Semantic and structural properties of Turkish ideophones

Gerd Jendraschek

Turkish has a large number of ideophones. These are generally sound-symbolic forms, which means that there is to a certain extent a correspondence between phonological and semantic features. Depending on the degree of iconicity, these correspondences can be more or less obvious. However, like all linguistic signs, ideophones are also based on convention. Another characteristic property of Turkish ideophones is their modifying function. Adverbial use is most frequent and can be considered prototypical. When used as adverbs, ideophones amplify a verb's meaning, but may contain further semantic information as well. The most frequent construction for adverbial ideophones is that of reduplicated secondary forms for continuous, repeated impressions, whereas sudden, single impressions are expressed by using quotative constructions or derived forms. Other semantic nuances may be conveyed by vowel and consonant alternation. The pragmatic function of ideophones is to convey subjective impressions, to evoke whole ideas, i.e. foster imagination, and make discourse more expressive or dramatic.

Gerd Jendraschek, 31, rue Bouquieres, F-31000 Toulouse. E-mail: jendraschek@hotmail.com

1. Introduction

1.1. Research on Turkish ideophones

Although Turkish has a great number of ideophones and makes frequent use of them, they seem to have been neglected in Western Turkish grammars and manuals as well as in recent linguistic research. The literature on Turkish ideophones is anything but abundant: two articles in German are Dmitrijev (1927) and Marchand (1953). Householder's contribution (1962) deals with sound-symbolic forms in Azerbaijanian. As for works by Turkish linguists, Zülfikar published a book in 1995 that deals with sound-symbolic forms in Turkish and contains extensive appendices. It is the most important work so far available treating Turkish ideophones. Demircan's contributions (1996a, 1996b, 1997) deal with the relationships between phonology and semantics of sound-symbolic forms in Turkish. Other authors have briefly mentioned ideophonic sound-symbolic forms, for example when dealing with the origin of language or reduplication, e.g. Hatiboğlu (1981).

It is important to remark that these authors do not make use of the term "ideophone", but treat the issue under the labels "onomatopes" or "sound-symbolism". However, ideophones, in Turkish as well as universally, have special functions and additional properties that are not inferable from their sound-symbolic origin. In order to justify this terminological preference, § 1.2. will provide some theoretical background to the study of ideophones.

1.2. Theoretical prerequisites

1.2.1. Sound symbolism

Ideophones are generally based on sound symbolism, i.e. a direct, non-arbitrary link between sound and meaning. Sound symbolism constitutes an exception from the general principle of arbitrariness of the linguistic sign, where the transition from total motivation to total arbitrariness can be located on a continuum. The most motivated form of sound symbolism is found in corporal sound symbolism used for the expression of physical or emotional states. This form of sound symbolism is only limited by the articulatory mechanism of human speech and exceeds the phonologically allowed sounds of individual languages (Hinton & Nichols & Ohala 1994: 2-12). This property explains the phonological violations and the stylistic markedness of ideophones. Imitative sound symbolism includes onomatopes which have acoustic denotata on the one hand and movement imitatives with non-acoustic denotata on the other. Onomatopoeia is very present in "baby talk" used by adults when addressing children and is then imitated by the children. It should be noted that onomatopoeia is not a pure imitation of natural sounds but also depends on individual associations and phonotactic constraints (Wissemann 1954: 84, 133, 236). Movement imitatives represent rhythmic movements that can be associated with sounds. This phenomenon is linked to synesthesia. With increasing arbitrariness, we find conventional sound symbolism whereby particular phonemes may be associated with a semantic feature of the words where they appear.

All forms of sound symbolism share certain features such as frequent reduplication, use of unusual segments, violations of phonotactic constraints and association of phoneme classes with semantic domains. The sound-symbolic origin explains the presence of these features in ideophones.

1.2.2. Ideophony

The term "ideophone" was first used by Doke (1935) in a description of Bantu languages to designate "a vivid representation of an idea in sound" which is often onomatopoetic and "describes a predicate, qualificative or adverb in respect to manner, colour, smell, action, state, or intensity". He defines it as "a special part of speech, resembling to a certain extent in function an adverb" (Doke 1935: 118). The most controversial point remains whether ideophones do constitute a special part of speech. I will show for Turkish that they do not.

Sound symbolism is an important property of ideophones. It is basically a semiotic principle that reduces symbolicity in a linguistic sign and increases its iconicity. Between the two there is a continuum which implies that ideophones can diachronically lose their iconic properties by conventionalization and cannot be separated from the rest of the lexicon. Being iconic therefore does not imply the absence of convention as "convention is necessary to the understanding of any sign, however iconic or indexical it is" (Fiske in Chandler 1999: ch. 2).

One of the reasons for the phonological peculiarities of ideophones is thus their sound-symbolic nature. Another reason is the objective to make the imitation more precise then phonotactic rules would allow. Fidelity to the acoustic stimulus may thus oblige the language user to violate language-specific rules. Moreover, phonological violation displays an expressive function as it shows the addressee that the sign he receives is not an ordinary, purely conventional one. Ideophones therefore "show a correlation between semantic expressiveness and formal markedness", where "expressive semantics is matched with 'marked' phonotactic and morphological properties" (Klamer 1999: 4).

It would be confusing to use the term "onomatope" when dealing with ideophones, because onomatopes are limited to audition impressions, whereas ideophones can also express visual impressions and emotional attitudes. The most important difference is however the fact that ideophones are not only defined phonologically, but do also allow of morphological (reduplication, special derivational morphemes) and syntagmatic criteria (particular constructions, selection constraints). Onomatopoeia and other manifestations of sound symbolism exist in every language, whereas the number and use of ideophones largely differ among languages, going from some dozens with very restricted, stylistically marginalized use (most European languages) to several hundred (Turkish, Korean, Japanese, African languages, etc.) where they can serve to express fine semantic nuances.

2. Structural properties of Turkish ideophones and their functional correlations

2.1. Morphology

2.1.1. Primary and secondary forms

Turkish ideophones have a monosyllabic root that imitates—in the case of onomatopoeic ideophones—the natural noise as faithfully as possible. An obvious example is *çıng*, which imitates the sound of metal objects clinking. Other roots express fine nuances displayed by variation in form: *çat, çıt, çit; tak, tık, tik, tok*, etc. (Zülfikar 1995: 6). This variation may also be conditioned by individual differences in the perception of the sound. Variation of the signified thus induces variation of the signifier. These monosyllabic roots are called *primary form* (Turkish "birincil biçimler"). Primary forms usually have the structure CVC. Those beginning with a vowel are rare (Marchand 1953: 61).

Most ideophones in Turkish are formed by adding the suffixes *-ır* (*-ir, -ur, -ür*) and *-ıl* (*-il, -ul, -ül*) to the primary forms. These suffixes can be resumed as being a combination of a closed vowel and a liquid. They express continuity or duration of the situation that gives rise to the use of the ideophone. Primary forms ending in a nasal or lateral consonant are usually followed by an epenthetic vowel, as illustrated by the comparison of synonymous primary and secondary forms:

(1) *Dan dan konuş-uyor.*
    rude rude speak-PROG(3.SG)
    'He/she speaks impolitely.' (TDK 1988 s.v. *dan dan*)

(2) *Dangıl dungul konuş-mak*
    rude   rude   speak-INF
    'speak impolitely' (TDK 1988 s.v. *dangıl dungul*)

The two suffixes *-ır* and *-ıl* are allomorphs in arbitrary distribution. In some cases where both endings are attested on the same primary form as in *fısıl / fısır* 'whispering; crackling, burning' and *vızıl / vızır* 'humming; rapidly', informants either have preferences ("*fısır* and *vızır* sound better / more correct") or accept both forms equally. The *Türkçe sözlük* (TDK 1988) also displays examples that show that the choice of the final liquid does not lead to oppositions. This choice is rather arbitrary and may change in derivation. Thus, the adverbial form *cumbul* gives rise to the noun *cumburtu* 'noise when shaking liquids', whereas for the verbal derivation both *cumbuldamak* and *cumburdamak* are attested in TDK 1988.

The suffix *-ır / -ıl* is called a *continuity suffix*. Ideophones with the continuity suffix must appear reduplicated in adverbial use (Hatiboğlu 1981: 15). Roots with this suffix are called *secondary forms* (Turkish "ikincil biçimler"). Different parts of speech can then be derived frome these.

Another suffix used in the formation of secondary forms is *-ış* and its allomorphs conditioned by vowel harmony. Finally, there are reduplications where only a vowel is added to the primary form, as in *bıcı bıcı yapmak* 'to wash oneself' or *vıdı vıdı etmek* 'to say stupid things'. Even more marginal are endings such as *-(ı)n* (*mırın kırın* 'protesting') or *-(ı)k* (*cıvık cıvık* 'watery', metaphorically 'making boring jokes'). Most ideophones are however derived by adding *-ır / -ıl*.

2.1.2. Reduplication

Reduplication is an iconic operation generally used for reinforcement. In many languages it expresses concepts like plurality, repetition, habitual occupations, size or duration. Reduplication is quite frequent in Turkish and is not restricted to ideophones (cf. Hatiboğlu 1981: 9). With these, reduplication expresses repetition. For events without repetition, primary forms followed by the quotative particle *diye* must be used, as exemplified by (3).

(3) *Askerî   bir   cip ...   apartman-ın   kapı-sı*
    military one   jeep   building-GEN door-POSS.3

ön-ü-nde   zınk diye   dur-du.
front-POSS.3-LOC   stop QUOT   stand-PAST(3.SG)
'A military jeep stopped abruptly in front of the
building.' (Demircan 1996b: 184)

Alternation means that the two parts of a reduplication are not identical. Vowels and
consonants may be exchanged in order to come closer to the original sound. Alterna-
tion can also occur with primary forms, as in *cang, cıng, cing, cong, cunk*, used for
imitating clincking metal or glass objects, where the different phonemes correspond
to acoustic nuances, either objectively when noises are different, or subjectively when
identical sounds are perceived differently. With reduplicated forms, alternation is
used when successive sounds differ, as in an echo (4). These sounds are perceived as
being less monotonous than those where ideophones do not display alternation (5).

(4) *Köpek yemeğ-i-ni   şapır   şupur*
    dog   food-POSS.3-ACC   noisily   noisily

ye-di   bit-ir-di.
eat-PAST(3.SG)   end-CAUS-PAST(3.SG)
'The dog noisily ate his food.' (TDK 1988 s.v. *şapır şupur*)

(5) *Yağmur şakır   şakır   yağ-ıyor.*
    rain   pouring pouring rain-PROG(3.SG)
    'It's pouring.'

In alternation of Turkish ideophones, the vowel sequence *a-u* is the most frequent
one (Marchand 1953: 53). For front vowels, the sequence is *e-ü*. Some reduplicated
ideophones also display consonant alternations. A frequent pattern is *p-k* (6).

(6) *Çocuk paldır   küldür   merdiven-den düş-tü.*
    child   rumble   rumble   stairs-ABL   fall-PAST(3.SG)
    'The child noisily fell down the stairs.' (TDK s.v. *paldır küldür*)

2.2. Phonological structure

The canonical segmental structure of the primary form is C1VC2 or C1VC2C3. In
the latter case, C2 is a sonant and C3 an occlusive. VC is possible but less frequent.
After a labial consonant (*b, p, m, v*), the vowel of the second syllable (which is
formed by adding the continuity suffix) is often rounded. When adding further suf-
fixes, syncope can occur, as in *hıkrılmak* from *hık-ır*. Moreover, the final consonant
of the primary form can be geminated in order to prevent the distribution of the
primary form over two syllables when a vowel-initial suffix is added (Zülfikar 1995:
84).

Particularly remarkable are differences in the distribution of consonants. Whereas the phonemes *c, f, h, m, p, r, ş, z* usually do not occur as the initial consonant of common words of Turkish origin, these restrictions do not concern sound-symbolic forms. In the primary CVC forms one consonant establishes an association with the imitated sound, whereas the other consonant only has a back-up role. Combinations of unvoiced and voiced consonants are avoided, since unvoiced consonants are associated with stronger impressions.

Vowel alternation often correlates with the intensity of the imitated sound. The vowels *i* and *ı* are associated with low intensity, *a* and *o* with high intensity and louder noises. Thus, *şırıl şırıl* is used for expressing that water flows in small quantity and rather monotonously, whereas *şarıl şarıl* indicates loud noise produced by large quantities of water. A similar case is *fışır* vs. *faşır*. Elicited examples for the opposition of closed vs. open vowels are (7) vs. (8) and (9) vs. (10).

(7) *Adam tin   tin   uzak-laş-tı.*
     man   softly   softly   far-PROC-PAST(3.SG)
     'The man tiptoed away.'

(8) *Adam tan   tan   uzak-laş-tı.*
     man   noisily noisily far-PROC-PAST(3.SG)
     'The man withdrew with great noise.'

(9) *Patlak hortum-dan su   fışş   diye   fışkır-dı.*
     burst pipe-ABL   water spurt   QUOT   spurt-PAST(3.SG)
     'Water was spurting from the broken pipe.'

(10) *Sifon-u   çek-ince   su   foşş diye   ak-tı.*
     water.flush-ACC   draw-PART water rush QUOT   flow-PAST(3.SG)
     'Giving the toilet a flush, the water rushed down.'

However, the above-mentioned semantic opposition does not apply everywhere. A counter-example would be *parıl parıl* vs. *pırıl pırıl*. Both mean 'glittering', but differ in their metaphorical meanings. The latter form can thus mean 'clean', 'new' or 'brilliant' (TDK 1988 s.v. *pırıl pırıl*).

Consonants are often associated with particular sounds and situations. As an example, note that *ş* (which we have seen in some of the examples above) is associated with the flowing or pouring of water, provided that it is the associative consonant. In the primary form *şap*, which is used for kissing, it is only the back-up consonant and does not therefore convey this meaning.

2.3. Parts of speech and derivation

Secondary forms can be nominalized by adding *-dı / -tı* and their allomorphs. The use of this suffix seems to be restricted to ideophones. These nouns therefore have abstract meanings. Their use is exemplified by the opposition of (11) vs. (12).

(11) *Su-yun   fokur   fokur*
water-GEN   bubble   bubble

kayna-dığ-ı-nı   duy-uyor   mu-sun?
boil-OBLPART-POSS.3-ACC hear-PROG   INT-2.SG
'Do you hear the water bubbling?'

(12) *Su-yun   fokur-tu-su-nu   duy-uyor   mu-sun?*
water-GEN   bubble-NR-POSS.3-ACC hear-PROG   INT-2.SG
'Do you hear the bubbling of the water?'

Verbalization occurs by adding *-da* to secondary forms or *-kır* to primary forms. These suffixes have allomorphs in accordance with vowel and consonant harmony as well. The use of these suffixes is restricted to ideophones. This restriction thus constitutes a structural criterion for the definition of ideophones. However, some primary forms can also give rise to derived verbs by the addition of the very productive suffix *-le / -la*. When there is an alternative choice between derived primary and derived secondary form, the difference is one of intensity. Thus, sounds or impressions are weaker in the a.-versions of (13) and (14).

(13) a. *Elif   horl-uyor.*
Elif   snore-PROG(3.SG)
'Elif snores.'

b. *Elif   horuld-uyor.*
Elif   snore-PROG(3.SG)
'Elif snores.'

(14) a. *Dere   gürl-üyor.*
brook   rush-PROG(3.SG)
'The water of the brook is rushing.'

b. *Dere   gürüld-üyor*
brook   rush-PROG(3.SG)
'The water of the brook is rushing.'

Ideophones can be used as adjectives. Some of these can be equally used adverbially (e.g. *pırıl pırıl* 'brilliant'), others only allow adjectival use (e.g. *pıyrım pıyrım* 'worn out'). Attributive (15) and predicative uses (16) are equally attested.

(15) *Sen pırıl   pırıl   bir   öğrenci-sin.*
you brilliant brilliant one   pupil-2.SG
'You are a brilliant pupil.'

(16) *Bu öğrenci pırıl pırıl.*
Dl pupil   brilliant brilliant
'This pupil is brilliant.'

Adjectival ideophones, like ideophones in general, display distributional restrictions due to their pragmatic function, which is to convey that the speaker is being impressed. This is why they are not used in negation or comparisons.

Adverbial use is most frequent and can be considered prototypical. Adjectival and adverbial use can be subsumed under modification. The most frequent construction for adverbial ideophones is that of reduplicated secondary forms. Another construction consists of the primary form combined with the quotative particle *diye*, which is derived from the verb *demek* 'to say' (17a.). Instead of being used with the quotative particle, primary forms may appear reduplicated, too (17b.).

(17) a. *Kuş pır(r) diye uç-tu.*
    bird flutter QUOT fly-PAST(3.SG)

    b. *Kuş pır pır uç-tu.*
       bird flutter flutter fly-PAST(3.SG)
       'The bird fluttered away.'

Different constructions are not semantically equivalent. In addition to the constructions seen so far, the suffixes *-adak / -adan* express sudden and unexpected events. This semantic feature can supersede the original meaning of the primary form.
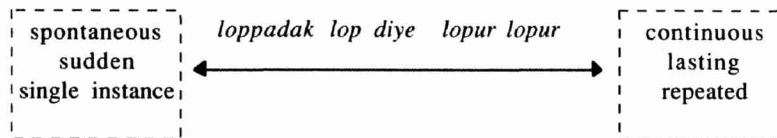
(18) *Koca dolma-yı loppadak*
    enormous dolma-ACC gobble:SPONT

    ağz-ı-na at-tı.
    mouth-POSS.3-ALL   throw-PAST(3.SG)
    'He greedily gobbled down the enormous dolma.'

In (18), the construction of the reduplicated secondary form *lopur lopur* cannot be used, since it would require that eating takes place in a more continuous manner where eating the food consists of taking a certain amount of it several times, with each instance lasting a certain time. The verb *atmak* 'to throw' excludes such an interpretation. The semantic properties of the different constructions can be summarized as follows:

- Reduplicated secondary forms (*lopur lopur*) express continuous, repeated impressions.
- Reduplicated primary forms (*lop lop*) express compact, short, but repeated impressions.
- Primary forms express single impressions. They must be combined with the quotative particle (*lop diye*).

– Forms in -adak (*loppadak*) lay emphasis on the fact that an event takes place suddenly, spontaneously and rapidly.

The different constructions can be located on a continuum as shown in S1:

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 _____                                              _____
| spontaneous |  loppadak  lop  diye   lopur  lopur       | continuous |
|   sudden    | <──────────────────────────────────────> |  lasting   |
| single instance |                                        |  repeated  |
|_____ |                                            |_____|
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2.4. Syntactic properties

Ideophones are integrated into the clause by means of different operations. Often there are close syntagmatic relations between adverbial ideophones and the verbs they modify. For instance, reduplicated primary and secondary forms often co-occur with the auxiliary *etmek*. Its only function is to form a transitive verb. The semantic content of the verbal phrase is thus exclusively conveyed by the ideophone (19).

(19) *Merdiven   basamak-lar-ı   gıcır   gıcır   ed-iyor-du.*
       stairs   step-PL-POSS.3 creak   creak   AUX.TR-PROG-PAST(3.SG)
       'The stairs were creaking.' (TDK 1988 s.v. *gıcır gıcır*)

Other ideophones are only used in combination with particular verbs. Such a collocation is exemplified by (20).

(20) ... *böyle   bangır bangır bağır-an   kim?*
            like.this shout shout shout-SBJPART   who
       '... who's shouting there like this?'

Some ideophones specifying the event expressed by the main verb (21a.) may also be combined with the auxiliary *etmek*. The semantic restrictions of the modifying slot thereby become semantic features of the ideophone. The main verb can thus be dispensed with (21b.).

(21) a. *Su   fokur   fokur   kayn-ıyor.*
            water bubble bubble boil-PROG(3.SG)

      b. *Su   fokur   fokur   ed-iyor.*
            water bubble bubble AUX.TR-PROG(3.SG)
          'The water is bubbling.'

Co-occurrence of reduplicated primary or secondary forms with verbs derived from them is also possible (22). This construction is called "üçleme" by Hatiboğlu (1981: 23), which could be translated as 'triplication'.

(22) *Göz-ler-i   tıpkı   bir   güneş gibi*
eye-PL-POSS.3 exactly one sun   like

pırıl   pırıl   pırıld-ıyor.
brilliant brilliant shine-PROG(3.SG)
'His eyes were shining exactly like a sun.'

3. The role of ideophones in language

3.1. Amplification vs. distinction

Ideophones may be characterized as amplifying the main verb's meaning. This case is most evident in triplications and many other collocations where the ideophone only reinforces the main verb without conveying a particular semantic content on its own. Other ideophones allow of different interpretations depending on the context (23)-(25).

(23) *Konak çatır   çatır   yan-dı.*
palace crack   crack   burn-PAST(3.SG)
'The palace was ablaze.' (TDK 1988 s.v. *çatır çatır*)

(24) *Al-acağ-ım-ı   çatır   çatır   al-ır-ım.*
take-PART.FUT-POSS.1.SG-ACC   crack crack take-DISP-1.SG
'What I want to take, I take it by force.' (TDK 1988 s.v. *çatır çatır*)

(25) *İngilizce-yi   çatır   çatır   konuş-uyor.*
English-ACC   crack crack speak-PROG(3.SG)
'He speaks English fluently.' (TDK 1988 s.v. *çatır çatır*)

On the other hand, we can find ideophones having a specific meaning and being in paradigmatic opposition to other ideophones, as is the case with (26) vs. (27). In addition to their amplifying function, these ideophones thus have a distinctive function as well.

(26) *Dere   gürül   gürül   ak-ıyor.*
brook   rush   rush   flow-PROG(3.SG)
'The water of the brook is rushing.'

(27) *Dere   şırıl   şırıl   ak-ıyor.*
brook   murmur   murmur   flow-PROG(3.SG)
'The brook is murmuring.'

3.2. Semantic domains

Ideophones tend to concentrate in certain semantic domains. They concern sounds produced by movements in nature or by animals, human noises, appearance and other

impressions appealing to the senses. The following table gives a survey of the semantic domains of those ideophones attested in TDK 1988.

Semantic domains of Turkish ideophones and their frequency

Semantic domains	Percentage of all ideophones of the sample (n = 187)
activity of respiratory organs (articulation, communication, breathing, sobbing, snoring, laughing, etc.)	21%
physical nature and corresponding sounds	19%
movement	13%
appearance, form	12%
moral or emotional judgments, emotional state, physical sensation	11%
water sounds	10%
burning (fire, frying, roasting)	5%
eating, chewing, biting, drinking	3%
manner	3%
temporal expressions	3%

3.3. Semantic change, secondary sound symbolism and pragmatic functions

Sound-symbolic forms can move away from the iconic pole by means of conventionalization and thereby receive a very specific meaning. An example of this process might be *mırın kırın etmek*, the exact meaning of which is 'advance several reasons in order to avoid granting somebody's request'. The degree of conventionalization differs among ideophones. When the meaning is very specific, we do not simply have an imitation, as in the case of highly iconic forms. The principle of obtaining words by sound symbolism is rather used in a creative way to provide a specific concept with a signifier. Thus, sound symbolism does not only consist of the application of an iconic principle, but may also imply word formation in analogy to real (primary) sound-symbolic forms. The difference consists in the degree and the immediacy of motivatedness. Primary sound-symbolic forms are based on universal correspondences between phonological and semantic properties. Secondary sound-symbolic forms are restricted to one language system and are consequently more conventional and closer to the symbolic pole. However, they have been formally adapted to the primary forms and cannot be distinguished from them at first sight. A good example is *pırıl pırıl*, which imitates exactly the structure of other ideophones although it is based on the loanword *pırlanta* 'diamond'. Only after a phonosemantic reanalysis was it integrated into the sound-symbolic lexicon and has behaved from there on like the rest of this lexicon, deriving verbs and nouns (*pırıl-damak* and *pırıl-tı*) and participating in vowel alternation (*pırıl* vs. *parıl*), even if not with the same semantic effect (see section 2.2.).

Another kind of semantic change is metaphorization. Impressions caused by movements in nature can be transferred to emotional states. Marchand (1953: 51) mentions the primary form *coş*, which originally refers to the foaming water of a stormy sea or of a rushing river but has been metaphorically associated with great joy.

The pragmatic function of ideophones is to convey subjective impressions, to evoke whole ideas, i.e. foster imagination, and make discourse more expressive or dramatic. It is a more direct, image-like representation of an event and is therefore very popular in story-telling.

4. Typological status of ideophones

4.1. Ideophonic structures in other languages

Ideophones in several other Asian languages, e.g. Japanese, Korean or Tamil, behave in a similar way to Turkish ideophones. The most striking similarity is their modifier status. The situation is less homogeneous in African languages. Ideophones are for example feminine nouns in Somali (Salaad Dhoorre & Tosco 1998: 129), whereas in Southern Sotho, they are closest to verbs (Kunene 1978: 32).

As for phonology, it can be observed that some East Asian languages have different correlations between vowels and semantic content. It has been shown that in Turkish, ideophones with open vowels denote loud noises or large size, whereas closed vowels refer to fainter impressions. In Bahnar, which belongs to the Mon-Khmer family and is spoken in Vietnam (Diffloth 1994: 112), as well as in Korean (Lee 1992: 103), things are exactly the opposite. As Diffloth (1994: 113) and Lee (1992: 227) point out, different iconic correspondences might be responsible. Thus, in Turkish, denotata size correlates with oral cavity, whereas in East Asian languages it correlates with pharyngal cavity or tongue volume.

Associations between consonants and semantics seem to be more universal. Occlusives usually correspond to sharp sounds, fricatives to continuous noises, etc. Iconic lengthening of final fricatives or vibrants corresponds to sounds lasting for a certain time. Examples of iconic lengthening in Turkish are *fış* or *foş* (seen in (9) and (10)). Childs (1994: 193) notes similar examples in African languages.

Further interesting similarities can be observed for the syntagmatic behaviour of ideophones in different languages. It has been shown above that some ideophones in Turkish can be combined with verbs derived from them, which gives rise to so-called triplications (22). Similar constructions exist in other languages. Here is an example from Korean:

(28) *Kɨ   ai-nɨn*   **hulccɘkhulccɘk hulccɘk-kɘli-n-ta.**
D3   child-TOP sob.sob   sob-VR-INCMPL-DECL
'The child is sobbing terribly.' (Shin, p.c.)

Other ideophones combine with auxiliaries, like *etmek* in (19). For Korean, the auxiliary is *hanta*.

(29) *Suni-ka*   **pithɯlpithɯl** ha-*n-ta*.
Suni-NOM   totter.totter   do-INCMPL-DECL
'Suni is tottering.' (Shin 1999: 7)

Another group of ideophones is combined with main verbs. The ideophone has no specific meaning of its own and only amplifies the meaning of the main verb. Let us first examine a Turkish example:

(30) *Köpek korku-dan tiril   tiril   titr-iyor.*
dog   fear-ABL   shake   shake   shake-PROG(3.SG)
'The dog is shaking with fear.'

The same construction can be found in Korean:

(31) *kɯ   yoca-nɯn*   **putɯlputɯl** ttəl-*əss-ta*.
D3   woman-TOP   shake.shake   shake-CMPL-DECL
'The woman was shaking terribly.' (Shin, p.c.)

A last group of ideophones bears distinctive information and specifies the main verb. Turkish examples are (26) vs. (27). As we might expect, we find analogous constructions with Korean ideophones:

(32) *kuk-mul-i*   **phəlphəl**   **kkɯlh**-*nɯn-ta*
soup-water-NOM   bubble.bubble   boil-INCMPL-DECL
'The soup bubbles (= boils to such a degree that it bubbles).' (Shin, p.c.)

In the light of the examples above, it is possible to say that the various ideophonic constructions existing in genetically and geographically unrelated languages are characteristic of ideophones. However, some ideophones can appear in several of these constructions.

4.2. Languages with high vs. low ideophonicity

Some languages, such as German or English, prefer sound-symbolic verbs to modifiers. However, the combination of an ideophone with different verbs permits the expression of nuances that are lost when the sound-symbolic form is verbalized, as in the Turkish examples below:

(33) *Elif hüngür   hüngür   ağl-ıyor-du.*
Elif weep   weep   cry-PROG-PAST(3.SG)
'Elif was crying her eyes out.'

(34) *Elif hüngür   hüngür   inl-iyor-du.*
Elif weep   weep   wail-PROG-PAST(3.SG)
'Elif was wailing miserably.'

(35) *Elif   hüngür   hüngür   yaş   dök-üyor-du.*
Elif   weep   weep   tear   shed-PROG-PAST(3.SG)
'Elif was bitterly shedding tears.'

(36) *Elif   hüngür-d-üyor-du.*
Elif   weep-VR-PROG-PAST(3.SG)
'Elif was weeping.'

The function of an ideophone is to amplify the meaning of the main verb. It can better fulfil this function when it appears in addition to the verb instead of replacing it. Furthermore, ideophones may permit the expression of aspectual nuances that would be lost in verbalization. An example was the opposition of the forms *lop-padak / lop diye / lop lop / lopur lopur* seen in section 2.3.

Estimating the number of Turkish ideophones is a difficult endeavour. Indeed, many ideophones have dialectal or less frequent alternative forms. As for reduplicated secondary forms, Zülfikar (1995) mentions more than seven hundred, whereas the *Türkçe sözlük* (TDK 1988) only contains about 130 of these. As an example, let us consider *apul apul* 'waddling', the only form with this meaning attested in TDK 1988, of which Zülfikar (1995) also mentions the variants *abal abal, abıl abıl, abıl dubul, abul abul, apıl apıl, apır zıpır* and *apul apul*. Whatever the absolute number of Turkish ideophones may be, it is by far superior to the number of comparable items in Germanic or Romance languages. Turkish and other languages, like Korean, are of high ideophonicity, permitting alternative constructions, vowel and consonant alternation and the choice of adverbial vs. verbal sound-symbolic forms. Germanic and Romance languages are of low ideophonicity, as alternation possibilities are limited and sound-symbolic forms are almost exclusively available as verbs, which leads to loss of information (see above).

5. Conclusion

The study of Turkish ideophones enables us to confirm the existence of particular ideophonic features that have been discovered in other languages where ideophones have been studied so far. The most characteristic feature is their origin in sound symbolism. As sound-symbolic motivatedness can fade away with diachronic change, ideophones can best be defined in terms of prototypes. The correlations between phonological and semantic features may thus be more or less evident. Being sound-symbolic, they show phonological peculiarities, as e.g. violation of the usual phonotactic constraints of the language. Provided that an ideophone expresses a continuous impression, it appears reduplicated. Ideophones show a close affinity with the modifier role. Their pragmatic function is to facilitate the visualization of a reported situation, to call the listener's attention or to express an emotional, subjective attitude. Ideophones concern only a few semantic domains, mainly those that have to do with perception.

Abbreviations of grammatical category labels

1	first person	INF	infinitive
2	second person	LOC	locative
3	third person	NR	nominalization morpheme
ABL	ablative	OBLPART	participle for oblique constituents
ACC	accusative	PART	participle
ALL	allative	PAST	past tense
AUX	auxiliary	PL	plural
CAUS	causative	POSS	possessive
CMPL	completive	PROC	processive
CONT	continuity marker	PROG	progressive
D	deictic	QUOT	quotative particle
DECL	declarative	SBJPART	participle for subject constituents
DISP	dispositive	SG	singular
FUT	future	SPONT	spontaneity marker
GEN	genitive	TR	transitive
INCMPL	incompletive	VR	verbalization morpheme

Acknowledgments

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