Converse categorization strategies

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Abstract

The categorization alluded to in the title is the assignment of a lexeme class and/or a syntactic category to a class of concepts. The purpose of the paper is to establish converseness of strategies of categorization among languages as a typological concept. It will be argued that, quite in general, coding strategies in a given functional domain may be oriented in opposite directions across languages. Particular attention will be paid to the relationship between basic/lexical categorization and derived/syntactic categorization.

A particular kind of converseness is produced by the alternative of lexicalizing some concept in grammatical category $A$ and transferring it into category $B$ by derivational or grammatical operations, or vice versa. Some case studies representing different functional domains to illustrate this principle will be reviewed:

- Categorization of spatial regions as relational nouns vs. adpositions, paired with converse derivational or syntactic processes.
- Categorization of dynamic relational (“verbal”) concepts as intransitive or transitive verbs, paired with reciprocal derivational processes.
- Categorization of dynamic concepts as verbs vs. non-verbs, the latter paired with prominence of light-verb constructions in the grammar.

Whenever the concepts of a certain lexical field or functional domain are uniformly lexicalized in some particular category, this is typically coupled with a regular operation of recategorization into its complementary category. In such cases, both the basic category assignment and the presence of the operation shape the structure of sentences and of texts in the language.
1 Introduction

The primum datum of linguistic typology is variation, the elementary observation is: some languages do it this way, other languages do it another way. It is the scientist’s task to go beyond this trivial observation in systematizing the variation and discovering the underlying principles. The basic alternative is often between coding some particular distinction or leaving it to inference. However, in certain functional domains, constraints are tighter. Certain kinds of categorial information are so basic that they are generally coded at some level. This concerns, above all, the parts of speech. As is well known, such distinctions as between noun, verb, adjective etc. are not made by all languages alike, so that languages differ both in the particular categories and in the level at which categorial information is assigned (cf. Lehmann 2008). That is to say, something may be in the category of nominal expressions either by belonging to the word-class ‘noun’ or by having been nominalized, by a process of lexical derivation or by some syntactic operation. This idea was already expressed in Benveniste 1957: 222:

les unités complexes de la phrase peuvent, en vertu de leur fonction, se distribuer dans les mêmes classes de formes où sont rangées les unités simples, ou mots, en vertu de leur caractères morphologiques.

Quite in general, coding strategies in a given functional domain may instantiate opposite possibilities among languages. Some cases from different functional domains illustrating this principle will be presented, with a focus on the relationship between basic/lexical categorization and derived/syntactic categorization.

A particular kind of converseness is produced by the alternative of lexicalizing some concept in grammatical category A and transferring it into category B by derivational or grammatical operations, or vice versa. The paper will explore such mirror-image relationships. In doing so, it will be a contribution to the basic question “What cross-linguistic patterns are there in lexicon-grammar interaction?” (Koptjevskaja-Tamm 2008:6).

2 Complementarity across languages

In universals research, a major breakthrough was achieved when Joseph Greenberg (1963) applied at the typological level the Jakobsonian notion of implicational relationship between units of a linguistic system. It then became clear for the first time that a language universal need not be a property of the language system that appears in all languages. Instead, there was a logical relationship between two different properties of the language system concerning their distribution across languages. This was a more abstract kind of language universal that pointed to some principle regulating the buildup of linguistic systems.

Two properties A and B are in complementary distribution over some domain if A does not occur in the contexts that B occurs in, and vice versa. In terms of propositional logic, this is the relation of contravalence. For a short comparison of implication with complementary distribution in terms of propositional calculus, here are the truth value tables:

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The contravalence pattern may apply to the cross-linguistic domain just as implication has been applied ever since Jakobson and Greenberg. The first one to propose this was Hansjakob Seiler in his contribution to the International Congress of Linguistics 1972. His example was the functional domain of possession. See Seiler 1998 for a more recent account of the importance of complementary relationships.

Let me illustrate the point with an example that, although falling short of the strictest requirements, comes close to the intuition formalized in T2: Every language has either prepositions or postpositions. With respect to the four lines of T2, this has the following implications:

- Some languages have prepositions, but no postpositions. French and Arabic are relevant examples.
- Some languages have postpositions, but no prepositions. Relevant examples include Turkish and Japanese.
- No language possesses both prepositions and postpositions. This is wrong as it stands. The WALS (Haspelmath et al. 2005) lists 52 languages without a dominant order for adpositions in a sample of 1074 languages, with O’odham, Pashto and Somali among them.
- Every language has adpositions. This may again be false, depending on how wide our definition of adposition is (cf. DeLancey 2009). The WALS lists 28 languages without adpositions, among them Blackfoot and Dyirbal.

Save more refined analysis, the generalization about a complementary distribution of prepositions and postpositions would be true as a statistical tendency, with 7% of exceptions in the WALS sample. There are well-established methods of getting rid of such exceptions, which we may forgo for the moment.

Why would complementary distribution be important? Distributions of linguistic properties, if principled rather than fortuitous, are indicative of certain inner relationships between the entities concerned. These are of a different kind for implicational and contravalent relationships:

- In implication, one property is the basis for another. The two properties are not on the same level; one is more important for the language system than the other. Consider the example: If a language has front round vowels, it has back round vowels. The implicatum

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$\begin{array}{|c|c|c|c|} 
\hline 
 p & q & p \rightarrow q & p \times q \\
\hline 
 t & t & t & t \\
 t & f & f & t \\
 f & t & t & t \\
 f & f & t & f \\
\hline 
\end{array}$

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2 It would both be of general interest and reduce the number of counterexamples to the third implication if the criterion of dominance could be refined. Dryer (2005:7) seems to apply a criterion of basicness and frequency, by which even a very small set of highly grammaticalized prepositions besides a large set of postpositions would exclude the categorization of the language as dominantly postpositional (and vice versa). If the criterion were productivity, instead, then such a language would be clearly postpositional.

3 I assume the 7 inpositions can be subsumed under either pre- or postpositions.
is more basic than the implicans. Thus, the basic round vowels are the back ones; the front ones are more complex. So much can be inferred from the distribution itself. The next step is now a search for the factors that make back round vowels relatively basic, but front round vowels relatively complex.

• In contravalence, two properties are alternatives for a language system. They are on the same level and equally important and useful for a language to have. Two units of a language system that are in complementary distribution are isofunctional. The same would be true for linguistic properties distributed complementarily across languages. The domain in question is structured in such a way that there is just a binary alternative such that every language opts for just one of the two possibilities.

In the example of the adpositions, what is at stake is their order relative to a point of reference (their complement NP). With appropriate provisos, this is a binary parameter with the values ‘before’ and ‘after’. In such cases, either of the two possibilities is fully sufficient for a language system; no loss is involved in not having the other alternative available. There is also no regular way of generating prepositions from postpositions, or vice versa, i.e. of transposing adpositions.

Clean complementary distributions of features across languages are rare if at all existent. The first line of T2 presupposes some function that must be fulfilled by languages and can only be fulfilled in either of two ways. Such states of affairs are rare. And even if one of the two solutions is fully sufficient, what could prevent a language from acquiring the alternative solution, too, clashing thus with the last line of the truth-value table?

In what follows, we will focus on cases of a slightly different nature: In a given functional domain, there is a principal alternative between solutions A and B. At a basic level, the language opts for alternative A; but since B is also useful, it has an operation to convert A into B. The opposite goes for a language that opts for B at the basic level. Those languages that opt for one of the two converse solutions therefore typically develop strategies that are mirror-images of each other. On the other hand, since both alternatives are useful to have, there is little to force a language to be consistent in its basic choice. Consequently, such categorizations and strategies are generally not in a clean complementary distribution across languages.

3 Some case studies

3.1 Spatial regions: adpositions and relational nouns

Spatial regions are concepts like ‘top’ and ‘inside’. All languages code them in some way, since they are an integral part of human orientation in space. However, different word classes are available for their categorization. We will forgo here the possibility of incorporating these concepts in the meaning of verbs of rest and motion such as ‘be in’, ‘enter’ and the like, and instead concentrate on the following alternative: On the one hand, spatial regions seldom provide referential objects (as in ‘I saw the top’); they are mostly needed to relate participants in spatial situations (‘I climbed on top of it’). Therefore some languages categorize them as adpositions like ‘in’ and ‘on’ or as adverbs like ‘inside’ or ‘above’. However, in such an adposition or adverb, the concept of the spatial region is actually merged with the concept of a local relation like rest, motion towards, motion away from. For instance, English in X essentially means: ‘in a locative relation to the interior of X’, while into X means ‘in an
allative relation to the interior of X’ (Lehmann 1992). Since these local relations combine in a compositional way with spatial regions, one gets a neat system of free and possibly regular combinations of concepts of the two kinds if one does not categorize spatial regions as adpositions or adverbs, but instead as relational nouns like ‘interior’ and ‘top’. These then combine with local relators to yield complex relators like ‘from the interior of X’ (i.e. ‘out of X’) or ‘on top of X’. And in fact, many languages have a primary categorization of spatial regions as relational nouns. We will here compare German and Japanese (drawing from Lehmann 1990, §5).

Japanese is among those languages which primarily categorize spatial regions as relational nouns. These include nouns such as yoko ‘side’, ue ‘top’, usiro ‘back’ and the like. They take a genitive complement, as in heya-no naka (room-GEN interior) ‘interior of the room’. Again, local relators are coded as cases (agglutinative suffixes or enclitic postpositions depending on the analysis), viz. -ni ALLATIVE-LOCATIVE, -de PRERLATIVE, -kara ABLATIVE. They attach to nouns, including relational nouns, and together with the latter produce complex postpositions as in (heya)-no naka-kara (room-GEN inside-ABL) ‘out of (the room)’. Finally, regional property concepts such as ‘upper’ are coded as genitive attributes, as in ue-no (hako) (top-GEN box) ‘upper (box)’.

German, on the other hand, opts for the alternative of primarily categorizing spatial regions as prepositions and adverbs. These are prepositions such as über ‘above’, unter ‘under’, vor ‘in front of’ and adverbs such as oben ‘above’, unten ‘below’ and vorn ‘in front’. Thus, in contradistinction to Japanese, spatial relators are elementary forms. As may be seen, some of the prepositions are related diachronically to certain adverbs, sharing certain submorphemic material with them, so it may be possible to reconstruct underlying relational nouns there. Anyway, in Modern German there are no primitive nouns of spatial regions, with one exception, Seite ‘side’. Instead. Such nouns have to be formed in a cumbersome way. First, a region adjective is derived (applying the adjectivizer -er in a partly regular fashion) from the preposition, yielding adjectives like ober(-e), ‘upper’, unter(-e) ‘lower’, vorder(-e) ‘front’. Their stems then combine as attributes with the generic region noun Seite to form compound nouns such as Oberseite ‘top’, Unterseite ‘bottom’, Vorderseite ‘front’. At this point, finally, the semantic equivalent to the Japanese basic region nouns is reached.

As may be seen, the two languages form their basic expressions at opposite points and employ converse derivational procedures to reach the point that the other language started from. This is visualized in T3.

<table>
<thead>
<tr>
<th>language word class</th>
<th>Japanese</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>region</td>
<td>noun → adposition</td>
<td>noun ← adposition</td>
</tr>
<tr>
<td>side</td>
<td>yoko NP&lt;sub&gt;gen&lt;/sub&gt; yoko-ni</td>
<td>Seite neben NP&lt;sub&gt;dat&lt;/sub&gt;</td>
</tr>
<tr>
<td>top</td>
<td>ue NP&lt;sub&gt;gen&lt;/sub&gt; ue-ni</td>
<td>Oberseite auf NP&lt;sub&gt;dat&lt;/sub&gt;</td>
</tr>
<tr>
<td>bottom</td>
<td>sita NP&lt;sub&gt;gen&lt;/sub&gt; sita-ni</td>
<td>Unterseite unter NP&lt;sub&gt;dat&lt;/sub&gt;</td>
</tr>
<tr>
<td>front</td>
<td>mae NP&lt;sub&gt;gen&lt;/sub&gt; mae-ni</td>
<td>Vorderseite vor NP&lt;sub&gt;dat&lt;/sub&gt;</td>
</tr>
<tr>
<td>back</td>
<td>usiro NP&lt;sub&gt;gen&lt;/sub&gt; usiro-ni</td>
<td>Hinterseite hinter NP&lt;sub&gt;dat&lt;/sub&gt;</td>
</tr>
</tbody>
</table>
T4 visualizes the complementary categorization of spatial regions in Japanese and German and their converse operations of creating constructions that are basic in the respective other language.

T4  Complementary categorization of spatial regions in Japanese and German

<table>
<thead>
<tr>
<th>derived</th>
<th>[ NP-GEN X-CASE ]_{AdpP}</th>
<th>[ X-ADJVZR-Seite ]_{N,rel}</th>
</tr>
</thead>
<tbody>
<tr>
<td>basic</td>
<td>[X]_{N,rel}</td>
<td>[X]_{Adp NP-CASE} _AdpP</td>
</tr>
</tbody>
</table>

It will be noted that the initial observation here is not the complementary distribution of two features across a sample of languages, but instead an alternative choice made by two languages in some well-defined domain, each with opposite consequences for adjacent parts of the linguistic system.

3.2 Base transitivity: basic transitivity vs. intransitivity

Certain dynamic relational concepts – what is occasionally called ‘verbal concepts’; but see §3.3 and fn. 8 – imply an undergoer and are compatible both with the presence and with the absence of an actor. With an allusion to Chafe 1970, ch. 11, these will here be called action-processes. There are two opposite options in coding the distinction between presence vs. absence of an actor by deployment of regular derivation (cf. Haspelmath 1993, Nichols et al. 2004, Koptjevskaja-Tamm 2008:32): An action-process may be coded basically as an intransitive verb, which may be causativized if an actor is involved; or alternatively, it may be coded basically as a transitive verb, which may be anticausativized if no actor is involved. Apart from these two strategies, there are other solutions to the problem. One is to leave the distinction uncoded, i.e. to operate with labile verbs. Another is to shift the problem into the lexical sphere: thus, there may be equally elementary or equally derived lexemes for both the intransitive and the transitive version, so that none is based on the other.

Anyway, some languages adhere rather consistently to one or the other of the two principled solutions. Like Bororo, Coast Salish and several other Amerindian languages, Japanese categorizes action-processes preferably as intransitive verbs, while Russian categorizes them preferably as transitive verbs. Japanese has causativization, but no morphological anticausativization. In Russian, it is the other way around: it has anticausativization (in the form of reflexive verbs), but no morphological causativization. For the concepts illustrated in T5, the basic verbs in Japanese mean ‘move’ (itr.), ‘get a fright’ and ‘get angry’, while the basic Russian verbs mean ‘move’ (tr.), ‘frighten’ and ‘annoy’.

T5  Basic intransitivity and transitivity in Japanese and Russian

<table>
<thead>
<tr>
<th>language verb class</th>
<th>Japanese</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>intransitive</td>
<td>transitive</td>
<td>intransitive ← transitive</td>
</tr>
</tbody>
</table>
T6 visualizes the converse relationship between the base and derived constructions in the two languages.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Derived</th>
<th>Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>move</td>
<td>ugok-u</td>
<td>[ X ]_{itr}</td>
</tr>
<tr>
<td>scare</td>
<td>odorok-u</td>
<td>[ X ]_{itr}</td>
</tr>
<tr>
<td>annoy</td>
<td>okor-u</td>
<td>[ X ]_{itr}</td>
</tr>
</tbody>
</table>

Haspelmath 1993 and Nichols et al. 2004 make it clear that there is no language in the sample that adheres exclusively to one of the alternate basic categorizations. Moreover, if alternative A is chosen as basic, this does not entail that alternative B has to be derived from A. Thus, this relationship between base transitivity and base intransitivity is, again, not really a clean case of complementary distribution of strategies across languages. It may, however, be retained that if a language makes a principled decision for one basic categorization, then it needs an operation of recategorization, whereas if it does not, then it does not need such recategorization operations, either. For instance, English has many labile verbs such as move, boil and break; and it has neither a morphological operation of causativization nor one of anticausativization.

### 3.3 Noun and verb: light verb constructions in Persian and German

Languages categorize dynamic concepts as verbs. There is, however, meanwhile a sizable amount of literature (summarized in Schultze-Berndt 2000, ch. 7.2) on languages with a very small set of verbs. It is apparently not necessary to provide a verb for each of the many different types of dynamic situation, and instead it is possible to reduce the domain to a small set of very generic types like rest, motion, transfer, production etc. In that case, what are verbal meanings in SAE languages may for the most part be categorized as a part of speech different from the verb. What this category exactly is remains to be made precise and certainly may differ among languages. In general, it is not expected to be a category easily to be accommodated in European part-of-speech systems, since we are dealing with abstract, mostly dynamic concepts which are not verbs, but would by their very nature not be good nouns or adjectives, either.

In European languages, verbal constructions whose structural head is a rather empty verb governing a complement which semantically enriches the situation core rather than representing any of the participants are known as light verb constructions. A Light Verb

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Footnote: According to the description in Crowell 1979, Bororo instantiates the base-intransitive pole of the continuum. We do not expect to find a language that instantiates the opposite pole, i.e. a language without intransitive verbs.
Construction (LVC) is a construction of the structure shown in S1 (sequential order of A and B is irrelevant).

\[ ... \left[ \left[ A \right] C \left[ B \right] V \right]_{LVC} \]_{VP} \]

where B is one of a set of verbs of generic function and meaning, and C is a syntactic category that can function as a complement of B. B is called a light verb. A is called the inner complement of the LVC. The LVC is the core of a VP. The three dots represent complements and adjuncts of the LVC.

### 3.3.1 Light-verb constructions in German

A subset of LVCs in German, illustrated in E1, are lexicalized.

**E1**

<table>
<thead>
<tr>
<th>a. hops gehen</th>
<th>hop(PTL) go:INF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘to die’</td>
</tr>
<tr>
<td>b. hops/hopp nehmen</td>
<td>hop(PTL) take:INF</td>
</tr>
<tr>
<td></td>
<td>‘to arrest’</td>
</tr>
</tbody>
</table>

These will not occupy us any further. Suffice it to note that the inner complement in E1 is not a (simple or cased) NP, but an ideophone. The complementary subset of LVCs forms rather regular and productive groups, as those in E2 (cf. Lehmann 1991, §3.5).

**E2**

<table>
<thead>
<tr>
<th>a. das Programm kommt zur Ausführung</th>
<th>the program comes to:the execution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'the program is executed'</td>
</tr>
<tr>
<td>b. sie bringt das Programm zur Ausführung</td>
<td>she brings the program to:the execution</td>
</tr>
<tr>
<td></td>
<td>'she executes the program'</td>
</tr>
</tbody>
</table>

These constructions are in a paradigmatic relationship to each other and to more elementary constructions containing a simple full verb instead of the LVC. E3 shows these more elementary counterparts to the LVCs of E2:

**E3**

<table>
<thead>
<tr>
<th>a. das Programm wird ausgeführt</th>
<th>the program becomes executed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'the program is executed'</td>
</tr>
<tr>
<td>b. sie führt das Programm aus</td>
<td>she leads the program out</td>
</tr>
<tr>
<td></td>
<td>'she executes the program'</td>
</tr>
</tbody>
</table>

These paradigmatic relations are schematized in S2: E3.a and b are represented in the right and left columns, respectively, of the line dubbed ‘simple full verb’, and similarly E2.a and b in the same columns of the line dubbed ‘light verb’.

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5 The switch in the order of a/b in E2 as opposed to left/right in S2 is due to opposite markedness relations: In the simple full verb construction (E3), passive is marked as against active, while in the LVC of E2, the light verb of the active version is a lexical causative of the light verb of the inactive version.
**S2**  **Paradigmatic relations of German light-verb constructions**

<table>
<thead>
<tr>
<th>version construction \ active</th>
<th>passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>simple full verb</td>
<td></td>
</tr>
<tr>
<td>[x_{obj} \text{[A]}<em>{\text{V.tr}} y</em>{obj}]</td>
<td>[y_{obj} \text{wird (von x) [A]}_{\text{V.tr.pass}}]</td>
</tr>
<tr>
<td>light verb</td>
<td></td>
</tr>
<tr>
<td>[x_{obj} \text{bringt } y_{obj} \text{zu [A]}_{\text{VN.dat}}]</td>
<td>[y_{obj} \text{kommt/gelangt (durch x) zu [A]}_{\text{VN.dat}}]</td>
</tr>
<tr>
<td>[x_{obj} \text{unterzieht } y_{obj} \text{zu [A]}_{\text{VN.dat}}]</td>
<td>[y_{obj} \text{findet/erfährt (durch x) zu [A]}_{\text{VN.acc}}]</td>
</tr>
</tbody>
</table>

In the formulas, \text{A} is a lexeme coding a dynamic relational concept such as ‘execute’ in E3, VN is ‘verbal noun’. A comparison of the two columns reveals that regular German LVCs replicate the voice paradigm of the underlying simple verb. The paradigmatic relation between a simple full verb construction and a LVC (represented by the lines of S2) may be described thus: The dynamic relational concept \text{A} that is coded as a simple full verb in the basic construction is coded as a non-verb, viz. a VN, in the function of the inner complement in an LVC. The exact syntactic function of the inner complement varies depending on the valency of the light verb.\(^6\)

S2 mentions the two light verbs illustrated in E2 and a couple more with very similar function. They are tabulated in T7:

**T7**  **Productive German light verbs**

<table>
<thead>
<tr>
<th>active/transitive form</th>
<th>meaning</th>
<th>inactive/passive form</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bringen</td>
<td>bring</td>
<td>kommen</td>
<td>come</td>
</tr>
<tr>
<td>unterziehen</td>
<td>subject</td>
<td>gelangen</td>
<td>arrive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>finden</td>
<td>find</td>
</tr>
<tr>
<td></td>
<td></td>
<td>erfahren</td>
<td>experience</td>
</tr>
</tbody>
</table>

Apart from the voice paradigm focused on here, there are also subtle shades of aktionsarten which may be foregone here. The following points should be retained, however:

- The regular German LVC involves a derived verbal noun as the inner complement of the light verb.
- It is, thus, in a paradigmatic relation with a simple full verb construction whose verb is precisely the base of that verbal noun.
- The derivation of an LVC from a simple full verb construction involves a paradigm of light verbs. The process is compositional, but limited to a set of full verbs.

### 3.3.2 Light-verb constructions in Persian

According to Karimi-Doostan 1997:82, Modern Persian (colloquial and standard) has about 150 (100 according to Karimi-Doostan 2001:277) simple verbs, some 30 (20 according to Family 2008:140) of which serve as light verbs. Most verbal expressions involve an LVC.\(^7\) E4 provides a few typical examples.

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\(^6\) The category index VN in the formulas is a slight simplification, since the complement shows morphological symptoms of definiteness in prepositional forms such as \textit{zur ‘to:the(F)’}, as in E2.

\(^7\) In a corpus, 2500 different LVCs were found (Karimi-Doostan 1997:83).
E4  a. qadam zad-an
   Persian step beat-INF
   ‘to go for a walk’

b. xejālat kešid-an
   shame pull-INF
   ‘to get ashamed’

c. padid ?āmad-an
   event come-INF
   ‘to happen’ (Avazeh Mache p.c.)

As is apparent, the Persian LVC has the general structure of S1 above. Members of C (the inner complement) are called “preverbal elements” in Family 2008:140 and “non-verbal elements” in Karimi-Doostan 2006. This category subsumes a heterogeneous set of word classes and syntactic categories, including N, Adj, Adv, Prep and PrepP and some ill-defined word class which Karimi-Doostan 2006 dubs “classless words” and which are semantically most similar to abstract nouns. Many of them are Arabic loans. As their precise grammatical nature is neither clear nor at stake here, the following hints may suffice: Unlike adjectives, classless words have no degrees of comparison and do not take adverbial modifiers. Unlike nouns, they do not decline, take determiners or depend directly on a lexical verb or preposition. Unlike verbs, they do not conjugate or constitute a clause predicate. Some of them, however, (including, e.g., ʔanjām ‘execution’ in E7) may function as the head of an attribute linked by ezafe. For purposes of the present argument, it suffices to know that classless words share with all the other members of C the property of being neither verbs nor derived from verbs by any regular process.

The verbs functioning as light verbs in E4 have uses as full verb, too; but they appear far more often in LVCs. Moreover, as may be gathered from the examples, many of these collocations are lexicalized and highly idiomatic. They bear no paradigmatic relation to a simple base verb construction and instead fill a lexical gap. LVCs are, in fact, lexicalized to different degrees (Karimi-Doostan 2001): a subset behaves syntactically more like a VP whose verb and argument NP are visible to syntactic processes, while another subset behaves more like a compound verb. These differences have their analog in the German facts mentioned in §3.3.1, but do not matter for present purposes.

E5 provides a pair of examples that are in a diathetic relationship. Observe that although the LVC contains an inner complement, it can take a direct object, as demonstrated by E5.b.

E5  a. Sasan (tavasote Ali) šekast xord.
   Persian Sasan by Ali defeat eat(PAST)
   ‘Sasan suffered defeat / was defeated (by Ali).’

   Ali Sasan-ACC defeat give(PAST)

Beside the prevalent type illustrated in E4f, there are a few full verbs in Persian coupled paradigmatically with a verbal noun, which latter may serve as the inner complement of a corresponding LVC. They are enumerated in T8 and quoted as a pure stem (identical with the third singular past tense form in most cases).
**T8**  Simple full verbs and verbal nouns in Persian

<table>
<thead>
<tr>
<th>form</th>
<th>verb stem</th>
<th>verbal noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>pay</td>
<td>pardāxt</td>
<td>pardāxt</td>
</tr>
<tr>
<td>cry</td>
<td>gerist</td>
<td>gery-e</td>
</tr>
<tr>
<td>confuse</td>
<td>ašoft</td>
<td>ašoft-e</td>
</tr>
<tr>
<td>moan</td>
<td>nalid</td>
<td>nal-e</td>
</tr>
<tr>
<td>strive</td>
<td>kušid</td>
<td>kuš-eš</td>
</tr>
<tr>
<td>choose</td>
<td>pasandid</td>
<td>pasand</td>
</tr>
<tr>
<td>live</td>
<td>zist</td>
<td>zendagi</td>
</tr>
</tbody>
</table>

Each of the verbal nouns of the right-hand column in T8 combines as an inner complement with the light verb *kardan* ‘do’ in order to form an LVC that is essentially synonymous with the simple verb, as illustrated in E6.

E6  a. man pul-rā pardāxt-am
    PERSIAN  I money-ACC pay(PAST)-1.SG
    ‘I paid the money’
    b. man pul-rā pardāxt kard-am
    I money-ACC pay do(PAST)-1.SG
    ‘I paid the money’ (Karimi-Doostan 1997:62)

In contrast with the German system, however, this kind of paradigmatic relation is not constitutive of the Persian LVC. In fact, the entries of T8 have been arranged in such a way as to bring out what regularity there is; but as may be seen, hardly any two entries follow the same structural pattern. The only regular and productive way of forming a verbal noun (nomen actionis) is the infinitive (illustrated by E4), which may be formed for any verb, including those in T8. The infinitive, however, cannot occupy the position of \( C \) in S1. There is, consequently, no regular process of deriving an LVC from a simple full verb. Instead, Persian LVCs are organized internally in rather tight paradigms formed by the parameters of voice and aktionsart. Here only voice will be noted. A first example of a diathetic opposition between inactive or passive (E5.a) vs. active and transitive (E5.b) was already seen. Similarly in E7:

E7  a. kār-am ṭanjām šod / yāft
    PERSIAN  business-POSS.1.SG execution become(PAST) / find(PAST)
    ‘my business got executed’ (Karimi-Doostan 1997:113/129)
    b. Ali ṭin kār-rā ṭanjām dād
    Ali this job-ACC execution give(PAST)
    ‘Ali did this job’ (Karimi-Doostan 1997:79)

This paradigmatic relation is schematized in S3, which accounts for some of the light verbs illustrated before.
S3 Diathetic relation of Persian light-verb constructions

<table>
<thead>
<tr>
<th>active/transitive</th>
<th>inactive/passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>x_{obj} y_{obj} [A]_{C} dād / kard</td>
<td>y_{obj} (tavasote x) [A]_{C} šod / xord</td>
</tr>
</tbody>
</table>

In the formulas, A is a dynamic relational concept, C is any of the categories mentioned before. T9 contains the core paradigm of light verbs (cf. Karimi-Doostan 1997:83f), some of which produce over 500 LVCs (Family 2008:146):

T9 Productive Persian light verbs

<table>
<thead>
<tr>
<th>active/transitive</th>
<th>meaning</th>
<th>inactive/passive</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kard</td>
<td>do</td>
<td>šod</td>
<td>become</td>
</tr>
<tr>
<td>dād</td>
<td>give</td>
<td>xord</td>
<td>eat, undergo</td>
</tr>
<tr>
<td>zad</td>
<td>hit</td>
<td>yāft</td>
<td>find</td>
</tr>
<tr>
<td>ŋāvard</td>
<td>bring</td>
<td>ŋāmad</td>
<td>come</td>
</tr>
</tbody>
</table>

As already mentioned, the infinitive is the all-purpose nominalization process; and it also serves in the nominalization of LVCs, as pointed up by the bracketing in E8f:

E8 hoquq-e kam baʔes-e rešve xord-an ziyad šod-e ast
PERS salary-AT small cause-AT [ bribe eat-INF much ] become-PTCP is ‘low salaries have become the cause of much bribery’ (Family 2008:157)

E9 Sohrāb as dast dād-an-e Rostam xeyli afsus xord.
PERS Sohrab [ from hand give-INF-AT Rostam ] much regret eat(PAST) ‘Sohrab heavily regretted the loss of Rostam.’ (Family 2008:149)

The following generalizations may be retained about the Persian light-verb system:

- There are only some 100 - 150 verbs, some 20 - 30 of which may function as light verbs.
- Most dynamic relational concepts are not lexicalized as verbs, but as nouns, adjectives, adverbs and “classless words”. In order to function as predicates, these combine with a light verb.
- LVCs are highly productive, both in their regular and in their lexicalized variant. They represent, in fact, the most important process of verb derivation.
- Most LVCs lack a more basic counterpart formed by a simple full verb.

3.3.3 Comparison

We have seen LVCs in German and Persian alike. However, their locus in the language system is essentially different. One of the basic differences concerns the categorial status of the words that may function as inner complement of an LVC (A in S1). T10 opposes some representative examples.
As T10 is meant to illustrate, the German abstract nouns are mostly derived by regular nominalization from a verb stem (even *Rücksicht* is so derived, although not in a regular way). Again, all of the Persian entries are “classless words”. They bear no derivational relationship to verbs; and since it suffices to be aware of that, they are here indexed as “non-verbs”. On the other hand, while all of the Persian entries have their raison d’être as inner complement of an LVC, half of the German abstract nouns of T10 (and most abstract nouns that do not appear in T10) are seldom or never used in LVCs.

As most of the Persian LVCs do not have a simpler counterpart, the status of the LVC in the syntactic system differs in the two languages, too. While in German, an LVC is clearly a derived construction, formally, semantically and stylistically marked against its base, the Persian LVC is in most cases the simplest construction available; it is one of the basic verbal constructions.

These interrelated differences between the German and Persian LVC are summarized in T11.

**T11**  
**LVCs in German and Persian**

<table>
<thead>
<tr>
<th>criterion</th>
<th>German</th>
<th>Persian</th>
</tr>
</thead>
<tbody>
<tr>
<td>lexical category of dynamic</td>
<td>mostly verbs</td>
<td>mostly non-verbs</td>
</tr>
<tr>
<td>relational concepts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lexical basis of regular LVC</td>
<td>simple full verb</td>
<td>basic non-verb</td>
</tr>
<tr>
<td>complexity status of LVC</td>
<td>which is</td>
<td>marked</td>
</tr>
<tr>
<td></td>
<td>nominalized</td>
<td>basic</td>
</tr>
</tbody>
</table>

Finally, there is nominalization in both languages. However, in German it operates at a lower level of structural complexity, as it applies to simple full verbs and derives verbal nouns from them. In Persian, again, most abstract lexemes are not transparently derived from verbs. It is only at the level of the verb group and the clause that the infinitive produces a nominalized clause. And it applies to LVCs alike, producing nominalizations based on LVCs rather than the other way around, as in German.

In a dynamic perspective, this means that both languages have the means to derive nominal from verbal expressions and vice versa. However, since they opt for opposite bases, operations that produce constructions of higher-level complexity are cross-linguistically out of phase, as S4 is meant to illustrate:

- German (left-hand column of S4) opts for categorizing most dynamic relational concepts in one major word class, viz. the verb. There is, accordingly, nominalization at that low level, i.e. a derivational operation that creates verbal nouns. These, in turn, may form the
Christian Lehmann, Converse categorization strategies

 lexical basis of another process of verbalization, producing LVCs which double simple full verb constructions at a higher level of complexity.

• Persian (right-hand column) opts for categorizing most dynamic relational concepts in a set of non-verbal word classes, some of which correspond to abstract nouns of other languages. LVCs are at the next higher level of complexity, and they are produced by a one-step operation of verbalization (combining the non-verb with a light verb); and apart from the exceptions illustrated in T8, they double nothing. LVCs, in turn, may be nominalized at the syntactic level, producing infinitivals which fall into the same category as a subset of the basic abstract lexemes.

S4 Categorization of dynamic relational concepts in German and Persian

| Basic level / language | German | Persian |

3.4 Other examples

Many more areas of grammar could be analyzed in the manner proposed here for spatial regions, base transitivity and light-verb constructions. The following four areas have partly been studied before, but would be worth taking up:

• Properties: Apart from the primary categorization of property concepts as abstract nouns (like ‘beauty’), resorted to by only a few languages, the main alternative is between categorizing them as adjectives (‘beautiful’) or as stative verbs (‘be beautiful’). There are then operations of transferring property words into the respective other category. See Lehmann 1990, §4.

• Situations of motion: The semantic components that constitute a situation of motion include manner of motion and local relation to reference point. Languages may opt for merging either one or the other of these components into the verbal lexeme. They then develop converse strategies for coding the respective other component, which generally takes the form of an adjunct. These lexicalization patterns were first identified in Talmy 1985; cf. also Koptjevskaja-Tamm 2008:20.

• Nomination: For the task of designating entities of high time-stability (“things”), languages have the noun as a part of speech. Given this class, there is still the alternative of treating it as basic, i.e. providing a large stock of elementary nouns, or forming most nouns by nominalization of verbs. The alternatives are called ‘labeling vs. descriptive’ in Seiler 1975. The case is complementary to the one of light-verb constructions treated in §3.3.

• Part-of-speech categorization: Certain discourse categories such as ‘referring expression’, ‘modifying expression’ and ‘predicating expression’ are coded at one of the complexity levels in the form of root classes, lexeme classes or (phrasal) syntactic categories. The
main alternative here is the categorization of roots as opposed to stems. Languages that already categorize roots economize on categorizing operations at higher grammatical levels (s. Lehmann 2008).

4 Conclusion

The general argument offered here on the basis of three examples may be summarized thus: Assume first a set of interlingual syntactic categories that apply to linguistic signs both at the lexeme/stem level and at higher complexity levels such as the syntagm and the clause. Next consider a particular set of lexical concepts\(^8\) which belong to one semantic field or domain but are usable in two different syntactic categories \(A\) and \(B\), e.g. as a nominal or a relator, as a transitive or intransitive verbal, as a nominal or a verbal (word form or syntagm). Then the general hypothesis suggested by the data analyzed here may be phrased as follows:

To the extent that a language assigns such a set uniformly to category \(A\) at the stem level, it will possess an operation \(O\rightarrow B\) of converting members of the set into category \(B\) at some higher level of syntactic complexity; and symmetrically, to the extent that a language assigns the set uniformly to category \(B\) at the stem level, it will possess an operation \(O\rightarrow A\) of converting members of the set into category \(A\) at a higher level.

Thus, the two couplings of basic categorization plus conversion operation form mirror images. Both the basic category assignment and the presence of the operation shape the structure of sentences and of texts in the language.

However, this binary contrast depends on the condition of uniform categorization. Even if there are just two categories in which a given class of concepts is used, there is no necessity for a language to make a principled choice for its basic categorization. There are common ways of eschewing the decision. One solution is category indeterminacy: The concepts in question may simultaneously belong to categories \(A\) and \(B\). Not deciding the alternative of categorizing spatial regions as either relational nouns or as adverbs results in a lexeme class that is indeterminate between these two categories, like English \(back, left\) and \(right\). For the alternative between transitive and intransitive verbs, category indeterminacy yields labile verbs, again a solution favored by English. For the alternative of categorizing dynamic concepts as either verbs or non-verbs, English once more provides examples of numerous lexemes like \(walk\) and \(cry\) which may be used as either nouns or verbs. Another way of eschewing the alternative is to provide two lexemes for each of the concepts in question, one in each category. In the field of spatial regions, that is the case of English \(on\) and \(top, under\) and \(bottom\). For action-processes, English has lexical pairs such as \((be)\) \(angry\) vs. \(annoy, eat\) vs. \(feed\). Syntactic doublets of dynamic relational concepts include \(choose\) vs. \(choice, live\) vs. \(life\).

\(^8\) Just like the term \emph{verbal concept} evoked at the beginning of §3.2, the term \emph{lexical concept} is current, but not particularly ingenious since the fact that the concepts in question tend to be coded in lexemes is an observation \emph{a posteriori}. The term is responsible for the awkwardness of such formulations as of lexical concepts that are not lexicalized (next paragraph above). Expressions like \emph{specific concepts} would be more appropriate, but would require an explanation on every occasion of use.
This leads to a model that transcends the alternative between converse strategies. If a set of concepts is to be used both in categories A and B, then the first decision to be made is at which level the problem should be solved:

1. Solving it at the lexical level (more precisely, at the level of the inventory, excluding lexical morphology) means that the set of lexemes is doubled for the two categories in question.
2. Solving it at the morphological level means that the set is assigned to one category and transferred into the other category by a derivational operation. This is the approach studied in §3.
3. Solving it at the syntactic level means allowing category indeterminacy for the lexemes in question and providing syntactic templates with slots that pin the category of the items down when they are inserted.

For a language to opt for solution #2 means for it to introduce grammatical structure into its lexicon to a higher degree than required by the other two solutions (cf. Coseriu’s [1976, §5.2] idea of word-formation as a “grammaticalization of the lexicon”). It remains to find out what the typological principles underlying these options are, under what conditions the balance between grammar and lexicon may be tilted into either direction, and if the option of introducing grammatical structure is chosen, what conditions the converse choices illustrated in the preceding.

Again, this decision tree depends on the constellation presupposed for this study, viz. that a certain categorial distinction is at all made in some way. It should not be forgotten that there is a yet more basic decision to be taken, viz. between coding or not coding something and, in the latter case, leaving it to inference. This alternative is of no great consequence for the language system if the concept to be coded is a “lexical concept”, since if it is not lexicalized, it can always be paraphrased; that is part of the effability of human language. In grammar, however, this alternative makes for decisive typological differences among languages. Here are two examples:

• Relations of alienable possession: In alienable possession, the nature of the relation between possessor and possessum is not apparent from the nature of the possessum. The basic alternative here is to leave it to inference on the basis of the speech situation with all its ingredients (linguistic context, world knowledge etc.) or to code it. The former alternative is chosen in alienable possessive constructions in which possessor and possessum are simply juxtaposed or at most linked by some case relator like the genitive or a possessive pronominal element. The latter alternative is chosen in possessive classifier constructions. S. Lehmann 2002, ch. 6.3.

• Possession vs. participation: Consider a situation involving a participant that simultaneously plays two cognitive roles in it, one of them being a peripheral participant of the situation core (like recipient or beneficiary) and the other being the possessor of the undergoer. These are situations like ‘Linda returned the book to Irvin’ or ‘Linda bought a book for Irvin.’ In such cases, the language may code one of the two roles and leave the other role to inference. Some languages are consistent in opting for one of the alternatives. German always codes the participant role, forming sentences resembling the English example formulations with Irvin in a dative function. Yucatec Maya always codes the possessor role, arriving at something like ‘Linda returned Irvin’s book’ and ‘Linda bought Irvin’s book’ (i.e. the book that is to be Irvin’s). See Lehmann et al. 2004, ch. 5.1.
Analyzing such distributions of coding strategies across languages may be a powerful heuristic in systematizing cross-linguistic variation and finding out about the principles underlying the alternative of solving certain tasks of cognition and communication either in the lexicon or in the grammar.

References


