Invariance, self-similarity, and metaphorization:
The emergence of case semantics in some East Caucasian languages

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1. Getting Started

The case system of most autochthonous East Caucasian languages is marked for a complex system of local case forms that are opposed to a rather restricted set of relational or derivational cases. (1) illustrates the basic paradigmatic make-up of such a system with the help of data from Aghul, an Eastern Samur language of the Lezgian branch (spoken by roughly 8.000 people along the upper regions of the Chirakh Chay in Southern Daghestan).

(1)   ABS   *ħur*   'village'   [Magometov 1970; field notes]
         ERG   *ħur-i*
   GEN   *ħur-i-n*
         DAT   *ħur-i-s*

		AD	ANTE	POST	SUB	SUPER [+contact]	SUPER [-contact]	IN	INTER
		-w ~ -f	-h	-q	-k:	-k	-l	-'	-ǧˁ
ESS	-Ø	*-f*	*-h*	*-q*	*-k:*	*-k*	*-l*	*-'*	*-ǧˁ*
ALL	-di	*-f-di*	*-h-di*	*-q-di*	*-k:-di*	*-k-di*	*-l-di*	*-'-di*	*-ǧˁ-di*
ABL	-as	*-f-as*	*-h-as*	*-q-as*	*-k:-as*	*-k-as*	*-l-as*	*-'-as*	*-ǧˁ-as*

E.g.   *ħur-i-q-di*
       village-SA-POST-ALL
       'Towards behind the village'

       ħur-i-'-as
       village-SA-IN-ABL
       'From inside the village'

       ħur-i-h-Ø
       village-SA-ANTE-ESS
       'In front of the village'

The system of local cases consists of so-called series markers, which specify the 'region' of a referent in landmark function. The three case markers (essive, allative and ablative) relate a trajector to the region of the landmark. The relational subparadigm is marked for a tripartite opposition, confer:

(2)   ESS (*-Ø*)

    ALL   ABL
    (*-di*)   (*-as*)
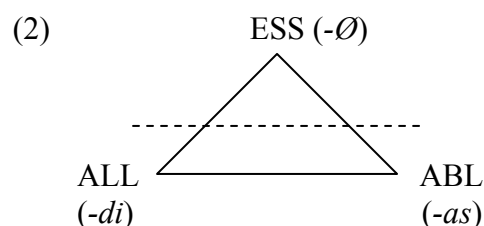
The Aghul local case markers iconically reflect the distinction between mobility and immobility: Immobility is marked by the absence of morphology, whereas mobility is morphologically marked. (3) summarizes the prototypical types of the trajector-landmark relation:

(3)   ESSIVE

Rel (> ESS)

ALLATIVE

ABLATIVE
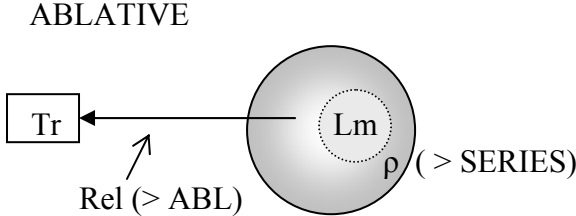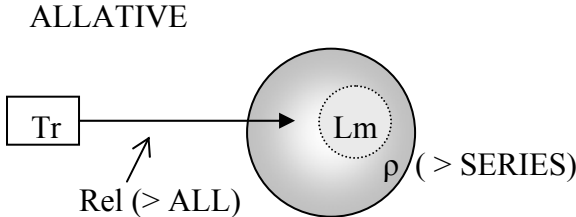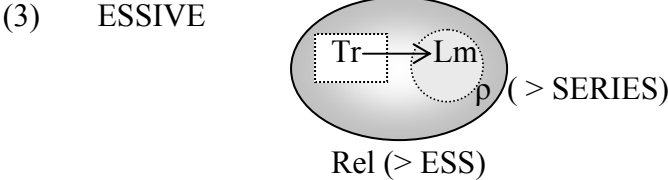
As has been said above, the set of series markers qualifies the region of a landmark. The eight series of Aghul can be described as follows:

(4)
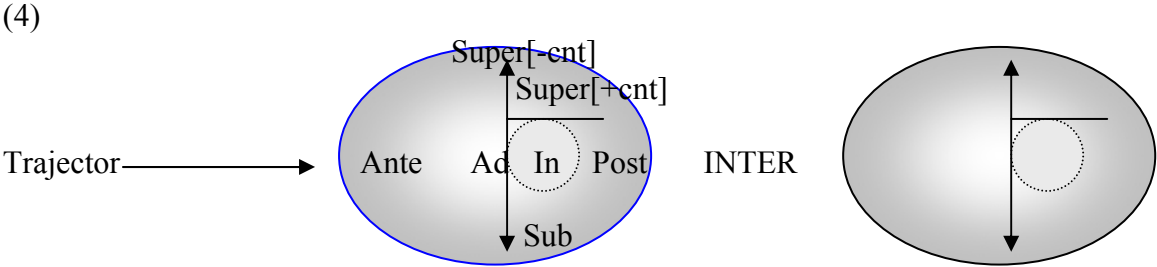
Note that just as in many other languages, the point of reference in establishing trajector-landmark relations can shift from the external observer to the landmark. (4) illustrates that the region of a landmark is subcategorized in an asymmetrical way: The frontal, lateral and upper parts of a region show a fourfold distinction, as opposed the two parts 'below' and 'behind' that lack the opposition [contact]. From a prototypical point of view, we can claim that those regional domains that are immediately accessible to vision show a greater degree of subcategorization than the domains strongly associated with the feature of non-visibility. As a result, the domains POST and SUB are strongly coupled with inferential and knowledge-based procedures as long as the trajector is conceptually 'smaller' than the landmark. This distribution corresponds to the general figure-ground properties of local relations, compare:

(6) **Trajector** → **Landmark**
     Figure → Ground
     Part → Whole
     Smaller → Larger
     Salient → Inferred

If we include the non-prototypical relation of a 'larger' trajector being related to a 'smaller' landmark, we arrive at the following distribution:

(7)

	tr < LM		TR > lm	
	TR	LM	TR	LM
AD	visible	visible	visible	visible
ANTE	visible	visible	visible	*inferential*
IN	*inferential*	visible	----	---
SUPER(+)	visible	visible	visible	visible
SUPER(-)	visible	visible	visible	visible
POST	*inferential*	visible	visible	visible
SUB	*inferential*	visible	visible	visible
INTER	visible	visible	visible	visible

In other words: The domains SUB and POST prototypically allow construing a trajector only if a corresponding inferential context is given. The same holds for the domain IN, as long as we have to deal with the conceptualization of a Container or Mass schema.

(8) *za' '-aya šar-ar* [Aghul, field notes]
     I:IN:ESS IN:ESS-be:PRES tapeworm-PL
     'I have a tapeworm.' [*tapeworm* inferred]

(9) *k'ur-ani-f sa q'in f-aya* [Aghul, field notes]
     wood-SA-AD:ESS one nail AD:ESS-be:PRES
     'There is a nail in (lit.: at) the (piece of) wood.' [*nail* visible]

(10) *k'ur-ani-' sa q'in '-aya* [Aghul, field notes]
     wood-SA-IN:ESS one nail IN:ESS-be:PRES
     'There is a nail *in* the (piece of) wood [I know].' [*nail* inferred]

The example in (9) illustrates that as soon as the trajector is (at least in parts) visible to the speaker, (s)he tends to switch from the highly inferential inessive to the corresponding adessive, prototypically marked for features of visibility.

Naturally, the feature of inference is especially important with essive locatives. The two lative variants (allative and ablative) prototypically call for a visible trajector, regardless which type of penetration into the region of a landmark is referred to, compare:

(11) *zun q'in k'ur-ani-'-di yerħa-d-a* [Aghul, field notes]
     I:ABS nail:ABS wood-SA-IN-ALL beat-GER:PRES-AUX:PRES
     'I drive a/the nail into the (piece of) wood.' [*nail* visible]

From a cognitive point of view, the interaction of localization and knowledge features is based on the underlying figure-ground schema, that is on the gestalt properties of the trajector-landmark relation. In other words, we have to deal with a blend of two cognitive

3

parameters, namely that of orienteering and that of object permanence: *Orienteering* lays the ground for treating 'objects' as trajectors and *object permanence* establishes the domain of inference.

2. Metaphorization of Local Case functions in Aghul

The prototypical functions of the locative case/series paradigm described so far can undergo a certain degree of metaphorization. For instance, the Super Allative is frequently used to derive an instrumental, just as it is the case in the cognate language Tabasaran. (12) gives an example:

(12) *nažbar-i   yak'-u-l-di   rug-aq'-ay-a   k'ur-ar*   [Richa, field notes]
      farmer-ERG axe-SA-SUPER-ALL chop-do-GER:PRES-PRES wood-PL:ABS
      'The farmer chops wood with an axe.'

(13) *ze   fikir-da-l-di   wun   duz-da-wa*   [Kurag, field notes]
      I:POSS thought-SA-SUPER-ABL you:SG:ABS right-NEG-AUX:PRES
      'As for me, you are not right!' [*with my thought…*]

The Post Ablative marks a Benefactive of Replacement ('for'):

(14) *ibrahim-di-q-as   ma-ǧa   uč-i   ras-e   uč-i-q-as*
      Ibragim-SA-POST-ABL PROH-speak:IMP REFL:ERG speak:INF-AUX:PRES REFL-SA-POST-ABL
      'Don't speak for Ibrahim ! He will speak for himself.' [Richa, Magometov 1970:85]

(15) *ga-q-as   ge   k'-in-e*   [Richa, Magometov 1970:85]
      DIST-POST-ABL DIST:ABS die-GER:PAST-PRES
      'He died for him.' [*in place of him*]

A Delocutive is derived from the Super Ablative:

(16) *x̂eš   aǧ-ay-a   il-di-k-es*   [Richa, field notes]
      we:INCL:ERG speak-GER:PRES-PRES DIST↓-SA-SUPER[CNT]-ABL
      'We talk abouth him/her/it.'

The non-contact Super Ablative is used to encode both a Comparative and a temporal Translative:

(17) *x̂e   ħaywan   ħa-f   e   we   ħaywan-i-l-as*
      we:POSS horse:ABS big-REF:ABS be:PRES you:SG:POSS horse-SA-SUPER[-CNT]-ABL
      'Our horse is bigger than your horse.' [Richa, field notes]

(18) *zun sa   saˤat-i-l-as   ad-is-e* [Kurag, field notes]
      I:ABS one hour-SA-SUPER[-CNT]-ABL come-INF-PRES
      'I will come within an hour.'

In sum, the major local-based metaphors can be described as follows:

(19)

After time period	*is*	s.th. *from on* [-contact]	Super[-cnt]-Abl
Benefactive	*is*	s.th. *onto* [-contact]	Super[-cnt]-All
Cause	*is*	s.th. *from behind*	Post-Abl
Comitative	*is*	s.th. *behind*	Post-Ess
Comitative	*is*	s.th. *between*	Inter-Ess
General Possession	*is*	s.th. *behind*	Post-Ess
Instrument	*is*	s.th. *onto* [-contact]	Super[-cnt]-All
Object of speaking	*is*	s.th. *from on* [+contact]	Super[+cnt]-Abl
Replacement	*is*	s.th. *from behind*	Post-Abl
Temporal Possession	*is*	s.th. *at, on, in…*	Ad-Ess, Super[+cnt]-Ess, In-Ess …

It should be noted that some of these metaphors have retained invariant components of the corresponding source domain to a greater extent than others: For instance, the instrumental can be sensitive for the location of the 'instrument', as in (20) and (21):

(20) *gi   midal   k-ed   üx̂-ün-i* [Fite, Magometov 1970:86]
DIST:ABS medal:ABS SUPER:ESS-be:GER:PRES come-GER:PAST-PAST
'He came with a medal (on his breast).'

(21) *gi   midal   f-ad   üx̂-ün-i*   [Fite, Magometov 1970:86]
DIST:ABS medal:ABS AD:ESS-be:GER:PRES come-GER:PAST-PAST
'He came with a medal (in his pocket or so).'

(22) *gi   ad-in-e   ħa k:ul   f-ay*   [Richa, Magometov 1970:86]
DIST:ABS come-GER:PAST-PAST big fur:ABS AD:ESS-be:GER:PRES
'He came with a long fur (in his arms).'

(23) *gi   ad-in-e   ħa k:ul   q-ay*   [Richa, Magometov 1970:86]
DIST:ABS come-GER:PAST-PAST big fur:ABS POST:ESS-be:GER:PRES
'He came with (> wearing) a long fur.'

(24) *ze ħuˁni ad-in-e   gür-i   ǧˁ-äy* [Richa, Magometov 1970:86]
my   cow ABS come-GER:PAST-PAST DIST:PL-OBL INTER-be:GER:PRES
'My cow came with (among) them [the other cows].'

(25) *tp:iǧ deħan zun   x̂il-a-w-di   ad-in-e* [Richa, Magometov 1970:155]
Tpig towards I:ABS foot-SA-AD-ALL come-GER:PAST-PAST
'I came to Tpig by foot.'

This is especially true with verbs of movement, which relate the local semantics of the MOVE complex to the location of the instrumental. In case this relation is no longer transparent, the standard instrumental based on the Super Allative is used, compare:

(26) *baba   marq:al-a-l-di   geda-di-s   yirħ-uˁn-i*   [Fite, Magometov 1970:83]
mother:ERG stick-SA-SUPER-ALL boy-SA-DAT hit-GER:PAST-PAST
'Mother hit the boy with the stick.'

The same aspect of invariance is also present with possessive constructions:

(27) *ruš*   *zis*   *e*   [Burkixan, Dirr 1907:80]
      daughter:ABS I:DAT AUX:PRES
      'The daughter is mine.'

(28) *ze*   *či*   *'ar-awa*   [Tsirkhe, Magometov 1970:214]
      I:POSS sister   NEG-be:PRES
      'I don't have a sister.'

(29) *zaq*   *q-aya*   *kitab*   [Richa, field notes]
      I:POST:ESS POST:ESS-be:PRES book:ABS
      'I have a book' [I possess a book]

(30) *zaf*   *f-aya*   *kitab*   [Richa, field notes]
      I:AD:ESS AD:ESS-be:PRES book:ABS
      'I have a book (with me).'

From this, we can conclude that the maintenance of invariant components of the source domain within the metaphorical expression is strongly coupled with the general constructional layout into which the noun phrase is embedded. In other words: In the given case, invariance is not a mere semantic property, but is conditioned by constructional features. The presence of orienteering MOVE verbs factually reduces the metaphorical extension of the given case form. In case non-orienteering verbal concepts are present, the invariant component is further reduced, as it becomes evident for instance from the standard instrumental: Here, the Super Allative has nearly completely lost its invariant component. Crucially, this happens especially in transitive relations, e.g.:

(31) *češ*   *čal-di-l-di*   *p:ara* *bulaǧ-ar* *fac-un-e*
      we:ERG net-SA-SUPER-ALL(>INSTR) many fish-PL:ABS catch-GER:PAST-PRES
      'We caught much fish with the net.' [Richa, Magometov 1970:83]

It is difficult to describe the exact metaphorization path for the standard Instrumental of Aghul. Nevertheless, we have to assume that transitive structures as in (31) represent a conflicting localization strategy: It is a standard assumption that the core structure of transitive constructions is derived from the metaphorization of the figure-ground schema:

(32) F → G   >   C→E

      češ   *bulaǧar*   *facune*
      F>C   →   G>E

Hence, *bulaǧar* satisfies the primary localization strategy. In Aghul, the metaphorization of the ground-domain usually is not expressed morphologically, contrary for instance to Udi, a marginal Lezgian language: Here, the *Effect* domain is marked by an old allative in case the corresponding referent is marked for the feature [definite], compare:

(32) *yan*   *čäli-n-a*   *biq'-e-yan*   [Udi, Nizh, field notes]
      we:ABS fish-SA-DAT   catch-PERF-1PL:A
      'We caught the fish (we were talking about).'

6

The presence of a second locative concept usually establishes a secondary (qualifying) relation between on of the primary actants and the concept expressed by the locative, e.g.:

(33) *žinar-ar-i   ha-te   q'aley-i-'   dustağ-aq'-un-a*
      dzhin:PL-PL-ERG EMPH-MED:ABS castle-<u>SA-IN:ESS</u> prisoner-take-GER:PAST-PRES
      'The dzhins have imprisoned her in the castle.' [Burkixan, field notes]

(34) *žin-urğ-on   mo-t'-o   q'alaˤ-a   yesir-t'un   ef-e*
      dzhin-PL-ERG PROX-SA:OBL-<u>DAT</u> castle-<u>DAT</u>   imprisoned-3PL:A keep-PERF
      'The dzhins have imprisoned her in the castle.' [Udi, Nizh, field notes]

Here, the locative functions as a landmark or ground for the trajector or figure *hate* 'she':

(35) F>C   → $G_{(F \to G)}$>E

The standard instrumental of Aghul has obviously marginalized the relational properties of the underlying locative. This process is conditioned by the loss of gestalt features related to the Ground domain. Most likely, we have to start with constructions like (31) which still involve a notion of MOVE:

(36) *We$_{F>C}$ LOC:caught [much fish$_F$ *onto* the net$_G$]$_{G>E}$.

Here, *net* still functions a Ground for the Figure *fish*. – The fact that Aghul is a strong Manner Conflating language with overt location markers added to the verb in terms of preverbs has conditioned the initial stability of Locative Invariance. After the preverbs had become more or less opaque elements fusing with the lexical meaning of the verb, the general typological make-up changed from Manner Conflation to Space Conflation, opening a free 'manner' slot in the constructional pattern of transitive clauses:

(37) [LOC] LOC-{Verb:Manner}   >   [Manner] {LOC:Verb[:Manner]}

This shift conditioned that the overt locative marked noun phrase assimilated features of manner semantics. An intermediate state is preserved for instance in the following structure:

(38) *zun sil-bar-i-l-di   xiw ärğˤ-uˤn-i* [Fite, Magometov 1970:83]
      I:ABS tooth-PL-SA-SUPER-ALL nut crush-GER:PAST-PAST
      'I crushed the nut with ~ *onto* the teeth.'

The examples discussed in this section illustrate that in Aghul, the two series Super and Post represent the preferred source domain for metaphorization strategies. Obviously, certain local domains such as SUB and IN do not qualify for metaphorization to the same extent as the domains just mentioned. If we include data from other Lezgian languages, however, it comes clear that such constraints result from aspects of conventionalization rather than from underlying cognitive parameters. Hence, any generalization related to the metaphorical potential of local case forms in East Caucasian should take into account the fact that practically all combinations of case and series markers can serve as the source domain of case mteaphors. The main question is to which extent the resulting metaphorical function still reflects invariant components of the source domain and how we can account for this from a cognitive point of view. In addition, we have to ask whether a corresponding model of

invariance and metaphorization can be referred to in describing the functional scope of so-called functional or derivational cases in East Caucasian (basically ergative, genitive, dative).

2. Mirror Theory

It is a common feature in many or even all languages that grammatical elements and constructional patterns are marked for polysemic properties. These properties reflect the asymmetric relation between linguistic structure and communicated experience: Accordingly, a rather small and usually restricted set of grammatical elements and constructional patterns is used to communicatively process the 'open world' of experience. Whatever the exact relation between the linguistic and the cognitive domain might be: The asymmetry just described conditions that one-to-many mapping is an empirically well-founded procedure to construct 'linguistic worlds'. From a cognitive point of view, however, linguistic structures always result from reduction strategies that are anchored both in aspects of communication and linguistic knowledge. The process of reduction (many-to-one) can best be summarized by using the label *diairesis* (from Greek *διαιρέω* 'to separate, distinguish, interpret'). The modelling of diairesis is related to *Information Pickup Theories* and *Ecological Psychology* and encompasses – among others – the following parameters:

(39)   1. The fact that an individual becomes embedded into a communicative tradition during language acquisition conditions that (s)he develops a *collective hypothesis* about language. Accordingly, the individual assumes that its linguistic knowledge represents shared knowledge also present with hitherto communicatively 'alien' people [Schulze 1998:395-412 for details]

2. Shared knowledge usually marginalizes idiosyncratic types of communicative experience: The individual tends to accommodate its knowledge system to that of its social partners during language acquisition. This process is embedded into the general patterns of overt (factual) socialization and is recursive in nature [*social reduction*].

3. (Language-based) communicative experience represents the constant actualization process of memorized linguistic and non-linguistic experience. New experience is always processed in terms of patterns emerging from 'old knowledge' [*Menōn paradoxon*]: The construing reaction upon a given world stimulus happens in structural coupling with the activation of stored analogies of this world stimulus [*experiential reduction*].

4. The linguistic reaction upon a world stimulus is based on a memory segment and an 'arbitrary' (actual, situational) segment [*Markov Chain*]

5. World stimuli that are experienced as being 'similar' are usually processed according to a relatively similar cognitive representation [*phenomenological reduction*].

6. Similarity means that the processing of different world stimuli activates different tokens of a common (entrenched) representational type [*type-based reduction*].

The parameters listed in (39) are coupled with a second segment in the construing event that reflects one-to-many projections. Accordingly, the conceptual reaction upon a world stimulus allows the individual choosing between different variants in the linguistic representation of the diairetic output. (40) illustrates this aspect with the help of a simple example (German):

(40)

Der telefoniert, der Mann (2,5 years)
[*He phones, the man]
Da ist ein Mann, der telefoniert (4,11 years)
[*There is a man who phones]
Da telefoniert ein Mann (6,5 years)
[*There phones a man]
Da sitzt ein Mann am Schreibtisch und telefoniert (36 years).
[*There sits a man at [his] desk and phones]
Ein Büromensch, der am Bürotisch ein wichtiges Telefonat führt (62 years)
[*A bureau-person who has an important telephone conversion at the bureau table]

The diairetic input is given by the following segments:

(42)   Figure: Mann [*man*] {~ Büromensch}
       Relation: Telefonieren [*phoning*] {~ Telefonat führen}
       Ground: Da [*there*] {~ [sitzen] am Schreibtisch; am Bürotisch}

(43) summarizes the two procedural aspects:

(43)
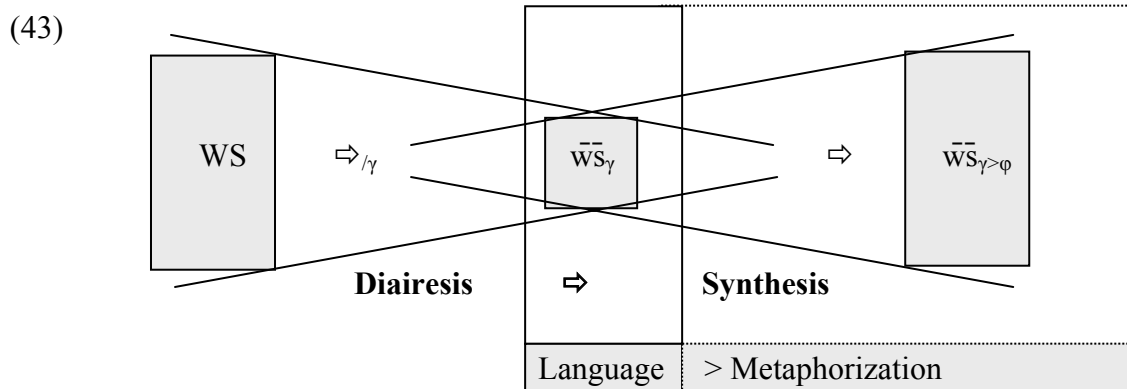
[WS = World Stimulus, $\overline{\overline{ws}}$ = cognitive event induced by World Stimulus,
γ = language/communication based conceptualization, φ = Metaphorization]

On the one hand, the linguistic representation of the communicative reaction upon a world stimulus thus depends from the cognitive typology of diairesis procedures as expressed in cognitive schemata, idealized models and experience related to the communicability of this world stimulus. On the other hand, hardly any such schema or model has its immediate linguistic representation. Rather, we have to assume that the linguistic expression of diairetic procedures is basically metaphoric in nature. In this sense, the present model goes beyond the well-known and often quoted assumption of Lakoff & Johnson 1980:

(44)   „We have found that that [conceptual] system is fundamentally metaphorical in character. That is, it contains metaphorical as well as non-metaphorical concepts, and the metaphorical structure is extremely rich and complex [...].“ [Lakoff & Johnson 1980:195].

Rather, it starts with hypotheses set up for instance by E. Kant and Fr. Nietzsche and also to be found in the well-known metaphor theory as developed by Ivor A. Richards:

(45)   „Unsere Sprache ist voll von dergleichen indirekten Darstellungen nach eine Analogie, wodurch der Ausdruck nicht das eigentliche Schema für den Begriff, sondern bloß ein Symbol für die Reflexion enthält.“ [Kant, *Kritik der Urteilskraft* § 59: Von der Schönheit als Symbol der Sittlichkeit]

(46) „Das "Ding an sich" (das würde eben die reine folgenlose Wahrheit sein) ist auch dem Sprachbildner ganz unfaßlich und ganz und gar nicht erstrebenswerth. Er bezeichnet nur die Relationen der Dinge zu den Menschen und nimmt zu deren Ausdrucke die kühnsten Metaphern zu Hülfe. Ein Nervenreiz, zuerst übertragen in ein Bild! Erste Metaper. Das Bild wieder nachgeformt in einen Laut! Zweite Metaper. Und jedesmal vollständiges Überspringen der Sphäre, mitten hinein in eine ganz andre und neue.“   (…) „Wir glauben Etwas von den Dingen selbst zu wissen, wenn wir von Bäumen, Farben, Schnee und Blumen reden, und besitzen doch Nichts als Metaphern der Dinge, die den ursprünglichen Wesenheiten ganz und gar nicht entsprechen.“ [Nietzsche; Über Wahrheit und Lüge im außermoralischen Sinne (1872/3), 1(v)].

(47) "Thought is metaphoric, and proceeds by comparison, and the metaphors of language derive therefrom." (Richards 1950 [1932]:94).

Accordingly, metaphorization is the only way to process a diaretic output. In order to account for this assumption, we obviously have to start with a rather broad definition of *metaphor*. Here, I claim that

(48)   Metaphorization describes the process of 'growing de-similarization' of a reactional (constructional) pattern with respect to its source domain.

In other words, metaphorical mapping entails the following basic aspect: Two conceptual domains, schemata or structures must be both the same and something different. In this sense, a metaphorical output is achieved by mirroring some of its properties onto some of the properties of a compatible source domain. A simple example is given by the German deictic adverb *da* 'there': This adverb has at least three interpretations:
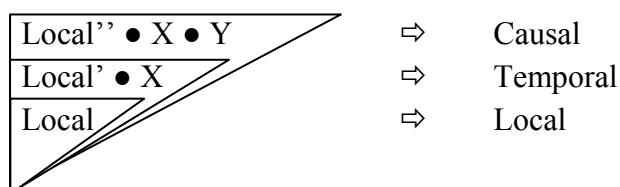
(49)

Da	ist die Haltestelle	(*local*)
Da	lachte sie	(*temporal*)
Da	sie krank war..	(*causal*)

[There is the stop.]
[There she laughed…]
[Because she was ill…]
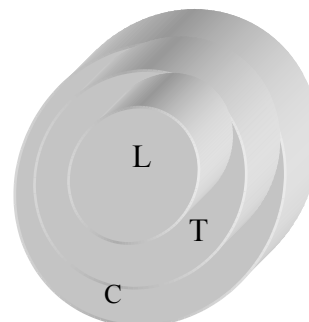
In fact, we have to deal with the well-known metaphorization chain *local>temporal>causal*. The growing de-similarization can be formalized as follows:

(50)

| Local'' • X • Y | ⇨ | Causal |
| Local' • X | ⇨ | Temporal |
| Local | ⇨ | Local |

The triangle symbolizes the underlying invariant component that is based on the locative interpretation of *da*. The inflation process allows accessing the conceptual domain 'time' without changing the basic gestalt properties of the conceptual domain. The same holds for the metaphorization *causal* as *temporal*. In fact, we have deal with a so-called self-similarity in its broader sense (or with self-affinity): The coarse structure or metaphorical output represents a slightly contorted copy of the fine structure. The contortion results in an increasing self-gestalt of the fine structure. Note that the model given in (50) suggests that metaphorization can be viewed as a step-up process: Accordingly, we usually have to deal

with several 'levels' within the inflation process, which by themselves can serve as a metaphorical output, compare the rather schematic graphic in (51):

(51)
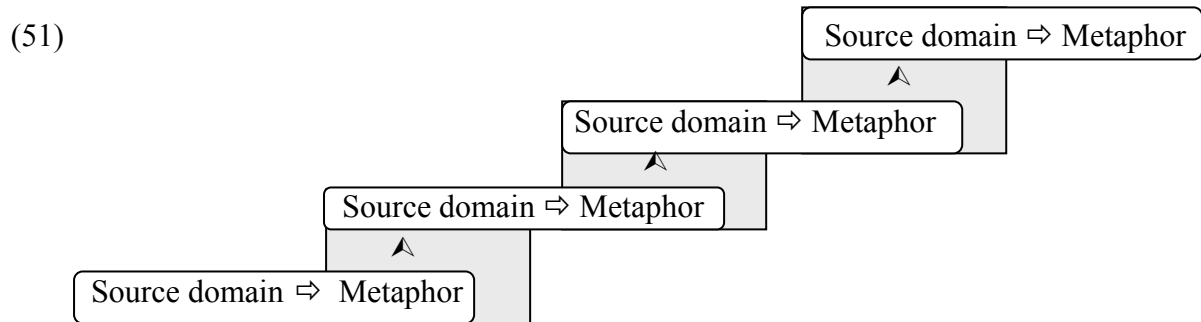
In my paper, I cannot fully elaborate the Mirror Hypothesis that results from the assumptions described so far. Nevertheless, it should be noted that the properties of the segments X and Y illustrated in (50) play a crucial role in the structure of the final output: Applying the Mirror metaphor to the complex gestalt in (50), we can arrive at the following claim: Those segments that do not immediately mirror the fine structure or source domain result from the type of mirroring, that is from the general processes that have invoked the mirroring.

The Mirror Hypothesis describes the emergence of metaphorical processes focusing on both aspects of invariance and conceptual variation. Hence, we have to refer to a basically bottom-up strategy of deriving conceptual variation. However, the processing of metaphorical structures and expressions may also refer to the opposite strategy: Accordingly, a metaphor is processed by applying a top-down strategy. This process can be called *deflation*. It denotes assumptions about the presence of invariant components in a metaphor that relate it to its source domain, even if the source domain itself is no longer expressed with the help of a given structure or expression. From a linguistic point of view, such a process of deflation is frequently embodied in terms of folk etymology. (52) summarizes the two types of metaphorical processing (SD = Source Domain):

(52)
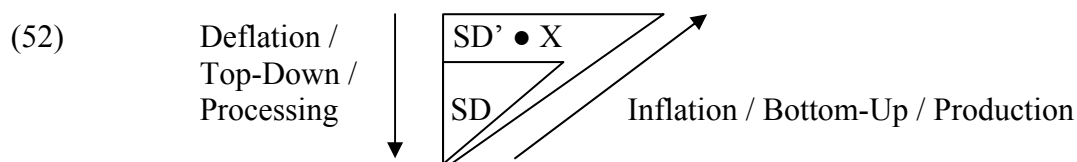
The Top-Down process of deflation thus describes the fact that any metaphor is processed in accordance with hypotheses about its invariant components. This assumption goes together with the Menōn Paradoxon mentioned above in (39,3). Consider for instance the following examples from Chuvash, an Oghur Turkic language:

(53) *xĕvel śut-i ayala kăntăr varri-nče*
      sun   ray-3POSS even   noon   midth-3POSS:LOC

      te   xĕs-ĕn-se   kăk-a   sărxăn-at'   [Chuvash, N. Ilbekov 1950]
      TOP   press-REFL-CV:&   root-DAT   flow-PRES:3SG
      'Even at noon, the ray(s) of sunshine fought (lit.: pressed themselves) to reach the root(s of the trees).'

(54) *ača-sen-e   tămran yapala-sem tu-ni-n-e   kătart.*
child-PL-DAT ceramics thing-PL   make-INF-3POSS-DAT show:IMP:2SG
'Show the children how to produce ceramics!'
[Chuvash, Rimus pičče valli parne, p.2]

(55) *xĕvel-e te śi-me   ĕntĕ văpăr* [Chuvash, P.P. Xuzangay, poem 5]
sun-DAT TOP eat-NEG:FUT:3SG now   vampire
'The vampire will no longer eat the sun.'

All three examples show a dative case which covers the following functions:

(56) *kăka*   Locative-allative
      ačasene   Indirect Objective / Benefactive
      xĕvele   Objective [definite]

Contrary to other Turkic languages, Chuvash uses the dative to encode a Fluid O-Split, as in (55). The function is related to both the Benefactive / Indirect Objective in (54) and to the Allative in (53). The bottom-up metaphorization can be described as follows:

(57)

ALL'' ● X ● Y   ⇨   Objective Function
ALL' ● X   ⇨   Indirect Objective / Benefactive
ALL   ⇨   Allative

This typologically well-kown pattern is based on a growing de-similarization with respect to the local function. Nevertheless, we cannot claim that in the metaphorized version of the allative, this function is no longer present. Rather, we have to assume that at least parts of this function have survived as invariant segments within the final metaphor. From this we can conclude that a speaker of Chuvash will process the clause in (55) in a way that still involves the locative function. In other words: The dative used to encode the Objective initiates a processing type that is marked for deflation. The in parts deflated version of (55) would then read:

(58)   */ The vampire will no longer eat <u>towards</u> the sun. [*/ indicates deflated structures]

This admittedly trivial example illustrates that the output of a metaphor chain can serve as the starting point to describe the functional 'scope' of metaphorized grammatical elements. It should be noted that, here, the analysis concerns both sychronic and diachronic aspects of grammatical conceptualization. Hence both grammaticalization theory and usage-based models should be referred to in order to describe the emergence of form/function pairing in grammar. In fact, Cognitive Linguistics – in my eyes – still lacks well pronounced tools to describe degrees of metaphorical variation with respect to the semantics of grammatical elements and grammatical structures. This is especially true for languages that have not been yet monitored with the help of elaborated psycholinguistic methods and tests. In other words: It is not always clear whether a postulated source domain or invariants components of this source domain are in fact processed synchronically. It may likewise be the case that grammatical elements emerging from a metaphorization process have developed to homonymic pairs. This is for instance the case with the standard instrumental of Aghul mentioned above, compare again:

(59) *malla-nasrat:in   al-ǧuč'-un-e   (...) ǧʷad-di-l-di*
      Mollah-Naṣreddīn:ABS SUPER-lie-GER:PAST-PRES (…) roof-SA-<u>SUPER-ALL</u>
      'Mollah-Naṣreddīn lay down (…) on the roof.' [Kurag, Magometov 1970:208]

(60) *idem-i   q'ˤäc'u-l-di   yä't'-un-e   šik:ar* [Fite, Magometov 1970:83]
      person-ERG tong-SA-{<u>SUPER-ALL</u>} break-GER:PAST-PRES suggar:ABS
      'The person broke the suggar with a pair of tongs.'

Above, I have shown that the metaphorization path itself is rather transparent from a diachronic point of view. Synchronically, however, it is rather doubtful that (60) eintails the following deflated reading:

(61) $^?$*/ The person broke the suggar <u>onto</u> a pair of tongs.

Obviously, the invariant component of a metaphorical chain can become obscured in the process of inflation. This is especially true if the contorting segment reaches a quality that finally 'suppresses' the semantics of the invariant component, compare:

(62)

⇨   Instrumental

⇨   Super Allative
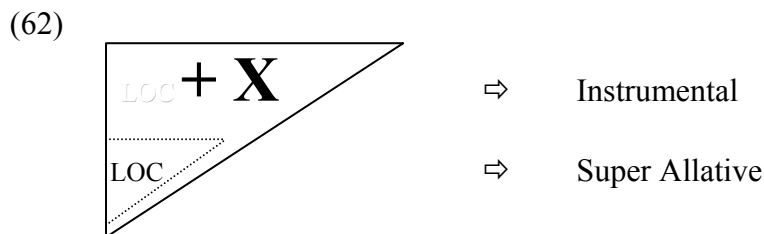
Such structures are kown as 'wild metaphors' in literature science. From a cognitive point of view, we can claim that synchronically, wild metaphors have developed to homonymic expressions that, however, are processed in terms of a 'remembrance factor'. This factor still relates homonyms to an underlying hypothesis of polysemy that comes close to the diachronic development of the metaphor, at least in terms of folk etymology.

4. The Udi system of relational cases

In the last section of my paper, I want to turn to another East Caucasian language, namely Udi, a marginal Lezgian language spoken by some 4.000 people especially in the village of Nizh in North-western Azerbaijan. Contrary to the paradigmatic etalon of East Caucasian case marking as illustrated in the first section of this paper, Udi has reduced its system of locatives to a monodimensional system: Here, case and series functions have fused completely, compare (63) which lists the Udi case forms (variants concern both dialects and allomorphy):

(63)

	Singular	Plural	Caucasian Albanian © W. Schulze 2003 [~ 500 AD]
ABS	*-Ø*	*-Ø*	*-Ø*
ERG/INSTR	*-en ~ -n*	*-on*	*-en*
BEN	*-enk'(ena) ~ -aynak'*	*-onk'(ena) ~ -oynak'*	*-enk'e ~ -en k'e*
GEN	*-a(y) ~ -e(y) ~ -i ~ -un*	*-o(y)*	*-un ~ -i*
DAT	*-a ~ -u ~ -e ~ -i*	*-o*	*-a ~ -s*
DAT2	*-DAT-x*	*-ox*	*-ax*
ABL	*-DAT-xun ~ -xo*	*-oxun ~ -oxo*	*-axoc*

13

COM	-DAT-*xun ~ -xol*	*-oxun ~ -oxol*	*-axoš ~ -ak'a*
SUPER	-DAT-*l*	*-ol*	*-al ~ axal*
ALL	-DAT-*č'*	*-oč'*	*-ač'* (?)
ADESS	-DAT-*st'a*	*-ost'a*	*-ast'a*

The table in (63) also includes data from the recently discovered Caucasian Albanian palimpsest from Mt. Sinai. The palimpsest is currently deciphered and interpreted by Zaza Aleksidze, Jost Gippert and me. Due to copyright issues, I cannot give a detailed account of the language of the Palimpsest here. But note that the language represents the oldest East Caucasian language ever documented. The text underlying the Palimpsest stems from the beginning of the 6th century AD and contains a Christian lectionary. The language is immediately related to the Nizh dialect of Udi. Hence, we can refer to its grammar in order to account for the history of the Udi data themselves.

I cannot comment upon all aspects of the Udi case paradigm here (see Schulze (Forthcoming) for details), but will concentrate on the three domains Ergative, Genitive, and Dative. (64)-(65) illustrate the superficially prototypical functions of these case categories:

(64) *amdar-x-on   kala sa   händ-un oćal-t'un   ez-b-sa-y* [Nizh; OR 133]
      person-PL-ERG big   one field-GEN earth:ABS-3PL:A plough-LV-PRES-PAST
      'The people were ploughing [the earth of] a large field.'

(65) *Bulum-a   sa   usen   äš   tad-al-t'un* [Nizh; OR 48]
      Bulum-DAT one year:ABS work:ABS give-FUT:FAC-3PL:A
      'They will sentence (lit. give) Bulum to one year (of) labor.'

The ergative case morpheme also covers the function of an instrumental, but never that of a comitative, compare:

(66) *tängi-n-en   har-t'-in   sa   čäräq'-yan   uk-o* [Nizh; OR 49]
      money-SA-ERG>INSTR each-REF:OBL-ERG one shashlik:ABS-1PL:A eat:nPAST-FUT:MOD
      'With the money, each of us will [buy and] eat a shashlik.'

Contrary to Aghul, the Udi instrumental is not related to local case forms. Rather, the function results from a blend of the lexical base and the prototypical function of the case marker *-en*, compare the scale given in (67):

(67)
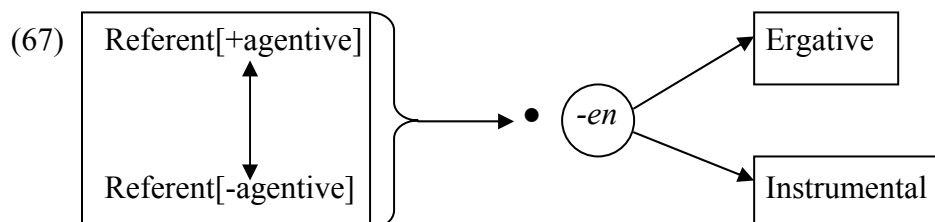
Accordingly, we cannot describe one of the two functional domains as a metaphor derived from the other function. Instead, we have to assume that the morpheme *-en* encodes a function that adds a notion of mediated or immediate agentivity to the referent. In other words, we have to deal with a superficially 'abstract' concept underlying the morpheme at issue. This conceptual layer is synchronically processed as it becomes evident from the following examples:

(68) *me   aˤyel-en   gölö-ne   axśum-exa*   [Vartashen, field notes]
PROX child-ERG much-3SG:S laughing-LV:PRES
'The child (deliberately) laughs very much.'

(69) *kala sa läpi-n-en   biˤbiˤ-n-ux   k'ac'-ne-p-e*   [Vartashen, field notes]
big   one wave-SA-ERG bridge-SA-DAT2 break-3SG:A-LV-PERF
'A big wave broke the bridge.'

In (68), the ergative case is used to encode a strongly controlling agent, in (69) it conditions
the agentivization of the referent *läpä* 'wave'. Both constructions are based on an *as if*
relation:

(69) Subjective   *as if*   Agentive
      Instrumental   *as if*   Agentive

Therefore, the cognitive space represented by the Udi ergative-instrumental cannot be
described in terms of the above mentioned Mirror Hypothesis. Rather, we have to deal with a
functional shift that can best be accounted for in terms of a *disguising* process. In (68), the
intransitive relation is disguised as a Cause-Effect event, whereas the disguising process in
(69) is conditioned by the usurpation of the agentive function by the semantic instrumental.

The synchronic value of the Udi ergative hence emerges from a cognitively complex concept
that by itself shows up only in the result of blends or disguising processes. Nevertheless, from
a diachronic point of view, it may well be asked whether this concept has resulted from the
inflation of a functional or semantic concept that is no longer grammaticalized. For the time
being, this question must remain unanswered: All we can say is that the Udi ergative
morpheme goes back to a Proto-Lezgian ergative that seems to have been restricted to non-
humans, compare the following example from Tsakhur, another Lezgian language of the
Western Samur branch:

(70) *dak.ʲ-ē   balkan   al-i-w-š-u*   [Tsakhur, field notes]
father-ERG horse(III):ABS PV-buy-III-$-PAST
'Father bought a horse.'

(71) *balkan-an ğu   gʲetu-wo-r*   [Tsakhur, field notes]
horse-ERG you(I):SG:ABS beat:I-PAST:NARR-I
'The horse has hit you.'

The table in (63) illustrates that Udi knows three types of Genitive. The prototypical
distribution of the three basic allomorphic types can be described as follows:

(72) *-un*   Relational ~ Possessive
      -ay ~ -ey   Possessive [Possessor: Human[-socially salient]
      -i   Possessive [Possessor: Human [+socially salient]]

Although a number of phonotactic processes has obscured this distribution, we can safely
claim that the relational genitive differs from the vocalic variants with respect to the feature
[referential]: The relational genitive usually reduces referentiality whereas the vocalic
allomorphs indicate its preservation.

Time does not allow entering a discussion of all Genitive variants in Udi. Hence, I want to concentrate on the variant *-ay ~ -ey*. In the dialect of Vartashen, we can observe the following distribution: Forms with final *-y* are used to mark appositional or 'free' possessors whereas the forms without *-y* occur in NP internal possession, compare:

(73) *boˤq'-n-a tur-mux   č'emen-ne*   [Vartashen, field notes]
      pig-SA-<u>GEN</u> foot-PL:ABS dirty-3SG:S
      'The feet of the pig are dirty.'

(74) *tur-mux   boˤq'-n-ay č'emen-ne* [Vartashen, field notes]
      foot-PL:ABS pig-SA-<u>GEN2</u> dirty-3SG:S
      'The feet, the pig's ones, are dirty.'

The dialect of Nizh, however, illustrates that this distribution has resulted from a reanalysis of the older referential Genitive, marked by the segment *–y*, compare:

(75) *nana-[a]y   bava-[a]y   äyit-äxun   te-z   č'e-ǧ-o* [Or 52]
      mother-<u>GEN(2)</u> father-<u>GEN(2)</u> word-ABL   NEG-1SG:S out-go:FUT-FUT:MOD
      'I will not disobey my parents.'
      (Lit: 'I shall not go away from the word of my mother and] father.')

The synchronic variation of the Genitive function in Vartashen is thus based on a third processual type, namely reanalysis. The underlying genitive morpheme *-ay* or *-ey*, however, can clearly be related to the Mirror Hypothesis mentioned above. From a diachronic point of view, the two allomorphs reflect an old ablative, derived from a local case just as it has been described for Aghul above:

(76) GEN   *-ay ~ -ey*   <   **-a-y-* ~ *-e-y*
                                    IN-ABL   IN-ABL

The underlying inessive function has survived in the Udi dative, compare:

(77) *k'ož-a   xib dev-urux kar-t'un-x-e*   [Nizh, field notes]
      house-<u>DAT</u> three dev-PL:ABS live-3PL:S-LV-PERF
      'In the house, there lived three devs.'

The Udi dative is derived from the Proto-Lezgian inessive, compare

(78) **-a < *'(a)*

Accordingly, we have to assume that Udi once knew a system of case-series markers just as it has been described for Aghul in section one of this paper. (76) gives the reconstructed forms of the subparadigm at issue:
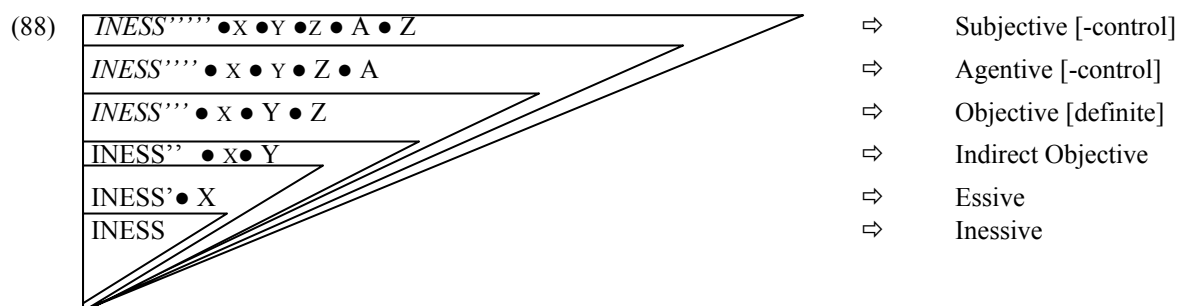
(79)   IN   Functional Scope
                          *-'(a)
      ESS   **-Ø* **-'(a)-Ø*   Inessive; Indirect Objective; [Objective[definite]]
                                  Non-controlling Agentive; Non-controlling Subjective
      ABL   **-y* **-'a-y*   Genitive (referential)
      ALL   **-x* **-'a-x*   Allative (~ Inessive); Objective [definite], Possessor
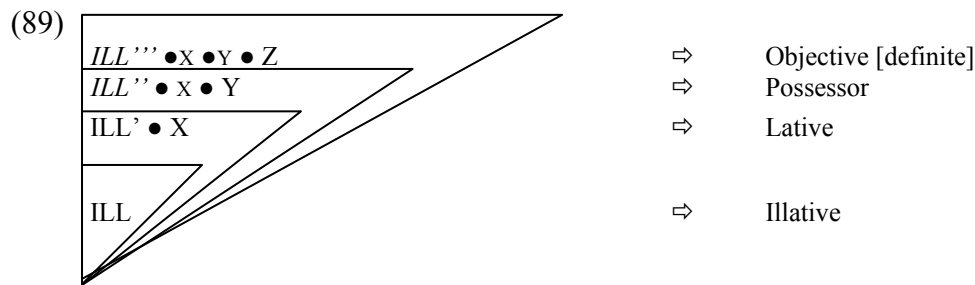
The data from the Palimpsest show that the metaphorization process has started with the inessive, then affected the illative and finally reached the ablative. Both the Inessive and the Illative show a strong invariant component, compare (80) – (84) for the inessive, and (85)-(86) for the illative:

(80) *zu šähär-ä-zu kar-x-esa*   [Vartashen, field notes]
      I:ABS city-DAT-1SG:S live-LV-PRES
      'I live in the city.'

(81) *zu ğar-a sa śum-zu   tad-e* [Vartashen, field notes]
      I:ABS son-DAT one bread:ABS-1SG:A give-PERF
      'I gave the son abread.'

(82) *zu ğar-a bisi śum-a   tad-e-z* [Nizh, field notes]
      I:ABS son-DAT old bread-DAT give-PERF-1SG:A
      'I gave the son the old bread.'

(83) *ğar-a   sa eˤk-t'u   ak'-i*   [Vartashen, field notes]
      boy-DAT one horse:ABS-3SG:IO see-PAST
      'The boy saw (perceived) a horse.'

(84) *ğar-a   mi-t'u-b-sa*   [Vartashen, field notes]
      boy-DAT cold-3SG:IO-LV-PRES
      'The boy is cold.'

(85) *zu šähär-äx ta-s-c-i*   [Vartashen, field notes]
      I:ABS city-DAT2 go-1SG:S-$:PAST-PAST
      'I went to the city.'

(86) *zu bisi śum-ax   kä-i-z*   [Vartashen, field notes]
      I:ABS old bread-DAT2 eat:PAST-PAST-1SG:A
      'I ate the old bread.'

(87) *sa eˤk zax p'u*   [Nizh, field notes]
      one horse:ABS I:DAT2 aux:pres
      'I have a horse.'

The case category that has undergone the highest degree of inflation in Udi is the old inessive. In fact, we have to deal with at least five levels, compare:

(88)

INESS''''' ● X ● Y ● Z ● A ● Z	⇨ Subjective [-control]
INESS'''' ● X ● Y ● Z ● A	⇨ Agentive [-control]
INESS''' ● X ● Y ● Z	⇨ Objective [definite]
INESS'' ● X ● Y	⇨ Indirect Objective
INESS' ● X	⇨ Essive
INESS	⇨ Inessive

The old illative shows only three levels:

(89)

|		
ILL''' ●X ●Y ● Z	⇨	Objective [definite]
ILL'' ● X ● Y	⇨	Possessor
ILL' ● X	⇨	Lative
ILL	⇨	Illative

According to the claims made in section 3 of this paper, the genitive represents a 'wild metaphor'. It lacks any invariant component related to the old ablative function. This can be seen from two facts: First, the genitive cannot be used in standard ablative function, compare:

(90)   **šo-no*   *ek'-n-ay*   *c'i-ne-ǧ-o*
         DIST-REF:ABS horse-SA-GEN2   down-3SG:S-go:FUT-FUT:MOD
         'He shall mount from the horse.'

Second, the old ablative has been replaced by a new morpheme which again has developed from the illative:

(91)   Ablative   -DAT-*xo* (Vartashen), -DAT-*xun* (Nizh), -DAT-*xoc* (Palimpsest)

Accordingly, we can describe the following inflation for the Udi -*ay*-Genitive:

(92)

ABL' **+ X**	⇨	Genitive
ABL	⇨	*Ablative
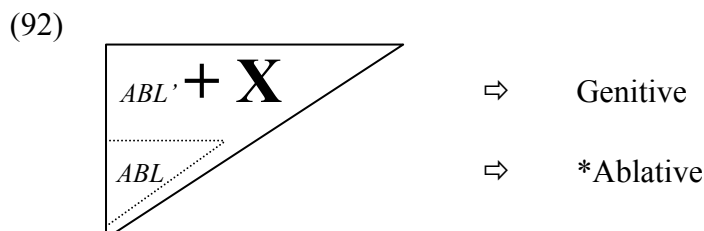
If we summarize the functional make-up of the Udi case forms discussed in this section, we arrive at the following picture: There seems to be a clear cut between case functions that have emerged from metaphorization and case functions that lack an obvious source domain, compare:

(93) | | | | |
|---|---|---|---|
| ERG-INSTR | *-en* | = | Agentivity Marker |
| GEN | *-un* | = | Relational Marker |
| GEN | *-ay ~ -ey* | < | IN-Ablative |
| DAT | *-a...* | < | IN-Essive |
| DAT2 | *-ax ...* | < | IN-Allative |

Accordingly, we can describe a metaphorical domain related to locational (orienteering) strategies and a relational domain that goes back to parallel functions already in Proto-Lezgian. This distribution is quite different from the etalon described with the help of Aghul in section 1. Nevertheless, we can safely claim that the Udi system finally goes to back to a distribution that also underlies the Aghul type.

5. Conclusions

In my paper, I have tried to show how a theory of metaphorization that itself is embedded into a broader theory of Cognitive Typology can account for a special problem, namely the emergence of case semantics in two East Caucasian language (Aghul and Udi). The main goal was to illustrate that the Mirror Hypothesis can serve as a starting point to more accurately describe metaphorization processes and to relate these processes to a more general framework that views language as a basically metaphorical system derived from the need to link experience and world. According to the hypotheses put forward in this paper, metaphorization chains in fact do not have a starting point (or source domain) as such. Source domains turn out to be just another instantiation of a metaphorical process that, however, may go beyond the linguistic system as such. If we adopt a gestalt-oriented holistic view of human cognition, we cannot describe a pronounced borderline between linguistic knowledge and linguistic practice on the one hand and cognitive Experientialism on the other hand. Hence, linguistic structures, functions and semantics are conditioned by both language internal and language transcendental conditions. A cognitive 'model' of linguistic knowledge and linguistic practice should be strong enough to cover both: The 'explanation' of the macro-system 'language' and of 'micro-systems' as presented in this paper. The interpretation of individual linguistic phenomena hence has to be embedded into a framework that can likewise be referred in explaining language as such. That is why I have tried to touch upon both perspectives in this paper, although the audience may be left with the impression that both themes have not very much in common.

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