go(P/F-S)-3s  
'He doesn't let his daughter (go) to school.'

In this ability to omit the verb of the complement, *lasek* 'to let (go)' behaves like *bha'ik* 'to be able'. And, as with *bha'ik*, the answer to a question can consist of simply *ne lasen* 'They don't let (me/us) V', where V can represent

Note the voicing of the initial consonant (k > g) in the compound *krom-garuna*. This is one of the diagnostics of a compound word in Kalasha.
verbal concepts other than 'go'. Panjabi, Hindi, and Urdu again display the opposite characteristic, requiring expression of the complement verb, as in nahī karne detaa 'he doesn’t let (me) do it', and not accepting *nahī detaa in this meaning.

The postposition hat'ya also occurs in two other complements: BE EAGER and BE READY.

117) BE EAGER
cuil'ye kistri'za-gulak krom'-as hat'ya sauk
little girl work-OBL for eagerness
krai'-iu-dai [E:bk, mb]
do(P/F-S)-3s
'The little girl is eager to work.'

118) BE READY
acatrau' hat'ya cak thi a'-am cop'o
I Chitral for ready become(P PERF)-is tomorrow
catrau' par-im'-dai [S:bk, E:mb]
Chitral go(P/F-S)-ls
'I am ready to go to Chitral; tomorrow I am going to Chitral.'

With two verbs meaning CONSIDER the semantic complement is reduced to an adjective phrase or NP modifying an ACC NP.

119) CONSIDER
a) te to sum joi'-in [T&C 1987:112]
they him(ACC) bad consider(P/F-NS)-3p
'They think badly of him. They consider him bad.'

b) to sum moc a asmun' kai a'-am [E:bk, mb]
him(ACC) bad man I judge(P PERF)-ls
'I have judged/consider him a bad man.'

5.1.2. Kalasha complements and the "binding hierarchy"

Givon (1980) gives cross-linguistic evidence for a number of "systematic correlations between the semantic structure of complement-taking verbs and the syntactic structure of their complements." (p. 333) Verbs are ranked in a semantic "binding hierarchy" such that implicated
verbs like BEGIN, FINISH, SUCCEED, MAKE, FORCE, CAUSE, PREVENT are most tightly bound, followed by verbs which show strong attempt (but not necessarily success) like PLAN, INTEND, TRY, ORDER, ASK, ALLOW, TELL. In the mid-range of the binding scale are found first verbs with high emotive content like HOPE, FEAR, EXPECT, LIKE, and WANT, then, slightly lower on the scale, verbs involving less emotional intensity like DECIDE or AGREE. The lower end of the scale comprises verbs of relatively stronger or weaker epistemic attitude, the former class including predicates like KNOW, THINK, BELIEVE, DOUBT, or BE SURE, and the latter predicates of noncommittal reporting like SAY or TELL (ibid.:369) These last occupy the lowermost position in the binding hierarchy.

The syntactic forms of complements are similarly ranked in a scale ranging, in descending order of syntactic integration with the matrix clause, from the most reduced (lexicalized) through nominalized, infinitive, S-like with subjunctives, free clauses with restrictions, and finally free clauses. The correlations found by Givon between semantic binding and syntactic form are such that the higher on the semantic binding scale a predicate is, the closer its syntactic complement type is likely to be to the tight syntactic integration end of the syntactic continuum. From this correlation follows an implicational hierarchy prediction:

"If a point on the semantic hierarchy of binding is coded by a certain syntactic coding device,
then a semantically higher point cannot be coded by a syntactically lower point. Rather, it will be coded either by the same coding point, or by a higher coding point on the syntactic coding scale."
(ibid.:370)

Now let us see to what extent the distribution of Kalasha complement types fits these predictions. We begin by selecting representative predicates from each of Givon’s semantic-binding classes—implicative, strong attempt, high emotive content, low emotive content, stronger epistemic attitude, weaker epistemic attitude—and noting their complement types.

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<th>Binding class/Predicates</th>
<th>Complement type</th>
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<td>STOP</td>
<td>INF(NOM)</td>
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<td>BEGIN</td>
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<td>2) INF(OBL)</td>
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<td>FINISH</td>
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<td>2) S-(reduced)</td>
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<td>Lexical/morphological</td>
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<td>CONVINCENCE</td>
<td>[S] ghôi</td>
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<td>BE ABLE</td>
<td>1) INF(NOM)</td>
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<td></td>
<td>2) [S] ghôi</td>
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<tr>
<td>KNOW HOW</td>
<td>INF(NOM)</td>
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<td><strong>Strong Attempt</strong></td>
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<td>WARN</td>
<td>1) INF(ABL)</td>
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<td>2) [S] ghôi</td>
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<td>2) [S] ghôi</td>
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ENJOY
HOPE
FEAR
LIKE
WANT

Lower Emotive Content
DECIDE
REMEMBER
FORGET

Stronger Epistemic Attitude
KNOW
THINK
UNDERSTAND
BELIEVE
DOUBT
CONSIDER

Weaker Epistemic Attitude
SAY
ASK

In some respects the Kalasha pattern supports Givon's prediction and in others runs counter to it. First we note that, in consonance with the prediction, the implicatives like CAUSE, STOP, BEGIN, FINISH, BE ABLE, and KNOW HOW tend to have complements with the simple (NOM) infinitive. Also as predicted, the predicates of epistemic attitude (with two exceptions) have fully sentential complements.

According to the implicational hierarchy formulated above, however, we should not find "strong attempt" verbs
like FORCE and TRY with fully sentential complements while at the same time having "lower emotive content verbs" like DECIDE, REMEMBER, and FORGET with infinitive complements. The possibility of fully sentential complements with BE ABLE TO and CONVINCE is also anomalous from the point of view of the prediction.

We note further, however, that almost all of the predicates in the middle ranges of the scale—the strong attempt, high emotive content, and low emotive content categories—can have two types of complement, one sentential and one infinitival. One might assume that, in accordance with the prediction, for those verbs the infinitival complement is associated with a higher and the sentential complement with a lower emotive content. But, in fact, this is not so. On the contrary, we find that the higher degree of emotional commitment to the outcome denoted in the complement clause is expressed by the sentential complement, and the more matter of fact, objective statement by the infinitival complement. Consider (120-a and b).

120) FORGET
   a) a tai phuTu' chal-em' ghOi apraS'm-is
      I you(OBL) photo take(P/F-NS)-is COMP forget(PST-A)-1s
      'I forgot to take your photo.' (=7-a)
   b) a tai phuTu' chala'ik apraS'm-is
      I you(OBL) photo take(INF) forget(PST-A)-1s
      'I forgot to take your photo.' (=11)

Sentence (120-a) expresses the speaker's sense of regret and disappointment at not taking the photograph, while (120-b) is emotionally neutral. Compare also (121-a and b). In (121-a) the sentence describes a baby crying out
121) FEAR

a) suru'-am ghōi bih-iu'-dai [S:bk, E:mb]
    fall(P/F-NS)-ls COMP fear(P/F-S)-3s
    'She is afraid of falling.' (=5-a)

b) a tramaSōg-una bi'en nihik' bih-im' [E:mb, ek, bk]
    I dark-LOC out go out(INF) fear(P/F-NS)-ls
    'I am afraid to go out in the dark.' (=113-a)

in fear of a specific, actual possibility of falling;
while (121-b) is making a general statement about a
person's attitude toward going out in the dark.

The explanation for this anomaly lies in the fact that
the complementizer ghōi (< 'say') is involved in each of
these cases. The legacy of this complementizer's origin in
'say' is complex. (1) It means that the syntactic
distinction between direct and indirect reported speech is
not clearcut in sentences involving complements with ghōi,
since ghōi may be the equivalent of 'that', 'thus', or
sometimes of 'having said'. (2) Complements with ghōi,
especially in contrast with complements of other types,
e.g. infinitival complements or ki clauses, tend to keep
the semantics of speaker involvement with the utterance, a
sort of semantic reflex of the original meaning of ghōi.
Note that the ki clauses tend to cluster at the bottom end
of the binding hierarchy. Thus, although they are evolving
into the syntactic equivalent of ghōi clauses, there
appears to be some differentiation between them in the
semantic dimension of emotive content. Whether this
differentiation will become accelerated, with a resultant
polarization of ki and ghōi clauses, or whether ki clauses
will gradually become co-equal with (or replace) ghōi.
clauses all along the scale is an interesting question, one capable of generating some testable diachronic predictions.

This explains why we have the apparently anomalous sentential complement of BE ABLE, as in (122-a).

122) BE ABLE
a) doS a Sula' on'-im ghbi ne yesterday I firewood bring(P/F-NS)-is COMP not abha'-is [S:bk, E:mb]
be able(PST-A)-is 'Yesterday I was not able to bring firewood.' (=22)

b) doS a Sula' on'ik ne abha'-is [E:mb, bk] yesterday I firewood bring(INF) not be able(PST-A)-is 'Yesterday I was not able to bring firewood.'

What (122-a) is conveying is the speaker's sense of regret at not being able to carry out his specific intention of bringing firewood yesterday, i.e. 'I wanted to bring firewood yesterday, but wasn't able to'. (122-b) on the other hand does not carry this emotional nuance.

(3) This leads naturally to the semantic development of ghbi into a marker of purpose and reason clauses, which will be examined in the next section.27

Thus the appearance of fully sentential complements at anomalous positions on the hierarchy is explained by the fact that emotionally relevant complements retain the shape

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27It also explains why Morgenstierne, faced with the problem of arriving at the meaning of ghbi based on only a few occurrences, glossed it as 'willingly' or 'for the sake of'. Undoubtedly what happened is that his informants, unfamiliar with notions like "complementizer", explained the word in terms of its semantics, either of emotional commitment, or in its purpose clause development. It is noteworthy that Morgenstierne did not give the meaning 'having said'; I take this as evidence that his informants did not perceive ghbi as related to 'say', and thus for its completely grammaticized status.
of the direct-speech form which is their etymological heritage. Interestingly, it is precisely in the middle range—where strength of emotional commitment is the operative variable—where this effect of origin in 'say' is observed. So, with the caveat that qualifications taking into account the semantic effects of 'say' complementizers of the Kalasha type need to be incorporated into the predictions of the implicational hierarchy, it appears that on the whole the binding hierarchy is not contradicted by the distribution of Kalasha complement types.

5.2. ghōi and ki clauses

A synchronic summary of the range of ghōi and ki clauses and mixed complement types was presented in the previous section. To recapitulate briefly, we found the following types:

(1) [S] ghōi V
(2) V [S] ghōi
(3) V [S]
(4) [S] V
(5) V ki [S] ghōi V
(6) V ki [S] ghōi
(7) V ki [S]
(8) [S . . . V ki . . . S]
(9) [S] ghōi

A closer study examining constructions involving only verbs

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2This finding is of the same form as that discussed by Givon (1982) in relation to an epistemic continuum which ranges from an "unchallengeable" pole, through propositions which are asserted with relative confidence and thus require or admit evidentiary justification, to propositions asserted (only) with doubt and which thus require no evidentiary support. (p. 24) Givon finds that "evidentiality contrasts appear primarily in the middle . . . portion of the epistemic scale, where truth is neither presupposed and thus beyond doubt, nor too hazy and dubitable to bother with". (p. 26)
of speaking reveals the further types:

(10) SPEAK [S] ghōi SPEAK
(11) SPEAK ki [S] SPEAK
(12) SPEAK [S] SPEAK
(13) [S] ghōi (ghōi as CP)
(14) ghōi as 'thus'

These are illustrated in examples (123) - (127).

123) SPEAK [S] ghōi SPEAK

to'a ma'u-dai gardok'-as kai ei gardok' ma briko- then say(P/F-S)-3s donkey-OBL to hey donkey my death
huš aru ma peši'ru ū bos'an ghōi amau'[T6:b]
found out my flour eating up COMP say(PST-A)-3s
'Then he says to the donkey, "Hey donkey, you found out
about my death (and) are eating up my flour."' 29

124) SPEAK ki [S] SPEAK

to'a ja'-as ma'i la ki e moc a tai ne then wife-PS3s say(PST-I)3s COMP hey man I you(OBL) not
pe khoš ha'au tu mai hut'ī a if pleasing become(PST-A)-3s you I(OBL) send(IMP2s) I
parim'-dai mai daada'-a dur'-a hat'ya go(P/F-S)-ls I(OBL) father-PS1s house-LOC to
ghū'ata [TI1:sk]30
say(PST-I)-3s
'Then his wife said, "Hey, husband, if I am not pleasing
to you send me (back). I will go to my father's house,"
she said.'

125) SPEAK [S] SPEAK

ghōi ma'il-e istri'za baCa'-as kai jawap' thus speak(PST-I)-3s-when woman king-OBL to reply
di'ta a mai daada'-a dur'-a hat'ya give(PST-I)-3s I I(OBL) father-PS1s house-LOC to
ne par-im' tu š-atra' phond'-una roT'-una not go(P/F-NS)-ls is you EMPH-there road-LOC road-LOC

29The quoted sentence 'Hey, donkey . . .' is in
Khwar. This type of tale sometimes has quoted dialogue in
Khwar interpolated into the text. The reason for this is
that many of these stories (fairy tales, animal tales) are
not originally Kalash stories. They have been transmitted
in Khwar, and rendered into Kalasha. When a particular
piece of dialogue depends for its effect on specific word-
ing, sometimes the original Khwar sentence is retained.

30The form ghū'ata (< ghū'ik 'to say') is interesting.
A few past inferentials are formed in -ta. Another is
maata, an alternate past inferential of māik 'speak, say',
the usual past inferential form of which is ma'ila.
When he spoke thus, the woman replied to the king, "I will not go to my father's house. You make a building for me right there on the road," she said.

In (126-b) we have ghōi, followed by -o. By making explicit the sequentiality of the two actions, -o indicates that ghōi is functioning in the meaning 'having said' rather than as a complementizer.

These variations represent stages, all simultaneously present, in the evolution of Kalasha complement structures resulting from the assimilation of the right-branching ki clause structure into a predominantly left-branching language.

The above list tells us the range of types present, but nothing about their relative frequency in the language. In an attempt to determine this, I have tabulated their
occurrences in several texts, focusing on verbs of speaking and direct speech contexts only. In Tables 1 and 2, S represents a verb of speaking, and Q represents the reported speech. By far the most frequently occurring verbs of speaking are mā'ik, ghō'ik, and hōz'ik, all meaning 'say, speak'. Other verbs include phuc'ik 'ask', hok'um dek 'order', etc. The figures in Table 1 are raw numbers of occurrences, and those in Table 2 represent percentages.

Table 1. Numbers of occurrences of reported speech construction types

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Texts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LSI</td>
</tr>
<tr>
<td>1) [Q] ghō'ik S</td>
<td>1</td>
</tr>
<tr>
<td>2) S [Q] ghō'ik</td>
<td>0</td>
</tr>
<tr>
<td>3) S [Q]</td>
<td>0</td>
</tr>
<tr>
<td>4) [Q] S</td>
<td>0</td>
</tr>
<tr>
<td>5) S [Q] ghō'ik S</td>
<td>0</td>
</tr>
<tr>
<td>6) S [Q] ghō'ik</td>
<td>0</td>
</tr>
<tr>
<td>7) S ki [Q] ghō'ik</td>
<td>0</td>
</tr>
<tr>
<td>8) S ki [Q] ghō'ik</td>
<td>0</td>
</tr>
<tr>
<td>9) S ki [Q] S</td>
<td>0</td>
</tr>
<tr>
<td>10) S ki [Q]</td>
<td>0</td>
</tr>
<tr>
<td>11) [Q S ki Q]</td>
<td>0</td>
</tr>
<tr>
<td>12) [Q] ghō'ik (=CP)</td>
<td>0</td>
</tr>
<tr>
<td>13) THUS</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 1. (continued)

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Texts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁₀</td>
</tr>
<tr>
<td>1) [Q] ghō'ik S</td>
<td>0</td>
</tr>
<tr>
<td>2) S [Q] ghō'ik</td>
<td>3</td>
</tr>
<tr>
<td>3) S [Q]</td>
<td>6</td>
</tr>
<tr>
<td>4) [Q] S</td>
<td>3</td>
</tr>
<tr>
<td>5) S [Q] S</td>
<td>0</td>
</tr>
</tbody>
</table>

Finally, in Table 3, the percentages of clear left-branching structures, clear right-branching structures, and
mixed structures are compared for each (group of) text(s).

Table 3. Percentages of left-branching, right-branching and mixed structures

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Text</th>
<th>L</th>
<th>R</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSI 10 (n = 1)</td>
<td>10 (9)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morgenstierne 4 (1)</td>
<td>4 (23)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 (Tales) 22 (5)</td>
<td>22 (17)</td>
<td>4 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 (Conversation) 50 (4)</td>
<td>50 (4)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1.2 39 (19)</td>
<td>39 (12)</td>
<td>37 (18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3 27 (21)</td>
<td>27 (51)</td>
<td>7 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B4 63 (15)</td>
<td>63 (2)</td>
<td>29 (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B7 23 (8)</td>
<td>23 (23)</td>
<td>11 (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B10 50 (10)</td>
<td>50 (10)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B11 52 (29)</td>
<td>52 (22)</td>
<td>9 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B14 54 (38)</td>
<td>54 (26)</td>
<td>10 (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B15 77 (36)</td>
<td>77 (8)</td>
<td>6 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1 21 (4)</td>
<td>21 (6)</td>
<td>48 (9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P2 27 (3)</td>
<td>27 (7)</td>
<td>9 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average (B texts)</td>
<td>48</td>
<td>39</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

What do these results tell us? Three things are clear: (1) There is a great variety of constructions; among these the clear left-branching [Q] ghôi S and the pure right-branching S ki [Q] are the most frequent. (2) Variation among individual speakers is great, some (e.g. B-15, B-6) using a preponderance of left-branching constructions, others, (e.g. B-3, B-7, P-2) using more right-branching. (3) The proportion of left vs. right-branching structures also varies with discourse type.

For purposes of this comparison, the construction types were classified as follows: left branching: types 1, 4, 12, and 13; right-branching: types 3, 9, 10, and 11; mixed: types 2, 5, 6, 7, and 8.

Raw numbers of occurrences of each type are given in parentheses. Averages represent the B-texts only in order to hold constant the variables of time and elicitation and recording technique.

Each of the B-texts represents a different speaker.
comparison of the two sets of texts T-1 and T-2 is instructive. Set T-1 includes two texts, both of which belong to the folk tale genre (animal tales), while the two texts of set T-2 are realistic conversational discourse—one a letter, and one a scolding by a father to his son. All four texts are from the same speaker. What we observe is that the texts involving folk-tale narratives have a much higher percentage of right-branching structures than do those recording realistic everyday discourse. This result tends in the same direction as my own informal observation that in everyday domestic and casual conversation **ki** clauses are infrequently heard, while in narratives (particularly of this type of story) they are used more often.34

From Table 3 it seems that on the average (for my folk-tale texts) left-branching structures only slightly predominate over right-branching. If the three non-finite types [O] ghōi, [O] ghōi (as CP), and THUS are excluded, and if we compare, for example, only the clear left-branching and clear right-branching structures, then the proportion of right-branching structures is higher. Table 4 shows this comparison.

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34With regard to the assumption that folk-tales tend to be grammatically conservative (referred to by Peter Hook), it may be that in Kalasha this particular genre, since it involves non-indigenous stories, tends to import non-indigenous syntactic structures too.
Table 4. "Pure" left- vs. right-branching complement types (percentages)

<table>
<thead>
<tr>
<th>Text</th>
<th>Left br.</th>
<th>Right br.</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSI</td>
<td>100 (n = 1)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Morg</td>
<td>11 (1)</td>
<td>89 (8)</td>
<td>9</td>
</tr>
<tr>
<td>T1 (tales)</td>
<td>19 (4)</td>
<td>81 (17)</td>
<td>21</td>
</tr>
<tr>
<td>T2 (conv.)</td>
<td>100 (4)</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>B1.2</td>
<td>71 (15)</td>
<td>29 (6)</td>
<td>21</td>
</tr>
<tr>
<td>B3</td>
<td>33 (9)</td>
<td>67 (18)</td>
<td>27</td>
</tr>
<tr>
<td>B4</td>
<td>100 (9)</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>B5</td>
<td>0</td>
<td>100 (14)</td>
<td>14</td>
</tr>
<tr>
<td>B6</td>
<td>9 (1)</td>
<td>91 (10)</td>
<td>11</td>
</tr>
<tr>
<td>B7</td>
<td>44 (10)</td>
<td>57 (13)</td>
<td>23</td>
</tr>
<tr>
<td>B8</td>
<td>50 (17)</td>
<td>50 (17)</td>
<td>34</td>
</tr>
<tr>
<td>B9</td>
<td>60 (12)</td>
<td>40 (8)</td>
<td>20</td>
</tr>
<tr>
<td>P1</td>
<td>0</td>
<td>100 (6)</td>
<td>6</td>
</tr>
<tr>
<td>P2</td>
<td>29 (2)</td>
<td>72 (5)</td>
<td>7</td>
</tr>
</tbody>
</table>

Averages 46 (73) 54 (86) 159 (Btexts)

5.3. Extended semantic developments of ghōkik 'say'

In the previous section we saw that ki clauses seem increasingly to be fulfilling the function of complementizer with reported speech (at least in the folk tale narrative genre), especially when the verb of speaking is one of the semantically unspecialized ahōž'ik, mā'ik, or ghōkik 'say, speak'. When the verb is a more specialized one like 'report', 'warn', or 'shout', for example, ghōkik clauses still seem to be preferred.

ghōkik, however, has developed an extended range of uses which are comparable to the functions reported for 'say' complementizers worldwide and in South Asia for Dravidian and some more southerly Indo-Aryan languages. The functions of 'say' complementizers in south Asian languages has been the focus of much recent attention; see Hamp (1976), Kachru (1979), Hock (1982), Subbarao and Saxena
One aim of this research has been to delineate the range of functions of SAY complementizers in various individual languages; another has been to consider this as a possible convergence phenomenon and to establish the origin of these constructions. This aspect of the discussion has focussed on the question of whether or not Dravidian is the historical source of quotative uses in South Asia. Some authors have been cautious in venturing a conclusion: "Historically it is not clear that the quotative in NIA developed as a result of the influence of Dravidian (Kachru 1979:75)."

". . . It is not, however, possible to state with any degree of certainty the extent to which these developments are attributable to internal Sanskrit developments, to outside influence, or to a convergent combination of the two. Nor does our current state of knowledge permit the claim that if there was outside influence, that influence can have come only from Dravidian." (Hock 1982:79)

Others, based on the observation that ". . . (this) development is restricted only to the outer group of Indo-Aryan languages which are geographically contiguous to Dravidian languages (Subbarao and Saxena, ms:54)", argue that Dravidian influence is the most likely source of the development of (extended) functions of SAY complementizers in NIA. Yet a third position is articulated in Rau (1987:271), who, noting the existence of SAY complements in a wide variety of genetically and geographically diverse languages, says that:
it is likely that functions such as the use of SAY as a quotative marker, clause linker, etc., are language-internal developments . . . (while) a greater number of non-literal usages in the Dravidian languages also does not necessarily point to a Dravidian source of all functions. Extension of usages in various contexts could well be the product of mutual convergence and the resultant strengthening of the process."

The purpose of the following paragraphs is to introduce data from Kalasha relevant to these questions, thus adding another perspective to the discussion. Using Subbarao and Saxena's list of functions of SAY as a basis for comparison, I characterize Kalasha with respect to each of them, stating whether or not ghēi or another form of SAY has the given function. Subbarao and Saxena identify the following functions: 

3e (1) complementizer, (2) introducing reason clauses, (3) introducing reason phrases, (4) anaphoric reason indicator, (5) with onomatopoetic expressions, (6) with onomatopoetic expressions conveying a sense of efficiency and speed, (7) wish, (8) question word complement, (9) conveying deliberateness, (10) as a clarifier, (11) complementizer with embedded questions, (12) with disjunct constructions, (13) introducer (of a person), (14) to name, (15) conditional, (16) as a staller (conversational filler), (17) meaning clarifier, (18) linker (i.e. complementizer) after emotive predicates, (19) as a property explicator, (20) with relative-correlative adverbial pairs, (21) as an approximator, (22) in the

3eAlthough some of these seem redundant, I work with the original list to facilitate comparison of the data.
meaning 'think', (23) as a memory retriever, 'by the way', (24) as an opinion seeker, (25) to mark hearsay reporting, (26) comparative marker, (27) in the meaning 'do', (28) as a story starter, (29) in the sense 'that means', (30) meaning 'as an x', (31) meaning 'because', (32) as an intensifier, (33) meaning 'about to'. I will add to this list (34) introducing purpose clauses, which should be distinguished from reason clauses, and (35) meaning 'thus', an anaphoric discourse element used to introduce a sentence by referring to a previous utterance.

The following examples illustrate the functions found in Kalasha.36

128) COMPLEMENTIZER (+)  
a) se pruST moc ghōi mai hat'ya saru'-iu-dai [E:bk, mb]  
he good man COMP I(OBL) to seem(P/F-S)-3s  
'It seems to me that he is a good man.' (=20)

b) mai daada iu' ghōi salyim'-a hat'ya  
I(OBL) father come(P/F-NS)-3s COMP S.-OBL to  
mahalyum' [E:bk]  
knowledge  
'Salim knows that his father will come.'

129) INTRODUCING REASON CLAUSE (+)  
ne agri'-au e'mi post kriZ'na ghōi [S:z, E:mb]  
not take(PST-A)-3s these skins black COMP  
'He didn't buy these skins because they are black.'

130) WISH (+)  
a) a tai dur'-a i-m ghōi cit'-im-dai  
I you(OBL) house-LOC come(P/F-NS)-1s COMP think(P/F-S)1s  
'I want to come to your house.' [E:bk] (cf. 3 above)

b) janap' as'ta pi-m ghōi [S, E:mb] (=74)  
J. also drink(P/F-NS)-1s COMP  
'Janap also wants to drink (tea).'

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36 The (+), (-), or (?) notations following the function name indicate its presence, absence, or questionable status.
131) **QUESTION WORD COMPLEMENT (+)**

khyê ghôi periân’ hal’i-dai [T&C 1987:56]
why worried become(P/F-S)-2p
‘Why are you worried?’

The sequence khyê ghôi, literally ‘how having said’, means simply ‘why’.

132) **CLARIFIER (+)**

A: tu khyê ma’-as-dai a tai bi’ra
you what say-(P/F-S)2s I you(OBL) goat
hê kai a’-am ghôi [E:bk]
steal (P PERF)-ls COMP
‘What are you saying - that I stole your goat?’

B: ne-lyâ baaya sehê ghôi ne ma’-am-dai
no-POL brother like that COMP not say(P/F-S)-ls
‘No brother, I am not saying that.’

133) **COMPLEMENTIZER WITH EMBEDDED QUESTION (+)**

a tas’a aphuc’-is kai-o i-s ghôi
I him(OBL) ask(PST-A)-ls when-(P/F-NS)-2s COMP
‘I asked him when he would come.’ [S, E:bk, mb]

134) **NAMING (+)**

mahmat’ rahim’ ghôi su’da [S, E:mb]
M. R. called child
‘A boy called Mahmat Rahim.’

135) **MEANING ‘THINK’ (+)**

a) mai š-i’ya . daada pha’to cikast’ hiu’
I(OBL) EMPH-this father then upset become(P/F-NS)-3s
ghôi tas’a kai ne mai ghar’i ša-talai’
thinking him(OBL) to not say(CP) again EMPH-there
ati’ se ša-te’ sawz-au’ [T16~lg]
enter(CP) he EMPH-those(ACC) make(PST-A)-3s
‘Thinking that his, father, would worry, without telling
him, he, again went in there and worked on making
them.’

b) goST’-ai di’ta hu’la ghôi
kôattle house-LOC put(PST-I)-3p become(PST-I)-3s thinking
phar tara’ tha’i-o ji-em’e goST’-ai
load there put(CP)-o look(P/F-NS)-ls-when cattle h.-LOC
gak du’-iu-dai [T Oisj]
cow milk(P/F-S)-3s
‘When I put down my load there and looked, thinking that
they might have put (them) in the cattle house, (I see
that) he is milking a cow.’

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37POL indicates lyâ, a marker of politeness and affection.
314

136) REPORTER (HEARSAY) (+)
ne šik ghọ-an mai putr [S:bk]
not be(INAN)(INF) say(P/F-NS)-3p my son
'They say there isn't any, my son.'

137) BECAUSE (+)
Dar'an iu'-dai ghọi ab'i biho'ni [E:bk]
flood come(P/F-S)-3s because we fear(PST-A)-1p
'We were afraid because a flood was coming.'

138) THUS (+)
ghọi amal'-e/ ma'il-e [Texts]
thus say(PST-A)-3s-when/(PST-I)-3s-when
'When he spoke thus, . . .

This is one of the most frequently encountered uses of ghọi. It refers to an utterance in the previous sentence.

139) PURPOSE (+)
ulyak' alai' ni-n'-dai brık'-ik ghọi [S:bk]
flock there take(P/F-S)-3p sell(P/F-NS)-1p PURP
'They are taking the flock there to sell it.'

Those functions the status of which is not clear to me are listed below.

140) INDICATING REASON PHRASES (?)

141) INDICATING REASON ANAPHORICALLY (?)

142) MEANING CLARIFIER (+?)
a mai ay'-is se i'ya šum moc ghọi [E:bk]
I say(PST PERF-A)-1s that he bad man COMP
'What I said is that he is a bad man.'

143) EMOTIVE PREDICATE LINKER (+?)
salyim' kegrezi' kitap' (ghọi) khoš-e-l'-lai [E:bk]
S English books ghọi like(P/F-S)-3s
'Salim likes English books.'

I list this as uncertain first because the structure of Subbarao and Saxena's example involves a verbal adjective of 'say' and pronominalizing suffix, which produces the equivalent of the English cleft sentence. The Kalasha structure is syntactically a free relative clause. 'that which I said'. Second, it is an elicited example.

This example is uncertain because ghọi is optional at most, and because it is elicited rather than attested from actual texts.
144) **STORY STARTER** (?)\(^4^0\)

145) **THAT MEANS/IN THAT CASE** (+?)

sehê ghôî tu ne is [E:bk]
like that ghôî you not come(P/F-NS)-2s
? 'In that case, you won't come.'

146) **AS AN "x"** (-?)

a ustat' ghôî krom kar'-im-dai [E:bk, mb]
I teacher ghôî work do(P/F-S)-1s
?i) 'I am working as a teacher.'
?ii) 'Because I am a teacher I am working.'\(^4^1\)

*Functions which seem clearly not to be present, are given next, along with the evidence when available for judging them absent.*

147) **WITH ONOMATOPOETIC EXPRESSIONS** (-)

salyim' hûza thi/*ghôî pal'i alai' tyai' char
S noisily fall(CP) there hit(CP) noise
ar'-au [E:bk]
do(PST-A)-3s
'Salim fell down with a thud and made a noise.'

148) **DELIBERATENESS** (-)

saitan' su'da *kar'-im-dai/*hiu'-ori/*biś-iu-ori
naughty child I will do it/let it happen/let it break
ghôî pyalya' biś-au' [E:bk]
ghôî cup break(PST-A)-3s
*'The naughty child broke the cup deliberately.'

149) **DISJUNCT CONSTRUCTIONS** (-)

150) **INTRODUCER** (-)

i'ya mai malygi'ri salyim' (*ghôî) [E:bk]
this my friend Salim ghôî
'This is my friend Salim.'

151) **CONDITIONAL** (-)

a) salyim' pe al ha'au ustat'

\(^4^0\)There is a formulaic expression, vakt-ama'i equivalent to 'once upon a time', 'a long time ago', which also appears in Khwar in the form vaxt-amai vaxt-a. I am not sure of the etymology of the second element. If -amai should turn out to be from mäik 'say, speak', then this function would be present in Kalasha.

\(^4^1\)Informants differ on the meaning they assign to this sentence.
Salim if come(PST-A)-3s become(PST-A)-3s teacher
tas'a hat'ya kitap' on'-iu [E:bk]
him(OBL) for book bring(P/F-NS)-3s
'If Salim comes, the teacher will bring the book for him.'

b) salyim' i-u' ghöi ustat' tas'a
Salim come(P/F-NS)-3s thinking teacher him(OBL)
hat'ya kitap' on'-iu-dai [E:bk]
for book bring(P/F-S)-3s
i) Thinking that Salim will come, the teacher is bringing a book for him.
ii) *If Salim comes the teacher will bring a book for him.

152) STALLER (-)

153) PROPERTY EXPLICATOR (-)
Dar'an *ghöi/i'ta takliw' [E:bk]
flood ghöi come(CP) trouble
*i) 'A flood means trouble.'
ii) 'When a flood comes there is trouble.'

154) WITH RELATIVE-CORRELATIVE ADVERBIAL EXPRESSIONS (-)
salyim' kawai' [as'ta/*ghöi alai'] par-iu' [E:bk]
Salim where also / ghöi there go(P/F-NS)-3s
'Salim will go somewhere or other.'

155) APPROXIMATOR (-)
SO-as raw/*SOa ghöi cut'yaq żandar' [E:bk]
dog-OBL like/dog ghöi small animal
'A small animal something like a dog.'

156) BY THE WAY/MEMORY RETRIEVER/ (-)

157) OPINION SEEKER (-)

158) COMPARATIVE MARKER (-)
salyim' [tas'-a pi/ *ghöi] dri'ga [E:bk]
Salim [him(OBL) from/ghöi] long
'Salim is taller than him.'

159) MEANING 'DO'43 (-)

160) INTENSIFIER (-)

42No example I was able to construct using ghöi in this function was even close to being possible.

43In Kalasha 'say' does not generalize to 'do'. Nor is 'do' used in the sense of 'say.' In Shina, however, the verb whose basic meaning is 'do, make' is regularly used in the sense of 'say'.
Examining the inventory of functions present in Kalasha, we find that twelve of them are definitely present, and another seven possibly so.

What can these data from Kalasha contribute to the discussion of SAY complementizers in South Asian languages? First, it must be pointed out that Kalasha is not the only NWIA language to have a well developed set of ‘say’ functions. Of the functions under discussion, the following are found in Khowar: COMPLEMENTIZER (with a wide variety of complement-taking predicates), PURPOSE, REASON (CLausal), ONOMATOPEIA, QUESTION WORD COMPLEMENT, DELIBERATENESS, CLARIFIER (with adverb), COMPLEMENTIZER WITH EMBEDDED QUESTIONS, INTRODUCER, NAMING, PROPERTY EXPLICATOR, and meaning THINK. Gilgit Shina, Domaki, and Dangarikwar also make extensive use of forms of ‘say’, as as do the non-IA languages Burushaski and Tibeto-Burman Balti.

Comparing the Kalasha and Khowar lists, we see that the COMPLEMENTIZER, PURPOSE, REASON (CLausal), QUESTION WORD COMPLEMENT, CLARIFIER (with adverb), COMPLEMENTIZER WITH EMBEDDED QUESTIONS, NAMING, and THINK functions are

**The ways of expressing this meaning have been discussed earlier in section 5.1.1.3.1.3.

**For discussion and exemplification of developments of ‘say’ in Khowar, Shina, Dangarikwar, Balti, and Burushaski, see Bashir (in preparation).
found in both languages.

Now comparing the range of functions of 'say'
complementizers in Kalasha with the array of functions
which developed for iti by the time of Classical Sanskrit
(cf. Hock, 1982)—PURPOSE, EMPHASIS, NAME, ONOMATOPOEIA,
RITUAL QUOTATIVE, CAUSE, and QUESTION WORD COMPLEMENT—we
see that with the exception of ONOMATOPOEIA, EMPHASIS, and
RITUAL QUOTATIVE, the same functions found in Sanskrit are
also found in Kalasha. Hock (1982) traces the sequence of
emergence of each of these functions in Sanskrit, finding
chronological orders of development schematized as follows:

COMP with {'say'} > COMP with {'hear'} > COMP with {'see'}
        {'think'} {'know'}
THINK > PURPOSE > CAUSE (SUBJECTIVE) > CAUSE (OBJECTIVE)
NAME > ONOMATOPOEIA

'Say' is also the source of complementizers in creole
languages, e.g. Krio (Givon 1980)** and Jamaican Creole
(Lord 1976:188). The fact that 'say' develops into a
complementizer in creoles, which are argued to be likely to
transparently exhibit universal tendencies is quite
telling.

Given that complementizers from 'say' are widely
attested in genetically diverse and geographically

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**For example:

a) a no se i bin-sik [Givon 1980:346]
   I know say he been-sick
   'I know that he's been sick.'

b) i op se i go-ebul go na Watalu tuma'ra
   he hope say he go-able go W. tomorrow
   'He hopes that he will be able to go to Watalu tomorrow.'
separated language families\textsuperscript{47}, and that they tend to develop similar clusters of semantic extensions—into purpose, reason, and conditional clauses, or into naming and onomatopoeia marking phrases for example—it seems that we must conclude that the presence of complementizers from 'say' and their development into markers of purpose, reason, and conditional clauses are at least as likely to be attributable to universal tendencies as to result from convergence. In order to argue for convergence effects we either have to find specialized developments other than these extremely common ones and then evidence for their presence in adjacent languages of different families, or establish a quantified geographical gradient with respect to some putative source (language).

The Kalasha and Khowar evidence relates to the discussion in the following ways. Since neither Kalasha nor Khowar is or has, as far as we know, been contiguous with Dravidian, the presence of a strongly developed and fairly wide range of functions of 'say' in these languages suggests that in NWIA at least the source for the initial development of 'say' complementizers could not have been Dravidian. It could, however, be any one or several of the following: independent internal development, influence

\textsuperscript{47}These include Niger-Congo (Lord 1976); Tibeto-Burman--Newari (Ebert 1986) and Balti (Read 1934:67), Bashir (in preparation); Quechua (Muyksen 1977 cited in Hook 1985); Turkic--Sjoberg (1963:58) for Uzbek, Ebert (1986:147) for Turkish, and Perry (1979) for Uzbek and similar constructions in Tajik Persian; and creoles (Givon 1980 and Lord 1976).
from Turkic, or Tibeto-Burman, or from Burushaski. The semantic developments are all such that once the initial innovation occurred, they would continue to develop independently. With regard to the Dravidian question, the fact that while having a strongly-developed 'say' complementizer with a wide range of functions Kalasha does not have some of the specialized functions taken as the most cogent evidence for Dravidian influence on more southerly NIA languages like Bengali, Marathi, Dakhkhani Urdu, and Sinhalese—namely the APPROXIMATOR and COMPARATIVE MARKER functions—shows that the occurrence of these specific functions for 'say' is a less widely attested phenomenon. Their presence in contiguous genetically unrelated languages thus lends greater weight to an argument for convergence.

Perhaps what we will find, once detailed analyses of 'say' functions in a wide range of languages have been compared, is a clustering of functions with those developing from a structure [S] SAY (e.g. complementizer with complement-taking predicates and with embedded questions, purpose, reason, and conditional clauses) constituting one cluster, those developing from a structure [NP] SAY (e.g.

**'Say' complementizers in Iranian seem to be marginal at most. Only a few of the functions under discussion are found in Wakhi, for example. Those found in Tajik are attributable to Uzbek influence (cf. Perry 1979).**

**Subbarao and Saxena (ms) discuss the COMPARATIVE MARKER function in Dakhkhani Urdu and the APPROXIMATOR in Marathi (p. 22, 26).
phrasal reason expressions, name, onomatopoeia, introducer, property explicator) making up another, and perhaps those from [ADV] SAY (e.g. anaphoric reason indicator, clarifier, question word complement) yet another. Within each cluster of functions there will be an identifiable diachronic pattern of development, along the lines sketched in Hock (1982) for Sanskrit. The development of SAY complementizers with 'say' will precede 'think', which will precede 'see'. The extension of the SAY complementizer to use with 'think' will also precede the evolution of purpose constructions, which will in turn precede the development of subjective and finally objective reason constructions. Similarly, the NAME function will precede more specialized developments like ONOMATOPOEIA or INTRODUCER.

Such a diachronic order should be reflected in synchronic implicational hierarchies such that the presence of the PURPOSE function implies the presence of the "THINK" function, and the presence of the REASON (OBJECTIVE) function implies the PURPOSE construction. Similarly the presence of ONOMATOPOEIA, or INTRODUCER would imply the presence of the NAME construction. These particular predictions do, in fact, turn out to hold for Kalasha, Khowar, Gilgit Shina, Dangarikwar, Burushaski, and Balti.80

5.4. Developments of ki

The incipient development of some of the functions of

80See Bashir (in preparation) for data from these languages.
'say' complementizers is observed also for ki clauses in Kalasha. In addition to functioning as complementizer with many predicates ki is occasionally observed introducing purpose and reason clauses. In the following example, ki may be interpreted either as simply introducing the reported speech 'He has given you his daughter", or as introducing a purpose clause with an understood (deleted?) verb 'say'.

162) te parik'-ani aC'a gher'i su'da on they go(INF)-ABL after again boys come(PST-A)-3p ki chul'-as tai prau [T26:bk] that daughter-PS3s you(OBL) give(PST-A)-3s 'After they left, again some boys (i.e. messengers) came (to say) that, "He has given you his daughter."

The following examples illustrate ki clauses with reason interpretations.

163) ~j-o a'i (=ab'i) bo ko'san' ki ho'ma putr now-o we very happy that our son a'-au ghōi hom'a dhar'-iu ghōi be(P/F)-3s COMP we(OBL) take care of(P/F-NS)3s COMP 'Now we are very happy that we have a son, because he will take care of us.' [Trail, unpublished text]

164) ghōi amal'-e se tic'ak kho'san' thus say(PST-A)-3s-when she little happy haw'-au ki o i'ya baCa'zada' a'-au become(PST-A)-3s that oh this prince be(P/F)-3s i'ya mamulyi' moc ne [T17:mz] this ordinary man not 'When he spoke thus, she was a little happy, because (she thought that), "Oh, this is a king's son, he isn't an ordinary man'.

165) şēhē' Tem di'ta ki wazir'-as like that time give(PST-I)3s that minister-OBL putr'-as hat'ya baCa'-as chul'-as ne son-PS3s to king-OBL daughter-PS3s not žal'-iu [T17:mz] reach(P/F)-3s 'They set a time because (otherwise) the wazir's son would not get the king's daughter (lit. 'The king's daughter would not reach the wazir's son.'
A calque on the Urdu *kyā ki* 'because' (lit. 'why that') as in (166) is occasionally observed.

166) ab'i žubā'ram ne har'-ik ko'ki ho'ma we edibles not take(P/F-NS)-1p because we(OBL) ispray' kar'-iu-dai [T1:#3] sleep do(P/F-S)-3s

'We won't take anything to eat, because we will feel sleepy (if we do).'

Some texts/speakers have *ki* developing functions more like those of *ki* in Urdu, Khowar, or Persian, as in (167), where *ki* introduces a clause which is the complement of 'happen', and in (168) where the clause introduced by *ki* is in apposition with *karun* 'custom'.

167) khošpo muži šēhē haw'-au ki - sotho' in a dream like this happened that seventh asman'-una asman' pari'-as chul'-as ay'-is - heaven-LOC sky fairy(OBL) daughter-PS3s be(PST-A)3s khošpo muži ašek' haw'-au [T26:bk]³¹ dream in in love become(PST-A)-3s

'It happened that in a dream - in the seventh heaven there was the daughter of a sky fairy - he fell in love in a dream.' (He saw the fairy's daughter in a dream and fell in love with her.)

168) ho'ma baCahi'-una šēhē karun' ši'-u we(OBL) kingdom-LOC like this custom be(P/F)-3s ki ek hawta' ža beru'-as ta'da ne COMP one week until husband-OBL near not par-in' [T3:fs] go(P/F-NS)-3p

'In our kingdom the custom is like this - that they (i.e. newly married women) don't go near their husbands for a week.'

In (169) *ki* follows a temporal clause, as in Persian or Wakhi.

169) deo talai' par-au' ki na ek sōa mes demon there go(PST-A)-3s when CAJ one golden table tara' uchunD-au' [T26:bk] there descend(PST-A)-3s

'When the demon/giant went there a golden table

³¹The phrase khošpo muži is Khowar.
descended (from the sky)."

Finally, in (170) ki appears in the meaning of 'if'.

170) ki mai mon galyat' šial'aaw [=šiala haw'au]
    if I(OBL) word wrong be(PST-I)3s become(PST-A)-3s
    tu mai žu [T4:fs]
    you I(OBL) eat(IMP2s)
    'If my word turns out to be wrong, you eat me!'

How the various subordinating and complementizing functions will be distributed with continued change in Kalasha remains to be seen. At this point, however, it appears that ki clauses will continue to increase in frequency over ghōi clauses in the function of introducing both direct and indirect reported speech with non-specific verbs of saying, while ghōi clauses will remain the main way of expressing purpose and reason clauses and with semantically specialized verbs of verbal behavior, especially in everyday speech.
6.1. **Theoretical considerations**

6.1.1. Basic definitions

In this study I adopt the functional semantically based definition of relative clause (hereafter RC) framed in Keenan and Comrie (1977:63-4).

"We consider any syntactic object to be an RC if it specifies a set of objects (perhaps a one-member set) in two steps: a larger set is specified, called the domain of relativization, and then restricted to some subset of which a certain sentence, the restricting sentence, is true. The domain of relativization is expressed in surface structure by the head NP, and the restricting sentence by the restricting clause, which may look more or less like a surface sentence depending on the language."

The restricting clause will be referred to as S-REL, and the NP in the restricting (sentence or) clause that is coreferential with the head NP will be called NP-REL. The above definition automatically eliminates what are usually called non-restrictive relative clauses, and in this chapter I shall be discussing only restrictive RC’s.

The restricting clause may either follow or precede its head NP. In the former case S-REL is post-nominal and in the latter pre-nominal; in both of these situations the
head NP is external to S-REL. I will refer to these as post-nominal and pre-nominal externally-headed relative clauses respectively. The English The man S-REL [who bought the red shirt] exemplifies the post-nominal externally headed type; the Urdu B-REL [kursii par baiThaa huaa] admi 'the man sitting on the chair' illustrates the prenominal externally headed type. If the head NP is internal to the RC, the construction will be called internally headed. Example (1) shows an internally headed RC from Bambara.

1) tye ye [ne ye so min ye] san man PST RC[I PST horse which see] buy 'The man bought the horse that I saw.' [Keenan and Comrie 1972:65, from Bird (1966)]

By "free" or "headless" relative I shall mean a structure like that in the English I like what I see, in which a single (relative) pronominal element fuses the functions of both head NP and relative element.

6.1.2. The relative-correlative structure

The structure called sometimes "relative-correlative", sometimes "co-relative" is commonly found in Urdu, Panjabi, Bengali, Hindi and other NIA languages. (2-a) shows a typical example of this type from Urdu or Hindi.

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1"Co-relative", referring to an adjoined structure (e.g. as in Keenan’s diagram on p. 328), is opposed to "ad-relative", which refers to a structure embedded under an NP. "Correlative", on the other hand, is opposed to "relative". Thus "co-relative clause" refers to the S-initial or j- clause; while "correlative clause" refers to the S-final (w-) clause. This potentially confusing terminological similarity has arisen because of the changing analyses given to this construction.
2-a) $S$-$REL[\text{jis laRke ke saath aap baiThe the}]$
   
   [which boy with you were sitting]
   
   $wo cor hai$
   
   that thief is
   
   'The boy with whom you were sitting is a thief.'

S-$REL$ can, however, also occur in sentence-final position,

as in (2-b),

2-b) $wo laRka cor hai S$-$REL[\text{jis ke saath aap baiThe the}]$
   
   that boy thief is whom with you
   
   baiThe the
   
   were sitting
   
   'The boy with whom you were sitting is a thief.'

or S-$REL$ can be immediately post-nominal (2-c).

2-c) $wo laRka S$-$REL[\text{jis ke saath aap baiThe the}]$
   
   that boy whom with you were sitting
   
   cor hai
   
   thief is
   
   The boy with whom you were sitting is a thief.'

While (2-b) and (2-c) are clearly post-nominal, externally

headed RC's, the construction illustrated in (2-a) is

susceptible of and has received varying analyses. Comrie

(1981:139) summarizes these differences as follows:

"In one sense, this construction does have an
   internal head, since the relative clause . . .
   contains a full noun phrase . . . referring to the
   head. Alternatively, one could argue that the
   head is actually the noun phrase (with a full noun
   or just a pronoun) that occurs in the second clause,
   in which case this kind of construction would be a
   subtype of the prenominal relative clause. Both
   classifications are found in the literature, and
   perhaps it would be more accurate to say that this
   correlative construction combines features of both
   prenominal and internal-head types, i.e. these two
   types are not necessarily mutually exclusive."

Many scholars have discussed the $jo . . . wo$

construction in relation to the postnominal variants.

Gonda (1954:9), discussing Indo-Iranian $va (\langle \text{IE jo-})$, the

ancestor of the $j-$ forms of NIA, says:
"It would appear that the Indo-Iranian ya- . . . originally was an introductory, announcing; isolating; explaining, qualifying, defining, distinguishing pronominal word which included the word or word group to which it drew attention or which it introduced, etc., in a larger whole. From the point of view of 'logical' syntax the relations of the included (relative) clause and the other part of the sentence were of a considerable degree of vagueness . . . Various types of Indo-Iranian sentences can be explained as formed with ya- of the above definition rather than a strictly relative pronoun." (p. 10)

Downing (1973:12-3) argues that:

"there really is no evidence for deriving co-relative clauses of the types discussed here from underlying embedded relative clauses by a rule of extraposition. (p. 12). . . None of this evidence, taken alone, is yet conclusive regarding the derivation of co-relative from ad-relative clauses. In every case, however, the evidence suggests that either there is no transformational relation or that the derivation is in the opposite direction." (p. 13)

Keenan (1985:163), commenting on the syntax of corelatives, considers that corelatives "are not NP's and thus a fortiori not RC's on our definition, but they are the functional equivalent of RC's in many languages", and gives (p. 168) the structure:

```
S
  \---
S_{REL}  \---
       \---
       (COREL) + N_{REL}  \---
       NP_{ANAPHORIC}  \---
        \---
          S_{MAIN}
```

Srivastav (1987) shows that the semantics of sentence-initial S-REL in relative-correlative structures indicates that they are instances of base-generated adjunction, that is that they have a structure basically different from the postnominal and sentence-final variants. She argues, based on evidence from NP recursion, full NP realization, quantification, and multiple relativization phenomena that
the (2-a) type does not represent true relativization.

"... adjunction has to be recognized at D-structure. The relationship of the noun and subordinate clause is not one of noun modification. The function of the 'relative clause' is to restrain the domain of discourse; the main clause NP is anaphorically linked to the restricted set denoted by it." (1987:2)

Srivastav continues that the correlative (2-a) type

"is a true instance of adjunction and even though in many cases it seems to function like a relative clause its semantics is very different. It represents a restriction on the domain of individuals, not on the set denoted by the main clause nominal (1985:15)."

Given the above, and since this type is structurally different from the true relative clause, the correlative w-element cannot be said to be its "head", at least in the sense of "head" defined earlier.

Common to these analyses is the distinction of the S-initial relative-correlative structure (e.g. 2-a) from the postnominal (2-c) and sentence-final (2-b) types. Arguing from four different backgrounds, these writers conclude that the jo...wo construction is fundamentally different from the NP fo or the [S] fo structures. In this discussion, following Gonda (1954), Downing (1973), Keenan (1985), and Srivastav (1987), I adopt an analysis of the sentence-initial type (2-a) as having a structure in which S-REL bears a coordinate relation to S-MATRIX.2

2The postulation of a coordinate relation between S-REL and S-MATRIX also derives support from the work of Schachter (1973:19) who, discussing cross-linguistic similarities between focus constructions and restrictive relative clauses, argues that "both constructions involve the promotion of material from an embedded into a matrix
In a cross-linguistic study of relative-correlative constructions, Downing (1973:11) finds a correlation such that "the most consistent OV languages have preposed ad-relative clauses (as in Japanese and Turkish) and no right extraposition. Languages with preposed, co-relative clauses are not rigidly OV in structure, and tend to allow right-extraposed clauses as well." Based on this generalization, he formulates a diachronic hypothesis:

"This suggests to me the hypothesis that the common or exclusive use of preposed modifying clauses arises historically in a language when it is in transition from a rigid OV structure, with preposed ad-relative clauses, to a VO structure, which requires the modifiers to follow the head—or the reverse, or both. Lehmann (forthcoming) finds evidence in favor of such a hypothesis in his study of syntactic developments in the early Indo-European languages." (ibid.:11)

This seems to fit the situation in Kalasha, which is an originally (consistently) left-branching language in the process of acquiring and assimilating some right-branching structures. The preposing of S-REL to a position preceding S-MATRIX reflects the tension between the structural pulls

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sentence, a syntactic process that may be correlated with the semantic process of foregrounding one part of a sentence at the expense of the rest." The difference between Downing's and Srivastav's and Schachter's treatments is that the former treat S-initial relative-correlative structures as underlyingly coordinate rather than arising by derivation from an embedded structure.
of right and left-branching tendencies.³

6.1.3. The Accessibility Hierarchy

Keenan and Comrie (1977, 1979, and 1979-a) formulate a cross-linguistic generalization about relative clause-formation which has become well known as the "accessibility hierarchy" (henceforth AH). This is summarized as (A).

A) ACCESSIBILITY HIERARCHY  
[high] SUBJECT > DIRECT OBJECT > INDIRECT OBJECT > OBLIQUE > GENITIVE > STANDARD OF COMPARISON [low]

According to this generalization, for any given relativization strategy, each nominal position is more accessible to relative clause formation than any position to its right. The constraints on the hierarchy are:

B) HIERARCHY CONSTRAINTS (K & C 1977:67)
1) A language must be able to relativize subjects.
2) Any RC-forming strategy must apply to a continuous segment of the AH.
3) Strategies that apply at one point of the AH may in principle cease to apply at any lower point.

After briefly introducing Kalasha’s relativization strategies, I discuss each one in detail, exemplifying its distribution with respect to the AH and describing its syntactic properties.

6.2. Kalasha relativization strategies - an overview

Kalasha has several indigenous and two borrowed relativization strategies. The most frequently encountered indigenous strategy is illustrated in (3).

3-a) sarak’-una kas’-iu-dai moc mai məa [E:ij, mb]

³Klaiman (1976:332) discussing relative-correlative structures in a diachronic perspective makes a similar observation, noting that correlatives . . . "preserve main clause verb-final order".
The man walking on the road is my maternal uncle.

The one (who is) going down the road is my maternal uncle.

What he told me was very bad news.

This is a pre-nominal, externally headed structure, in which the head may be a noun (3-a), or a pronoun (3-b and c). Note that the verb of the relative clause is finite, retaining all the categories of tense, mood, person and number. I shall refer to this as the finite verb (V-FIN) strategy.4

A second strategy employs the past participle, as in (4).

I like the work you did very much.

The PARTICIPIAL strategy is also pre-nominal and externally headed. Note that in this type the subject of S-REL takes OBL case, and that the verb has lost the categories of person and number.5

This type is also found in Marathi and Gujarati (Masica 1972:199). Masica discusses this in terms of "a reduction which deletes the relativized noun and the J-element but retains the noun in the main clause with its correlative element. . ." It seems likely that the presence in Gujarati and Marathi of the structures corresponding to the Kalasha V-FIN RC's can be attributed to convergence with Dravidian.

Whether or not relative clauses can be constructed with the verb of the RC in the conjunctive (=perfective) participial form is somewhat unclear. All my informants unanimously rejected examples like that in (a)
A third strategy I shall refer to as INFINITIVAL.

This is illustrated in (5).

5) a sabak’ māik’-as Tem’-una a’bi catrau’
   I lesson read(INF)-OBL time-LOC we C.
   par-o’mi [E:ij, mb]
   go(PST-A)-1p
   ‘While I was studying we went to Chitral.’ (Lit. ‘In the time when I was studying, . . .’)

In (3) S-REL a sabak’ māikas precedes the head NP Tem.

Here the verbal concept has become almost entirely nominalized, losing the categories of tense, mood, person and number. The infinitive appears in its OBL form. This is also a prenominal, externally headed structure.

A fourth construction still further nominalizes the verbal concept, turning it into the agent noun, which means in general ‘one who V’s’. This is a type of free relative, in which the domain, instead of being indicated by a NP, is an implied pronominal concept, ‘the one/someone’. Example (6) illustrates this construction.

6) i’ya mai SO’a nasawaw’-as putr’-as [E:ek, mb]
   this my dog kill(AG N)-OBL son-PS3s
   ‘He is the son of the one who killed my dog.’

   a) *tai kai krom bo pruST [E:*mb, *bk, *sj]
      your do(CP) work very good
      ‘The work you did is very good.’
   Yet Trail (unpublished ms) reports the existence of such a construction, and sporadic examples which meet this description are observed. (b) is one of these.
   b) Sok kai Temb-un-o nuristan-ai mutabar ita
      mourning do(CP) time-LOC-g N-ABL M. come(CP)
      ‘In the time of mourning Mutabar came from Nuristan and . . .’ [Parkes, unpublished text, gloss mine]

No such examples occur in my texts, however, and the weight of evidence available to me seems to suggest that such constructions are not acceptable.

Recall from Ch. 2 above that the imperfective participle cannot be used attributively or to construct participial RC’s.
(Lit. 'He is the son of my dog's killer.')

Of the two borrowed strategies the first is common, especially in narrative texts, and the second infrequent. In the first, an interrogative element k- (usually but not always) plus ki is employed in the function of relative marker, and a deictic element serves as correlative element in the matrix clause. This is structurally quite different from the indigenous types. It is an internally headed RC, the head NP most often occurring between the interrogative k- word and ki.

7) kiy'a caku' gri ki krom kari'man a'yis se what knife with ki work do(PST-IMPFV-A)-is that Dhāba' hu'la [E:bk, mb] dull become(PST-1)-3s 'The knife with which I was working was dull.'

Thus in (7), which exemplifies this type, caku is the head in the structure kiya head NP ki. In this structure the case role of NP-REL in S-REL is marked either on the NP itself (as in 7), or on the k- word (as in 94-a below). The role of the relative NP in the matrix clause is indicated by a pronominal element, often but not always the remote demonstrative.

The other borrowed strategy is a transparent Urdu borrowing; it is illustrated in (8).7

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*There are exceptions to this, however, when a gap appears in the matrix clause.

7The element -waala(a) is one of the most frequently used relativizing elements in colloquial Indo-Aryan languages of the central area, like Urdu, Hindi, Panjabi. For example, the Urdu sentence of (a) a) dhone waale kapre yaha rakho wash(INF OBL) REL clothes here put(IMP2p)
8) a’sa udulu’na piran’ wa’la moc ku’ra [E:bk, mb]
that torn shirt REL man who
‘Who is that man with the torn shirt/whose shirt is
torn?’

Like the indigenous strategies, this structure is also pre-
nominal and externally headed.

6.3. The finite verb (V-FIN) strategy

6.3.1. Relation to the Accessibility Hierarchy

The V-FIN strategy can be used to relativize all
positions on the hierarchy except postpositional objects
and perhaps genitives. Beginning with subjects: in (9 -
11) NP-REL has the grammatical relation of subject in S-
REL and is also the subject of the main clause (S-MATRIX).

9-a) atra’ krom kar’iu-dai (asa) moc ku’ra [E:bk, mb]
there work do(P/F-S)-3s (that) man who
‘Who is the man (who is) working (over) there?’

b) to krom ar’-au (se) moc mai baaya [E:mb]
that(ACC) work do(PST-A)-3s (that) man my brother
‘The man who did that work is my brother.’

10) tai SaTawa’i krom karawa’-is (se) moc ku’ra
ycu(ØBL) by work do-CS(PST-A)-3s (that) man who
‘Who is the man who got the work done by you?’ [E:mb]

11) al’yu žualy’ak kar’iu-dai ghōbi
potatoes feeling-like-eating do(P/F-S)-3s COMP
mau-dai š-a’sa moc mai yardus’ [E:mb]
say(P/F-S)-3s EMPH-that man my friend
‘The man who says that he feels like eating potatoes
is my friend.’

In (12) and (13) NP-REL is subject of S-REL and direct
object of S-MATRIX.

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‘Put the clothes that have to be washed here.’

The form šia’la in (12) could, according to form
alone, be either the finite verb or the past participle.
Since I have no clear examples in which the participial
strategy is used to relativize on subjects, I have chosen
to consider it as the finite verb.
12) tai dukan'-una šia'la  to/se guum a
your shop-LOC be(PST-I)-3s that(ACC)/NOM wheat I
agri-s' [E:bk, mb]
take(PST-A)-ls
'I bought the wheat which was in your shop.'

13) a) sukuly'-una sabak' di'man ay'-is (to/se) moc
school-LOC lesson give(PST IMPFV-A)-3s (that) man
a apa's-is [E:bk, mb]
I see(PST-A)-ls
'I saw the man who was teaching in the school.'

b) a mez'-una kaSög' thai a'-au moc jhon'-im
I table-LOC hat put(P PERF)-3s man know(P/F-NS)-3s
'I know the man who put the hat on the table.' [E:bk, mb]

In (14) NP-REL is indirect object in S-MATRIX.

14) alai' par-in'-dai ta'si moc'-an as'ta	here go(P/F-S)-3p those(OBL) men-(OBL) also
del'-lai har gehen' par-in'-dai moc'-an
give(P/F-S)-3p every direction go(P/F-S)-3p men-OBL
del'-lai [S:mb]
give(P/F-S)-3s
'She also gives to the people (who are) going there;
she gives to people going in every direction.'

In (15) NP-REL is a dative experiencer in S-MATRIX.

15) tes kar'-iu moc'-as ek gATa' aiat' [S:ekb]
fast do(P/F-NS)-3s man-OBL one hour necessary
'A man who works fast needs one hour.'

In (16) and (17) the matrix role of NP-REL is OBL in a

9 This sentence is instructive in that the first clause
NP-REL is preceded by the deictic element tasi 'those',
while in the second clause it is not. When present, it
adds an element of specificity to NP-REL, as is made clear
in the spontaneous example (14). The people 'going in that
direction' are more specific in the mind of the speaker
than 'people going in every direction'. Both of my English
speaking informants have given explanations to this effect
when asked about this point. The reader will have noticed
that in some of the earlier (elicited) examples the deictic
elements to 'that' etc. have been indicated as optional.
This apparent optionality is an artifact of the fact that
elicited examples do not provide a rich enough context for
the speaker to definitely exclude either the presence or
the absence of the deictic element.

10 The absence of the deictic in (15) corresponds to the
non-specific meaning, i.e. 'any man who works fast'.

postpositional phrase.

16) tara' ja as'-is chul'-as taada tara' there wife be(PST-A)-3s daughter-PS3s near there par-au' [Parkes, unpublished text, translation mine] go(PST-A)-3s 'He went there to his daughter who was married there.'

17) šen(d)'-una nisi' a'-au isteri'za'-as pi a takala' bed-LOC sit(P PERF)-3s woman-OBL from I strong 'I am stronger than the woman sitting on the bed.'

In (18), NP-REL is a genitive in S-MATRIX.

18) oCJ'ik del'-lai ta'sa moc'-as dur [S:bs] story give(P/F-S)-3s that(OBL) man-OBL house '...to the house of the man who is going to tell (us) a story.'

Proceeding to relativization on objects, (19) and (20) show NP-REL as direct object in S-REL and subject in S-MATRIX.

19) tu ar'-i *(se) krom bo pruST you do(PST-A)-2s *(that) work very good 'The work that you did is very good.'[E:bk, mb]12

20) žuk-daay-e i'ya as'ta noa [S:bkw] eat(P/F-S)-1p-? this also new 'This which we are eating is also new.'

Examples (21) - (24) show NP-REL as direct object in S-REL and direct object, object of a postposition, and possessor respectively in S-MATRIX.

21) tu chi'ni a'-as au' a aš'-is [S:mb] you break(P PERF)-2s bread I eat(PST-A)-ls

11Standards of comparison in Kalasha are treated as ordinary postpositional phrases, with NP(OBL) followed by pi 'from'.

12Informant mb considered se optional; bk felt that "the sentence sounds incomplete without it"; ek stated that se is obligatory because the PST-A form ari 'you did' implies that the speaker actually saw the specific work referred to being done, and therefore se, which conveys specificity, is required.
'I ate the bread which you broke.'

22) ne paś'-in awa'ta thai apaś'-in pe not see(P/F-NS)-3p place put(IMP2s) see(PST-A)-3p if haw'-au ku'ra har'-in [S:bk, E:mb] become(PST-A)-3s someone take(P/F-NS)-3p 'Put it in a place (people) don’t see. If someone sees it, they will take it.' or 'Put it in an unseen place; if it is seen, someone will take it.'

23) tu atra' apaś'-i a'sa istriża'-as pi a you there see(PST-A)-2s that(OBL) woman(OBL) from I bo tagala' [E:bk, mb, ek] very strong 'I am much stronger than the woman you saw there.'

24) a naś-es' ša-ta'sa moc'-as putr I kill(PST-A)-ls EMPH-that(OBL) man-OBL sons a'-an e ne' [E:bk, mb, ek] be(ANIM)(P/F)-3p Q not 'Does that man (that) I killed have any sons or not?

Relativization with the baS and -el'yi necessitative constructions is also possible. These can be considered a variant of the V-FIN strategy, in which the copula ši'u is understood. In (25 - 27) NP-REL is direct object in S-REL, and S-MATRIX subject, object, or locative respectively.

25) i'ya/#a'ma mőDik baS' piran' kas [E:mb, bk] this(NOM)/#ACC wash(INF) NEC shirt who(OBL) 'Whose is this shirt that needs to be washed.'

26) a'-ma/#i'ya nigik baS' pyalya' atra' this(ACC)#NOM wash(INF) NEC cup there thai [E:mb, bk] put(IMP2s) 'Put this cup that needs to be washed there.'

27) hōcik baS' šen'-una mo nisi' [E:bk, mb] pull NEC bed-LOC not sit(IMP2s) 'Don’t sit on a bed that needs to be pulled tight.'

Relativization of indirect objects, which are in turn matrix subjects, direct objects or possessives is exemplified in (28 - 30).
28) tu kitap' dai ay'i istri'za gu'ak/*gu'ak-as you book give(PST PERF-A)-2s girl(NOM)/*OBL (asa) mai baaba [E:mb] (that) I(OBL) sister 'The girl to whom you gave a book is my sister.'

29) tu kitap' dai ay'-i (to/*ta'sa) you book give(PST PERF-A)-2s (that(ACC)/*OBL) istri'za-gu'ak apa's'-is [E:bk, mb] girl see(PST-A)-ls 'I saw the/a girl to whom you gave a book.'

30) i'ya mai chu dai a'-am ta'si dur this I(OBL) daughter give(P PERF)-ls they(OBL) house 'This is the house of the people to whom I gave my daughter.' [E:bk, mb]

Relativization of oblique arguments of various kinds is shown in (31) and (32), in which the oblique argument is "dative experiencer".

31) cewbew' mōDik baS' istri'za alai' pariur'-dai clothes wash(INF) NEC woman there go(P/F-S)-3s 'A woman who has to wash clothes is going there.'

32) a'sa peśa'ur pari-el'y'i haw'-au moc/*moc-as bo that P. go-NECESS become(PST-A)-3s man/*OBL much krom kar'-iu-dai (E:mb, bk] work do(P/F-S)-3s 'That man who has to go to Peshawar is doing a lot of work.'

In (33) the OBL argument of NP-REL is the causee in an -aw causative.

33) se cew mōD-awa'-is ta'sa istri'za'-as she dress wash-CS(PST-A)-ls that(OBL) woman(OBL)

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28 Contrast with this the sentences tu kitap dai avis istri'za gu'ak-as *(asa) mai baaba 'You gave a book to the girl. She is my sister,' in which instead of a relative clause construction we have two independent sentences, and in which asa then becomes obligatory as the subject of the second sentence.

29 As with (27) above, if we change the structure to tu kitap dai ayi istri'za gu'ak-as a *(to) apa'sis 'You gave a book to a girl. I saw her.' we have two independent clauses, and to becomes obligatory again as the direct object of the second sentence.
340

chu [E:bk, mb]
daughter
'She is a daughter of the woman by whom I got my dress
washed.'

The FINITE VERB strategy in Kalasha allows consider-
able flexibility in the semantic relation between S-REL and
NP-REL. The precise nature of this relation is often to be
inferred from context or knowledge of the world.

Instrumental, temporal and locative relations can be ex-
pressed with this strategy. In (34) the semantic relation
of NP-REL is instrumental; this is understood from context,
rather than induced by any specific case marking on NP-REL.

34) a krom kari'man ay'-is caku' raz'au ne [E:j, mb]
I work do(PST IMPFV-A)-ls knife sharp not
'The knife with which I was working is not sharp.'

In (35) the specific relation is temporal.

35-a) a sabak' māi'man ay'-is Tem'-una ab'i catrau'
I lesson read(PST IMPFV-A)-ls time-LOC we C.

\[\text{16}\] It is likely that this sentence is syntactically
ambiguous, with another reading in which NP-REL is the
subject of S-REL: 'She is the daughter of the woman who
got her clothes washed (by someone else)'. This ambiguity
is possible because first person and 3rd person singular of
the PST-A for -aw causatives are homophonous; mDawa'is
could thus be 'I got washed', or 'She got washed.'

16This semantic flexibility is also characteristic of
the participial relative constructions in Dravidian
languages. For example in Telugu, the participial relative
construction raasina profesarugaaru (lit. 'written
professor') can mean either 'the professor to whom someone
wrote', or 'the professor who wrote.' Similarly raasina
kalam ('written pen') can mean 'the pen with which
something was written'. (Examples from Masica (1972:201)
Likewise in Tamil the participial relative clause saapTa
ele ('eaten leaf') could theoretically mean 'leaf which was
eaten,' or 'leaf which ate', but in the context of Tamil
culture means 'the leaf on which someone ate'. (Example
quoted in Masica (1972:202) from E. Annamalai, The
While I was studying, we went to Chitral.

When I went, Lowari Pass was open.

At the time of school's letting out, they met.

When I first came (here) there was no road.

This construction, formally a relative clause, but functioning as a temporal clause, is very common. One of Parkes' unpublished texts, for example, has six occurrences of precisely this type.

In (36) is displayed a more economical way of expressing the idea of (35-d). This makes use of two pervasive strategies in Kalasha—that of employing adverbs functioning like NP's to create both simplex and embedded structures. This usage occurs frequently in simplex sentences like this one.

He went to the middle snake demon's place.
relative construction to express the temporal relation.  

36) a Sumber' a tara' sarak' ne aš-is' [E:bk]
   I before come(PST-A)-ls then road not be(PST-A)-3s
   'When I came before there was no road.'

Locative relations expressed with relative clauses also occur, as in (37) where we have the nouns 'country', and 'place'.

37-a) a ga’la-him' (se) mulyk bo de’ša [E:bk, mb]
   I go(PST-I)ls (that)country very far
   'The country where I went is very far.'

b) a apau’ di’man ay’-is jayga’-una bo fekTri’
   I stay(PST IMPFV-A)-ls place-LOC many factories
   aš-i’ni [E:j, mb]
   be(INAN)(PST-A)3p
   'There were a lot of factories in the place where I lived.'

The sentences in (38) exemplify locative relative clauses constructed with adverbs functioning as head NP’s.

38-a) a gri a’-am š-and-ei gri [S:bkw, E:mb]
   I hold(P PERF)-ls EMPH-there-ABL grasp(IMP2s)
   'Grab it from where I am holding it.'

b) bo moc hin. tara’ a khoš-em’-dai
   many people become(P/F)-3p there I like(P/F-S)-ls
   'I like (a place) where there are a lot of people.'
   [E:bk, mb]

When a specific postposition is required to capture the meaning, however, it appears that the structure must be modified as in (39).

39) a tas’a sum mašguly thi-o [E:bk, mb]
   I he(OBL) with conversation become(CP)-g
   i’ta ay’-is se moc mai krom ne ar’-au
   come(PST PERF-A)-ls that man my work not do(PST-A)-ls
   'The man whom having met I came home did not do my

*This is similar to a mechanism employed in Dravidian for temporal clauses, viz. Telugu neenu waccinappuDu 'when I came' (lit. 'I come (adjectival participle)-then'), which also has the structure of a relative clause. Peter Hook adds (p.c.) that Marathi forms a similar construction.
In (39) the phrase ta’sa sum 'with him' appears in S-REL, instead of the gap characteristic of the V-FIN strategy. Given this, it seems that (39) is better analyzed as two independent sentences. The sentence in (40), however, was accepted by two informants and rejected by one; the alternative expression in (41), utilizing the interrogative-correlative structure was proffered, and accepted by all three.

40) kitap' ši'u as'a istri'ža mai baaba [E:bk, ek, book be(P/F)-3s that woman my sister &mb]
'The woman who has the book is my sister'

41) kurei' istriža'-as sum ki kitap' ši'u as'a which woman(OBL) with ki book be(P/F)-3s she mai baaba [E:mb, ek, bk] I(OBL) sister
'The woman who has the book is my sister.'

Relativization on possessives may be possible with this strategy; my evidence is not conclusive. The examples in (42) are good for all my informants.20

42-a) khur trupel'-lai š-ase' moc ku'ra [S:mb] foot hurt(P/F-S)-3s EMPH-that man who
'Who is that man whose foot is hurting?'

20It may be, however, that the acceptibility of the sentences in (42) has another explanation. That is, in causative sensation expressions like mai khur trupel'-lai 'My foot hurts', or '(My) foot hurts me,' the precise syntactic relation of mai is not clear. It could be a genitive modifying khur, or it could be an OBL patient (i.e. direct object) of the formally causative trupek' 'to hurt'. The fact that this is the only type of possessive NP for which I have clear examples of relativization might constitute one piece of evidence for its status as (OBL) direct object of trupek'. On the other hand, it may simply be that I have not succeeded in finding other examples of relativized possessives. Another possibility, suggested by Peter Hook (p.c.) is that the issue of alienable vs. inalienable possession is involved here.
b) khur trupel'-lai as'a ku'ra [E:bk, mb]
foot hurt(P/F-S)-2s he who
'Who is it whose foot is hurting?'

In (42-b) as'a 'he' is the head. However, for the sentence 'This is the man whose elder brother hit me', I received the paratactic structures in (43).

43-a) i'ya s-ase' moc/*moc s-ase' [E:bk, mb]
this EMPH-that man/*man EMPH-that
'This is the man whose elder brother beat me.'

b) i'ya s-ase' moc i'ya gaaDa baay-as mai pEu
this EMPH-that man he(OBL) elder brother-PS3s I(OBL) beat(PST-A)-3s
'I am stronger than that man.'

In Kalasha the object, or standard, of comparison is expressed with a postpositional phrase consisting of OBL case NP and pi 'from', as in (44).

44) a ta'sa moc'-as pi tagala' [E:bk]
I that(OBL) man-OBL from strong
'I am stronger than that man.'

Although I have no examples confirming or disconfirming the possibility of relativizing on this structure, given the difficulty in using the V-FIN strategy with objects of other postpositions, I suspect that it cannot be done.

6.3.2. Syntactic properties

FINITE VERB relative clauses are pre-nominal and externally headed. The head NP is represented in S-REL by a gap. The structure of (21) above, a typical RC on a
direct object, is given in (45).21

45)

\[
\begin{array}{c}
\text{S'} \\
| \\
\text{TOP} \\
| \\
\text{N''} \\
| \\
\text{S_{rel}} \\
| \\
\text{N'} \\
| \\
\text{V'} \\
| \\
\text{au} \\
| \\
\text{t} \\
| \\
\text{tu} \\
| \\
\text{t}, \text{chini aas} \\
\end{array}
\]

'I ate the bread which you broke.'

This (optional) leftward topicalization of the relative construction occurs more often than not.22 It seems to reflect a tendency to avoid separating the matrix subject (a 'I') and the matrix verb (as\textis 'ate') by a long intervening construction. This tendency will also be observed in the leftward displacement of RC's employing the \textit{k- NP ki} relative-correlative strategy. For this reason I have also postulated the structure shown in (46) for relativization on a subject, in which no obvious word order displacement has occurred. (46) represents the structure

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21In these diagrams, N' = NP, and t stands for "trace", by which I mean a position co-indexed with a constituent which appears somewhere else in the sentence.

22What happens with these Kalasha relative clauses is reminiscent of Schachter's work on the relation between relativization and topicalization. So is the use in Panjabi, Hindi, Urdu of a form homophonous with the relative marker as a topicalizer, e.g. (a).

a)[meri choTi p\texten jiDii] o b\textot tang kardii e [my little sister TOP] she much annoys

'My little sister really annoys (me) a lot.'
of example (3) above.\(^{23}\)

\[ S \]

\[ \text{N'} \]

\[ \text{N'} \]

\[ \text{V'} \]

\[ \text{mok} \]

\[ \text{mai} \]

\[ \text{mba} \]

'the man walking on the road is my maternal uncle.'

Case marking of the head NP always reflects its case role in the matrix rather than in the relative sentence.

Examples (47), (48) and (49), in which the case roles of NP-REL in S-REL and in S-MATRIX are different, demonstrate that in each case NP-REL takes the case required for its role in the matrix S.

47) tai dukan'-una sia'la to/se guum a your shop-LOC be(PST-I)3s that(ACC/*NOM) wheat I agri-s' (=12)
take(PST-A)-is.
'I bought the wheat which was in your shop.'

In (47) NP-REL is subject in S-REL and direct object in S-MATRIX; it takes ACC to rather than NOM se.

48) a agri-s' se/to guum tai dukan'-una I take(PST-A)-is that(NOM/*ACC) wheat you(OBL) shop-LOC sia'la [Eibk, mb]
be(INAN)(PST-I)-3s
'The wheat which I bought was in your shop.'

In (48) the opposite situation obtains: NP-REL is Direct object in S-REL and subject in S-MATRIX. It takes NOM and not ACC case.

\[ ^{23}\text{This assumes the structure S} \rightarrow \text{N'} \text{ N'} \text{ for equational (i.e. nominal) sentences.} \]
In (49) NP-REL is S-REL indirect object and S-MATRIX subject; accordingly, we find NOM and not OBL case marking.

According to Keenan (1985:160) the V-FIN relativization strategy represents a typologically unusual situation. He says, "In prenominal RC’s VREL is almost always in some sort of non-finite form. . ." and cites Japanese as an exception to this statement. In answer to the potential claim that the Kalasha V-FIN relative clause is really a paratactic structure, I offer the following two observations: first, the V-FIN relative clauses form a tight phonological unit with their NP-REL’s; there is no pause between them. Second, since NP-REL is consistently represented by a gap in S-REL, S-REL could not stand alone as an independent clause.

6.4. Participial strategy

6.4.1. Relation to the AH

The participial strategy can be employed to relativize direct objects, maybe indirect objects, locatives, maybe causees, and possessives. Based on the data I have so far, the question of whether or not subjects are relativizable by this strategy is unresolved. Examples (50) and (51) (both of which are elicited) show relativization of subjects with forms which, because they are third person, could be either past participles or PST-I finite forms.
50-a) se ga'la moc ku'ra as'ta [E:bk, mb]
that go(PST PPL) man who be(PST-I)-3s
'Who was that man who went?'

b) to/se ga’la moc ku’ra paš’i as’ta
that(ACC/*NOM) go(PST PPL) man who see(PST PERF-I)-3s
'So who saw that man who went away?'

c) ta’sa/se/to ga’la moc’-as/*moc a bo paysa’
that(OBL/*NOM/*ACC) go(PST PPL) man-OBL I much money
give (PST PERF-A)-ls
'I gave a lot of money to that man who went away.'

51-a) tai SaTawai' krom kar-aw-a'ila moc ku'ra
you(OBL) by work do-CS(PST PPL) man who
'Who is the man who got you to do the work?'

b) a tai kitap' di’ta moc’-as pi tagala’
I you(OBL) book give(PST PPL) man-OBL from strong
'I am stronger than the man who gave the book to you.'

Since the third person singular and plural PST-I forms are homophonous with the past participle, the only way to answer this question would be to find or test a sequence in which a participial relative is constructed on a first or second person pronoun. Since the function of a RC is to restrict the domain of reference to a specified subset, and since first and second singular are inherently so restricted, the only possibility is to test strings such as those displayed in (52).

52-a) ?to krom ka’da a’bi adyek’ nis-a’
that work do(PST PPL) you(PL) little sit(IMP2p)
cei-mai pi’-a [made up test sentence]
tea drink(IMP2p)
'Those of you who did that work sit a little; drink some tea.'

b) ?andai’ a’la a’bi mai bo khoṣ

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24 According to mb, this is "slightly wrong" because "a person would have to think a little before understanding it."
here come(PST PPL) you(pl) I(OBL) very pleasing
'I like those of you who came here a lot.' [made up]

c) ?to krom ka'da a'bi ëj-o nisi' a'y-ik [made up]
that work do(PST PPL) we now-o sit(P PERF)-1p
'Those of us who did that work are now sitting down.'

d) ?andai' a'la a'bi tai yardus' [made up]
here come(PST PPL) we your friends
'Those of us who came here are your friends.'

Examining only examples occurring in texts or in spontaneous conversation, I find so far that all of the clearly participial relatives are on direct objects. A few examples of this type follow.

53) tai ga'da au' a bo khoş-em'-dai
you(OBL) do(PST PPL) bread I much like(P/F-S)-is
'I like the bread made by you a lot.' [E:bk, mb]

54) mai di'ta mon k۰ ka'-as
I(OBL) give(PST PPL) word ear give(IMP2s)
'Listen to what I say!' [Trail, unpub. text]

55) tai a'la/;asa uzak'ila uk gri
you(OBL) that(ACC/*OBL spill (PST PPL) water with
su'da labE' hin'-dai [E:bk, mb]
children play(P/F-S)-3p
'The children are playing with that water which you spilled.'

56) i'ya/*a'ma a'sa sawzaly'a mes bo
this(NOM)/*ACC him(OBL) make(PST PPL) table very
šişoy'ak [E:bk, mb]
beautiful
'This table which he made is very beautiful.'

57) se moc tara' pai to ka'da darwaza'
that man there go(CP) that do(PST PPL) door
umr-au' umražy'a-lai-o ar'-au gri'la
open(PST-A)-3s open(PST PPL)-lai-o do(PST-A)-3s wet
bronz'-ani uk chi'ni du'na bronz'-una
meadow-ABL water cut(CP) burn(PST PPL) meadow-LOC
pEu [T19:nk]
beat(PST-A)-3s
'That man went there and opened the closed door. He closed the one that had been opened. He cut off the water from the wet meadow and gave (lit. 'beat') it to (lit 'in') the meadow which was dried up.'

The homophony between the past participle and PST-I
third person forms contributes to some potential ambiguities. For example, the sentence in (58) has two possible readings.

58) tai krom'-una SaTaly'a moc ku'ra [E:ek]
   you(OBL) work-LOC attach (PST PPL) man who
   i) 'Who is the man whom you set to work?'
   ii) 'Who is the man who set you to work?'

In the (i) reading tai is OBL because it is the subject of a participial relative clause, and moc, the object, is in the unmarked case; in the (ii) reading tai is OBL because it is the object of the transitive verb SaTalya and moc, the subject, is in the unmarked case.

My evidence on whether or not the participial strategy can be used to relativize indirect objects is conflicting. In (59), designed to test for this possibility, two out of three informants did not accept the reading in which NP-REL is interpreted as an indirect object.

59) mai kitap' di'ta moc
   I(DBG) book give (PST PPL) man
   i) 'a man who gave a book to me [E: bk, mb, ek]
   ii) 'a man to whom I gave a book [E: *bk, *mb, ek]

Only one informant felt that the sentence was ambiguous. A similar example, that shown in (60), was not accepted as relativizing the indirect object by any of the three informants.

60) sabak' di'ta moc
    lesson give(PST PPL) man
    i) a man who gave a lesson [E:bk, mb, ek]
    ii) a man to whom a lesson was taught [E:*bk, *mb, *ek]

In the following spontaneously proffered example, su'da
'child' may be the indirect object.  

61) a ta'sa sabak' CiCa'i bo wat haw'-au  
I him(OBL) lesson teach(CP) much time become(PST-A)-3s  
se mai CiCaly'a su'da [S:mb]  
he(NOM) I(OBL) teach(PST PPL) child  
'It has been a long time since I taught him. He is a child whom I taught/taught by me.'  

Some OBL arguments can be relativized with the PARTICIPIAL strategy, others apparently not. (62) and (63) show locatives.  

62) mai as'ta jayga' bo namuna'[E:bk, ek, mb]  
I(OBL) be(PST PPL) place very strange/beautiful  
'The place where I was (i.e. my native place) is very strange/beautiful.'  

63) ho'ma ga'la jayga' bo des'a[E:mb, bk, sj]  
we(OBL) go(PST PPL) place very far  
'The place where we went is very far.'  

Apparently OBL expressions with the -alyak construction cannot be relativized with the participle (cf. 64).  

64) *alyu' zualy'ak ka'da moc mai  
potatoes feeling like eating do(PST PPL) man I(OBL)  
yardus'[E:*bk, *mb]  
friend  
'The man who feels like eating potatoes is my friend.'  

Causees may be relativizable with the participial strategy.  

Again, evidence is conflicting. (65) is accepted in both readings by one informant, but not by another.  

25Dr, as Peter Hook points out, may be assuming the position of direct object. He notes that in Urdu, if the direct object is absent, as in the second sentence of (61), the (normally) indirect object may be treated as direct object, viz. māṭ pīyya huaa nahī, māṭ pīlaayaa gayaa h00. 'I have not drunk (i.e. am not drunk by my own fault), I have been made to drink ' but not māṭ saraab pīlaayaa gayaa h00, in which the direct object appears.  

26This may have to do with matters of deixis or inferentiality, however, rather than the participial form per se.
65) tai krom'-una SaTawa'ila moc ku'ra
you(OBL) work-LOC attach-CS(PST PPL) man who
i) Who is the man whom you have set to work? [E:isj,
ii) Who is the man who has set you to work? *ek]

Some possessors can, however, be relativized with a variety
of this strategy.

66) a'sa khur-chin'a su'da ku'ra [E:bk, mb]
that(NOM) foot-break(PST PPL) child who
'Who is that child whose leg is broken?'

67) a'sa piran-udulun'a moc ku'ra [E:bk, mb, ek]
that(NOM) shirt-tear(PST PPL) man who
'Who is that man whose shirt is torn/with the torn
shirt/torn-shirted man?'

The structures khur-chi'na 'leg broken' and piran-udulu'na
'shirt torn' are probably compounds.

6.4.2. Syntactic properties

PARTICIPIAL RC's are also prenominal, externally
headed structures. As with the V-FIN RC's, the head NP is
represented in S-REL by a gap. (68) represents the
structure of (54) above.

68) 'Listen to what I say.'

The structure of (66) is represented in (69).
Case marking of the head HP is determined by its role in the matrix S (cf. 70 and 71).

70-a) to/*se ga'la moc ku'ra
that(ACC)/NOM go(PST PPL) man who
pa'si as'ta [E:bk, mb] (cf. 50-a)
see(PST PERF-I)-3s
'Who saw that man who went away?'

b) ta'sa/*se/*to ga'la moc-%(as) a bo paysa'
that(OBL)/NOM/ACC go(PST PPL) man-%(OBL) I much money
dai ay'is [E:bk, mb] (=50-c)
give(PST PERF-A)-1s
'I gave that man who went away a lot of money.'

71) i'ya/*am'a as'a sawzaly'a mes bo
this(NOM)/ACC him(OBL) make(PST PPL) table very
si'soy'ak [E:bk, mb] (=57)
beautiful.
'This table which he made is very beautiful.'

In (70-a) NP-REL, to moc, is subject of S-REL and direct object of S-MATRIX; it takes ACC case marking; while in (70-b) tasa moc-as is subject of S-REL and indirect object of S-MATRIX and takes OBL case. In (71) NP-REL iya mes 'this table' is direct object of S-REL and subject of S-MATRIX, and takes NOM case.

When relativization is on some position other than subject, as in (71) or (61) and (62) above, the notional
subject of S-REL appears in OBL case. Historically this probably represents a reflex of the origin of this construction in a past passive participle with instrumental or genitive agent; synchronically it reflects a surface structure in which the verb of S-REL is moving toward adjectival status and the notional subject toward being a determiner (see 72).

72)

6.5. Nominalized constructions

I discuss these constructions in order to illustrate the range of syntactic strategies employed in Kalasha for the relative function. These vary from fully articulated sentential modifications as with the V-FIN strategy, to completely nominalized agent nouns. One such construction employs the infinitive.

6.5.1. Infinitival relatives

Though they have the structure of (reduced) relative clauses, these constructions are functionally RC's only to the degree that the (semi-abstract) nouns Tem 'time' or kibau 'thing', are head NP's. As we saw, example (5), while formally an infinitival relative clause with head NP Tem 'time', functions in the total sentence as a temporal clause. In (73) S-REL could be analyzed as either a

Subjects of finite verbs are NOM in all tenses.
locative or a purpose clause.

73) grom'-una thaik'-as jayga' ne ši'u [S:mb] village-LOC put(INF)-OBL place not be(P/F)-3s 'There is no place in the village to keep (them).'

In (74) the relationship is perhaps describable as instrumental.

74) alyu' thaik'-as tarika' šéhē ši'u [S:mb] potatoes put(INF)-OBL method thus be(P/F)-3s 'The method of storing potatoes is like this.'

In (75) and (76) S-REL stands in a relation to the head NP such that S-REL restricts the reference of the semi-abstract nouns kibaw' 'thing' and mon 'word'.

75) bribo' cōik'-as že bribo' koa'i walnuts harvest(INF)-OBL and walnuts collect(CP) onik'-as bribo'-as kharca'-as kibau' sēhē bring(INF)-OBL walnuts-OBL use(OBL) event thus ši'u [Trail, unpublished text] be(INAN)-(P/F)-3s 'The event/matter of harvesting, collecting, bringing (home) and using walnuts is like this.'

76) tas'a So tarik'-an ik'-as mon aš-is' [S:mb] he(OBL) 6 date-INST come(INF)-OBL word be(PST-A)-3s 'He said he would come on the sixth.' (Lit. 'His word was of coming on the sixth.'

Semantic complements of the form INF-as v[N V], i.e. OBL INF with a conjunct verb consisting of nominal element plus verbalizer (cf. 5.1.1.3.1.), also have the syntactic structure of infinitival relatives, though perhaps not their semantic function. Consider (77).

77) tas'a piyaik'-as koşiš' ar'-au him(OBL) drink(CS)(INF)-OBL attempt do(PST-A)-3s 'He tried to make him drink.' [T&C:213, E:mb]

in which the head NP is koşiš 'attempt', and S-REL is tas'a piyayik'as 'to make him drink'.

In these structures the verbal concept has lost the
categories of tense, mood, person and number. It would be difficult to describe these structures in terms of what grammatical relation is relativized on. What it seems one should say is that if the head NP represents an abstract or verbal concept like mon 'word', kibau 'thing, event', košiš 'attempt', the relation is appositive, or stretching the point, "subject" of S-REL in an understood semantic structure like 'word (which is) to come' for (76). If the head NP represents TIME, the relation is temporal; if it represents PLACE, the relation is locative, and if it represents METHOD, the relation is instrumental.

With regard to the other syntactic properties we are examining, these structures are also prenominal and externally headed. If the head NP can be said to be represented in S-REL at all, it is by a gap. If, on the other hand, based on their surface form, they are analyzed as NP's modified by AP's rather than S-REL's, then this question does not arise.

6.5.2. Agent noun constructions

Another nominalized construction involves the deverbal agent noun form as in (78).

78-a) i'ya mai SØ'a našawaw'-as putr'-as [E:ek, mb]
    he I(OBL) dog kill(AG N)-OBL son-PS3s
    'He is the son of the one who killed my dog.'
    'He is the son of my dog's killer.'

b) SØ'a našawaw' a jhon'-im [S:ek]
    dog kill(AG N) I know(P/F-NS)-is
    'I know who killed the dog.'
    'I know the dog's killer.'

The agent noun can be incorporated into compounds, as in
(79).

79) za-garaw' moc ne [Siz, Eimb]
    food-make(AG N) person not
    There is no-one to make the food.'

When the agent noun is involved, NP-REL is always the subject of S-REL. Thus if we think of it as a strategy for constructing (free) relatives, it is one that applies only to subjects.

6.5.3. Verb-root compounds

The verb-root alone can be compounded and used in the sense of a RC, as in (80).

80) dukan'-una ki'ya piran-gar' san ne si'-an
    shop-LOC any shirt-do cloth not be(P/F)-3p
    'There is no cloth (from which) to make shirts in the shop.'[Sbk, Eimb]

When the verb-root (as opposed to the agent noun) is compounded, the role of NP-REL in S-REL is not the subject; in this case it is oblique—instrumental or source. These nominalized constructions, with their economy of expression and great reliance on the language user's ability to interpret context and specific meaning are characteristic of informal colloquial discourse.

6.6. The (incipient) relative-correlative strategy

6.6.1. Relation to the AH

In the third major relativization strategy S-REL consists of an interrogative k- word followed by the head

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28(d)za actually refers to any sort of flavorful—sweet, salty, or sour—side dish which is eaten in a small quantity along with bread. This category includes cheese, butter, buttermilk, eggs, salty maize porridge, curry of the usual Pakistani type, stewed dried fruit, bean and walnut dishes, etc. Probably < Kho. za 'wet, damp'. 
NP and usually \textit{ki} preceding the rest of S-REL. The head NP is represented in S-MATRIX by a correlative pronominal element. In contrast to the indigenous V-FIN and PARTICIPIAL strategies, however, this one is probably borrowed from Khowar, where it is the major strategy. As a basis for comparison, consider the basic Khowar RC structures illustrated in (81) and (82). In (81) NP-REL appears within S-REL in its normal position.

81) [ispa' am'-o kya baaG-a ki ces\textbar T \\
[we mango-OBL REL grove-LOC ki midday meal ooyotam] [hase lahur'-ari taQriban jo\textbar m duder'i ate ] [that Lahore-ABL about ten miles far osoi] [E:ys, rkb] \\
'\textquoteleft The mango grove in which we ate lunch is about ten miles from Lahore.'

In (82) NP-REL \textit{kya DaQ-o ki} has been displaced leftward to the TOPIC position within S-REL.

82) [kya DaQ-o ki tu tang aru] [hase' Thanedar-o [REL boy-OBL ki you tease(PST-A)-2s] [he T.-OBL zau] [E:rkb]. \\
'son' \\
'\textquoteleft The boy you teased is the son of the head of the police station.'

In this structure NP-REL is unreduced in S-REL and bears the case marking dictated by its role in S-REL; it is represented in S-MATRIX by a correlative pronominal form in S-MATRIX, which is marked for the S-MATRIX case role. In Khowar the (invariant) relative marker \textit{kya} is homophonous with the interrogative adjective \textit{kya} 'what, which', but differentiated from the interrogative pronoun \textit{kyaaG} 'what'.

I call this an incipient relative-correlative strategy because although it utilizes an interrogative element
rather than a true relative pronoun like the j- elements in other NIA languages, it regularly preposes S-REL, employs the same case-coding strategy, and represents the head NP in S-MATRIX with a demonstrative pronominal element.29

In Kalasha, there are numerous minor, but two main variations on this strategy: in the first, S-REL has the form [ki'ya 'what'/kura 'who' NP ki . . . V], while in the second [kurei' 'which' NP . . . V]. The main difference is in the adjectival form and the absence of ki in the second sub-type. These are illustrated in (83) and (84).

83} a ki'ya jayga'-una ki ay'is se (jayga') bo namuna'

29Dravidian languages (e.g. Telugu and Tamil) which have also borrowed the relative-correlative strategy from Indo-Aryan, also employ their interrogative elements in place of the j- element of I.A. Languages like Panjabi, Bengali, Gujarati, Urdu, and Hindi have an inherited relative element in j- which introduces a relative clause which usually precedes a correlative clause in which NP-REL is represented by a demonstrative, usually in the remote degree. An example from Panjabi illustrates the pattern.

a) [jis buDDi nōō tū panj rupe ditte san] [māṅ o-de kolō kapRe twāaye] [E:b]
'I got my clothes washed by the woman to whom you gave five rupees.'

In this structure the head NP is internal to S-REL and takes at that point the DAT case required by its grammatical relation of indirect object within S-REL. In the matrix S [māṅ . . . twāaye] it is represented by the anaphoric pronominal element o, which takes the case (oblique plus ablative postposition) required by its matrix S function.

The relative clause can also be sentence-final, as in (b).

b) [māṅ os buDDi kolō kapRe twāaye] [ji-nōō tū panj rupe ditte]
'I got my clothes washed by the woman to whom you gave five rupees.'

In this case the head NP appears in its normal position in S-MATRIX and is represented in S-REL by the appropriate oblique form of the relative pronoun plus the dative postposition nōō.
I was that (place) very strange.

'The place where I was was very strange.'

84) kurei' istriža-gu'ak-as tu kitap' dai a'y-i
which girl-OBL you book give(PST PERF-A)-2s
a to apaš-is [E:bk, mb]
I her(ACC) see(PST-A)-is
'I saw the girl to whom you gave the book.'

(83) is the equivalent of the participial construction mai
as'ta jayqa' bo namuna' (62 above), and was offered as a
paraphrase of it.

There is also a mixed type in which S-REL has the form
[kurei' NP ki ... V], as illustrated in (85).

85) kurei' istriža ki tu atra' kai paš-is-dai a
which woman ki you there-to see(P/F-S)-2s I
a 'sa pi takala' [E:ek]
her(OBL) from strong
'I am stronger than the woman you are looking at there.'

Speakers differ considerably in the particular variant of
this strategy that they employ and which they accept when
asked for acceptibility judgements. What it does seem to
be safe to say, though, is that (perhaps under the
influence of Khowar) the kiva NP ki version is rather more
stable than the others.

In Kalasha this strategy can be used to relativize on
all points in the AH except possibly genitives. Beginning
with subject, we have examples (86) - (89).

86) ku'ra moc ki sarak'-una kas'-iu-dai a'sa mai
who man ki road-LOC walk(P/F-S)-3s he my
mOa [E:j, mb]
maternal uncle
'The man who is walking in the road is my maternal
uncle.'

30With this sentence compare the V-FIN construction in
(3) above.
Comparing these sentences we immediately notice several things. We have both *kura moc* ki (86) and *kiya moc* ki (87-b), which indicates that *kiya* NP ki is not restricted to inanimate NP’s, although *kura* NP ki is

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31This *ki* is the complementizer following *ghijk* ’to say’. Recall that since it forms a phonological unit with the verb of speaking, it sometimes precedes material not part of the complement clause.
restricted to animates. The adjectival kurei' is applicable to both animates and inanimates. In (87-a) the pronominal ku'ra 'who' function as head NP. Functioning as the correlative pronominal element we can have any of the three deictic degrees: near visible iya (88-a), far visible asa (86, 89), and remote (non-visible) se (87-b).

Relativization on direct objects is illustrated in (90 - 93).

90) kurei' istri'za ki tu atra' kai paš'-is-dai
   which woman ki you there to see(P/F-5)2s
   as'a pi a takala' [E:ek] (=85)
   her(OBL) from I strong
   'I am stronger than the woman whom you see there.'

91) tu ki'ya krom ki kai ay'-i pruST [E:sj, mb]
   you what work ki do(PST PERF-A)-2s good
   'The work that you did is good.'

92) gošnagozi kai kimon' bribo' sapra'-an pe
   gleaning do(CP) how many walnuts find(PST-A)-3p if
   haw'-au te bribo' tas'i mi'
   become(PST-A)-3s those walnuts they(OBL) EMPH
   hi-n [Trail, unpublished text]
   become(P/F-NS)-3p
   'However many walnuts they find by gleaning, those
   walnuts belong to them only.'

93) fasgilyas' mai maksat' ha'-au kiy'a k
   first class my aim become(PST-A)-3s what ki
   maksat' ki kho'ji ay'-is [T17:ms]
   aim ki search for(PST PERF-A)-is
   'The goal that I was looking for was accomplished
   very well.' (i.e. 'I found what I was looking for.')

Example (93), with two ki's, illustrates the kind of mixed structures resulting from conflicting left and right-branching tendencies.

The following examples demonstrate relativization on indirect objects.

94-a) tu kas/*ku'ra istri'za gU'ak-as kitap'
   you who(OBL)/NOM girl-OBL book
Comparison of (94-a and b) shows that NP-REL can occur either in its normal position within S-REL (a), or it can be left-dislocated (b). NP-REL can also be removed from between the interrogative element and ki (c); when this takes place, S-REL can also, sometimes, with some speakers, be displaced to the right (cf. 90 and 95).

Various oblique relations are also easily relativized using this strategy. (96) and (97) show oblique experiencers.

96) kas peśa'ur parik baS' haw'-au se who(OBL) P. go(INF) NEC become(PST-A)-3s that moc bo krom kar'-iu-dai [E:bk, mb] man much work do(P/F-S)-3s 'The man who has to go to Peshawar is doing a lot of work.'

97-a) kiy'a moc'-as ki alyu' žual'yak what man-OBL ki potatoes feeling like eating kar'-iu-dai se mai yardus' [E:bk, mb]
do(P/F-S)-3s he my friend
'The man that feels like eating potatoes is my friend.'

b) kurei' moc'-as alyu' żualy'ak kar'-iu-dai
which man-OBL potatoes feeling like eating do(P/F-S)-3s
se mai yardus' [E:bk, mb]
he my friend
'The man that feels like eating potatoes is my friend.'

In (98) NP-REL is a locative argument; compare (98-a) with
(38-b) above.

98-a) kiy'a jayga'-una ki bo moc a'-an a
what place-LOC ki many people be(P/F)3p I
khoś-em'-dai [S:mb]
like(P/F-S)-1s
'I like a place where there are lots of people.'

b) a kurei' mukhen'-una nisi' cei api-s' tara'
I which verandah-LOC sit(CP) tea drink(PST-A)-1s there
Thanedar' as'ta apau' dai ay'-is [E:bk, mb]
T. also stay(PST PERF-A)-3s
'The in-charge of the police station also stayed in the
verandah where I sat and drank tea.'

Notice that in (98-a) there is no correlative element; in
(98-b) the correlative element is the locative adverb tara'
'there'.

Postpositional obliques are also easily relativizable.

In (99) an instrumental NP is shown; notice the variation
in speaker judgements in (99-b).

99-a) kiy'a caku' gri *(ki) krom kari'man ay'-is se
what knife with ki work do(PST IMPFV-A)-1s that
Dhəba' hu'la [E:bk, mb]
dull become(PST-I)-3s
'The knife with which I was working was dull.'

b) kurei' caku' gri krom kari'man ay'-is se
which knife with work do(PST IMPFV-A)-1s that
Dhəba' hu'la [E:bk, &mb]
dull become(PST-I)3s
'The knife with which I was working was dull.'

In (100) NP-REL is the object of the postposition sum.

100) kurei'/*kas istriža'-as sum ki kitap' şi'-u
which/whom woman(OBL) with ki book be(P/F)-3s
a'sa mai baaba [E:bk, ek, mb]
she my sister
'The woman who has a book is my sister.'

For true genitives, however, although it may be
possible to relativize them with this strategy, I have no
examples. Test sentences involving a genitive NP-REL
elicited responses with paratactic constructions like those
in (101) and (102).

101-a) iy'a š-ase' moc i'sa gaaDa baaya mai
this EMPH-that man he(OBL) elder brother I(OBL)
P-Eu [E:bk, mb]
beat(PST-A)-3s
'This is the man whose elder brother beat me.'
(lit. This is that man. His elder brother beat me.)

101-b) i'sa gaaDa baaya mai pEu i'ya
he(OBL) elder brother I(OBL) beat(PST-A)-3s this
š-ase' moc [E:bk, mb]
EMPH-that man
'This is the man whose elder brother beat me.'
(Lit. His elder brother beat me. This is that man.)

102) tu to istri'ızə gU'ak jhon'-is-e
you that(ACC) girl know(P/F-NS)-2s-Q
ta'sa piran' utruki' ši'-u [E:bk, mb]
she(OBL) shirt tear(P PERF)-3s
'Do you know that girl whose shirt is torn?' (Lit.
Do you know that girl? Her shirt is torn?)

6.6.2. Syntactic characteristics

In contrast to the indigenous V-FIN, PARTICIPIAL, and
INFINITIVAL strategies, in the k- NP (ki) strategy NP-REL
is unreduced in S-REL and is represented by an anaphoric
correlative pronominal element in S-MATRIX. The
prototypical structure is shown in (103), which represents
the structure of (86) above.
The difference between this and the indigenous pattern(s) (cf. 46 above) is immediately obvious. S-REL is an internally right rather than left-branching structure: S-REL follows NP-REL, and its complementizer ki precedes it.

As noted above, however, in actual use this pattern is subject to considerable variation. In examples (91) and (98-a), for example, there is no correlative pronominal element in S-MATRIX, where NP-REL is represented instead by a gap.

6.7. The -wala construction

This construction is not common, occurring in my corpus only with genitives. Example (6) above is the only one in my own materials; I have noted three other examples in some of Parkes' unpublished texts. In (6) NP-wala modifies the NP moc 'man'; in Parkes' materials it functions similarly. One of his sentences is reproduced as (105).

105) chau putr payda' thi du-ta ek aaya wala du-o four sons be born(CP) 2-TOP one mother-REL two-~ ek aaya wala [Parkes, unpublished text] one mother REL

'Four sons having been born, two from one mother and two from another mother.' (translation mine)

What is especially interesting about this construction
is how closely (both formally and functionally) it parallels the indigenous Kalasha construction with -lei (see section 6.8.3.).

6.8. Free relatives

Several constructions can be classified as free relatives, that is relative constructions in which a single pronominal element functions as both head and NP-REL.

6.8.1. Indefinite relatives

These constructions are formed with the element -gal'ë/-galak'se suffixed to the interrogative element.

106-a) ku're-ga'le in se in [S] who ever come(P/F-NS) he come(P/F-NS)-3p 'Whoever comes will come.'

b) kure-galak'se in se in [E:mb] who ever come(P/F-NS)-3p he come(P/F-NS)3p 'Whoever comes will come.'

107-a) kiy'a-galak'se paš'-is tu ghaT'-is-dai whatever see(P/F-NS)-2s you ask for(P/F-S)-2s 'Whatever you see you ask for.' [S:bkw, E:mb, bk]

b) kiy'a-galak'se paš'-iu aš'í-ai dyel whatever see(P/F-NS)-3s mouth-LOC put(P/F-NS)-3s 'Whatever she sees she puts in her mouth.' [S:bkw, E:bk]

Notice that in (107-a and b), in which NP-REL is matrix direct object, it is represented not by a correlative pronominal element but by a gap.\(^{33}\)

\(^{32}\) I do not know why in (106) the verb appears in the plural in S-MATRIX even though se is singular.

\(^{33}\) The indefinite relative construction can also be used as part of postnominal headed RC's, as in (a).

a) to š-ata'si istri'ža kimon'-ga'le ošwa'li then EMPH-they(OBL) women however many pregnant ay'-ini ta-i (=tasi) wat ajal'-au (=ažal'-au ?) were they(OBL) time reach(PST-A)-3s 'Then those women - as many as were pregnant - their time came.' [Parkes, unpublished text, translation mine]
6.8.2. Past participle as substantive

A second type is illustrated in (108), in which the past participle itself functions as a substantive.

108) oCD'ik de ghōi ma’il-e ec’-an story give(IMPI2s) COMP say(PST-I)3s-when eyes-OBL paštya dem’a ki34 ne see(PST PPL) give(P/F-NS)-ls or no kara-tori’ru33 dem k0’-una ear(LOC)-reached give(P/F-NS)-ls ear-LOC žal’ila pe dem’-o to dem ... reach(PST PPL) if give(P/F-NS)-ls-o that give(P/F)is ‘When he said, "Tell (me) a story," (I said), "Shall I tell one that I have seen with my own eyes, or shall I tell one that I have (only) heard about? If I am to tell one that I have heard about, (then) I will (tell that one) ... ''. [T17:mz]

The participles paštya ‘one which I have seen, karatoriru ‘one which I have heard about’, and žalila ‘one which has reached (my ear)’, serve as heads for these relative clauses.

6.8.3. The -lei construction

The morpheme -lei can be added to past participles, postpositional phrases, adjectives, nouns (l11-a) or finite verbs (112) to form RC’s. In (109) the past participle plus the morpheme -lei function together as substantive head of a RC.

109) ka’da darwaz’a-ta umra’i aghō’-au do(PST PPL) door-TOP open(IMP2s) say(PST-A)-3s umraly’a-lei’o kar’i aghō’-au [T19:nk] open(PST PPL)-one-o do(IMP2s) say(PST-A)-3s “'Open the door which is closed," he said. 'Close the one which is opened.'

34ki meaning ‘or’ is a Panjabi-ism, which has come through Urdu into Kalasha.

33This is a Khowar form kar-‘a ear-LOC tori’ru ‘reach PST PPL’. The exact Kalasha equivalent follows immediately in the next sentence: k0’-una žal’ila ‘ear-LOC reach(PST PPL).
In (110) -lei is suffixed to the postpositional phrase mimi_raw 'like you'.

110-a) mi'mi-raw'-lei a bo žu'i a'-am ghöi you(OBL)-like-ones I many eat(P PERF)-ls COMP mai a'-au [T22:sa] say(P PERF)-3s 'He said, "I have eaten plenty like you."'

b) hē aya' jia'-a mi'mi-raw'-lei bo heh here look(IMP2p) you(OBL)-like-ones many gri a'-am [T22:sa] take(P PERF)-ls 'Heh, look here. I have caught plenty like you.'

Trail and Cooper (1987:248) gloss -lei as a comparative marker, but give no examples of that usage. I suspect that the reason for this gloss is the fact that many uses of -lei as nominalizer occur with inherent comparatives, as in (111-a–d).36

36 Notice that -lei does not function as a comparative in any straightforward way. The normal Kalasha expression for 'ADJ-er than X₃₄₅' is NP(OBL) pi ADJ, as in (a).

a) fakher' šah salyim'-a pi dri'ga [E:bk] F.S. S.-OBL from long 'Fakher Shah is taller than Salim.'

To express the adjectival concept 'like an X₃₄₅,' the formula is NP(OBL)-raw e.g. (b)

b) tai-raw moc ho'ma žun [T22:sa] you(OBL)-like men we(OBL) eat(P/F-NS)-3p 'Men like you eat us!? (ironic)

To express an adverbial 'like X₃₄₅' is NP(OBL)-raw-kai in which kai, the conjunctive participle of 'do', functions as an adverbializer.

c) jafayrat' ug-as-raw kai cei piu'-dai [S:z] J. water-OBL-like do(CP) tea is drinking 'Jafayrat is drinking tea like water.' (i.e. as if it were water)

To express the absolute idea of 'ADJ-er, rather ADJ-er', the first syllable of the adjective is reduplicated, e.g. gogo'na '(rather) bigger', cucut'ye 'k (rather) smaller', bibir' '(rather) wide', titic'ak '(rather) less', babadu'la ' (rather) fatter'. Also, a few inherited comparatives in -er survive, e.g. gader'ak 'elder', goner'ak 'bigger', tsater'ak 'younger'
111-a) tas’i moc-ani tsat’ak-lai daad-as kai they(OBL) middle-ABL younger-one father-PS3s to awoj’-au [LSI, VIII:77]
say(PST-A)-3s
'The younger of them said to his father.'

b) ek moc’as du putr as’ta gadar’a-asi-ta goT one man-OBL two sons were elder-one-TOP simpleton
as’ta tsatey’rak-lai-o tharar’ as’ta [T29:mb] was younger-one-g clever was
'A certain man had two sons. The elder one was a
simpleton, but the younger one was clever.'

c) gogon’a-lei-ta nasir’ zu’i as’ta [S:g] bigger-ones-TOP N. eat(PST PERF-I)3s
'Nasir ate the bigger one.'

d) ta’asa barasar’ik-lei kur’o maSter’ haw’-an kur’-o
his age-mate-ones who-g teacher became who-g
kiy’a mulyazimat’ agri’-an . . . [T26:bk] some job took
'Some of his age-mates (lit. 'equals') became teachers,
some of them got jobs...'

If the reason for the frequent co-occurrence of -lei with inherent comparatives is that -lei once was itself a
comparative marker, then it may derive originally from a
verb root l- meaning 'see, look at'. We have the forms lui
'look at' from my texts and li in on’is li 'Look, I
brought it' (Trail and Cooper 1987:248). This appears to
be cognate with Khowar lolik 'to look at, for' (cf. T
10922).37 A similar development of comparative marker from
(the conjunctive participle of) a verb meaning 'see, look
at' is found in Gilgit Shina (see 112).38

37 As Richard Strand has pointed out. *l > palatalized
/l/ in Khowar and velarized /l/ in Kalasha.

38 The use of -lei in these functionally relative
constructions recalls discussion in Kemmer (1984) of the
development of the Icelandic relativizer sem from a former
comparative marker, and of parallels in English with 'as'.
Sadock (1972) discusses a similar construction in Danish.
The uses of -lei in Kalasha may support Kemmer's suggestion
371

112) salim' akbar-eT cakee Jigo han [E:maz]
   S. A-DAT look(CP) tall is
   'Salim is taller than Akbar.'

In example (111) -lei occurred with explicit
comparative constructions with NP -raw, and in (110) there
is an implicit comparison. Comparison is implicit in (110)
because there the situation refers to a closed set of two
conditions—one in which the door is closed and one in
which it is open. In (113) and (114), however, -lei appears
in situations in which the domain set is not (inherently)
closed.

113) mai nasai'man as'ta-lei tu mai bac ar'-i
   I(OBL) kill(PST IMPFV-I)-ones you I(OBL) save(PST-A)2s
   'You saved me from those who were trying to kill me.'
   [T26:bk]

114-a) šišamon' ec'-an lei [M. 1972:119]
   so big eyes-OBL REL
   'a man with such big eyes.'

b) parim'-a lei dili' je (=že) pišawur [Schomberg]
   go(P/F-NS)-ls-? REL Delhi and Peshawar
   'I will go with a man to Delhi and Peshawar'
   (Morgenstierne's gloss)
   ?'a man with whom I will go to Delhi and Peshawar' (my
gloss)
   ?'a man who (says, "I) will go to D. and P.' (P. Hook)

In these examples -lei is seen to be completely

that "the potential for the change of a comparative to a
REL may not be confined to Germanic". (p. 304)

If the etymology -lei < *l- 'look' is correct, Kalasha
-lei may represent an interesting transitional stage
between comparative marker and relativizer. Its frequent
association with inherently reference restricting
comparatives (cf. 111) could have strengthened its
connection with reference restriction, which is the
function of a relative clause.

39Morgenstierne gives several examples from
Schomberg's unpublished materials. (114-a and -b) are two
of these.
generalizable. In (113) and (114-b) it functions as a pronominal head for RC's of the V-FIN type, and in (114-a) it functions as a relativizer-nominalizer.

In functioning as a generalized nominalizer-relativizer, it behaves like the IA -wala, and appears to be the indigenous Kalasha functional analogue of the recently-borrowed -wala construction. Syntactically, however, there is some difference. S/ADJ-lei forms a NP-REL, while NP-wala either functions as a NP-REL or forms an S/ADJ which can in turn modify a NP in a relative construction.

The agent noun construction as a type of free-relative operating on subjects was discussed in 6.5.2. above.

6.9. Diachronic and areal considerations

Throughout this discussion I have been assuming that the V-FIN and PARTICIPIAL strategies are indigenous to Kalasha, or at least represent an older level in the language than the (incipient) relative correlative strategy. In the following paragraphs I discuss three types of evidence relevant to this assumption.

6.9.1. Relativization strategy and the AH

The first kind of evidence concerns the synchronic relation between relativization strategy and position on a syntactic hierarchy. Romaine, discussing the correlation of relativization strategies and syntactic position in Middle Scots, states that "the farther one moves down the hierarchy of syntactic positions which are relativizable,
the more WH-dominated the system becomes (1982:151)." I reproduce figures from Romaine's Tables 6.11 and 6.12 here for reference.

Percentages of WH-relatives correlated with syntactic positions in the case hierarchy (Middle Scots)

<table>
<thead>
<tr>
<th>Syntactic Position</th>
<th>WH-Relatives</th>
<th>TH and Ø-Relatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>14</td>
<td>89</td>
</tr>
<tr>
<td>Dir. Object</td>
<td>14</td>
<td>88</td>
</tr>
<tr>
<td>Oblique</td>
<td>36</td>
<td>63</td>
</tr>
<tr>
<td>Genitive</td>
<td>75</td>
<td>25</td>
</tr>
</tbody>
</table>

These results appear to show "the entrance of WH into the system 'by the back door', since it enters the most complex and least frequently occurring positions in the case hierarchy". (1982:152n.)

Romaine (1984:160-3), based on data in Nadkarni (1975) cites the case of relativization in Konkani, an IA language some dialects of which are in contact with Dravidian Kannada. These dialects of Konkani possess two relativization strategies, one of which (the older) is an evolved version of the IA relative pronoun strategy, and the other a strategy employing Konkani interrogative elements in a calque on the Kannada interrogative-correlative structure, which in turn had been borrowed originally from IA. In these Dravidianized dialects of Konkani the two strategies distribute themselves as follows: the older strategy has become restricted to subject position, while the newer (interrogative-correlative) strategy is used for DO, IO, OBL, and GEN positions. This distribution is along the same lines as that found by Romaine for Middle Scots and
Dekeyser for Early Modern English.

In Tamil also the indigenous participial strategy is confined to subjects, direct objects and indirect objects, while the (borrowed) interrogative-correlative strategy is used if other positions have to be relativized.40

6.9.2. Relativization strategy, the AH, and time

Dekeyser (1984) discusses the relationship between relativization strategy, AH position, and change over time in Early Modern English. Applying the concepts of "non-natural change", or "change from above" as opposed to "change from below" or "natural change" drawn from the work of Bailey (1973), he says:

40 Tamil data supporting this point cited in Keenan and Comrie (1977:72-3).

41 Bailey characterizes his dynamic model as "... a view of linguistic analysis in which historical, descriptive, and variational analysis are integrated... presuppose that the function of time in defining synchronic language patterns cannot be ignored in valid descriptions of language." (1975:31-2) The model distinguishes "natural change" from two types of non-natural change. "Natural change" is that which results from the way in which children acquire their first language; this is [+ natural] in Bailey's system (1973:130). Changes resulting from borrowing from other systems are [X natural]; and [- natural] changes are those exhibited for example in dying language, p. 134.

The directionality of natural change is from marked to unmarked status; but in borrowing between language systems, i.e. creolization, "the directionality of change from marked to unmarked may be set aside (p. 136, n. 38)."

In Bailey's terminology, "weighting" refers to the degree to which the operation of a rule is favored; the more favorable to the operation of a rule, the "heavier" the environment; and conversely, the less favorable the environment is to the operation of a rule, the "lighter" it is. With regard to the locus and directionality of change, this model predicts that a given change begins in the most heavily weighted environment (i.e. that most favorable with respect to that change) and diffuses through the grammar.
"Following Romaine (1980) I am inclined to believe that the introduction of the partly extraneous WH-strategy (prompted by French and Latin QU-forms) is a change from above, or a non-natural change. According to Bailey (1973) the direction of such a change is from the lightest environment to the heaviest: in terms of the AH this is from right to left (p. 76)."

He then adduces statistical evidence indicating that the spread of the WH-strategy was indeed from right to left on the AH. I reproduce Dekeyser's Table XVI (1984:77) here for the convenience of the reader.

Relativization strategies in Modern English

<table>
<thead>
<tr>
<th></th>
<th>WH-</th>
<th>THAT</th>
<th>Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJ</td>
<td>1600-49</td>
<td>765 (40.95%)</td>
<td>992 (53.10%)</td>
</tr>
<tr>
<td>PE(Quirk)</td>
<td>451 (72.28%)</td>
<td>171 (27.40%)</td>
<td>2 (0.32%)</td>
</tr>
<tr>
<td>O/PC</td>
<td>1600-49</td>
<td>549 (54.79%)</td>
<td>125 (12.48%)</td>
</tr>
<tr>
<td>PE(Quirk)</td>
<td>231 (36.49%)</td>
<td>184 (29.07%)</td>
<td>218 (34.44%)</td>
</tr>
</tbody>
</table>

Dekeyser's figures show that when the period 1600-1649 is compared with modern standard English as represented in Quirk (1968), the following changes are observed. The percentage of RC's on subject position expressed with the WH-strategy rises from 40.95% to 72.28%, while the percentage of RC's on subject position expressed with the THAT strategy falls from 53.10% to 27.40%. Conversely, the moving to successively less heavily weighted environments. (Romaine 1982:172)

In terms of the predictions, and the application of this model to change in relativization strategies and the AH, the environments most heavily weighted for natural changes become least heavily weighted for non-natural changes and the directionality of change with respect to the (absolute) continuum reverses itself. In this case, the "constraints" (variables which correlate positively or negatively with the operation of a rule) the weighting of which appears to be operative are syntactic position and degree of formality.
percentage of WH- RC's on object and object of postposition positions falls from 54.79% to 36.49% and the percentage of THAT-RC's on these same positions rises from 12.48% to 29.07%.

Put another way: in the earlier period (1600-49) the ratio of subject RC's with WH- to those with THAT was 40.95 to 53.10 or .77, while in the later period (ca. 1968) it was 72.28 to 27.40 or 2.64. Similarly, the ratio of direct object/prepositional object RC's with WH- to those with THAT changed from 54.79 : 112.48 or 4.39, to 36.49 : 29.07 or 1.26. In other words, considering only the variables of change over time and position on the AH, the proportion of relativization of subject position with the WH strategy as compared to the THAT strategy has increased in frequency with time, while that of OBJ and PREP OBJ positions has decreased. This increase over time in the proportion of subject position RC's effected with the WH-strategy is what Dekeyser refers to as moving up the hierarchy over time.

6.9.3. Relativization strategy and discourse type

A third type of evidence derives from the relation between relativization strategy and and discourse type. Romaine (1980:234) writes about Scots English that "... the WH strategy entered the written language and worked its way down a stylistic continuum ranging from the most to the least complex styles." That is, the imported strategy first affected the more formal types of discourse and then moved gradually into the less formal types.
Dekeyser also shows for four registers of Early Modern English (1600-49)—epistolary (most formal) (E), narrative and descriptive prose (P), verse (V), and drama (D) (least formal, written to be spoken)—that the percentages of RC’s effected with the WH- and the THAT strategies correlate regularly with degree of formality. I reproduce his Table VII (1984:77) here for inspection.

Dekeyser’s results on relativization strategies and register for Early Modern English

<table>
<thead>
<tr>
<th></th>
<th>WH-</th>
<th>THAT</th>
<th>0</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>260 (71.43%)</td>
<td>51 (14.01%)</td>
<td>53 (14.56%)</td>
<td>364</td>
</tr>
<tr>
<td>P</td>
<td>939 (65.57%)</td>
<td>418 (29.19%)</td>
<td>75 (5.24%)</td>
<td>1,432</td>
</tr>
<tr>
<td>V</td>
<td>236 (55.66%)</td>
<td>152 (35.85%)</td>
<td>36 (8.49%)</td>
<td>424</td>
</tr>
<tr>
<td>D</td>
<td>344 (29.84%)</td>
<td>531 (46.05%)</td>
<td>278 (24.11%)</td>
<td>1,153</td>
</tr>
</tbody>
</table>

The table shows that at this point the imported (WH-) strategy is most frequent in the most formal style, while the indigenous strategy (THAT) is most frequent in the least formal style.

6.9.4. Kalasha relativization strategies and the AH

Now let us apply a similar analysis to the distribution of relativization strategies in Kalasha. With regard to the first type of evidence—relating AH position to relativization strategy synchronically—Table 1 is designed to be compared with Romaine’s results summarized above. It shows percentages of RC’s on various syntactic positions classified by strategy—indigenous or borrowed.
Table 1. Borrowed and indigenous strategies - by AH position (Kalasha)

<table>
<thead>
<tr>
<th>Syntactic Position</th>
<th>Borrowed</th>
<th>Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>56% (31)</td>
<td>44% (24)</td>
</tr>
<tr>
<td>Direct object</td>
<td>28% (11)</td>
<td>73% (29)</td>
</tr>
<tr>
<td>Obl. (incl. I.O.)</td>
<td>56% (23)</td>
<td>44% (18)</td>
</tr>
<tr>
<td>Genitive</td>
<td>60% (3)</td>
<td>40% (2)</td>
</tr>
</tbody>
</table>

The pattern in Table 1 is mixed; the subject position ratios are anomalous in the context of Romaine's results, whereas the rest of the positions do display the expected pattern. I suspect that the smallness of my corpus and the competing effects of several variables are complicating the picture.

With regard to the second type of data--change in distribution of relativization strategies over time--we unfortunately do not have data for any earlier period of Kalasha. What can be tried, however, is to compute the proportion of subject vs. other RC's with the k- (NP) (ki) and -wala strategies to those with the V-FIN and PARTICIPIAL strategies and then see whether the set of ratios so obtained resembles the earlier or the later pattern in Dekeyser's English data. If it resembles the earlier pattern, we can take the result as pointing to relatively recent introduction of the k-word strategy. If, on the other hand, it resembles the later pattern, it would suggest a greater time depth for the k-word strategy.

In order to do this I have classified and tabulated

\[\text{It is possible, though, that study of the Urtsun dialect, reported to be more conservative, may provide a geographical analogue of an earlier stage of the language.}\]
relative clauses occurring in (i) spontaneous conversation and (ii) narrative texts, according to AH position and relativization strategy.  

Table 2. Conversational texts: AH position and relativization strategy

<table>
<thead>
<tr>
<th>AH Position</th>
<th>V-FIN</th>
<th>PPL</th>
<th>[k-(NP)(ki)][pron.] -wala</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>4 (57%)</td>
<td>0</td>
<td>3 (43%)</td>
</tr>
<tr>
<td>Dir. Obj.</td>
<td>5 (50%)</td>
<td>3 (30%)</td>
<td>2 (20%)</td>
</tr>
<tr>
<td>Ind. Obj.</td>
<td>0</td>
<td>1 (100%)</td>
<td>0</td>
</tr>
<tr>
<td>Temporal</td>
<td>1 (100%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Locative</td>
<td>1 (50%)</td>
<td>0</td>
<td>1 (50%)</td>
</tr>
<tr>
<td>Other OBL</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Postp. Obj.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Possessive</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*-Percentages in Tables 2 and 3 express the percentage of RC’s on the given position with each strategy

Table 3. Narrative texts: AH position and relativization strategy

<table>
<thead>
<tr>
<th>AH Position</th>
<th>V-FIN</th>
<th>PPL</th>
<th>[k-(NP)(ki)][pron.] -wala</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>15 (31%)</td>
<td>5 (10%)</td>
<td>28 (58%)</td>
</tr>
<tr>
<td>Dir. Obj.</td>
<td>4 (13%)</td>
<td>17 (57%)</td>
<td>9 (30%)</td>
</tr>
<tr>
<td>Ind. Obj.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Temporal</td>
<td>11 (52%)</td>
<td>0</td>
<td>10 (47%)</td>
</tr>
<tr>
<td>Locative</td>
<td>3 (21%)</td>
<td>0</td>
<td>11 (79%)</td>
</tr>
<tr>
<td>Other OBL</td>
<td>1 (100%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Postp. Obj.</td>
<td>0</td>
<td>0</td>
<td>1 (100%)</td>
</tr>
<tr>
<td>Possessive</td>
<td>1 (20%)</td>
<td>1 (20%)</td>
<td>0</td>
</tr>
</tbody>
</table>

43 The corpus so far includes: conversational materials: my own field notes including one conversational text (#28), and one conversational text from Trail ("My Son"); narrative materials: one text from Trail ("Walnut Harvesting"), four unpublished texts from Peter Parkes, two short pieces in the Linguistic Survey of India, Vol. III, and twenty-two of my own texts. (The rest have not been counted yet.) The absolute number of RC’s from narrative texts is far greater than that from conversational discourse.

44 Seven of these are tokens of kya wat ki the Kalasha calque on the Khowar phrase which is formally a RC, but means 'when' (relative adverb).
I shall group the data in Tables 2 and 3 in the following ways: (1) the indigenous V-FIN and PPL strategies will be grouped and compared with the combined borrowed k- and -wala strategies. (2) In order to compare the ratios with Dekeyser's results, subject position will be compared with the aggregate of direct object, indirect object, obliques and possessives. Performing these consolidations, we obtain the following results.

Table 4. Conversational texts: AH position and indigenous vs. borrowed strategies

<table>
<thead>
<tr>
<th>AH Position</th>
<th>Indigenous</th>
<th>Borrowed</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>4 (57%)</td>
<td>3 (43%)</td>
<td>7</td>
</tr>
<tr>
<td>D.O/OBL/POSS</td>
<td>11 (79%)</td>
<td>3 (21%)</td>
<td>14</td>
</tr>
<tr>
<td>Totals</td>
<td>15 (71%)</td>
<td>6 (29%)</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 5. Narrative texts: AH position and indigenous vs. borrowed strategies

<table>
<thead>
<tr>
<th>AH position</th>
<th>Indigenous</th>
<th>Borrowed</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>20 (42%)</td>
<td>28 (58%)</td>
<td>48</td>
</tr>
<tr>
<td>D.O/OBL/POSS</td>
<td>38 (53%)</td>
<td>34 (47%)</td>
<td>72</td>
</tr>
<tr>
<td>Totals</td>
<td>58 (48%)</td>
<td>62 (52%)</td>
<td>120</td>
</tr>
</tbody>
</table>

Now the ratios of RC's in each of these positions with borrowed to those with indigenous constructions can be calculated for each discourse type. These results are given in Table 6.

Table 6. Ratios of percentages of borrowed to indigenous RC's - by AH position and discourse type

<table>
<thead>
<tr>
<th>Discourse Type</th>
<th>AH Position</th>
<th>Conversational</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>43 : 57 .75</td>
<td>58 : 42 1.38</td>
<td></td>
</tr>
<tr>
<td>D.O/OBL/POSS</td>
<td>21 : 79 .27</td>
<td>47 : 53 .89</td>
<td></td>
</tr>
</tbody>
</table>

What can be learned from these results? First, with
regard to the relation of AH position, RC strategy, and time: recall that for the 1600-49 period Dekeyser’s ratio of WH:THAT subject RC’s was .77, while in the later period it was 2.64. The Kalasha ratios are .75 for conversational and 1.38 for narrative texts, or 1.29 over both types. On the whole this position is closer to that of the earlier than the present stage of English.

For non-subject RC’s Dekeyser’s ratios were 4.39 for the earlier and 1.26 for the later periods. The borrowed:indigenous Kalasha ratios are .27 for conversational and .89 for narrative. These low ratios are more like Dekeyser’s later than his earlier stage.

These Kalasha data show a pattern different from that in Dekeyser’s findings. Unfortunately my corpus is still very small and the data too sparse for any statistical conclusions, but based on what we do have, I would tentatively say that the borrowed:indigenous ratios for subject position suggest that the k-NP strategy is fairly new in the language. The borrowed:indigenous ratio for non-subject position, however, is lower than expected for a relatively newly introduced strategy based on Dekeyser’s results. This reflects a situation in which the indigenous strategies are not losing ground to the k-strategy in the non-subject AH positions. From the limited data I have, it appears that this may be accounted for by a strong tendency to use the PARTICIPIAL strategy for direct object and the V-FIN strategy for temporal relatives.
Two interesting findings are that only one instance of relativization on an indirect object turned up in my corpus, and that the (presumably) newest strategy of all, with -wala was in fact confined to the POSSESSIVE position. This last result is in consonance with the diachronic prediction that a new strategy will enter from the rightmost end of the AH.

6.9.3. Relativization strategy and discourse type

The third question concerns the relation of AH position, RC strategy and discourse type. Here we do see a difference in the predicted direction. Tables 4 shows that for conversational texts 71% of all the RC's are of the indigenous types and 29% of the borrowed types; while in Table 5 we see that in narrative texts 48% are of the indigenous and 52% of borrowed types.

6.9.4. Implications for areal studies

The lines of inquiry discussed in the previous section have potential methodological implications for areal linguistics. Working with the concepts of natural vs. non-natural change (Bailey 1973), and assuming that these can be interpreted as evolution from within a language and (borrowing) from without, we have the possibility of observing different behavior of these two types of change.

*Given that on K&C's AH indirect object is the third position, presumably ranking after direct object in ease of relativizability, its very low frequency of actual occurrence is interesting. Romaine's (1982:148) frequency distribution of Middle Scots RC's by syntactic position shows only two instances of relativization on IO out of a total of 2,777 RC's.*
over time. If we can establish hierarchies of some grammatical feature (like the AH for relativization), then it should be possible to distinguish changes originally from without from those originally within a language. According to Bailey, non-natural changes will first enter a language in the lightest environment (i.e. the one most difficult to access), and progress in the direction of easier (heavier) environments. Given this, if the frequencies of strategies \( x \) and \( y \) at positions \( a, b, \) and \( c \) on such a hierarchy can be compared over time, then the one which moves from higher frequency at difficult positions and lower frequency at easier positions in the direction of lower frequency at difficult positions and higher frequency at easier positions can be identified as a borrowed strategy, one resulting from relatively recent, or superstratum, borrowing effects. This can provide one technique for separating the effects of internal evolution from those of geographical (or cultural) proximity. To speculate a bit: if we hypothesize that substratum effects will operate more like "natural change" than "non-natural change", it might, given an independent way of distinguishing substratal from internal effects, also lead to ways of distinguishing superstratum from substratum effects.

Ranking discourse types from least formal to most formal, if we observe that a certain change is manifested more frequently at the formal end of the continuum than at
the informal, we can conclude that it is a (superstratal) change from outside, and with respect to the language in question, a potential areal phenomenon.
CHAPTER 7
KALASHA AND LINGUISTIC AREAS

This final chapter integrates methodological observations and partial conclusions regarding Kalasha developed in the previous chapters.

7.1. Methodological comments

7.1.1. Exploiting continua

Several specific methods for distinguishing borrowed from indigenous changes, and in turn for distinguishing similarities due to areal (convergence) factors rather than shared inheritance or chance can be subsumed under a general "strategy of exploiting continua". In Ch. I it was argued that a distribution of a feature or change characterized by a regular increment over space across language boundaries rules out chance or shared inheritance as the cause of that distribution, and points directly to geographical proximity as the causal factor. This reasoning exploits the continuum of physical space, allowing us to distinguish causal factors for similarities observed over more than one language. In depending on the pattern of distribution over more than one language it is analogous to the comparative method in historical linguistics.
Other types of (abstract) continua can also be exploited to yield evidence for the language-internal or external origin of a given linguistic change. A regular progression in the frequency of occurrence of a given phenomenon over such continua can yield evidence based on data from a single language; this approach is analogous to the method of internal reconstruction in historical linguistics.

Two such syntactic continua have been utilized in the preceding exposition. In Ch. 5, Kalasha complementation types were discussed with reference to Givon's "binding hierarchy". Recall that the binding hierarchy correlated degree of semantic bonding with tightness of the syntactic bond. The distribution of Kalasha complement types (with some exceptions accountable for by the etymological history of the SAY complementizers) was in the direction predicted by the binding hierarchy. Another pattern which emerged in their distribution with respect to this continuum was that sentential complements with *ki*-clauses (the borrowed strategy), as opposed to those with *ghûi* clauses (the indigenous strategy), tended to cluster near the lower, more loosely bound, end of the hierarchy. If this is indicative of a general tendency, that tendency might be formulated tentatively as follows: "Given the binding hierarchy (as formulated by Givon), and given a non-natural syntactic change, that is, one introduced into a language by superstratum borrowing, that change will be
more likely to manifest itself first at the lower, less tightly semantically and syntactically bound end of the continuum. I know of no other research pertinent to this question, but it is a hypothesis which could be tested by studying the distribution of complement types in other languages with co-existing borrowed and indigenous complementation strategies.¹

Keenan and Comrie's accessibility hierarchy (discussed in Ch. 6) is a second such syntactic continuum. Evidence cited by other researchers points to the possibility of identifying borrowed syntactic strategies by the pattern of their distribution with respect to this hierarchy. Romaine (1980, 1982) and Dekeyser (1984) report that the borrowed WH-relativization strategy in English, in consonance with the predictions of Bailey's dynamic model, enters the repertoire of English syntax first in the environments at the right of the accessibility hierarchy and then moves gradually up the hierarchy. Although my (limited) Kalasha data only partially displayed this distribution, the

¹One possibly relevant point does suggest itself. If we assume a structure for the restrictive RC such that it is embedded under an NP node, but a coordinate structure for non-restrictive relatives, then the restrictive relative is more tightly bound, both semantically and syntactically, than the non-restrictive. The distribution of the WH- and THAT relativization strategies in English, in which THAT relatives are confined to restrictive RC's may reflect the operation of such a tendency.

Conversely, if we assume a coordinate relation (rather than embedded) between S-REL and S-MAIN in the relative/interrogative-correlative construction, this might suggest one reason why this structure is (quite) susceptible to borrowing.
results obtained by Romaine and Dekeyser and the Tamil and Konkani evidence cited suggest that the methodological point should not be dismissed.

In Ch. 6 also, the utility of observing the distribution of a putative borrowing phenomenon over a continuum of discourse types was demonstrated. In this case the distribution of Kalasha relative clause types displayed the same pattern as that found by Romaine (1980) and Dekeyser (1984) for Middle Scots and Early Modern English respectively. That is, given discourse types ranging from oral/informal to written/formal, the borrowed strategy appears earlier and with greater frequency at the formal end of the continuum. The same observation holds for the distribution of Kalasha complement types between narrative and conversational discourse (cf. Ch. 5 above).

One supplementary tactic for identifying borrowed lexical items or structures is to observe situations in which a word or construction is repeated or paraphrased. In narrative discourse often these will begin with a borrowed element, in this case Khowar, and conclude with an indigenous equivalent. Examples of this included šil yok ka’ri – oCǟik de ‘tell (me) a story’, bik’o – șehe thi ‘so, then’, amau ki [S] gḥi amau ‘(He) said that [S] so he said’, kara toriru – kʊuna žalila ‘which has reached my ears, i.e. which I have heard’.2

2In the speech of some individuals and under certain circumstances, e.g. talking to foreigners, a variation on this phenomenon is found, in which a(n) (indigenous)
7.1.2. Two types of mapping

Basic to areal linguistics is the mapping of linguistic features. Three approaches to this mapping can be distinguished. The first, and basic type, maps the simple presence or absence of a given formal characteristic. Then on the basis of these binary judgements, the area in question is divided into two regions—one having the feature and the other not having it. Masica's (1976) maps of the extent of word-order features, morphological causatives and anticausatives, compound verbs, and dative subject constructions are of this sort.

If sufficient data are available, the presence of a formal feature can be assigned a scalar quantity. Hook's (1985) map of frequencies of pre- vs. post- main clause positioning of subordinate clauses exemplifies this type. This procedure yields a multi-region map and the consequent potential for observing continuum effects.

A further step in mapping can be taken if a given semantic parameter is taken as given, and the types of formal device expressing this parameter are mapped. This also yields a multi-region map of formal devices, but specifically as correlated to a semantic variable. The map of 10 + n vs. n + 10 as the form for expressing the teen numerals (See Map 1, Appendix) falls into this category, as Kalasha or Khowar lexical item is paraphrased by a borrowed English word, e.g. nogor' - belyDyg 'palace, building', phon(d) - roD 'road'. Both these English words are quite well integrated into colloquial Kalasha.
does the fragmentary mapping of the form of the agentive postposition represented in Map 2. If one were to chart (as suggested in Ch. 3) the formal devices associated with involuntative semantics--e.g. dative subject construction, causative morphology, passive constructions--the resulting map would fall into this category. Similarly, if one were (cf. Ch. 4 above) to map the devices used to express the semantics of inferentiality--basic verb morphology, compound verbs, verbs of saying, adverbial expressions, etc.--the map would be of this type. At this stage, however, this remains a program for future research.

The converse procedure could also be adopted; that is, a formal device can be taken as the given feature or independent variable and its various semantic correlates mapped. So, for example, if one were to take the compound verb as the independent variable and map the semantic contrasts expressed by this formal device--aspectuality, inferentiality, temporal precedence--he would obtain a map of this type. Morphological causatives are a second promising candidate for this treatment. Several semantic functions have been identified for causative morphology in Kalasha and some of its neighbors--anti-reflexivity, transitivity, involuntative action--which could be mapped onto the area of morphological causatives. 3 The construction of such maps, however, requires an

3See Nedyalkov and Silnitsky (1973) for the typological perspective and Ch. 3 above for Kalasha.
availability of comparable descriptions and a degree of refinement in our understanding of the languages in question that lies still in the future.

What might be learned by comparing mappings which take a semantic parameter as the independent variable and syntactic correlates as the dependent variable with those taking a given formal characteristic as independent and mapping semantic features against it? It seems to me that the relative size and compactness of geographical regions so obtained would be indicative of the tendency to be subject to areal effects; so that if the former mapping strategy yielded relatively larger and more coherent regions than the latter we might be justified in concluding that associations of formal mechanisms with a semantic parameter diffuse geographically more readily than specific semantic associations of a formal mechanism. And conversely, if mapping semantic correlates against a given formal mechanism yielded relatively larger more coherent areas, we might conclude that specific semantic associations are more susceptible to areal effects.

*Relative rather than absolute extent of the regions obtained is the crucial point here, since the absolute size and extent of the regions would be identical under both procedures. Relative size of regions is to be understood as in comparison to the total region under consideration, in the first case to the domain of the given semantic feature, which is probably the set of all languages, and in the second to the (previously determined) geographical extent of the formal mechanism. Thus though the absolute size of the regions [involuntary semantics (f) causative morphology] and [causative morphology (f) involuntary semantics] are equal, their relative sizes may not be.
7.2. The position of Kalasha

7.2.1. Kalasha vis-à-vis the South Asian linguistic area

Masica (1976:187-90) identifies the following features as defining the South Asian linguistic area and having a distribution (almost) coincident with the Indo-Pakistan subcontinent. (1) retroflex consonants, (2) echo-words, (3) an enclitic particle (< Skt. api/ Dr. um) functioning as 'even, also, indefinite, and', e.g. Hindi, Urdu bhii, Panjabi vi and Tamil -um, and (4) the dative subject construction. He lists also the following additional features which various authors have suggested characterize the S.A. linguistic area but are not confined to it: (5) absence of prefixes, (6) two stems in personal pronouns, (7) same case morphemes added to singular and plural stems, (8) morphological causatives, (9) phonaesthetic forms (reduplicated and in -k), (10) conjunctive participles, (11) the absence of a verb HAVE, (12) word-order features, and (13) compound verbs. A later paper (Masica 1982) adds (14) identified object marking, to the inventory of characteristic but not defining diagnostic features.

Let us consider the extent to which Kalasha displays the four defining features. (1) As noted in Ch. I, Kalasha has consonant pairs which participate in the opposition designated "dental-retroflex", following the usual practice of describing this opposition in South Asian studies. Phonetically, though, the consonants called "retroflex" are much closer to a(n) (Post-)alveolar pronunciation than to
the true retroflexes of Dravidian. In terms of Ramanujan and Masica's discussion (1969:564) the opposition would be characterized as retracted/unretracted.

(2) Kalasha makes frequent and productive use of echo-words, formed in the Pashto manner with an initial m- in the second, repeated, element. Kalasha echo-words can be constructed on both nouns and verbs, as in (1) and (2).^ 

1-a) ceyjuś'-ik-meyjuś'ik as'ta nig-ely'i [S:bkw] teakettle-DIM-ECHO also wash-NEC 'The (small) teakettle also needs to be washed.'

b) sa' bun-ma' bun udri'man thai [S:bkw] soap ECHO inside put(IMP2s) 'Put the soap inside!'

2-a) parik'--o marik'--o na' [S:bkw] go(INF)--o ECHO not 'You're not going anywhere!'

b) aši-maši [S:bkw] eat(PST-A)--2s - ECHO 'You ate/have eaten.'

There is also a relic of an (older?) formation in which the echo component has an initial b-, in the word cewbew 'clothes' (cf. cew 'Kalash dress, shirt').^* 

(3) So far I have not observed an enclitic particle functioning like Skt. api or Dravidian -um. (4) With regard to the "dative subject" construction (see Ch. 3 

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^I have the impression that the force of these echo words in Kalasha may not be exactly the same in all respects as that described for other languages having this construction. The extending and generalizing sense of the echo element, as in cei'-mei 'tea and things like that' is certainly present, but in Kalasha the use of these forms also seems to convey an increased emphasis or vehemence that I have not noted with echo-words in other languages.

^*See Heston (1980) for discussion of Iranian echo-formations in m- and b-. Kho. also forms echo-words in m-.
above), although the construction is present in Kalasha it is not as strongly developed as in other South Asian languages, and appears to belong to a relatively recent stratum of the language.

With regard to features which have been proposed as characteristic of but not definitive of the S.A. linguistic area, Kalasha's position is as follows. (5) It agrees with the S.A. pattern in lacking prefixes.² (6) Kalasha also has two stems in the personal pronouns, e.g. a '1st sg. NOM'/mai '1st sg. OBL'; abi '1st pl. NOM/homa '1st pl OBL'; tu '2nd sg. NOM'/tai '2nd sg. OBL'; abi '2nd pl NOM/mimi '2nd pl. OBL'. (7) With regard to this criterion—same case morphemes added to singular and plural stems—Kalasha has a mixed system. When case relations are expressed with inflectional endings alone, this criterion does not hold; when inflectional ending plus postposition are employed, then it does. (8) Two levels of morphological causatives are present in Kalasha (Ch. 3).

(9) Kalasha does make use of reduplicated and phonaesthetic forms. For example, (3) - (6).  

3-a) wIIc wIIc [T15:mb]  
'sound of whistling to goats to make them go faster'  
b) yök yök [Siibk]  
'call to sheep to follow'  
c) brak brak akrat'-au-e [T17:mz]  
'sound of laughing laugh(PST-A)-3s-when  
'When she laughed, "brak brak"...'

²Khowar, however, has a set of verbal (directional) prefixes.
4) mi'go ma'go [S]  
'a quarrel'

5-a) brim brak (kar'ik) [T15:mb]  
'(to make) rattling sound (dried skins, dishes, vessels)

b) krim kroc (kar'ik) [T15:mb]  
'(to make) rattling sound (dried skins)

c) zr'g zr'g (kar'ik) [T27:mb]  
'(to make) sound of bells, jangling metal'

6-a) tyek tyek hik [S]  
'to fight (people)' (lit. 'beat-beat become')

b) žuk žuk hik [S]  
'to fight (animals, e.g. cats, dogs)' (lit. 'eat-eat become')

The reduplicated verbs in (6) convey the meaning of reciprocal action, i.e. 'fight among themselves'.

(10) With regard to conjunctive participles, a few general observations will suffice here. Kalasha makes extensive use of these non-finite forms, which are not marked for tense or person-number and which do not agree with any NP in the sentence, to conjoin and subordinate sentences. As in other S.A. languages, these forms do not appear to function adjectivally. As in Bengali and Tamil (Masica 1976:112) the Kalasha (and Khowar) CP's are used in forming the compound perfect tenses. Several CP's have been grammaticized as postpositions (gri 'with' (instrumental) < grik 'grasp, hold, take'; thi 'from' (<hik

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Richard Strand informs me that similar formations are found in Kamviri, in which reduplication signifies mutual action, e.g. vik vik 'beating each other'.

Although a few possible exceptions to this generalization appear in various texts.
'become'), possibly *dai* 'from' (< *dek* 'give')10; *kai* 'to' (< *karik* 'do'). Some adverbs are fossilized CP forms: *gher'i* 'again' (< *gher'ik* 'to turn'), *SaT'i* 'continually' (< *SaT'ik* 'to attach to (intrans.)'). *Kai* and *thi*, the CP's of *kar'ik* and *hik*, function as transitive and intransitive adverbializers, and there is even an adjectival form *lo'ti* 'smeared with x', e.g. *phao-lo'ti* 'dusty' which is clearly the CP of *lot'ik* 'to roll (intrans.)'.

In Kalasha, the CP is not constrained by the "same-subject condition" to the degree it is in Hindi, for example. Its pattern of use resembles that described for Tamil (Lindholm 1975), in which considerations of "natural relevance" can override the same-subject condition, more than the pattern of Hindi.11

With regard to the predilection for use of the CP, which Masica (1976:129-34) compares roughly for other S.A. and non S.A. languages, it is interesting to note that the Kalasha counts are approximately twice those for Dravidian.12 The figures are displayed in Table 1.

10But cf. Pashai *-dai* 'from, out of, than' and Phalura *-deii* 'from' (Morgenstierne 1973:210).

11Detailed discussion of the syntax and semantics of the Kalasha conjunctive participles is the subject of a projected study by this author.

12In arriving at these counts I have adopted the following ground-rules in order to make the numbers comparable with Masica's. (a) CP's functioning in complex tenses or in compound verbs have been excluded, (b) CP's lexicalized as adverbs or adjectives have been excluded, (c) As did Masica, I have excluded postpositions whose CP origin is not entirely clear. Thus the postpositions *dai* and *kai* have been excluded, but *thi* and *ghi* are included,
Table 1. Kalasha conjunctive participle counts

<table>
<thead>
<tr>
<th>Text/ Speaker</th>
<th>CP’s</th>
<th>Postpos.</th>
<th>ghōi</th>
<th>Adverb- ializers</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 [fs]</td>
<td>81</td>
<td>0</td>
<td>6</td>
<td>8</td>
<td>95</td>
</tr>
<tr>
<td>7 [kn]</td>
<td>79</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>93</td>
</tr>
<tr>
<td>27 [mb]</td>
<td>103</td>
<td>9</td>
<td>32</td>
<td>4</td>
<td>148</td>
</tr>
</tbody>
</table>

Averages 88   4   16   4   112

112 x 7.5 = 840 CP’s per 7,500 words (average)

Masica's Dravidian counts for Malayalam and Telugu were 432 and 429 respectively. It is possible that the much higher frequency in Kalasha is partially a function of the fact that Masica's Telugu and Malayalam samples are from written texts in languages with a long written tradition, while the Kalasha materials are from orally transmitted tales in a language with no written tradition. One not untypical example of Kalasha narrative is shown as (7); CP's have been emphasized.

7) tara' drami’-a ita te saman' ta’a gordok’-a tha’ra thai-o to phus'ti sambi’ uTik’i tyai drami’-a tyai zråg zråg zråg zråg zråg kai awas’ kai aau. [T27:mb]

'Coming there on the roof and having put those things on his donkey, he put on the skin and leaping, jumping on the roof, made a sound of clashing metal.'

(11) As with other S.A. languages, there is no verb HAVE in Kalasha. The usual expression of alienable possession is with an OBL NP and the postposition sum

(d) quotative ghōi is included, and (e) CP’s functioning as adverbializers are included. Three 1,000-word samples from three different speakers were counted, and the CP-count thus obtained multiplied by 7.5 to give a figure comparable to that obtained by Masica for his 7,500 - 8,000 word samples. My texts are traditional stories rather than Bible translations and thus represent a different genre than Masica's. They are, however, entirely typical of Kalasha narrative style.
'with', e.g. (9).

8-a) mai sum kalam' šiu [S]
    I(OBL) with pen is
    'I have a pen.'

b) tai sum du rupe' ši'an [E:i]
    you(OBL) with two rupees are
    'You have two rupees.'

Inalienable possession is expressed by the OBL form of the
NP and the verb 'be' as in (9-a, b, and c), or by the OBL
form of the possessor NP followed by the possessed NP plus
pronominal suffix (cf. 9-d).

9-a) ek moc'-as du putr as'ta [T29:mb]
    one man-OBL two sons be(PST-I)-3p
    'A (certain) man had two sons.'

b) tai kimon' baaba že baaya a'-an [E:i]
    you(OBL) how many sisters and brothers be(P/F)-3p
    'How many sisters and brothers do you have?'

c) ta'sa du dur ši'an [E:i]
    he(OBL) two houses be(INAN)(P/F)-3p
    'He has two houses.'

d) as'a daad-as TaTor'i kar'i
    she(OBL) father-PS3s bread do(IMP2s)
    ghōi mau'-dai [Sibkw]
    COMP say(P/F-S)-3s
    'Her father says to make walnut bread.'

(12) Kalasha shares all the word-order features which
characterize the S.A. linguistic area.13 (13) A weakly
developed (incipient?) set of compound verbs is found in
Kalasha and Khawar; so far I have been able to positively
identify in Kalasha three verbs functioning as vectors (Ch.
4). (14) The situation with regard to direct object
marking is not entirely clear. With some lexical
exceptions (notably verbs of beating and striking), objects

13Masica (1976:193) and (1974).
in Kalasha are marked as follows:

1st, 2nd, 3rd person pronouns - OBL
(close?) kinship terms - NOM + pronominal suffix
proper names (humans) - NOM
(specific) animals - NOM
some definite NP's - ACC deictic element + NOM NP

Whether the use of the deictic elements am'a 'this', al'a 'that', and to 'that' to mark certain direct objects is simply a marker of definiteness, as in English 'the man', or whether it has specific deictic force, e.g. 'this/that man' is not yet clear to me, although at this point I am inclined in favor of the second view.\textsuperscript{14}

Summarizing these results in tabular form, we have:

<table>
<thead>
<tr>
<th>Area</th>
<th>Feature</th>
<th>Kalasha's status vis a vis the feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>retroflex cons.</td>
<td>+, - (weak)</td>
</tr>
<tr>
<td>2</td>
<td>echo words</td>
<td>+</td>
</tr>
<tr>
<td>3</td>
<td>'also' enclitic</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>dat. subj.</td>
<td>+, - (weak)</td>
</tr>
<tr>
<td>5</td>
<td>no prefixes</td>
<td>+</td>
</tr>
<tr>
<td>6</td>
<td>2 pron. stems</td>
<td>+</td>
</tr>
<tr>
<td>7</td>
<td>sg. = pl. case endings</td>
<td>+, - (mixed system)</td>
</tr>
<tr>
<td>8</td>
<td>morph. caus.</td>
<td>+</td>
</tr>
<tr>
<td>9</td>
<td>onomatopoetic words</td>
<td>+</td>
</tr>
<tr>
<td>10</td>
<td>CP use</td>
<td>+, + (very strong)</td>
</tr>
<tr>
<td>11</td>
<td>no verb 'have'</td>
<td>+</td>
</tr>
<tr>
<td>12</td>
<td>word order</td>
<td>+</td>
</tr>
<tr>
<td>13</td>
<td>comp. verbs</td>
<td>+, - (weak)</td>
</tr>
<tr>
<td>14</td>
<td>ident. obj. marking</td>
<td>+, - (mixed system)</td>
</tr>
</tbody>
</table>

\textsuperscript{14}There is nothing corresponding to the Hindi -ko marking for identified objects, or to the Persian -i + ra for specific objects, although with the increasing penetration of recent conjunct verbs of the NP-kar'ik type into Kalasha, some of the predisposing conditions for the emergence of more consistent identified object marking may be developing.

Khowar, on the other hand, marks identified objects consistently with its general oblique morphemes---sg. -\textsuperscript{a}, pl. -\textsuperscript{a}, e.g. (a)

\textsuperscript{a}) awa paloG'/(−an) bizemi'tam [rkb]
I(NOM) apples(OBL) sell(PST-A)-is
'I sold (the) apples.'
From this we see that of the most telling indices of the S.A. linguistic area, Kalasha lacks one entirely and shows only a weak development of two. It shares all the features which characterize the S.A. area as well as adjoining regions.

7.2.2. Non South Asian characteristics

In addition to the features which link it to the S.A. linguistic area, Kalasha displays characteristics not associated with the South Asian linguistic area: (1) A much higher incidence of left-branching structures than would be predicted for a language in its geographical position with respect to the South Asian linguistic area alone. These include the preponderance (in conversational discourse) of left-branching V-FIN and PARTICIPIAL relative clauses, the left-branching SAY-complements,¹ and the extremely strong predilection for the use of the conjunctive participle. (2) Agglutinative or semi-agglutinative structures are employed in Kalasha more than in most lowlands NIA languages, which have evolved from highly inflectional to analytical structures. (3) Highly developed expression of the category of inferentiality in basic verb morphology (Ch. 2). (4) Strong development of its causative involuntative semantics coupled with the weak

¹SAY-complements are found in Turkic languages, as well as in Burushaski and Tibeto-Burman.
development of the dative subject construction (Ch. 3).\(^{16}\)

(5) Replacement of grammatical gender by a grammaticization of the animate-inanimate distinction.\(^{17}\) (6) The restructuring of the numerals 11-19 in accordance with the pattern 10 + n rather than the inherited Indo-Iranian n + 10 schema. (7) Preservation of dental, palatal and retroflex sibilants. (8) Infinitives in -k. These features show Kalasha to be strongly under the influence of factor(s) other than position vis-à-vis the S.A. linguistic area.

7.2.3. Other areal affinities

Let us first consider possible explanations for the extremely high incidence of left-branching structures in Kalasha. The commonly accepted explanation for left-branching characteristics like the geographical gradient reported in Hook (1985) for position of subordinate relative to main clause is relative proximity to the Dravidian-speaking (i.e. South India) or the Persian-dominated (i.e. Southwest Asia) areas. Given that the IA languages of the Indo-Gangetic plain and Central India are (collectively) contiguous with present Dravidian areas and

\(^{16}\)Menges (1968:127) makes the following interesting observation about Turkic: "Passive and causative overlap each other, as e.g. with the suffixes -t-, -r- (rarely: Uj. -bas-ur- 'to cause to press' > 'to be vanquished, subjugated') as in Tungus the simple, uncompounded passive aspect suffix -w- usually also has a causative function. In Uighur, the suffix-compounds -t-yQ are used, like the above -syQ- for the expression of the passive: bas-t-yQ, 'to be suppressed', bul-t-uQ 'to be found'." (1968:127)

\(^{17}\)See Bashir (1983) for an earlier discussion of points (3) and (4). Edelman (1980) also discusses these issues.
also occupy territory in which Dravidian was previously spoken, and that there are no major natural boundaries dividing the area, that seems likely to be correct for those languages. But what of Kalasha (and the other NWIA languages like Shina) which show a great preponderance of left-branching structures? Assuming that speakers of these languages have remained in the Karakoram and Hindu-Kush mountains, and that (proto-) Dravidian speakers have not been in contact with them since at the latest the second millenium B.C., if ever,\(^{18}\) in order to invoke specifically Dravidian influence one would have to say that it took place during the time after the Indo-Aryan migrations but before the southward displacement of Dravidian, and in the isolated mountain valleys of the Karakorams and Hindu Kush. This seems highly unlikely.

What seems more likely is that Kalasha along with Shina, (and Khowar to a lesser extent because of its influences from Iranian) show the effects of another strong center of left-branching characteristics. Altaic languages represent one possible source of such influences. From the point of view of archaeology and history, this is a tenable hypothesis. According to Menges' (1968) map of Urheimat I (ca. 2300 - 1800 B.C.), Indo-Aryan and Turkic were in contact along the Indo-Aryan trans-Caspian migration route

\(^{18}\)For approximate distributions of Indo-European, proto-Dravidian, and proto-Altaic speakers during the periods 2300-1800 B.C. and ca. 1000-300 B.C. I am relying on the maps in Menges (1968).
into South Asia. Grierson's (1903:64) postulation of an early "non-Sanskritic" migration route from the headwaters of the Oxus, through the Pamirs and thence to Chitral and Gilgit would place the proto-Kalasha-Khowar speakers in the Turkic and Iranian speaking area. Allchin (1980:83-4) cites archaeological discoveries indicating that migration/trade routes from Central Asia through the high passes of the Pamir were in use during the time period involved. More recently Turkic speaking groups have migrated into and moved repeatedly across the area where Kalasha and Khowar are now spoken and were also probably located within the last millenium (see Menges' (1968) map of the historical Altaic migrations).

What linguistic evidence can be considered vis-à-vis a specifically Turkic-influence hypothesis. Aside from the general left-branching character of Kalasha, several grammatical morphemes functioning in the Kalasha verb system behave in an (semi-) agglutinative fashion, i.e. are attached in an invariant form at the end of their host word. These are -elyi (necessitative), -ori (hortative), -dai (specificity of action), hula (inferentiality-unprepared mind), hawau (potentiality-subjunctive), and dyayadyapa (contrafactual).

One of these morphemes itself is very probably of Turkic origin--the Khowar/Kalasha necessitative
construction: Khowar el'ik, Kalasha -elyi. Menges (1968:139) gives the 1st person imperative -aly to which -m for first person sg. or -q for first person plural are added. He cites varying developments of this morpheme in the Turkic languages including N. Uighur -aiLi, -eli, -elin, -ilin, -ainiq, -eni. Brockelmann (1954:227-9), calling them "voluntatives" or "cohortatives" gives numerous examples of developments of these forms.

Sebuktekin (1971:70) describing modern Turkish, lists a necessitative participial suffix -meli 'must, ought to', which can occur with persons other than 1st pl, e.g. gel-meli-sin-iz come-NEC-2nd-pl 'You(pl.) must come.' or when no independent subject or personal suffix is indicated refers to an impersonal situation. Shaw (1877:284) describing the language of Kashgar and Yarkand (Uighur) describes an "optative defective tense", with "only the 1st persons singular and plural in -ai and -ali or -alit (elik), e.g. gel-ali(Q) 'we will do/let us do'.

As noted above (Ch. 2), -elik is probably the original form in Khowar (cf. 2.2.4. above). Phonetically the /l/ is a palatalized sound in both Khowar and Kalasha, but in Kalasha the palatalized /l/ probably is probably not original, since original /l/ has developed into the velarized /l/. The palatalized /l/ in Kalasha -elyi points to this construction as a borrowing from Khowar.

In citing Menges' examples I have used L for his ū.

1a = [iy].

21-aly = [ia].

22-eliQ and -alit are variants conditioned by vowel harmony with the verb root.

Masica (p.c.) points out the (coincidental?) resemblance of this necessitative morpheme to the Telegu -aali.
and Yarkand are in the area with which the people of the Gilgit and Hunza valleys and the Chitral area have had continuous cultural and economic intercourse until very recently.

The semantics of inferentiality in Kalasha and Khowar (Ch. 2) and the fact that the category of inferentiality is expressed in basic verb morphology, as in Turkic, is highly suggestive. The relation of the category of inferentiality to tense for Turkic languages is treated by several authors. Haarmann (1970:45) says for Turkish "Auf der Basis der grammatisierten Modalität der Mittelbarkeit (IE) mit dem formalen Kennzeichen -miš hat sich ein ganzes system periphrastischen, modalgefärbter Tempora entwickelt (vgl. die verhältnisse im Alttürkischen 4.1)". Windfuhr (1985:397) states that ". . . -(y)miš follows all (other morphemes) to express inference, except with -di. In this function it is tense-neutral." According to Aksu-Koc and Slobin (1986:159) the choice between the suffixes -di representing direct experience and -miš representing indirect experience is obligatory in past tenses. The unstated implication is that in other tenses this choice is available but optional. In some other Turkic languages also (Haarmann 1980:82) the category of inferentiality is marked in all tenses, while in others it is restricted to preterital tenses.²³

Consideration of Tibeto-Burman is also relevant at this point. In Lhasa Tibetan evidentiality distinctions are marked across both perfective and non-perfective tenses (DeLancey 1986). The semantic distinction in the non-perfective tenses is characterized by DeLancey as between "old and new knowledge", and that in the perfective system as "true inferentiality", that is a distinction between first-hand knowledge and that known by inference or by observation of the end result. In the present and future tenses the auxiliaries used—vin and red, yod and 'duq are respectively copular and existential 'be' verbs. The copular verbs vin and red also function in the perfective tenses, along with the auxiliaries sōq-, etymologically derivable from a perfect form of 'go', expressing direct knowledge and byōq, derivable from a verb meaning 'arrive, appear, come into view', expressing indirect or inferred knowledge. 24

The difference between the Turkish and the Kalasha systems is that in Turkish a single, invariant morpheme mış effects the contrast in all tenses, while in Kalasha in the past tenses it is effected by an obligatory choice between the actual and inferential forms of the auxiliary 'be', and

24In this connection recall the association of compound verbs with parik 'go' and the 'prepared mind'. Also recall the discussion of Hindi compound verbs and the association of jaanaa with the prepared mind and of nikalnaa 'come out' with the unprepared mind.
in the non-past tenses by optional use of hula, a form of 'become'. In Tibeto-Burman originally perfective forms of 'be' are used across all tenses. The systems of Kalasha, Khowar, Turkish and Tibetan are compared here.

<table>
<thead>
<tr>
<th>Marking mechanism</th>
<th>Distinction optional or obligatory</th>
</tr>
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<tbody>
<tr>
<td>Past</td>
<td>Non-Past</td>
</tr>
<tr>
<td>Kal.</td>
<td>'be' 'become'</td>
</tr>
<tr>
<td>Turk.</td>
<td>mlê</td>
</tr>
<tr>
<td>Tib.</td>
<td>'be' 'be', 'go/come'</td>
</tr>
<tr>
<td>Kho.</td>
<td>'become' 'become'</td>
</tr>
</tbody>
</table>

Given the remarkable similarity of the semantics of the unprepared vs. prepared mind described for Turkish and Tibetan (old vs. new knowledge) with the semantics of Kalasha hula and Khowar birai 'became(inferential)'), it is difficult to judge at this point based on linguistic evidence alone whether Turkic or Tibeto-Burman is a more likely source of the influence to which Kalasha and Khowar are responding. Before a properly informed opinion can be ventured, we need also to know more about the extent and means of grammaticization of this category in the Nuristani languages and in Burushaski.²³

²³I am grateful to Richard Strand for the information that inferentiality-evidentiality, involving semantic distinctions similar to those under discussion here, is also grammaticized in Kamviri (eastern Kati), employing both basic verbal morphology and forms of 'become'.

Buddruss (1987:33-4, 37-8) describes a "reportative particle" -le in Waigali, which "zum Ausdruck gebracht, daß der Sprecher das Verbalgeschehen nicht selbst beobachtet hat, sondern nur vom Hörensagen kennt". His examples are: qR'oi 'er war'; qR'oi-le 'er soll angeblich gewesen sein'; pudiseR'ot-le 'sie sollen, wie es heißt weiderholt durchgegangen sein'. Buddruss likens the Waigali le to Nepali re as in u aayo re 'man sagt, er kam'.
Perhaps, like general left-branching characteristics, the grammaticization of this category and the semantic contrasts characterized as "prepared vs. unprepared mind" or "old vs. new information" are a much larger-scale areal phenomenon (cf. Haarmann 1970 passim) involving all the major language stocks of Northern Eurasia.

Certain characteristics of Kalasha and Khowar point to Burushaski substratum effects. The first of these are semantic. As discussed above (Ch. 3) expression of involuntary actions or bodily processes with verbal forms which are formally causative is well-developed in Kalasha, Shina and Burushaski. I have argued that in Kalasha this mechanism belongs to a stratum of the language older than that in which dative subject constructions appear. This is consistent with its being a substratum influence from Burushaski. Interestingly, in Shina the causative involuntatives are found in Gilgit Shina but not in the varieties of that language spoken higher on the Indus near Skardu. This points to influence from Burushaski, since

26Given a historical scenario in which Burushaski was originally spoken over a wider area than it is today, probably including Chitral.

27Compare (a) employing causative morphology, which is from Gilgit Shina, with (b) and (c) which do not employ causatives.

a) ma taati thareegin [Gilgit, maz]
   I(NOM) heat do-Cs-PST(fs)
   'I feel hot.'

b) mo-re taato daST-aas [Tandal, g]
   I-DAT heat know/feel(PST)-ls
   'I feel hot.'

c) mo tatyi h32s [Satpara, gm]
   I(f)(NOM) heat/hot be(PRES)-ls(f)
Gilgit is in the Burushaski speaking area but Skardu is in the Balti region. The absence of this feature in Khowar is probably to be explained by subsequent Iranian influences on that language.²⁸

A second semantic development concerns the question of gender categories. Neither Kalasha nor Khowar has retained the inherited Indo-Iranian system of grammatical gender. Both languages have, though, evolved a new, semantically defined system based on the animacy distinction. This

²⁸It would be interesting to know the extent to which other languages of the "active" type share this (causative) treatment of involutative semantics.

Edelman (1980) discusses several other characteristics of this area, which in the Soviet tradition is designated the "Central-Asian linguistic area" (and which includes a rather larger group of languages than I have been dealing with in this dissertation). Among these are retention of the cerebral affricates, the form of the 2nd pl. personal pronouns, the model for the verbal concept 'to begin'. In the context of the partial acquisition of characteristics of the active typology by languages in this region, she treats the conjugation of some apparently (or semantically) intransitive verbs as if they were transitives (i.e. with agentive marking), a group of stative intransitives of the type 'to be red', the inclusive/exclusive distinction in the 1st person plural, and the treatment of inalienable and alienable possession.

The association of anti-reflexive semantics with -a' causatives recalls Klimov's active typology. Contrasting the nominative and the active types, Klimov (1979:330) notes that "in the latter, the opposition of centrifugal and non-centrifugal versions of active verbs is obligatory (cf. the voice distinction in nominative languages). The centrifugal version denotes an action directed outside the subject, and the non-centrifugal version an action limited to the subject". Elsewhere (1974:19) he likens "centripetal" and "centrifugal" to middle and active voice in proto-Indo-European. The specific anti-reflexive semantics which I have discussed for Kalasha may well be a manifestation of this characteristic of the active typology.
distinction is operative in both the nominal and verbal systems. With Kalasha singular nouns the old Indo-Aryan suffixal cases have, except for the oblique (old genitive-dative) been restricted to inanimate nouns, case marking functions for animate nouns being taken over by postpositions. In the plural (with certain classes of listable exceptions), both animate and inanimate have zero-ending in the direct case and a generalized OBL marker -an/-on/-in.

The verbal systems of both Kalasha and Khawar are dominated by the fact that there are both animate and inanimate forms of the verb 'be' in the third person sg. and pl. in both present and past tenses. Since the compound participial tenses are constructed with the perfective and imperfective participles plus forms of 'be', the animacy distinction permeates the conjugational system.

Certain verbs have become lexically marked for either animate or inanimate objects, e.g. halik' to bring (anim.

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29See 1.5.3.3. for the Kalasha paradigms, and 2.2.3. for the Khawar forms. Animate and inanimate forms of 'be' in the third person are also found in Pashai (Morgenstierne 1967:100, 176, 229, 274). SW dialects: pres 3rd sg. animate -hái/haísta; inanimate síik invariant for 3rd sg. and pl. and for gender. NW dialects: 3rd sg animate ñin, bíin, inanimate ñín. NE dialects: pres. 3rd sg and pl. animate oíst-oíyon, 3rd sg. and pl. inanimate síu. Past 3rd sg. and pl. inanimate síik. SE dialects: pres. 3rd sg. animate áis(t)/hais 3rd sg. inanimate ñíi/síi/ñií, 3rd pl animate ái(e)n/ñin, 3rd pl. inanimate ñen/ñen.

For Shumashti, Morgenstierne (1945:255) gives ine/ini 3rd sg. m/f and ñue 3rd sg. inanimate. And in Parachi (Morgenstierne 1929:81-2), we have the forms síi: 3rd sq. inanimate, and hái, há, à - a 3rd sq. animate. According to him (p. 82), "sii is borrowed from Pashai S. síi (< ñete) with substitution of n for the palatal ñ. Derivatives of ñete are frequent in Dardic languages."
obj.) vs. on'ik 'to bring (inan. obj.), thek 'put (inan. obj.), nîk 'to take away (anim. obj.) and har'îk 'to take away (inan. obj.).

Iranian influence has been cited (Emeneau 1965) as the possible cause of the loss of grammatical gender in NWIA, with Wakhi and Sanglechi-Ishkashmi mentioned as possible influences on Khowar. There is, of course, no doubt of the penetration of Iranian vocabulary into Khowar (Morg. 1936). But in view of two sets of facts presented here, I should like to suggest that influence from Burushaski is more likely to be a contributing factor for the gender developments in Khowar and Kalasha. First, gender loss is not uniform within the Pamir languages. According to Karamshoev (1979) in the Shugni-Roshni group gender is a productive category with many syntactic and semantic correlates; in these languages it has also developed into semantic rather than grammatical gender. Where it has been lost—in Sarikoli, Ishkashmi, and Wakhi—Karamshoev attributes this to the loss of contrast between long and short vowels rather than to a general Pamir tendency toward loss of gender.

The second point concerns the existence of a strongly developed four-fold gender system in adjacent Burushaski based on humanness, sex, and animacy distinctions (Lorimer 1935). Burushaski distinguishes four noun classes: 1)

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30See Edelman (1980:28-9) also on this regarding the acquisition of active typological features.
human female, 2) human male, 3) x (which include all non-human animates and some inanimates, and y, into which fall all other inanimates.\textsuperscript{31} Locating these classes on an "animacy continuum" like this:

\begin{center}
\begin{tabular}{cccc}
human & human & other animates & all other \\
female & male & some inanimates & inanimates \\
\end{tabular}
\end{center}

we see that the salient endpoints of the continuum clearly constitute animate and inanimate classes. It might be argued that the salient property on the animate end of the continuum is "humanness" or "human femaleness" rather than animacy. This would certainly be true for native Burushaski speakers, but for bilingual speakers of Khowar or persons with various degrees of partial competence in Burushaski, it might well be the grosser animate/inanimate distinction that would be perceived. Thus it seems quite possible that (proto-) Kalasha-Khowar, with a decaying inherited gender system may have assimilated this animacy distinction into its own structure. Although the syntactic consequences of its gender system permeate the entire grammar of Burushaski, one of these correlates is the forms of the verb 'be' which vary with the gender--hf, hm, x, or y--of the subject. As previously noted, one of the places where the animacy parameter is manifested in Khowar and Kalasha is in the present and past third person forms of

\textsuperscript{31}Lorimer suggests that the distinction between inanimates which fall into the x and those which fall into the y class is based at least partly on tangibility and individuation of form.
A third characteristic of Kalasha and Khowar, which is also shared by some of the Pamir languages (Iranian), marginally by Tirahi, Tibeto-Burman and by Burushaski is the structure of the numerals 11-19. In these languages the form of the teen numerals is 10 + n rather than the usual (inherited) Indo-Iranian pattern n + 10. The 10 + n area includes a compact block of languages belonging to four genetic groupings—the Tibeto-Burman, Burushaski, and some but not all of both the Indic and Iranian branches of Indo-Iranian (see Map 1, Appendix). I have argued in Bashir (1983) that this is a true convergence area apparently induced under the influence of Burushaski and/or the Tibeto-Burman languages.

A fourth feature of Kalasha and Khowar which probably originates in Burushaski is the necessitative baS construction. A construction consisting of a non-finite verbal form plus the element baS is found in Kalasha, Khowar, Yidgah, perhaps Wakhi, Shina, and Burushaski. Its use in Kalasha is discussed in 2.1.3. above. The following

Edelman gives the forms (dah)eko '11', (dah)bo '12', and (dah)tro '13', while Morgenstierne has iiko: '11', and bo: '12'. The other Tirahi numerals follow the n + 10 pattern.

Beskrovny (1976) discusses the 10 + n structure of the teen numerals in Romani, considering it to be an early innovation reflecting contact with Burushaski and the Dardic languages. In support of the plausibility of the explanation he cites the development in colloquial Sinhalese of a 10 + n alternate of the teen numerals under the influence of Tamil, which has an indigenous 10 + n order.
examples illustrate its use in Khowar.

10) kan ju baS hoi [S:rk]  
    tree 2 shares become(PST-A)-3s  
    'The tree split in two.'

11-a) žibik'-o baS ni'ki [E:rk]  
    eat(INF)-OBL NEC is(NEG)  
    i) 'It is not worth eating.'  
    ii) 'One should not eat it.'

b) žibik'-o baS no asur' [E:rk]  
    eat(INF)-OBL NEC not be(ANIM)(P/F)-3s  
    'He is not able to eat.'

c) nigik'-o baS piran' ma-t taraawe [E:rk]  
    wash(INF)-OBL NEC shirt I(OBL)-DAT reach(CS)-IMP-2s  
    'Hand me the shirt that needs to be washed.'

12) ma pesaur-o-t bik-o baS [E:rk]  
    I(OBL) P(OBL)-DAT go(INF)-OBL NEC  
    'I have to go to Peshawar.'

13) keLar'u gik-o baS kor'um [S:rk]  
    weeping come(INF)-OBL NEC deed  
    'a deed/event which causes one to weep'

Example (10) illustrates the (nominal) meaning of 'piece, share', which is also found in Kalasha.  
(11-c) shows baS in an attributive construction and (11a, b, 12, and 13) various other modal senses. As in Kalasha, it overlaps semantically with -eli(k); according to my informant, in Khowar -eli(k) and baS can both be used for either internal or external compulsion.

In Yidgah (Eastern Pamir), Morgenstierne (1938, IIFL, II:165) observes forms in baS calling them "potentials".

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34 It also has the specific meaning of a special gift of food to female relations. In the conjunct verbal formation with kor'ik 'do' it means to give a share of property (land, house, cattle, trees, but not money) to a child or relative. [rk]

35 Compare Kalasha examples (25-7) in Ch. 6.
He gives the examples shown in (14).

14-a) yasp Gazevda bas [IIFL(2):165]
     horse run-CS bas
     'The horse could be made to run.(?)' (M's gloss)

b) vruta zie bas [IIFL(2):165]
    mustache cut bas
    'The mustache could be cut.'

c) zu:ya bas [IIFL(2):165]
   sew bas
   'It could be sewn.'

Morgenstierne says: 'This form, which is not found in Munjani, is of Khowar origin... It can have nothing to do with Sanglechi bus'. (p. 165)

Morgenstierne also mentions (1973:86) that bas is also found in Wakhi in the meanings 'ought to, is likely', but I have not been able to locate the examples.

In Gilgit Shina the construction with bas and the infinitive seems to have the meaning of 'to be about to be V-ed' as well as 'to be fit/able to be V-ed'. For example:

15-a) Tiki-s khijo’iky bas hany [maz]
     bread-AG eat(PASS)-INF bas be(PRES)3f
     i. 'The bread is about to be eaten.'
     ii. 'The bread is fit to be eaten.'

b) be ho th-ar-ij-o’iky bas han-as [maz]
    we(NOM) call do(CS)(PASS)-INF bas be(PRES)-
    i. 'We are about to be invited.'
    ii. 'We are capable of being invited.'

Notice palatal $ in Yidgah. Regarding sibilants in Yidgah-Munjani, Morgenstierne says, 'There can be no doubt that /$/ and /$/ are separate phonemes, but it is not always easy to distinguish between them, and it is possible that some speakers of Munjani use a neutral /$/ for both through the influence of Prs. phonology.' (1938:30)

Wakhi has a particle -as with multiple functions including use with contrary to fact conditions (Grjunberg and Steblin-Kamensky 1976:#180). This may possibly be relatable to the Burushaski -S forms (see below).
c) ma-s kri-o’iky  baS (o)  gúum gaaG déeg-as
 I-AG rot(PASS)-INF baS (that) wheat price set(PST)
 'I sold the wheat which was about to rot.' [maz]

In the Yasin variety of Burushaski baS is used in the
meaning of 'must', 'is necessary to', and 'fit to/for'.
baS is constructed with the present participle of the verb
and is optionally followed by the appropriate form of the
copula. Lorimer gives the following examples for Yasin
Burushaski (1962:52). 38

16-a) ja huuCo yaT-e aulan bišaGum baS duua
 I(OBL) boot on patch apply NEC is
 'It is necessary to put a patch on my boot.'

b) memalčum baS žeGa duua
fear NEC place is
'It is a place which must make us afraid (i.e. a very
dangerous place.)'

c) duro baS a-poGl/a-pi
work NEC neg-is
'He/it is useless, unserviceable.'

Morin and Tiffou (ms 1985:12) have the following Yasin
Burushaski examples:

17-a) me’na du-gur’guy-um baS b-i
apricot nuts(x-sg) d-grind(P)-PPL NEC be(P)3s(x)
'There are still some apricot nuts to be ground.'

b) uC ga’mič-um baS dua’
loan(y)NOM return(P)-PPL NEC be(P)3s(y)
'There is still some money to pay back.'

For Hunza Burushaski, Lorimer has the following (1935-
8, I:242).

18) eedelin tei baS etin
NEG-3s-beat-IMP2p thus be-SUBJ-3s(hm) do(IMP2p)
'Don't beat him, let him be as he is.' (L's gloss)

38 The orthography of Lorimer's examples has been
normalized in accordance with the practice adopted in this
dissertation. Glosses are Lorimer's.
The form baς in Burushaski is almost certainly the 3rd sg. human male "-ς form" of ba- 'be'. These function and characterization of these "-ς forms" have been variously analyzed by Lorimer (1935, I:324-8) and Berger (ms. Ch. 10) for Hunza Burushaski, and Berger (1974) and Tiffou and Pesot (1983) for Yasin Burushaski. Berger (1974:42, 44) simply calls it the "-ς form" and notes that it functions somewhat like an infinitive with ta- 'to follow' in the meaning of 'to begin' and as a 3rd sg. and pl. imperative. Tiffou and Pesot identify the optative function of the -ς form: "une série de formes in -ις à valeur volitive" (p. 33). Describing Hunza Burushaski, Berger (ms. Ch. 10) calls the -ς forms "der infinite Form auf -ς/-ις", probably because of its ability to function as the semantic complement of τ-μαν- 'become' in the meaning of 'to be able' and of ττ- 'make, do' in the meaning of 'let, allow'. Lorimer (1935) gives the most complete description and illustration of the -ς forms, showing them indicating imperative, injunctive, permissive and optative senses. He shows that the -ς forms can also occur with the postposition xa 'up to, until', and as semantic complements of the concepts 'be able' and 'allow'. Example (19) illustrates the imperative-optative complex of meanings.

19-a) baadςa hukum etimi ulo Juuς nusen [I:324] king order did inside come(SUBJ)3s say(CP)

39 In Berger's system -V and -v (stressed or unstressed) indicate pronominal prefixes of Type I; τv a prefix of Type II, and τ-ςv a prefix of Type III (ms:4.2.5.)
b) tham in-e  maniS  [I:324]
tham he-AG(?) become(SUBJ)3s
'Let him become Tham!' (Tham is the ruler's title.)

In (20) we see the -§ form after xa 'until, up to, before'.

20) i:n a-CuS xa  guć'a-mo  [I:324]
he  NEG-come(SUBJ) until give birth(PST)-3s(hf)
'Before he returned she gave birth.'

And in (21) and (22) the -§ form expresses semantic complements of 'be able' and 'allow'.

21) duwalS a-mo-manu-mo  [I:327]
fly(SUBJ)3s NEG-3s(hf)-become(PST)-3s(hf)
'She was not able to fly.'

22) i:n niS eti  [I:328]
he  go away(SUBJ) do(IMP2s)
'Let him go away!'

Analyzing the -§ forms as general subjunctives explains all the various senses in which they function in Burushaski, and is consistent with the meanings which baS has in the neighboring languages.

Having observed the use of baS constructions in Kalasha, Khowar, Yidgah, Shina and Burushaski, it remains to decide whether the Kalasha/Khowar and Shina baS construction is borrowed from Burushaski or whether, as has been suggested by others (Turner 1966, Masica p.c.), it has an Indo-Aryan origin. Turner suggests vaśya (T11433) 'to be subjected, obedient; at the disposal of' as the etymology of Khowar and Shina forms which he has recorded as baS with palatal §. In fact, however, the form clearly has a

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40Masica offers vasa meaning 'obliged by' as a suffix as a possible etymology.
retroflex rather than a palatal sibilant. Invoking *vaṣya* as the source of *baS* would require explanation of the change ś > s. But Kalasha preserves the distinction between final ś and s, viz. daś 'ten' < *daśa* (T6227), deśa 'far' < *deśa* 'province, region' (T6547), and *doS* 'yesterday' < *do:Sa:* 'night' (T6590). Both sibilants are also preserved in Khowar: *daśa* 'ten' (T6227) > *joś* 'ten' and *do:Sa:* 'night' > *doS* 'yesterday'. Given the exact correspondence of form and semantics between the Burushaski and the Khowar and Kalasha forms it seems likely that Burushaski *baS* is the source of the necessitative-obligative construction in Kalasha and Khowar.41

Thus the grammaticization of the animacy distinction, the 10 + n structure of the teen numerals, involuntative semantics associated with causative morphology (see Appendix, map 3), the shape of the agentive postposition (see Appendix, map 2), and the *baS* construction suggest that a distinct convergence area can be identified in the languages of the Hindukush, Karakorams and Pamirs—one in which the interaction pattern probably reflects a Burushaski substratum effect.

Certain syntactic features most intensively localized in Khowar but present also in Kalasha and other languages of the immediate region can probably be attributed to

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41The meaning of 'share' found in Kalasha and Khowar still poses a problem. Perhaps it has evolved from the necessitative meaning, or perhaps it represents the reflex of a separate root, perhaps *vaNTa*- 'share' (T 11235).
Iranian influence. These include *ki*-clauses, infinitives in *-ik*, consistent marking of specific direct objects in Khowar, and echo-formations in *m*-

7.3. Conclusion

Kalasha, then, reflects convergence phenomena at at least three levels. The largest-scale pattern in which it participates and that with the greatest time-depth is an extensive left-branching area embracing Altaic, Tibeto-Burman, Burushaski, Dravidian, and (partially) Indo-Aryan. This is the area which Masica (1983:5) designates "Indo-Turanian" instead of his earlier "Indo-Altaic". Seen against this larger picture, the injection of right-branching characteristics into the IA languages of the midlands and into Khowar appears as a later, smaller-scale effect. To the next layer belong those features

42Other nearby languages with infinitives in *-k* are Nuristani Prasun, with a form in *-nik/q*; Indo-Aryan Gawar-Bati, whose *-ik* infinitive is also inflected as a nomen actionis, Pashai *-ik*, and Gilgit Shina *-i-k*; Iranian (Pamir) Wakhi *-ak*, *-q* (Morgenstierne 1938:166), Yidgah (Grierson 1920:51), Ishkashmi *-uk* (Grierson 1920:51), *-qik*, *-uik* (Morgenstierne 1938:370), Zebaki *-aik* (Grierson 1920:51), Iranian Ormuri *-ok* (Morgenstierne IIfL, 1:78). Morgenstierne derives the Wakhi form from *-aka* (1938:166), but offers no historical comments on the Kalasha and Khowar forms. Bloch (1965:280) assumes the *-k* infinitives in IA to be borrowed from Iranian.

Gardezee (1986) has proposed a Turkic origin (cf. verbal nouns in *-q*) for the *-k* infinitives of languages in this region. Perhaps, as G. Windfuhr suggests (p.c.), this is a case of multiple causation in which two forms with similar form and semantics influence the development of a single phenomenon.

43As noted in Chs. 5 and 6 above, taken together Kalasha and languages like Marathi and Dakhini Urdu afford interesting complementary parallels and a laborabory for the study of syntactic change. The one has left-branching
attributable to interaction with a Burushaski substratum, and to the most recent level can be assigned features linking Kalasha on the one hand to the specifically South Asian linguistic area, and on the other (via Khowar) to a small area of regional Iranian influence. As communication and cultural links shift from ties with Central Asia or Nuristan to relations with the lower Indus valley, we can expect to see an increasing approximation of Kalasha to the South Asian linguistic pattern.

complementation and relativization strategies in the process of accommodating (to) right-branching structures, and the others show right-branching structures in transition to left branching. In Kalasha the left-branching structures are the legacy of its long-term membership in the Indo-Turanian area, while in Marathi and Dakhkhini Urdu they are being re-acquired as a result of more recent interaction with Dravidian.
APPENDIX
Map 2. Expression of agentive postposition
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REFERENCES


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