

Lingua

Lingua 108 (1999) 1-26

The myth of the Caucasian Sprachbund: The case of ergativity[☆]

Kevin Tuite*

ANU Research Centre for Linguistic Typology, Australia, and Département d'anthropologie, Université de Montréal, Case postale 6128, Succursale centre-ville Montréal, Québec H3C 3J7, Canada

Abstract

It is a commonplace to refer to the Caucasus as a linguistic area or 'Sprachbund', that is, as a region where languages of diverse genetic backgrounds share grammatical features. But whereas lists of areal features can be readily drawn up for the Balkans, Amazonia, etc., attempts to do the same for the Caucasus come up short. Catford (1978) can only find three features shared by all indigenous languages of the Caucasus: (1) uvular consonants; (2) glottalized obstruents; (3) ergativity. Of these, only the second appears to be a genuinely areal feature, being shared with Indo-European and Turkic languages of the Caucasus. Uvular consonants are too frequent in Eurasia to be a meaningful criterion. As for ergativity, I will demonstrate that the only common features shared by the morphosyntactic systems of the Abxaz-Adyghean, Nax-Daghestanian and Kartvelian families are reflections of typological universals characterizing the expression of ergativity in *all* languages (Dixon, Silverstein, Blake, Bossong, etc.) In all other respects, the systems are radically different: Abxaz-Adyghean is head-marking and prefixal; Nax-Daghestanian is dependent-marking, and agreement with absolutives refers to gender rather than person; Kartvelian has a complicated double-marking split system sensitive to aspect, noun-phrase type, and lexical verb class. If, as I argue, the entire Caucasus does not form a Sprachbund, there is evidence that it comprises several smaller-scale linguistic areas, some of them quite ancient. © 1999 Elsevier Science B.V. All rights reserved.

Keywords: Areal linguistics; Caucasian languages; Ergativity

^{*} E-mail: tuitekj@ere.umontreal.ca

^{*} The research presented here has been supported by grants from the Social Sciences and Humanities Research Council of Canada, and les Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec. Thanks go to Sasha Aikhenvald, Winfried Bocder, John Colarusso, R.M.W. Dixon, Johanna Nichols, Wolfgang Schulze and two anonymous reviewers for their helpful comments on earlier versions of this paper, or on the oral version presented before the Australian National University Typology Club, 25 February 1998. W. Schulze deserves special expression of gratitude for having sent me large chunks of his soon-to-be published *magnum opus* on NEC linguistic typology.

1. Introduction

The study of linguistic areas, or 'Sprachbünde', owes a great deal to the important research of Murray B. Emeneau on the geographical distribution of linguistic features among the languages of India and its neighboring countries. In the introduction he wrote to a collection of his essays, Emeneau observes, with deserved pride, that his work has 'introduced the Indian linguistic area ... as a worthy partner of the Balkans or the Caucasus' (Emeneau, 1980). I hope that the distinguished Sankritist and Dravidologist will not take it amiss if I use a quotation from his writings to introduce a paper in which I will argue that the Caucasus, whatever it might be in geolinguistic terms, is **not** a Sprachbund like the Balkans or, for that matter, the Indian subcontinent.

1.1. Trubetzkoy on Sprachbünde

The term Sprachbund was introduced to the linguistic world seventy years ago (although it had appeared in a tract on cultural themes by Trubetzkoy five years earlier (Toman, 1995: 204)), on the occasion of the 1st International Congress of Linguists in April 1928. At a session devoted to the 'Établissement et délimination des termes techniques', the phonologist Nikolai Trubetzkoy proposed that, in order to avoid 'Missverständnisse und Fehler' in the classification of languages, a distinction be made between *Sprachfamilien* and *Sprachbünde*:

"Gruppen, bestehend aus Sprachen, die eine große Ähnlichkeit in syntaktischer Hinsicht; eine Ähnlichkeit in den Grundsätzen des morphologischen Baues aufweisen; und eine große Anzahl gemeinsamer Kulturwörter bieten, manchmal auch äussere Ähnlichkeit im Bestande der Lautsystem, – dabei aber keine systematischen Lautentsprechungen, keine Übereinstimmung in der lautlichen Gestalt der morphologischen Elemente, und keine gemeinsamen Elementarwörter besitzen, – solche Sprachgruppen nennen wir Sprachbünde." (Trubetzkoy, 1928: 18; italics his)

He lists four positive criteria – strong similarity among languages in (a) syntax and (b) morphological structure; (c) a large amount of shared cultural vocabulary; and (d) surface resemblances ["äussere Ähnlichkeit"] in the sound system – and three negative criteria, which of course serve to eliminate genetic relationship as an explanation for the sharing of features (a–d): absence of (e) systematic sound correspondences, (f) shared morphology, and (g) shared basic vocabulary. As an example of a Sprachbund, Trubetzkoy mentioned the linguistic area comprising the Balkan languages Bulgarian, Albanian, Rumanian and Modern Greek. Although these languages derive from four distinct branches of the Indo-European family, each shares grammatical features with the other members of the Balkan Sprachbund that do not characterize its sister languages elsewhere in Europe.

So, for example:

(i) Rumanian [munte-le 'mountain-the'], Albanian [gur-i 'stone-the'], and Bulgarian [stol-ot 'table-the'] have postposed articles, which do not occur elsewhere in Slavic or Romance.

- (ii) All four have a single case form for the genitive and dative (not characteristic of other Slavic languages).
- (iii) In all four infinitive constructions have been replaced by subordinate clauses in the subjunctive mood: Rumanian: $d\breve{a}$ -mi s\breve{a} beau; Albanian: a-më të pi; Bulgarian: daj mi da pija; Greek: $\delta \delta \sigma \mu ov v \grave{a} \pi i \check{\omega}$ 'give me, that I drink' (Solta, 1980).

Other such shared features can be added to the list, in order to demonstrate that the four Balkan languages mentioned by Trubetzkoy meet all seven criteria for Sprachbund-hood. Emeneau and others have employed essentially the same procedure in their work on linguistic areas in various parts of the world, though later definitions of Sprachbund emphasized the diagnostic importance of features shared within the area, but not present in genetically-related languages outside of it, and in some instances specified the mechanisms believed responsible for the diffusion of features, e.g. contact (Sherzer, 1973; Masica, 1976: 3–4; Aikhenvald, 1996), or – especially in European scholarship – a hypothesized common substrate (Èdel'man, 1980; Solta, 1980).

Before he emigrated to Western Europe, Trubetzkoy did fieldwork on the languages of the North Caucasus. He did important work on the phonology and morphology of the Northeast Caucasian (NEC) languages, and made an initial attempt to demonstrate a genetic link between NEC and the Northwest Caucasian family (see Section 2 of Trubetzkoy, 1987). As both one of the premier Caucasologists of his day and inventor of the term Sprachbund, Trubetzkoy, of all people, ought to know whether the Caucasus qualified as a Sprachbund. As it turns out, there is no evidence that he ever thought such was the case. In his celebrated 1931 article on 'Phonology and linguistic geography', Trubetzkoy makes passing mention of the opposition between glottalized and non-glottalized occlusives as a phonological feature 'which has spread to all languages of the Caucasus regardless of their origins (not only in North and South Caucasian languages, but also in Indo-European and Turkic languages of the region), whereas [this feature] is absent elsewhere in Europe, and in the neighboring parts of Asia and Eurasia' (Trubetzkoy, 1931). But this was to be his only published description of the Caucasus in geolinguistic terms, as he later wrote to Roman Jakobson in a letter dated 20 May 1937: 'O kavkazskom fonologičeskom sojuze ja pisal tol'ko v IV tome *Travaux* v stat'e o fonologičeskoj geografii (s. 233), no tol'ko vskol'z'' ('I have only written about the Caucasian phonological area in the article on phonological geography in the IVth volume of the *Travaux* (pg. 233), and there only in passing') (Trubetzkoy, 1975: 393–394). I have cited these texts in order to demonstrate that, first, Trubetzkoy referred to the Caucasus as a 'phonological area' rather than a Sprachbund (for which the Russian equivalent is jazykovyj sojuz); and, second, that the only linguistic feature of any kind he ever claimed was common to the languages of the Caucasus was phonologically-relevant glottalization. In view of the definition he proposed for the term Sprachbund, Trubetzkoy could not have applied it to the Caucasian linguistic situation without evidence of syntactic and morphological similarities, and the fact that he never applied the term he invented to a region to which he had devoted years of study and fieldwork implies very strongly that he did not believe the Caucasus constituted a Sprachbund.

1.2. Jakobson on Trubetzkoy on Sprachbünde

With Trubetzkoy's colleague Jakobson things become a bit murkier. In one of his articles on the distribution of phonological features among the languages of Eurasia, he cited Trubetzkoy's observation on the presence of glottalized occlusives in the indigenous and non-Caucasian languages of the region, as evidence of an 'association des langues du Caucase' (Jakobson, 1962c). Although this sounds suspiciously like the Gallic equivalent of Sprachbund, at the beginning of his paper Jakobson translates Trubetzkoy's term as 'alliance de langues', defined as a group of languages 'possédant des ressemblances remarquables dans leur structure syntaxique, morphologique ou phonologique' (Jakobson, 1962c: 235; note the shift from Trubetzkoy's 'and' to Jakobson's 'or'!). In any event, the particular phonological features characterizing what Jakobson termed the 'Eurasian Sprachbund' [evrazijskij jazykovyj sojuz; (Jakobson, 1962a,b)] crosscut the Caucasus (separating Kartvelian, along with Armenian, Turkish and Indo-Iranian from the Northwest Caucasian languages), and as far as I know there is nothing else one could qualify as concrete support for the idea of a Caucasian Sprachbund to be found in the writings of Jakobson.

1.3. Others

Be that as it may, the idea of the Caucasus as a qualitatively distinct region remained fixed in the minds of linguists. Bloomfield (Bloomfield, 1933: §26.4) cites the Caucasus among a list of linguistic areas sharing phonological features. Masica (1976: 3–4), after defining linguistic areas as 'zones within which the processes of convergence are seen to operate with special strength and urgency', includes the Caucasus as an example, alongside the Balkans, India, the North American west coast, Ethiopia, etc. To be sure, for both of these linguists the notion of linguistic area is used more liberally than in Trubetzkoy's initial definition, to include areas in which the only shared features are phonological ones, but it strikes me as highly doubtful that a single common feature would have been sufficient to qualify a geographical region as a linguistic area (as can be surmised from an examination of the other examples they list, all of which share what Masica (1976: 5) calls 'isopleths', or bundles of features; note also that Sherzer (1973: 760) specifically defines a linguistic area as 'an area in which *several* linguistic traits are shared by the languages of the area').

2. The languages of the Caucasus

The Caucasus is home to over 50 languages, belonging to seven languages families: Indo-European (represented by Armenian, Russian, Ossetic, Tat, Talysh and Kurdish), Turkic (Azeri, Karachay-Balkar, Nogay, Kumyk), Mongolian (Kalmyk), Semitic (the Neo-Assyrian dialect Aisor); and the three indigenous families Abxaz-Adyghean or Northwest Caucasian [NWC], Nax-Daghestanian or Northeast Caucasian [NEC], and Kartvelian or South Caucasian [SC] (see lists in Catford, 1977; Hewitt, 1981). Despite numerous attempts, it has not yet been convincingly demonstrated that any two of these families, to say nothing of all three, are genetically related.

When it comes to the typology of NWC, NEC and SC, linguists who know these languages well find genuinely pan-Caucasian traits hard to come by. There is certainly nothing comparable to what can be described for the Balkans or other wellestablished Sprachbünde: no pan-Caucasian patterns of clause linkage, nominal categories (such as definiteness), or verbal categories.¹ When it comes to the overall structure of the phonological and morphological systems, the most the late Georgij Klimov (1965: 63) could discern was a vague west to east cline opposing the NWC group (50–80+ consonants, 2 or 3 vowels; head-marking, largely prefixal morphology; simple declension and complex conjugation) to its polar opposite NEC neighbors (30–50 consonants, 10–25+ vowels; dependent-marking, largely suffixal morphology; complex declension and relatively simply conjugation), with the SC family representing a sort of intermediate type between the two. Klimov did nonetheless distinguish five pan-Caucasian grammatical features:

- (a) a series of glottalized obstruents (minimally /p', t', k', c', č'/);
- (b) 'pharyngeal' (i.e. postvelar or uvular) consonants;
- (c) a preference for agglutinative morphology;
- (d) prefixes in the verb agreeing with both subject and object(s) of the clause;
- (e) ergative construction.

J.C. Catford, in his 1977 survey of the languages of the Caucasus, examined the distribution of 15 features, most of which are rare or nonexistent in the Indo-European languages. Of these, only three were found to be common to all Caucasian languages, and another two shared by a least a significant group of languages from each of the three indigenous families:

- (a) glottalized obstruents;
- (b) uvular consonants;
- (c) ergative construction;
- (d) 'harmonic complexes' of consonants [NWC, SC, Nax group of NEC]
- (e) directional preverbs [NWC, SC, Daghestanian group of NEC]

Just how area-specific are these features? Postvelar consonants, although rare in Indo-European, are by no means uncommon in other Eurasian language families, such as Turkic and Semitic (or Afro-Asiatic). Directional preverbs are found in many Indo-European languages – Greek, Italo-Celtic, Balto-Slavic – and they appear to be a fairly old grammatical category in that family. The term 'agglutinative' is

¹ The evidential, although known in all SC languages, in Abxaz-Abaza, and many NEC languages (e.g. Lak), is better described as a 'Circumpontic' (or Balkano-Caucasian) linguistic feature. It occurs in a swathe of languages stretching from the Balkans across Anatolia into the Caucasus (Friedman, 1988) but is unknown, for example, in Ubyx (Charachidzé, 1989), Kabardian and Circassian.

somewhat vague, since it embraces two morphophonemic characteristics: (a) number of morphemes per word, and (b) transparency of form-to-meaning mapping. Neither of these characteristics is especially uniform in the Caucasus. Compare, for example, the dozen or more morphemes that can crowd into an Abxaz or Kabardian verb to the far simpler conjugation of the Lezgi verb. As for morphophonemic transparency, there is wide variation even within single families (e.g. Svan compared to Georgian (Tuite, 1997)). Prefixal crossreferencing of two or more clausal arguments is an ancient feature of both the NWC and SC families (although the latter only permits one person-marking prefix at a time, with rare exceptions). It is not characteristic of the NEC family, though a few members of the Daghestanian branch (e.g. Tabasaran) have incorporated pronominal clitics into the verbal complex.

As Catford notes, the occurrence of similar constraints on consonant clusters in NWC, SC and the Nax branch of NEC 'is undoubtedly of some significance' for Caucasian typology. In these three language groups, so-called 'harmonic clusters', comprising two obstruents with homogenous initiation and phonation, and recessive articulation (in the typical case, the first consonant is labial or dental-alveolar, the second velar or uvular), are treated by the phonotactics as single consonants. These clusters therefore are more common than other CC pairings, or can appear in contexts where other clusters would be impossible (e.g. morpheme- or word-initially). Some examples are Georgian txa 'goat', t'q'e 'forest', pxa 'fish-bone'; Chechen txo 'we (exclusive)', t'q'a 'twenty', pxi? 'five'; Kabardian p'd'a 'four', bka 'nine', sha 'head'.² Such clusters are absent in the Daghestanian branch of NEC, which in general imposes severe restrictions on consonant sequences, especially word-initially. In view of the geographic contiguity of NWC, SC and Nax, what we may have here is a distinctly west-central-Caucasian feature: areally distributed, but not pan-Caucasian.

Glottalization, by contrast, appears to be a genuinely pan-Caucasian feature, just as Trubetzkoy noted over 60 years ago. Not only do all NWC, NEC and SC languages employ a phonologically-distinct series of glottalized obstruents, such consonants appear as well in many IE and Turkic languages which have been introduced into the Caucasus region in the past three millennia or so. Since this paper is not primarily about phonology, I will limit myself to a few observations concerning Caucasian glottalization. First of all, those languages which have acquired glottalized obstruents seem to have done so via two very different mechanisms, to judge by their distribution in the lexicon. On the one hand there are languages such as Ossetic (Abaev, 1958–1989; Benveniste, 1959: 39) and Karachay-Balkar (Menges, 1968: 176) into which glottalization (and sometimes other marked features, such as pharyngealization of vowels) has been introduced through loanwords from neighboring Caucasian languages.³ Interestingly, glottalized obstruents appear in some native

² The NWC languages allow a wider range of harmonic combinations than Nax or SC (Colarusso, 1992). Whereas in SC, there is little doubt concerning the ancientness of harmonic clusters (Klimov, 1964), in NWC they may have resulted from CVC groups which underwent loss of the intervening vowel and assimilation between the consonants (Colarusso, 1989).

³ I am grateful to Paul Fallon for calling this literature to my attention.

Iranian or Turkic lexemes in these languages, but there does not appear to be any ready explanation why they turn up in some words but not others.⁴ In the case of some Transcaucasian dialects of Armenian (e.g. the dialects spoken in and around Georgia), the distribution of glottalics is quite different. The entire series of simple voiceless obstruents, which go back to Indo-European /*b, *d, .../, are pronounced with glottalization (Fairbanks and Stevick, 1958) which leads one to wonder if a very different contact situation is responsible for this phenomenon. Whatever the cause might be in each instance, an examination of the occurrence of phonologically-relevant glottalization among the languages of the world (Ruhlen, 1976) gives one the distinct impression of a linguistic feature which spreads readily among the languages of a region. While some geographically-isolated cases of glottalization have been reported (e.g. the Austronesian language Yapese (Hsu, 1969), the New Guinea language Kapau (Oates and Oates, 1968), and Korean (Cho, 1967)), most languages with phonologically-relevant glottalization cluster in particular areas, usually including languages from several distinct families (e.g., the west coast of North America (Sapir, 1921: 213), Ethiopia, Mesoamerica).

And finally, there is ergativity, in Catford's words 'the most striking syntactical feature of Caucasian languages', one which 'has, for a century or more, aroused the interest of scholars and prompted suggestions of relationship with virtually any language that has an ergative construction' (Catford, 1977: 304, 311). I do not think it necessary to recount yet again the long story of these attempts, and the bizarre hypotheses of genetic relationship they have inspired. I will only quote an unintentionally revealing passage from the writings of one long-ranger of the past:

"One who is fortunate enough not to have had his judgment biased by too profound knowledge of this difficult matter sees more sharply the traits distinguishing those languages [the indigenous Caucasian languages – KT] from the surrounding areas: (1) the subject of the action is, in connection with different verbs (transitive/intransitive), or forms of verbs (e.g. present/aorist), marked by different forms of the noun; (2) a mark of the object of the transitive verb is included, 'incorporated', into the verbal form; (3) an ending, marking a case of a noun, is sometimes repeated at the end of the following noun – a kind of analepsis. One of these three characteristics found in a language arouses the suspicion of Caucasian relationship, influence or neighbourhood now or formerly; united, they are the proof of Caucasian identity ..." (Lewy, 1943: 80)

Two of the traits that so bedazzled Lewy made Klimov's list (ergativity and objectagreement).⁵ The third phenomenon, which he calls 'analepsis' and which more recently has received the name of 'Suffixaufnahme' (Boeder, 1995), is limited

⁴ E.g. Ossetic *k'annæg* 'little' < Iranian **kanya-ka* (Abaev, 1958–1989). One wonders if in this case, the glottalization of the initial consonant was originally expressive (as in Georgian expressive vocabulary, where the feature of glottalization is associated with smallness, higher pitch, less intensity (Holisky, 1981)). According to Gecadze (1980), at least some Kumyk-speaking communities are said to have acquired glottalized consonants because they were founded by Avars who had resettled there in earlier times.

⁵ Holmer, seeking, like Lewy, to link Basque to the Caucasus, and likewise basing his profile of the Caucasian language type principally on the testimony of Georgian, came up with a comparable list of shared features (Holmer, 1947).

within the Caucasus to the SC family (whence, perhaps, it had spread to Classical Armenian (Vogt, 1932)). What this citation from Lewy reveals is the degree to which 'exotic' linguistic features - from the standpoint of Standard Average European - were, and all-too often still are, labelled, bracketed and foregrounded in linguistic comparison. 'Ergativity' becomes a criterial feature which marks certain (rare, remote, exotic) languages, and which, from our SAE perspective, makes them in some important sense 'alike'. One is reminded of ethnographic descriptions from the pre-Boasian era, in which non-Western peoples were at one and the same time endowed with radical difference (relative to SAE cultures) and radical sameness (relative to each other: 'All X's look/think/behave alike'). Catford as well, though infinitely better informed about Caucasian languages than Lewy, confessed to receiving 'a strong impression of 'family likeness' running through all of them' (Catford, 1977: 308). My study of these languages, and the impressions I have gained from those who speak them, including linguists as well as non-experts, leads me to doubt that this Familienähnlichkeit is anything more than an artefact of the implicit standard (that is, SAE) against which Western linguists contrast the three Caucasian language families. The question I ask myself - and which, of course, I am incapable of definitively answering - goes more or less like this: from the standpoint of, let us say, Georgian, would Abxaz or Chechen – although spoken by nearby communities - be any less linguistically alien than Navajo or Tibetan?

In this paper I will examine the expression of ergativity in the languages of the Caucasus. I hope to demonstrate that the only common features shared by the morphosyntactic systems of the Abxaz-Adyghean, Nax-Daghestanian and Kartvelian families are reflections of typological universals characterizing the expression of ergativity in *all* languages, as outlined in the writings of Dixon, Silverstein, Blake and others. It is therefore extremely unlikely that the predominance of ergative alignment in the Caucasus results from the diffusion of morphosyntactic characteristics from some center of innovation to originally non-ergative neighbors. There is likewise no evidence that ergative alignment has spread to the non-Caucasian languages of the region.⁶

3. Ergativity and absolutivity in the Caucasus

While nearly all Caucasian languages can be described as ergative, i.e. as manifesting ergative/absolutive alignment in a significant portion of their morphosyntax, there are striking contrasts in the mechanisms used to mark grammatical relations. Northwest Caucasian (NWC) languages such as Abxaz have little or no case marking, relying instead on crossreferencing affixes in the verb (at the level of the

⁶ It had been suggested, e.g. by Meillet (1936: 95), that Caucasian – specifically SC – influence was responsible for the Classical Armenian split-ergative perfect construction of the type: *z-ayn nšan arareal êr nora* [DIROBJ-this miracle accomplished-PPL was of-him:GEN] 'he has performed this miracle'. Deters (1926–1927) and Benveniste (1966) have argued that it must represent an independent development in Armenian.

clause), or the head noun (within the NP). The polar opposite pattern characterizes many Northeast Caucasian (NEC) languages: grammatical relations are signalled by case marking, while verb-argument agreement is in most cases limited to gender⁷ concord with the absolutive NP. These two contrasting relation-marking patterns are discussed in detail in an important article by Nichols (Nichols, 1986) on 'head-marking' and 'dependent-marking' grammars. The idealized NWC and NEC patterns are shown in Table 1. In addition to Dixon's (1994) core categories 'S' (intransitive subject), 'A' (transitive subject), and 'O' (transitive object), I use 'D' to designate indirect object).

The third Caucasian language family presents special problems. The SC languages, setting aside the relatively recent changes undergone by Laz and Mingrelian, are characterized by a complicated correlation between the mechanisms of crossreference and case marking. Georgian and Svan, the more conservative members of the family in this respect, manifest a SPLIT ERGATIVE pattern along three of the four dimensions described by Dixon (1994: §4): lexical verb class, tense/aspect, and NP type. Furthermore, both patterns shown in Table 1 – head- and dependent-marking – are present in the SC languages, and a split between them appears to have been a feature of the protolanguage.

 Table 1

 Idealized morphosyntactic patterns for Northwest Caucasian and Northeast Caucasian

Northwest Caucasian (head-m	arking, erga	tive-absolu	tive, person/nu	nber agreement in verb)
Transitive construction	Ax	Ο _γ	D _z	Y-Z-X-VERB
Intransitive construction		Sy	Dz	Y-Z-VERB
Northeast Caucasian (depende	ent-marking,	ergative-al	bsolutive, gende	er agreement in verb [Y ^g])
Transitive construction	A _x -ERG	O _v -ABS	D _z -DAT	Y ^g -VERB
Intransitive construction		Sy-ABS	D ₂ -DAT	Y ^g -VERB

In the following sections the SC split system will be presented, following which the NWC and NEC data will be re-examined. It will be shown that despite the sharp differences in morphosyntactic structure among these families, certain splits in declension and alignment recur in all three; I believe these facts represent a universally-preferred covariance in typological properties, rather than some sort of areal effect. Following this, I will discuss the distribution of what I call *absolutivity* in the Caucasian languages, and its relevance to the typology of morphosyntax.

⁷ I follow Corbett in referring to the NEC noun categories as 'genders' rather than 'classes'. Most NEC languages have two human genders (male and female) and up to six non-human genders, with animals, trees and other semantic groups sometimes assigned a specific gender classification (Schulze, 1988; Corbett, 1991: 24–29; Schulze, 1992) The verbal affixes distinguish singular and plural for some or all genders.

3.1. The NP feature hierarchy

The splits to be described in this paper manifest, minimally, a distinction between the morphosyntactic properties of 1st/2nd- and 3rd-person NPs. In the hierarchy of NP-characterizing features established by Silverstein (1976, 1981), speech-act pronominals stand at one extreme, followed by the different classes of 3rd person pronouns. NPs which are not specified for membership in some sort of lexical category are at the opposite end of the hierarchy. The ranking is based upon the 'unavoidability and transparency of metapragmatic reference' (Silverstein, 1981: 241): 1st and 2nd person pronominals presuppose nothing more than the act of speaking as a condition for felicitous use.⁸ Anaphoric pronouns presuppose the speech context itself, and demonstratives presuppose the physical context in which the speech act takes place. Proper names, kin-terms, words referring to people, etc. presuppose a social matrix of some sort within which they have meaning. Table 2 shows the top end of the hierarchy.



The hierarchy of noun-phrase types



Evidence from a wide range of languages suggests that the Silverstein hierarchy can be manifest in a variety of components of the grammar, and is probably a universal structuring principle of language (Blake, 1994: 139–142). Besides case marking, phenomena reflecting the hierarchy include plurality marking in a variety of languages (Smith-Stark, 1974), and 'split locativity' in Old Georgian and Svan (Manning, 1994).

3.2. SC morphosyntax

In this section a reconstruction of Proto-SC agreement and case-marking patterns will be proposed. In most respects my reconstruction corresponds to those of Oniani (1978), Boeder (1979) and Harris (1985). I begin by examining the patterns of case marking and verb-argument agreement in Early Georgian, the oldest attested form of the Georgian language, and Svan, the most divergent – and in important respects, the

⁸ According to Silverstein (1976) there is no intrinsic reason for assigning a higher ranking to either the 1st or 2nd person, though in some languages (e.g. the Australian languages Bandjalang and Gumbayngir) splits in case-marking behavior distinguish between them.

most conservative – member of the SC family.⁹ The appearance of bewildering complexity often attributed to SC grammar is due in large part to the interaction of numerous lexical, morphological and semantic components.

One of the more baffling of such interactions, for beginning learners of Georgian at least (children seem to have far fewer problems with it (Imedadze and Tuite, 1992)) is the correlation among case assignment, agreement and verb class. SC common nouns are declined for a half-dozen or so primary cases, of which three will be of interest to us here: NOM(inative [absolutive]), ERG(ative), and DAT(ive). SC verbs take two sets of person-agreement markers, which will be referred to as Set S and Set O (Table 4). SC verb stems are divided into two primary classes, called Class A and Class P (these correspond roughly to 'active' and 'passive' stems). Note that many Class A verbs are intransitive: the case marking pattern in the aorist series is therefore what Dixon (1994: 70–72) terms 'split-S' (also known as 'split-intransitive' (Van Valin, 1990)). One of the formal criteria distinguishing the two classes is case assignment: Class A verbs alone assign ergative case in the aorist series.

In Table 3 are given the agreement and case assignment patterns for most classes of 3rd-person NPs in Early Georgian and Svan (the exceptions will be discussed below). Set O agreement correlates with dative case assignment, and Set S with the nominative or ergative. As is well known, the case-assignment patterns of the two Zan languages (not discussed in this paper) represent relatively recent innovations, leading to the elimination of split ergativity in Mingrelian and of case-shift in Laz. The phenomena to note are *case-shift* in the aorist series and *inversion* in the perfect series, both controlled by Class A verbs. The case-assignment pattern shifts from NOM-DAT in the present series to ERG-NOM in the aorist series (with no change in the alignment of the agreement markers). The inverted Class A perfect-series forms are historically stative/passive verbs with dative subjects.

SC case marking is the product of two distinct phenomena: CASE ASSIGNMENT, a property of the verb stem, and CASE AVAILABILITY, a property of the nominal. In all SC languages, 1st and 2nd person pronominals behave differently from 3rd person forms in this respect: they have no distinct nominative, ergative and dative forms, the root form being used in all three contexts. In addition, certain 3rd person nominals lack distinct nominative and ergative forms. The human-reference interrogative/relative pronoun *vin* 'who' in Georgian (Shanidze, 1973; \$141), the demonstrative pronoun *muk* in Laz (Chikobava, 1936: 73, 77), and proper names in Old Georgian (Imnaishvili, 1957: 365–368) appear in the same form in both nominative and ergative contexts, as shown in the Early Georgian example below (Mach'avariani, 1970; Boeder, 1979).¹⁰

⁹ Early Georgian, referred to as the *Xanmet'i* dialect in the specialized literature, is attested in inscriptions and manuscripts (mostly palimpsests) dated to the 5th-7th centuries AD.

¹⁰ The suffixes -n (vi-n) and -k (mu-k) mark the ergative case in other Georgian and Laz declensional paradigms. Indirect evidence indicates that proper names in an earlier stage of Svan were also characterized by a declension pattern in which nominative and ergative were not distinguished (Ch'umburidze, 1964; Mach'avariani, 1985).

	Class A verbs			Class P	verbs	
	A/S ^a	D	0	S°	D	
Present series						
Agreement	S	0	[O]	S	0	
Case	NOM	DAT	DAT	NOM	DAT	
Aorist series						
Agreement	S	0		S	0	
Case	ERG	DAT	NOM	NOM	DAT	
Perfect series						
Agreement	0		S	S	0	
Case	DAT		NOM	NOM	DAT	
A/Sª	agent, sourc	e, experien	icer			
S°	patient, age	nt, theme				
D	addressee, r	ecipient, ex	periencer, l	beneficiary		
0	patient, goa	l, theme, in	strument			

Table 3			
Agreement and case assignment patterns	for 3rd-person	NPs (Early G	eorgian and Svan)

D	addressee, recipient, experiencer, beneficiary
0	patient, goal, theme, instrument
present series:	present, imperfect, conjunctive, iterative, present-series imperative
aorist series:	aorist, optative/future, permansive, (aorist-series) imperative
perfect series:	present perfect, pluperfect, perfect conjunctive
Class A verbs:	all transitives; intransitives denoting (atelic) activities
Class P verbs:	stative and change-of-state intransitives

Table 4a

Person agreement affixes (Early Georgian and Svan)

	Early Georgian			Svan		
	Singular	Plural		Singular	Plural	
Set S ('subjec	t') affixes		· · · · · ·			
1st person	v -	vt	exclusive: inclusive:	χ w -	χwd ld	
2nd person 3rd person	χ- -s/a/o/n	χt -n/en/es/ed		χ- Ø-/Ι-	χd Ø-/Ιχ	
Set O ('object	t') affixes					
1st person exe 1st person inc	clusive lusive	m- gw-		m-	n- gw-	
2nd person		g-		Ž -		
3rd person		χ-		χ-	χχ	

			-
Paradigm group		3sg	3pl
A. Present/permansive PGZ: S _{3sg} *-s, S _{3pl} *-en Svan:	OGeo: Zan: -Ø	-s -s -χ	-en/an -an
B. Conjunctive PSC S _{3sg} *-s(?) PGZ S _{3pl} *-en	OGeo: Zan: Svan:	-S -S -S	-π -n -χ
C. Past indicative PSC S_{3sg} *-a(?) PGZ S_{3pl} *-es	OGeo: Zan: Svan:	-a/o -u -(a)?	-es -es -χ
D. Iterative/present PGZ: S _{3sg} *-n, S _{3pl} *-ed(?)	OGeo: Zan: Svan:	-n -n -Ø	- ed -nan -χ

Table 4b Cognate S_3 (Set S, 3rd person) suffixes in SC [PGZ = Proto-Georgian-Zan]

(1)	c'ar-i-q'wan-a	iesu-Ø	p'et're-Ø	da	iak'ob-Ø
	take:AOR:S3sg	Jesus-(ERG)	Peter-(NOM)	and	Jacob-(NOM)
	'Jesus took Peter	and James.'		[Mt 17:1 (Xanmet'i gospels)]

Table 5 Case availability for different NP types (SC)

Case assigned	1st/2nd pronouns	Proper names / vi-n 'who' / mu-k 'this'	Other 3rd person
NOM	ø	p'et're-Ø/ vi- n / mu-k	-Ø, -i
ERG	Ø	p'et're-Ø/ vi- n / mu-k	-m(a) / [Zan] -k
DAT	Ø	p'et're-s / vi-s/ mu-s	-s

The syntactic role of a 1st or 2nd person NP is indicated exclusively by agreement, with Set S marking the A, S^a and S^o, and Set O the D or O, except in the case of inversion (Class A verbs in the perfect series). The agreement pattern in the present and aorist series is therefore nominative/accusative, as shown in Table 6.

Table 6 Agreement patterns for 1st & 2nd-person NPs (Georgian and Svan)

Class A	verbs	_	Class 1	P verbs	DS		
A/S ^a	D	0	So	D			
S	0	[O] ^a	S	0			
S	0	[O]	S	0			
0		S	S	0			
	Class A A/S ^a S S O	Class A verbs A/S ^a D S O S O O	Class A verbs A/S ^a D O S O [O] ^a S O [O] O S	Class A verbsClass I A/S^a DOSO $[O]^a$ SO $[O]$ SO $[O]$ SSSOSSS	Class A verbsClass P verbs A/S^a D O S O $[O]^a$ S O $[O]^a$ S O $[O]$ S O $[O]$ S O $[O]$ S O S S O	Class A verbsClass P verbs A/S^a D O S O $[O]^a$ S O $[O]^a$ S O $[O]$ S O $[O]$ S O O $$ S S O $$ S S O $$	

^a The direct object (O) controls agreement if there is no D in the same clause, or - in some dialects - if the D has lower rank on a person hierarchy.

3.2.1. Proto-SC split morphosyntax

The morphosyntactic patterns given in the preceding tables are well attested in Georgian and Svan, and with some exceptions can be reconstructed for Proto-SC. One of the most challenging problems in SC historical morphology is the reconstruction of the original sets of person/number agreement markers.¹¹ While four pairs of S_{3sg} and S_{3pl} suffixes - coding tense, mood and aspect as well as person and number - can be established for Common Georgian-Zan, the ancestor of Georgian, Laz and Mingrelian, none of these morphemes, with two possible exceptions, are found in Svan (see Table 4 above). Several proposals have been advanced concerning the origins of S_3 marking. To summarize them briefly, either (a) portmanteau S_3 suffixes such as those of Georgian and Zan also existed in prehistoric Svan, but later were eliminated; (b) the Proto-SC S₃ marker was a prefix, giving prefixal agreement for all three persons in both Set S and Set O (an S₃ prefix does occur in four Svan verbs, but nowhere else in SC); (c) there was no S_3 marker at all, the ancestors of the contemporary S_{3sg} and S_{3pl} suffixes signalling only tense, aspect, or mood in Proto-SC.¹² It is the third of these hypotheses, adopted with modifications from Oniani (1978: 172-178) and Schmidt (1982), which I believe is the most reasonable, at least for an anterior stage of Proto-SC, and upon which the reconstruction of Set S and Set O markers shown in Table 7 is based.

 Table 7

 Reconstructed person/number agreement system for (early?) Proto-SC

	Set S					Set O	
lexcl lincl	*(χ)w-	<+sp, -ad, -pl>	*(χ)w- *l-	-t -t	<+sp, -ad, +pl> <+sp, +ad, (+pl)>	*m- *gw-	<+sp, -ad> <+sp, +ad>
2nd 3rd	*χ-	<-sp, +ad, -pl> *Ø <-sp,	*χ- -ad>	-t	<-sp, +ad, +pl>	*g- *x-	<-sp, +ad> <-sp, -ad>

[pl = plural; sp = speaker, ad = addressee]

The only 3rd-person arguments in Proto-SC which controlled agreement were those marked with dative case (correlated with the O₃ prefix $*\chi$ -). Neither nominative nor ergative-marked NPs controlled agreement in the verb. Insofar as the core grammatical relations are concerned, therefore, Proto-SC was characterized by two radically different morphosyntactic systems: a head-marking pattern for 1st and 2nd-person arguments, and a dependent-marking pattern for 3rd-person arguments, in which case marking, rather than agreement, signalled grammatical relations (Nichols, 1986).¹³ The Svan dialects come the closest to preserving this state of

¹¹ See Tuite (1992) and the references cited therein.

¹² Some Chechen dialects (Xildixaro and Maist'i) have undergone a similar reorganization of what were earlier distinct tense markers to distinguish 1st/2nd vs. 3rd person subjects in the present and imperfect (Imnaishvili, 1968).

¹³ Historical studies of SC case marking (Klimov, 1962; Mach'avariani, 1970; Harris, 1985; Mach'avariani, 1985) reconstruct a Proto-SC case inventory with fundamentally the same core cases as those of Old Georgian or Svan: in particular, one can reconstruct distinct nominative (or absolutive), ergative and dative cases for Proto-SC, and, for 3rd-person demonstratives, distinct rectus [absolutive] and oblique [ergative/dative/genitive] stems.

affairs, in that there is no overt S_{3sg} marker in most verbal paradigms. Here are some examples from the Upper Bal dialect:

(1)	Head-marking of 1st and 2nd person	arguments (relat	ions marked on verb)
	A O	A O	
	sgæj _x næj _z a- n _z -t'iχ-d _x	$næj_z sgæj_x a-\check{\mathbf{y}}_x$ -	t'iχ -d z
	you _{pl} we return: $S_{2pl}: O_{lexcl}: AOR$	we you _{pl} retur	n:S _{1pl} :O ₂ :AOR
	'you returned us'	'we returned you	1'
(3)	Dependent-marking of 3rd person ar	guments (relatior	ns marked on NPs)
	A O	A	0
	ma:r- ad , zura:l- \emptyset_z a-t'i χ	zura:1- d x	ma:r-e _z
	man-ERG woman-NOM return: AO	R woman- ÊRG	man-NOM
		a-t'iχ	
		return: AOR	
	'the man returned the woman'	'the woman r	eturned the man'

Should the special declensional properties of proper names and *vin*-type pronominals date back to Proto-SC, as proposed by Mach'avariani (1985), we would have, in effect, *three* different patterns: head-marking, dependent-marking, and neutral. Since the present-series paradigms of transitive verbs were synchronically intransitive at this time (through antipassivization), and atelic activity verbs did not appear in the aorist series, the interaction of the various patterns enumerated above results in two sharply distinct grammatical subsystems: a head-marked nominativeaccusative alignment for the personal pronouns, and a dependent-marked ergativeabsolutive alignment for most (perhaps all) 3rd-person NPs (Table 8).¹⁴

Table 8

Reconstructed morphosyntactic patterns for Proto-SC

Ist/2nd (head-marking, non	inative-accus	ative)			
Transitive construction	A _x	O _z	D _v	Y/Z-VERB-X ^a	
Intransitive construction	S _x		$\mathbf{D}_{\mathbf{y}}$	Y-verb-X	
Proper names; vin-type pro	onouns (neutra	al marking)			
Transitive construction	Ax	O, Č	D _v -DAT	Y-verb	
Intransitive construction	S _x		D _y -DAT	Y-verb	
Other 3rd-person nominals	(dependent-m	arking, ergati	ve-absolutive)		
Transitive construction	A _x -ERG	O ₇ -NOM	D _v -DAT	Y-verb	
Intransitive construction		S _z -NOM	D _y -DAT	Y-verb	

^a Whichever of D and O is 1st or 2nd person will control Set O agreement; should they *both* be, evidence from Old Georgian and the modern languages implies that a hierarchy of either person (1st > 2nd) or grammatical role (D > O) resolved the competition for the Set O agreement slot (Boeder, 1968; Harris, 1981; Harris, 1985: 261–262).

¹⁴ The alignments refer to the marking of SECONDARY ROLES (S, A, O), and not semantic subject and direct object. The category of grammatical subject is not particularly prominent in SC syntax, and the large number of indirect and inverse constructions add to the complexity of the correlation between subject and secondary role (Tuite, 1987; Tuite, 1988, and references listed there).

According to Silverstein, accusative marking extends rightward from the left end of the NP hierarchy, while ergative marking spreads leftward from the right (or upward from the bottom, if one prefers to orient the hierarchy vertically). The distribution of case alignments shown in Table 8 is consistent with the NP hierarchy, though in most instances the ranges of the ergative and accusative meet or overlap. This does not happen in Proto-SC, where a gap of neither ergative nor accusative marking, i.e. neutral alignment, coincides with proper names and *vin*-type pronominals, those 3rd-person NP types specifically referring to humans. Neither Silverstein (1976) nor Dixon (1994) cite examples of what would be called a '2–1–2 system', but they do not rule it out as impossible.

Table 9

Distribution of ergative and accusative marking in Proto-SC

[Accusative	[(Neutral marking)					
1st & 2nd Person	Proper	Human interrog./	[<i>Ergative</i> Other	<i>marking</i> Animate	Other	
Pronouns	names	relative pronoun	pronouns	beings	nominals	

3.3. Split relation-marking in the Caucasus

We turn once again to the relation-marking systems of the other indigenous Caucasian language families, Abxaz-Adyghean (Northwest Caucasian) and Nax-Daghestanian (Northeast Caucasian). Languages in these families also manifest 1st/2nd vs. 3rd-person splits, disrupting somewhat the idealized patterns given in Table 1. The splits manifest certain similarities in patterning, which however could be as much due to language universals as to historical contacts among the three families (although one shared feature may in fact be areal, as will be discussed below).

3.3.1. Case availability for 1st and 2nd person pronouns

As was mentioned at the outset, the three NWC branches (Abxaz-Abazan, Ubyx, Circassian) have radical head-marking grammars: the verb crossreferences up to four arguments, and case-marking is either absent or weakly developed. In those languages where a simple absolutive/oblique case opposition has evolved (Ubyx, Circassian), it has been limited to 3rd-person forms, including pronominals; as in SC, 1st and 2nd person pronouns are not declined. Unlike SC, this difference in case availability does not interact with verbal morphology to bring about a shift in alignment; both verb agreement and case marking are consistently ergative-absolutive in NWC. The shift is between simple head-marking for 1st/2nd person NPs, and double marking (head- and dependent-) in the 3rd person.

In many NEC languages as well – most notably in the Andian, Tsezian and Lezgian branches – 1st and 2nd person pronouns do not have distinct absolutive and ergative case forms. This case-availability pattern is still found for all or some 1st and 2nd person pronouns in Godoberi and some Andi dialects; Tsez, Hinux, Bezhta and Hunzib; Lak; Tabasaran, Aghul, Tsaxur, Kryts, Budux and Udi; Botlix, Archi

		1	7

	Avar-Andian branch		Tsezian branch		Lezgian branch			
	Godoberi	Tindi	Bagvalal	Tsez	Xwarshi	Tsaxur	Budux	Udi
Absolutive	min	me	me:	mi	mo	к п	vən	un
Ergative	min	mi	men	mi	me	к п	vən	un
Genitive	du-B	du-B	du-B	deb-i	dub-o	јәвпа	vɛn	vi
Dative	du-4i	du-j	du-la	deb-er	dub-uli	vas	væz	va(x
Affective	du-ra	du-ba	du-ba			vak'le		

Table 10 Second-person singular pronouns in some Daghestanian languages ['B' = gender marker]

and Xinalug (Table 10). In the most thorough examination to date of the case marking of NEC pronouns, Schulze (in pres, a,b) argues that in at least three of the NEC subgroups (Nax, Andian and Lezgian) absolutive-ergative syncretism in personal pronouns represents an innovation, and that in Proto-Nax, Proto-Andian and Proto-Lezgian the 1st- and 2nd-person pronouns – at least in the singular – employed an ergative marker different from that used by 3rd-person nominals. Let us suppose that this situation obtained in Proto-NEC as well. Although none of the Caucasian languages presents a classical Australian-type split ergative pattern, with a nominativeaccusative declension for NP types at the left end of the hierarchy, and ergativeabsolutive for common nouns and the like, there is, in all three Caucasian families, a *decreasing availability* (or increasing neutralization) of case distinctions as one moves leftward on the hierarchy. Furthermore, NWC and NEC, although starting from polar-opposite ends of the declensional spectrum, appear to be evolving toward the type of 1st/2nd- vs. 3rd-person split in case-availability that has characterized the SC family for millennia (Table 11).

Table 11

Evolution of person-based split in case-availability [absolutive-ergative syncretism]

	Northwest Caucasian	South Caucasian	Northeast Caucasian
1st/2nd-person pronouns	$ \overset{\emptyset}{\varnothing} \Rightarrow ABS \sim ERG $	Ø	$\emptyset \leftarrow ABS \sim ERG$
3rd-person pronouns + nouns		ABS ~ ERG	ABS ~ ERG

Could this be yet one more example of the 'intermediate' position of SC between the extremes represented by (idealized) NWC and NEC? [Cp. the remarks of Klimov mentioned earlier]. More significantly, could we have here a genuine case of contact-induced convergence in morphology, affecting all three indigenous Caucasian families? If so, then perhaps the Caucasus *is* a Sprachbund, after all. The diffusion analysis must overcome certain serious obstacles, however. First of all, NWC case marking has evolved in Ubyx and Circassian, the branches of the family which show relatively little evidence of SC influence, and not in Abxaz-Abaza, where evidence of contact with SC languages is readily apparent in the form of loanwords (Lomtatidze, 1976: 47–48, 51, 60, 158). This is, of course, the opposite of what the diffusion scenario would predict. Secondly, the history of NEC pronominal declension is not all that clear-cut, as Schulze (in press, a) himself admits. In several Daghestanian languages that have distinct pronominal ergatives (e.g. Axvax, Tindi, Bagvalal [Andian group], Xwarshi [Tsezian] and Dargwa), evidence from stem suppletion patterns in the declension of certain pronouns (especially the 2sg.), supported by syncretism observed in sister languages, indicates that a distinct ergative form was derived through the addition of a suffix to an earlier syncretic absolutive-ergative stem. It appears, therefore, that even as some NEC languages are losing a distinct pronominal ergative case, others that lacked one are acquiring it. Thirdly, NEC pronominal case syncretism only involves the absolutive and ergative. As has been noted in the literature (Silverstein, 1976; Blake, 1994: 123-124), the availability of a distinctly ergative case decreases at the left end of the hierarchy, and the NEC phenomena are consistent with this principle. In the SC and NWC languages, however, a distinct dative case (or oblique case, in NWC) is likewise unavailable for 1st and 2nd person pronouns, the bare stem being used in nominative/absolutive, ergative and dative contexts. This requires further examination. One would be hard-pressed to claim a universal tendency to reduce overall case availability to the left of the Silverstein hierarchy: the very opposite pattern is observed in many European languages, French and English, for example, where personal pronouns retain case oppositions no longer found in the declension of common nouns. It may be that the Caucasian case-availability reduction phenomenon - at least in the western Caucasus - is a genuine areal feature, rather than a straightforward reflection of typological universals, but more comparative work on the typology of pronominal declension is needed before such an assertion can be made with confidence.

3.3.2. Head/dependent and alignment splits

In NWC, in addition to the radical head-marking for 1st and 2nd person core NPs, there is a hint of a shift toward more dependent-marking alignment in constructions with 3rd-person core NPs: absolutive-case NPs directly preceding the verb in Abxaz, Abaza and Ubyx do not control agreement under certain circumstances (Table 12).¹⁵

Table 12 Split morphosyntactic patterns in Ubyx (only transitive construction shown)						
1st/2nd person (head-mark	ing, ergativ	e-absolutiv	e)			
Transitive construction	A _x	D_z	O _y	Y-Z-X-VERB		
3rd person (double marking	g, ergative-	absolutive,	occasional	non-agreement with abs NP)		
Transitive construction	A _x -OB	L D _z -OB	L O _y -AB	S (Y)-Z-X-VERB		

As Nichols (1986) noted, the relation-marking systems of NEC languages are almost the polar opposite of those in NWC: these are dependent-marking languages, with well-developed case marking and agreement limited, in many of the NEC lan-

¹⁵ In Abxaz, and optionally in Abaza, agreement is cancelled if the absolutive NP has non-human reference (Hewitt, 1989: 56; Lomtatidze and Klychev, 1989: 113), optional omission of 3rd absolutive agreement has also been noted in Ubyx (Charachidzé, 1989: 394–396).

guages, to gender concord with the absolutive NP. Some languages in this family have abandoned verb-argument agreement altogether (e.g. Lezgi), while others have innovated in the opposite direction, with the innovation of person agreement markers crossreferencing the semantic subject (e.g. Axvax [1st person only], Udi). An interesting case is represented by the Tabasaran dialects, which have also evolved a person-agreement system in the verbal morphology. These subject and object agreement markers, evidently developed from clitic pronouns, are associated with the 1st and 2nd persons only; there are no such markers for 3rd-person arguments. In the northern dialects, the agreement alignment is nominative-accusative;¹⁶ the southern Tabasaran dialects employ two sets of 1st and 2nd person clitics to distinguish A and O in transitive constructions, and controller vs. non-controller subjects of intransitives (i.e. a fluid-S marking system (Magomedov, 1965; Xanmagomedov, 1970)). In conjunction with the unavailability of an absolutive/ergative case distinction in the 1st and 2nd person, and the decline (especially in the southern dialects) of gender concord between the verb and the absolutive NP, this new agreement morphology has given rise to a split head- and dependent-marking system in Tabasaran similar to that reconstructed for Proto-SC (cp. Tables 8 and 13, below). The Nax language Tsova-Tush (Batsbi) has also evolved a fluid-S marking system, likewise restricted to the 1st and 2nd persons (Holisky, 1987). Grammatical roles are doubly marked, by both case inflection (unlike Tabasaran, Nax personal pronouns have distinct ergative cases) and clitic pronouns suffixed to the verb. 3rd-person arguments, as in Tabasaran, show a strictly dependent-marked ergative-absolutive alignment, except for gender concord in the verb with the absolutive NP. One would suppose that the Tabasaran and Tsova-Tush fluid-S patterns evolved independently of each other.¹⁷ The question thus arises whether the 1st/2nd vs. 3rd person split in both languages is a simple coincidence, or yet another manifestation of the Silverstein hierarchy. If the latter is the case, then fluid-S marking, like accusative marking, is associated with nominals to the left end of the hierarchy.¹⁸

¹⁶ In addition to S and A, the 'nominative' clitics in northern Tabasaran mark a 1st or 2nd person O when the A is 3rd person (i.e. incapable of controlling person agreement); the 'accusative' clitics only appear in verbs which already have a nominative clitic (Harris, 1994). The clitics are also sensitive to focus, according to W. Schulze (pers. comm.).

¹⁷ The same may be also true of Tsova-Tush vis-à-vis SC, despite the heavy influence of Georgian on the Tsova-Tush lexicon and grammar. First of all, Georgian has split-S, not fluid-S, patterning in the aorist series: the case marking is determined by the lexical class of the verb, and cannot be modified according to the speaker's assessment of control or volitionality. Secondly, and more importantly, SC split-S marking is limited to 3rd-person NPs, while Tsova-Tush fluid-S marking occurs in the 1st and 2nd, but *not* the 3rd, person.

¹⁸ In the modern SC languages, as mentioned in the previous footnote, split-S marking is limited to 3rd-person NPs, while 1st and 2nd person arguments control nominative/accusative agreement. This fact, in conjunction with the Tabasaran and Tsova-Tush data, might imply that the extension of transitive-subject [A] marking to intransitive subjects [S] increases the further left one goes on the Silverstein hierarchy: A+S^a::O [nominative/accusative] < A+S^a::S^o+O [fluid- or split-S] < A::S^o+O [ergative/ absolutive].

Transitive construction:	A _x	O _v	(Y ^g)-VERB-X-Y
Intransitive (northern dialect)	S _x	,	(X ^g)-VERB-X
Intransitive (southern dialect)	S^{a}_{x}		(X^g) -VERB- X
		S°y	(Y ^g)-VERB-Y
3rd person (dependent-marking,	ergative-abso	lutive, gen	der agreement with abs NP)
Transitive construction	A _x -ERG	O _v -ABS	(Y ^g)-VERB
Intronsitive construction	-	S'ARC	(VR)-VEDD

Table 13 Morphosyntactic patterns in Tabasaran. $(Y^{*}) = gender agreement with absolutive NP$

3.4. The morphosyntax of absolutivity in the Caucasian languages

I will use the term 'absolutivity' to mean the unitary morphosyntactic treatment of S and O. The similar treatment of S and O in the Caucasian languages reflects two interconnected typological tendencies linked to absolutivity, in particular: (1) the verb stem is more likely to reflect inherent semantic features of the argument in the absolutive (S or O) than the ergative (A) role; (2) verbal marking correlated with inherent argument features (i.e. selectional restrictions) is different in several respects from agreement in the strict sense.

3.4.1. Selectional restrictions and absolutivity

It has been noted in the typological literature that 'the absolutive is the relation most intimately connected to the verb' (Blake, 1994: 137). One reflection of this special relation is that the verb stem will impose selectional restrictions upon its S or O argument which are far more specific than those ever imposed on the semantic characteristics of the transitive subject (Moravcsik, 1978; Keenan, 1984). To cite one of Keenan's examples, verbs in whatever language meaning 'spill_{tr}' and 'spill_{intr}' will impose on their O and S, respectively, very specific selectional restrictions (i.e. that they must refer to liquid or granular substances), while the A argument of 'spill_{tr}' would be at most required to be animate, or capable of exercising control over the action of spilling. One generally handles a long thin pole differently from a ball or a quantity of wet mud; multiple objects differently from single ones; living beings differently from inanimate things, etc. The grammatical reflection of these prototypical object-manipulation scenarios is a tendency toward absolutive alignment of the verbal morphology marking those characteristics of a core argument – numerosity,¹⁹ animacy, shape, etc. – which tend to influence the manifestation of an event or state (Bossong, 1984; Talmy, 1985: 126-133). Examples include the sig-

¹⁹ Numerosity – the term has been adopted from (Talmy, 1985) – denotes plurality of action or state in the large sense: multiple participants, iterativity, collective or distributive action, etc. Number refers specifically to verbal marking of plurality as associated with the category of person. It is often restricted to the 1st and 2nd persons, for which the sense of plurality is in most circumstances different from that associated with 3rd person arguments (e.g. 'we' = 'I and those associated with me', and generally not 'multiple I's').

nalling of the shape class of the absolutive NP in Athabascan verbal morphology and stem selection, and the marking of verbal plurality, correlated with the numerosity of the S or O argument in various languages (Mithun, 1988).

3.4.2. Agreement vs. absolutivity

The three Caucasian families provide evidence of the principles noted above. Absolutive arguments in NWC, NEC and SC are specifically associated with gender and numerosity morphology; conversely, absolutives in these languages are less likely than nominatives [S+A], ergatives [A] or datives [D] to control person/number agreement. Crosslinguistically, agreement morphology,²⁰ usually marking person and number (as opposed to numerosity), can manifest different alignments - nominative, ergative, split- or fluid-S - (Nichols, 1993), while specifically disfavoring absolutive patterning (i.e. marking of the S and O, but not the A; ergative agreement patterns tend overwhelmingly to mark S/O and A) (Croft, 1990: 267). One reason for this sharp difference between selectional restrictions, which favor absolutivity, and agreement, which disfavors it, is that true agreement requires a certain *distance* between the verb and the argument in question. The classes of nominals most likely to be incorporated into the verbal complex (3rd person O or S, NPs having indefinite or generic reference (Mithun, 1984; Croft, 1990: 127–129)) are also the least likely to control true agreement, whereas those core argument types most resistant to nounincorporation are more likely to control agreement (1st and 2nd persons, definite reference, transitive subject) [cp. the discussion of the NEC absolutive as 'Fernattribut' in Schulze, 1988]. The 3rd person is thus more susceptible than the 1st and 2nd persons, and the absolutive NP more susceptible than the nominative, to be excluded from true agreement systems once these are grammaticalized into set paradigms. Coupled with the preference for ergative case marking at the low end of the Silverstein hierarchy, the tendency toward dependent-marked ergative-absolutive alignment for 3rd-person NPs, which we have noted in all three Caucasian families, is likely to be a more widespread phenomenon, indeed, a typological universal. The contrasting characteristics of selectional-restriction and agreement morphosyntax are shown in Table 14, and some phenomena manifesting absolutivity in the three Caucasian language families are shown in Table 15.

²⁰ Nichols defines agreement as 'coincidence in grammatical categories, features, or feature values on two different words in a sentence, where one word has the category or feature for a principled reason and the other merely acquires it from the first' (Nichols, 1985). Agreement is thus a fundamentally *asymmetric* marking phenomenon, whereas verbal marking of selectional restrictions such as shape or animacy is a symmetric coincidence of compatible semantic features.

		Coding of selectional restrictions on argument properties	True agreement
(a)	Features coded in verb	Sex/animacy, shape, numerosity, etc.	Person, number, gender
(b)	Source of fea- tures	Absolutive argument (S, O)	Any core grammatical relation can be coded; nominative, ergative or active- stative patterning possible (nominative pattern predominates)
(c)	Type of features coded	Referential (rather than formal) characteristics	Can reflect purely formal as well as referential characteristics
(d)	Interaction of marking with other categories	Marking always possible regardless of person, gender, animacy, etc. of NP referring to relevant participants	May not be possible in some person(s), gender(s), etc., or for NPs with inani- mate reference
(e)	Type and position of marker in verb	Close to verbal root, or even <i>within</i> verbal root (stem suppletion, reduplication, ablaut)	Segmentable morpheme, portman-teau morpheme, generally towards begin- ning or end of verbal complex

Table 14				
Prototypical	characteristics of	selectional-restriction	marking and	agreement

Table 15

Morphosyntax of absolutives (S + O) in Caucasian languages.

	Northwest Caucasian	South Caucasian	Northeast Caucasian	
Absolutive associated with gender and numerosity	(1) verbal plurality	(2) number agreement [Geo., Svan]	(3) gender and numbe agreement(4) verbal plurality	
Absolutive disfavored by person/number agreement	(5) contextual omission of 3rd person absolutive prefix	(6) no agrmt with 3rd p. absolutive [Proto-SC](7) slot competition disfavors direct object	(8) person/number agreement always nom/acc or fluid-S	

(1) Some Abxaz and Abaza verb stems can undergo reduplication to indicate intensification of the action, including plurality of the direct object (Hewitt, 1989a: 52; Lomtatidze and Klychev, 1989: 104).

(2) Old Georgian and some modern Georgian and Svan dialects employ a verbal suffix [Georgian -(e)n-, Svan $-\alpha l$ -] to mark the plurality of an absolutive (S+O) argument in some forms (Tuite, 1992).²¹

(3) Most NEC languages have verb agreement in gender and number with the absolutive NP.²²

²¹ Although the suffix [-(e)n-] has the properties of a number-agreement marker in the Old Georgian verb, various clues (e.g. position close to the verb root, association with habitual/continuative Aktion-sart), indicate that it was originally a verbal plurality morpheme correlated with the numerosity of the absolutive argument (Tuite, 1992).

²² While some languages in this family do not retain productive gender agreement, most do, and in all such cases agreement is with the NP assigned absolutive case. Various scenarios have been put forward

(4) In the Nax languages of NEC, the roots of several verbs change form according to the number of the absolutive argument (Dešeriev, 1967).

(5) See footnote 15 above.

(6) In Proto-SC, only 3rd-person NPs assigned dative case controlled person agreement (Tables 7, 8).

(7) In Modern Georgian, slot-competition protocols favor indirect objects (D) over direct objects (O). In certain dialects, 1st and 2nd person direct objects are replaced by 3rd-person paraphrases ('tavization'; Harris 1981) when an indirect object is present; these paraphrases, like other 3rd-person direct objects, do not control person agreement in most Georgian dialects.

(8) In those NEC languages where person-agreement morphology evolved, the alignment is either nominative/accusative (Axvax, Dargin, Udi, N. Tabasaran) or fluid-S (S. Tabasaran, Tsova-Tush).²³

4. Caucasian 'mini-Sprachbünde'

The object of the preceding discussion has been to demonstrate, first of all, that ergativity is expressed in radically different ways in the three indigenous Caucasian families, and, second, that whatever features they have in common are most likely due to typological universals linked to absolutivity, case-availability and Silverstein's hierarchy. Whereas the pan-Caucasian distribution of glottalization is doubtless due to local diffusion, the (nearly) pan-Caucasian distribution of ergativity must have some other explanation, one that may go far back into the past, and which must be explored separately in each Caucasus together as a linguistic area save a single phonetic feature (glottalization), and the general impression we outsiders have that it is somehow exotic and different.²⁴

to account for the evolution of gender classification in NEC and its reflection in verbal morphology (e.g. Nichols, 1989; Schulze, 1992). While they propose quite different origins for the non-human genders, both authors agree that classification according to sex and animacy is ancient in the family. NEC gender marking has its roots, I believe, in the marking of selectional restrictions for animacy, sex and perhaps numerosity, retaining its absolutive patterning despite subsequent grammaticalization as an agreement phenomenon. Note that the two Caucasian agreement phenomena with absolutive patterning – SC number agreement [see previous footnote] and NEC gender agreement – mark formal categories which are grounded in features attributed to referents, whereas person represents a category grounded in the pragmatics of the speech event. Cp. the observation that 'in all of the languages in which the verb agrees with the absolutive only, the verbal agreement pattern is based on gender/number, not on person' (Croft, 1990: 267).

²³ The situation in Lak is somewhat of an exception. Suffixes of uncertain origin distinguish 1st/2nd vs. 3rd person (and 1st/2nd singular vs. plural in some tenses). The suffixes agree with the absolutive certain contexts, with the nominative in others, depending on person (1/2 > 3), aspect (durative verb forms tend toward nominativity) and mood (the so-called 'assertive' forms show consistant absolutive agreement). I thank Wolfgang Schulze for calling my attention to the detailed discussion of Lak person agreement in Book 2 of his forthcoming monumental study of NEC morphosyntax (Schulze, in press-b).

²⁴ After the oral presentation of this paper, I received Vol. I of W. Schulze's new monograph on NEC linguistics, in which he expresses similar reservations concerning 'die zwei Standardmerkmale *glottale*

If the Caucasus isn't a Sprachbund, then what is it? It is most certainly a zone marked by intensive and long-standing contacts both within the region and with adjoining parts of Eurasia. Since at least the Bronze Age the Caucasus has been linked to important regional trade routes, as indicated by early loanwords from Indo-European and Near Eastern languages (Ivanov, 1977; Gamkrelidze and Ivanov, 1984: 877-880; Klimov, 1986; Starostin, 1986; Klimov, 1994; Nichols, 1997). Contact with early Indo-European-speaking communities appears to have been particularly intense (Hamp, 1989; 210). According to ethnographic descriptions collected over the past century and a half, communities on both sides of the Caucasus were until very recently tied together by an extensive network of relationships. Fictive kinship ties played an especially prominent role, either in the form of brotherhood sworn between two individuals from different regions, or in the form of actual adoption ('milk siblinghood'), in which parents would send one of their children to be nursed by a woman from a different ethnic group. The child would spend several years with his host family, work for them, learn their language and customs, and regard them ever after as tantamount to blood relations. These fictive-kinship ties ensured the constant mobility of people, goods and ideas regardless of local conditions, since in all parts of the Caucasus the host took absolute responsibility for the safety and well-being of a visiting guest. Not surprisingly, the degree of bi- and multi-lingualism was quite high, especially in communities close to inter-ethnic frontiers. The sociologist N. Volkova (Volkova, 1978) described a number of contact zones along the frontier between the North and South Caucasus, characterized by bilingualism on the part of at least one of the contacting communities (e.g. the Georgian-Chechen border area, where until recently many men from the Georgian province of Xevsureti knew Chechen). As one would expect of a region marked by long-standing and active interchange, the ethnographic record reveals numerous similarities in traditional religion and beliefs, customary law, sex roles, material culture, etc. (Luzbetak, 1951; Kosven et al., 1960; Friedrich and Diamond, 1994).

For all of that, there is no region-wide sharing of multiple linguistic features such as that observed in the Balkans, India, and so forth. Why the Caucasus has retained such a high level of typological and genetic diversity, despite millennia of internal and external contact, is a question that demands further study. It is doubtless the case, as Nichols (1992: 13–24) argues, that mountainous regions such as the Caucasus tend to attract and maintain a considerably higher degree of linguistic diversity than neighboring 'spread zones', such as the Eurasian steppes. It is also the case that, whereas the Caucasus as a whole does not represent a Sprachbund, one can discern several 'mini-Sprachbünde' within the region.

Abxazia, for example, has been the scene of a long-standing exchange of linguistic features and vocabulary between the NWC language Abxaz and the SC Zan lan-

Konsonanten und Ergativkonstruktion, mit deren Hilfe bisweilen gar ein "kaukasischer Sprachbund" postuliert wird. Da *realiter* die Ergativkonstruktionen in den kaukasischen Sprachen erheblich voneinander abweichen, sollte dieses Kriterium nur mit großer Zurückhaltung verwendet werden, womit nur noch die Glottoklusion übrig bleibt. Doch aus lediglich *einem* Merkmal ein linguistisches Areal zu konstruieren, scheint mir äußerst problematisch' (Schulze, in press-a).

guages (especially Mingrelian). Each language has borrowed numerous lexemes from the other (Lomtatidze, 1976; Tuite and Schulze, 1998). In addition to other signs of convergence in morphology (e.g. Hewitt, 1988), the Mingrelian system of directional preverbs has evolved the capacity to reflect orientational meanings in a manner highly reminiscent of NWC, and otherwise unknown in SC, e.g.:

(verb root -r- 'be, stand'): xalxi-s <u>mi+ša</u>-r-e 'X is (standing) among the people'; t'q'a-s <u>mi+to</u>-r-e 'X is (standing) out front in the yard'; ?ude-s <u>g+i+to</u>-r-e 'X is (standing) below the house'; lagvan-s <u>i+no</u>-r-e 'X is inside a wine-storage jar'; gvala-s <u>gi+ma</u>-r-e 'X is (standing) on the mountain'; $\underline{z}a$ -s <u>mu+k'o</u>-r-en-a 'they are standing around the tree.' (Hewitt, 1992)

The contact zone between the NEC Nax languages (Chechen, Ingush and Batsbi) and the eastern highland Georgian dialects is marked by not only lexical borrowings but also similarities in accentuation leading to loss of final segments in, for example, the Xevsur and Tushetian dialects of Georgian, and the Kist' dialects of Chechen (Uturgaidze, 1966). The reorganization of the verbal morphology to mark the category of person has occurred, although using very different means, in the highland Chechen dialects and in Batsbi, possibly under Georgian influence (Imnaishvili, 1968).

Scholars working on the Daghestanian languages have frequently remarked on the difficulty of grouping some of them into neat, hierarchically-organized family trees. With regard to the NEC language Xinalug, spoken by a small community on the southern edge of Lezgian territory in northern Azerbaijan, Schulze (Schulze, 1997) notes that the marginal character of this language, 'far away from the Lezgian prototype', may be due to the fact that it 'was not Lezgian in ancient times but was 'lezgified' later on in the Shah-Dagh' (see Schulze, in press, b for a detailed analysis of Daghestan as a linguistic area). No doubt as our acquaintance with these fascinating, still understudied languages increases, we will be able to discern other contact zones, some of them very ancient in the Caucasus region. Perhaps the proposal made here, that the Caucasus is not, and seems never to have been, a Sprachbund in Trubetzkoy's sense of the word, will be proven wrong as we become progressively able to look deeper into the pasts of the three Caucasian language families and their neighbors. With all due respect to the memory of Prof. Lewy, we can never have 'a too profound knowledge of th[e] difficult matter' of Caucasian linguistics; indeed, we are still far away from even an adequate knowledge.

References

- Abaev, V.I., 1958–1989. Istoriko-etimologičeskij slovar' osetinskogo jazyka. Moscow: Akademia nauk SSSR.
- Aikhenvald, A.Y., 1996. Areal diffusion in Northwest Amazonia: The case of Tariana. Anthropological Linguistics 38 (1), 73–116.
- Benveniste, É., 1959. Études sur la langue ossète. Paris: Klincksieck.
- Benveniste, É., 1966. La construction passive du parfait transitif. In: Problèmes de linguistique générale, 176–186. Paris: Gallimard.

- Blake, B.J., 1994. Case. Cambridge: Cambridge University Press.
- Bloomfield, L., 1933. Language. New York: Holt.
- Boeder, W., 1968. Über die Versionen des georgischen Verbs. Folia Linguistica 2, 82-151.
- Boeder, W., 1979. Ergative syntax and morphology in language change: The South Caucasian languages. In: F. Plank (ed.), Ergativity: Towards a theory of grammatical relations, 435–480. Orlando: Academic Press.
- Boeder, W., 1995. Suffixaufnahme in Kartvelian. In: F. Plank (ed.), Double case: Agreement by Suffixaufnahme, 151–215. New York: Oxford University Press.
- Bossong, G., 1984. Ergativity in Basque. Linguistics 22(3), 331-392.
- Catford, J.C., 1977. Mountain of tongues: The languages of the Caucasus. Annual Reviews in Anthropology 6, 283–314.
- Ch'umburidze, Z., 1964. Sak'utari saxelta bruneba svanurši. (Declension of proper nouns in Svan). Dzveli kartuli enis k'atedris šromebi 9, 151–157.
- Charachidzé, G., 1989. Ubykh. In: B.G. Hewitt (ed.), The indigenous languages of the Caucasus, volume 2: The North West Caucasian languages, 357–459. Delmar, NY: Caravan Press.
- Chikobava, A., 1936. Č'anuris gramat'ik'uli analizi t'ekst'ebiturt (A grammatical analysis of Laz, with texts). Tbilisi: Mecniereba.
- Cho, S.-B., 1967. A phonological study of Korean, with a historical analysis. Uppsala: Universitetet.
- Colarusso, J., 1989. Proto-Northwest Caucasian (or How to crack a very hard nut). In: H.I. Aronson (ed.), Non-Slavic languages of the USSR: Linguistic studies, 20–55. Chicago, IL: Chicago Linguistic Society.
- Colarusso, J., 1992. A grammar of the Kabardian language. Calgary: University of Calgary Press.
- Corbett, G.G., 1991. Gender. Cambridge: Cambridge University Press.
- Croft, W., 1990. Typology and universals. Cambridge: Cambridge University Press.
- Deeters, G. 1926–1927. Armenisch und Südkaukasisch: Ein Beitrag zur Frage der Sprachmischung. Caucasica 3: 1-37, 4: 32-64.
- Dešeriev, J.D., 1967. Vvedenie. In: E.A. Bokarev, K.V. Lomtatidze (eds.), Jazyki narodov SSSR 4: Iberijsko-kavkazskie jazyki, 184–189. Moscow: Nauka.
- Dixon, R.M.W., 1994. Ergativity. Cambridge: Cambridge University Press.
- Èdel'man, D.I., 1980. K substratnomu neslediju central'noaziatskogo jazykovogo sojuza. Voprosy jazykoznanija 5, 21-32.
- Emeneau, M.B., 1980. Linguistic area: Introduction and continuation. In: Language and linguistic area, 1–19. Stanford, CA: Stanford University Press.
- Fairbanks, G.H. and E.W. Stevick, 1958. Spoken East Armenian. New York: American Council of Learned Societies.
- Friedman, V.A., 1988. The category of evidentiality in the Balkans and the Caucasus. In: A.M. Schenker (ed.), American Contributions to the Tenth International Congress of Slavists, I. Linguistics, 121–139. Columbus, OH: Slavica.
- Friedrich, P. and N. Diamond (eds.), 1994. The encyclopedia of world cultures, volume VI: Russia and Eurasia, China. Boston, MA Hall.
- Gamkrelidze, T.G. and V.V. Ivanov, 1984. Indoevropejskij jazyk i indoevropejcy. Tbilisi: Tbilisi State University Press.
- Gecadze, I.O., 1980. Osobennosti areal'nogo raspredelenija lingvističeskix javlenij v uslovijax jazykovogo vzaimodejstvija (na materiale iberijsko-kavkazskix jazykov). In: Vzaimodejstvie lingvističeskix arealov, 198–212. Leningrad: Nauka.
- Hamp, E.P., 1989. The Indo-European obstruent features and phonotactic constraints. In: T. Vennemann (ed.), The new sound of Indo-European, 209–213. Berlin: Mouton de Gruyter.
- Harris, A.C., 1981. Georgian syntax: A study in relational grammar. Cambridge: Cambridge University Press.
- Harris, A.C., 1985. Diachronic syntax: The Kartvelian case. New York: Academic Press.
- Harris, A.C., 1994. Ergative-to-nominative shift in agreement: Tabasaran. In: H.I. Aronson (ed.), NSL
 7: Linguistic studies in the non-Slavic languages of the Commonwealth of Independent States and the Baltic Republics, 113–131. Chicago, IL: Chicago Linguistic Society.

- Hewitt, B.G., 1981. Caucasian languages. In: B. Comrie (ed.), The languages of the Soviet Union, Cambridge: Cambridge University Press.
- Hewitt, B.G., 1988. 'Savsed q'opnis' gamoxat'va ramdenime k'avk'asiur enaši (k'erdzod, megrulši). (The expression for 'to be full' in a number of Caucasian languages (especially Mingrelian)). In: E. Khintibidze (ed.), Proceedings of the First International Symposium in Kartvelian Studies, 119–127. Tbilisi: Tbilisi State University Press.
- Hewitt, B.G., 1989. Abkhaz. In: B.G. Hewitt (ed.), The indigenous languages of the Caucasus, volume2: The North West Caucasian languages, 37–88. Delmar, NY: Caravan Press.
- Hewitt, B.G., 1992. Kartvelian preverbs. To appear in Revue des études géorgiennes et caucasiennes. Holisky, D.A., 1981. Aspect and Georgian medial verbs. Delmar NY: Caravan Press.
- Holisky, D.A., 1981. Aspect and Georgian medial veros. Deimar NT: Caravan Press.
- Holisky, D.A., 1987. The case of the intransitive subject in Tsova-Tush (Batsbi). Lingua 71, 245–274. Holmer, N.M., 1947. Ibero-Caucasian as a linguistic type. Studia Linguistica 1, 11–44.
- Hsu, R.W., 1969. Phonology and morphophonemics of Yapese. Berkeley, CA: University of California.
- Imedadze, N. and K. Tuite, 1992. The acquisition of Georgian. In: D.I. Slobin (ed.), The crosslinguistic study of language acquisition, vol. III, 39–109. Hillsdale, NJ: Erlbaum.
- Imnaishvili, D., 1968. P'iris k'at'egoriis sak'itxisatvis naxuri (čačnuri) jgupis enata zmnaši. (Concerning the category of person in the verb of the Nax (Chechen) language group). Iberiul-k'avk'asiuri enatmecniereba 16, 192–217.
- Imnaishvili, I., 1957. Saxelta bruneba da brunvata punkciebi ʒvel kartulši. (Noun declension and case function in Old Georgian). Tbilisi: Tbilisi State University Press.
- Ivanov, V.V., 1977. K istorii drevnyx nazvanij metallov v južno-balkanskom, maloazijskom i sredizemnomorskom arealax. In: Slavjanskoe i balkanskoe jazykoznanie, 3–27. Moscow: Nauka.
- Jakobson, R., 1962a. Über die phonologische Sprachbünde. In: Selected writings, I, 137-143. The Hague: Mouton.
- Jakobson, R., 1962b. K xarakteristike evrazijskogo jazykovogo sojuza. In: Selected writings, I, 144–201. The Hague: Mouton.
- Jakobson, R., 1962c. Sur la théorie des affinités phonologiques entre les langues. In: Selected writings, I, 234–246. The Hague: Mouton.
- Keenan, E.L., 1984. Semantic correlates of the ergative/absolutive distinction. Linguistics 22, 197-223.
- Kibrik, A.E. 1979. Canonical ergativity and Daghestani languages. In: F. Plank (ed.), Ergativity: Towards a theory of grammatical relations, 61–77. Orlando, FL: Academic Press.
- Klimov, G.A., 1962. Sklonenie v kartvel'skix jazykax v sravitel'no-istoričeskom aspekte. Moscow: Nauka.
- Klimov, G.A., 1964. Etimologičeskij slovar´ kartvel´skix jazykov. Moscow: Nauka.
- Klimov, G.A., 1965. Kavkazskie jazyki. Moscow: Nauka.
- Klimov, G.A., 1986. Ob areal'noj konfiguracii protoindoevropejskogo v svete dannyx kartvel'skix jazykov. Vestnik drevnej istorii 3, 150–159.
- Klimov, G.A., 1994. Kartvelian evidence for the Indo-European laryngeal? Indogermanische Forschungen 99, 62–71.
- Kosven, M.O., L.I. Lavrov, G.A. Nersesov and X.O. Xashaev, 1960. Narody Kavkaza, I. Narody Severnogo Kavkaza. Moscow: Akademia nauk SSSR.
- Lewy, E., 1943. On the distribution of the languages in the Old European region. Transactions of the Phililogical Society 1943, 5-13.
- Lomtatidze, K., 1976. Apxazuri da abazuri enebis ist'oriul-šedarebiti analizi, 1. ponologiuri sist'ema da ponet'ik'uri p'rocesebi. (The historical-comparative analysis of the Abxaz and Abaza languages, I. Phonological system and phonetic processes). Tbilisi: Mecniereba.
- Lomtatidze, K. and R. Klychev, 1989. Abaza. In: B.G. Hewitt (ed.), The indigenous languages of the Caucasus, volume 2: The North West Caucasian languages, 89–154. Delmar, NY: Caravan Press. Luzbetak, L., 1951. Marriage and the family in Caucasia. Vienna: St Gabriel's Mission Press.
- Mach'avariani, G., 1970. The system of the ancient Kartvelian nominal flection as compared to those of the Mountain Caucasian and Indo-European languages. In: L. Dezső, P. Hajdú (eds.), Theoretical problems of typology and the northern Eurasian languages, 165–169. Amsterdam: Grüner.
- Mach'avariani, G., 1985. Brunebis zogierti sak'itxi svanurši. (Some questions concerning Svan declension). Iberiul-k'avk'asiuri enatmecniereba 23, 231–241.

Magomedov, A.A., 1965. Tabasaranskij jazyk. Tbilisi: Mecniereba.

Manning, H.P., 1994. 'Split locativity' in Old Georgian and Svan. In: H.I. Aronson (ed.), NSL 7: Linguistic studies in the non-Slavic languages of the Commonwealth of Independent States and the Baltic Republics, 211–240. Chicago, IL: Chicago Linguistic Society.

Masica, C.P., 1976. Defining a linguistic area: South Asia. Chicago, IL: University of Chicago Press.

Meillet, A., 1936. Esquisse d'une grammaire comparée de l'arménien classique. Vienne: Mekhitharistes.

Menges, K., 1968. The Turkic languages and peoples: An introduction to Turkic studies. Wiesbaden: Harrassowitz.

- Mithun, M., 1988. Lexical categories and the evolution of number marking. In: M. Hammond, M. Noonan (eds.), Theoretical morphology: Approaches in modern linguistics, 211–234. New York: Academic Press.
- Moravcsik, E., 1978. On the distribution of ergative and accusative patterns. Lingua 45, 233-279.

Nichols, J., 1985. The directionality of agreement. Berkeley Linguistics Society 11, 273-286.

- Nichols, J., 1986. Head-marking and dependent-marking grammar. Language 62(1), 56-119.
- Nichols, J., 1989. Nakh evidence for the history of gender in Nakh-Daghestanian. In: H.I. Aronson (ed.), Non-Slavic languages of the USSR: Linguistic studies, 158–175. Chicago: Chicago Linguistic Society.
- Nichols, J., 1992. Linguistic diversity in space and time. Chicago, IL: University of Chicago Press.

Nichols, J., 1993. Ergativity and linguistic geography. Australian Journal of Linguistics 13, 39-89.

- Nichols, J., 1997. The epicenter of the Indo-European linguistic spread. In: R. Blench, M. Spriggs (eds.), Archaeology and language, I. Theoretical and methodological orientations, 122–148. London: Routledge.
- Oates, W. and L. Oates, 1968. Kapau pedagogical grammar. Canberra: Australian National University.

Oniani, A., 1978. Kartvelur enata ist'oriuli morpologiis sak'itxebi (Issues in Kartvelian historical morphology). Tbilisi: Mecniereba.

Ruhlen, M., 1976. A guide to the languages of the world. Stanford, CA: Ruhlen.

Sapir, E., 1921. Language. New York: Harcourt, Brace.

- Schmidt, K.H., 1982. Miscellanea Svanica. Iberiul-k'avk'asiuri enatmecnierebis c'elic'deuli (Annual of Ibero-Caucasian linguistics) 9, 62–73.
- Schulze, W., 1988. Noun classification and ergative construction in East Caucasian Languages. Studia Caucasologica 1, 251–274.
- Schulze, W., 1992. Zur Entwicklungsdynamik morphosyntaktischer Subsysteme. Die ostkaukasische Klassenzeichen. In: C. Paris (ed.), Caucasologie et mythologie comparée, 335–362. Paris: Peeters.

Schulze, W., 1997. Tsakhur. München: Lincom Europa.

- Schulze, W., in press-a. Person, Klasse, Kongruenz: Fragmente einer Kategorialtypologie des einfachen Satzes in den ostkaukasischen Sprachen. Band 1: Die Grundlagen. München: Lincom Europa.
- Schulze, W., in press-b. Person, Klasse, Kongruenz: Fragmente einer Kategorialtypologie des einfachen Satzes in den ostkaukasischen Sprachen. Band 2: Die Person. München: Lincom Europa.
- Shanidze, A., 1973. Kartuli gramat'ik'is sapu₃vlebi, 1: Morpologia. (Fundamentals of Georgian grammar, 1: Morphology). Tbilisi: Tbilisis universit'et'is gamomcemloba.
- Sherzer, J., 1973. Areal linguistics in North America. In: T. Sebeok (ed.), Current trends in linguistics, vol. 10, 749–795. The Hague: Mouton.
- Silverstein, M., 1976. Hierarchy of features and ergativity. In: R.M.W. Dixon (ed.), Grammatical categories in Australian languages, 112–171. Canberra: Australian Institute for Aboriginal Studies.
- Silverstein, M., 1981. Case marking and the nature of language. Australian Journal of Linguistics 1, 220-240.
- Smith-Stark, T., 1974. The plurality split. Chicago Linguistic Society 10, 657-671.
- Solta, G.R., 1980. Einführung in die Balkanlinguistik mit besonderer Berücksichtigung des Substrats und des Balkanlateinischen. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Starostin, S.A., 1986. Indoevropejsko-severokavkazskie leksičeskie izoglossy. In: V.V. Ivanov (ed.), Balkany v kontekste sredizemnomor'ja. Problemy rekonstrukcii jazyka i kul'tury, 162–163. Moscow: Nauka, Istitut slavjanovedenija i balkanistiki.
- Talmy, L., 1985. Lexicalization patterns: Semantic structures in lexical form. In: T. Shopen (ed.), Language typology and syntactic description, vol. 3: Grammatical categories and the lexicon, 57–149. Cambridge: Cambridge University Press.

- Toman, J.I., 1995. The magic of a common language. Jakobson, Mathesius, Trubetzkoy and the Prague Linguistic Circle. Cambridge, MA: MIT Press.
- Trubetzkoy, N.S., 1928. Proposition 16. In: Actes du ler Congrès international de linguistes, 17–18. Leiden: A. W. Sijthoff's Uitgeversmaatschappij.
- Trubetzkoy, N.S., 1931. Phonologie und Sprachgeographie. Travaux du Cercle Linguistique de Prague 4, 228–234.
- Trubetzkoy, N.S., 1975. Letters and notes, prepared for publication by R. Jakobson. The Hague: Mouton.
- Trubetzkoy, N.S., 1987. Izbrannye trudy po filologii. Moscow: Progress.
- Tuite, K., 1987. Indirect transitives in Georgian. Berkeley Linguistics Society 13, 296-309.
- Tuite, K., 1988. Number agreement and morphosyntactic orientation in the Kartvelian languages. Ph.D. dissertation, Dept. of Linguistics, University of Chicago.
- Tuite, K., 1992. The category of number in Common Kartvelian. In: H.I. Aronson (ed.), Non-Slavic languages of the USSR: Linguistic studies, New Series, 245–283. Chicago: Chicago, IL Linguistic Society.
- Tuite, K., 1997. Svan. München: Lincom Europa.
- Tuite, K. and W. Schulze, 1998 (in press). A case of taboo-motivated lexical replacement in the indigenous languages of the Caucasus. Anthropological Linguistics 40(3), 363–383.
- Uturgaidze, T., 1966. Kartuli enis mtis k'ilota zogi tavisebureba (Some characteristics of the Georgian mountain dialects). Tbilisi: Mecniereba.
- Van Valin, R., 1990. Semantic parameters of split intransitivity. Language 66, 221-260.
- Vogt, H., 1932. Les groupes nominaux en arménien et en géorgien anciens. Norsk Tidsskrift for Sprogvidenskap 5, 57–81.
- Volkova, N.G., 1978. Ètničeskie processy v Gruzinskoj SSR. In: V.K. Gardanov, N.G. Volkova (ed.), Ètničeskie i kul'turo-bytovye processy na Kavkaze, 3-61. Moscow: Nauka.
- Xanmagomedov, B.G.-K., 1970. Sintaksis tabasaranskogo jazyka. Maxachkala: Akademia nauk SSSR.