Origins of the so-called irregular intensive adjectives in Turkish*

Hyung-Soo KIM (Jeonju University)


An etymological and comparative study of irregular intensive adjectives in Turkish, e.g. çırılçplak—çırçplak ‘stark naked,’ sapasaglam—sapsaglam ‘robustly healthy,’ and paraparça <*para-ma-parça ‘broken to pieces,’ reveals a number of interesting facts on the origins of these adjectives, shedding light not only on their underlying compound structure but also the morpho-phonological processes (syncope and compound reduction) they undergo to strongly resemble ‘regular’ intensive adjectives such as sapsan ‘bright yellow’ and tertemiz ‘clean as a pin’. Three points emerge from this analysis: 1) these adjectives are part of a group of synonymic/alliterative compounds prevalent in Turkic, which could be either syndetic (e.g. dar-ma-dağınık) or asyndetic (çırıl-çplak); 2) some of them are undergoing a stress shift in modern Turkish due to restructuring, e.g. from syndetic kár-ma-karsık to asyndetic karmá-karsık ‘completely confused’; 3) the conjunctive /mA/ that occurs in Turkish syndetic compounds, e.g. Türk. dar-ma-dağınık, also occurs in Western Yugur but its allomorphs vary between /mA/ and /pA/, e.g. aq pa aq ‘snow-white’ and du̇z ma

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duz ‘perfectly straight’; while the emphatic /PA/ in, e.g. Turk. sa-pa-sağlam is added in Karachay-Balkar and Western Yugur, e.g. K-B. tüppe-tüz ‘absolutely correct’, WY dup pa duz ‘perfectly straight’, in order to recover the ‘expressivity’ of the emphatic function that was lost when syncope dropped the enclitic vowel, leaving only /p/ to mark emphasis.

Keywords: intensive adjectives, hendiadys, reduplication, compound reduction, grammaticalization, Turkish, Karaim, Karachay-Balkar, Western Yugur, Turkic languages.

1. Introduction

It is well known that Turkish forms a set of intensive adjectives by duplicating initial (C)V of the base, with appendage of one of the consonants in the set {p, m, s, r}. For example (cf. Swift 1963, Lewis 1967, Göksel & Kerslake 2005):

(1) Reduplication in Turkish intensive adjectives

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensive Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>ak ‘white’</td>
<td>apak ‘vey white’</td>
</tr>
<tr>
<td>eski ‘old’</td>
<td>espeski ‘very old’</td>
</tr>
<tr>
<td>sari ‘yellow’</td>
<td>sapsari ‘bright yellow’</td>
</tr>
<tr>
<td>kara ‘black’</td>
<td>kapkara ‘coal black’</td>
</tr>
<tr>
<td>düz ‘level’</td>
<td>dümdüz ‘absolutely level’</td>
</tr>
<tr>
<td>belli ‘sure’</td>
<td>besbelli ‘absolutely certain’</td>
</tr>
<tr>
<td>temiz ‘clean’</td>
<td>tertemiz ‘clean as a pin’</td>
</tr>
</tbody>
</table>

In addition to these examples in which the choice of linking consonant is highly irregular,¹ there are a group of adjectives that carry the same emphatic nuance but do not really follow the above rule of intensive reduplication. For this reason, Lewis (1967: 53) has called them ‘irregular intensive adjectives’. Consider:

¹) Note Lewis (1967: 52): “It is hard to discern any principle governing the choice of consonant…”; and Swift (1963: 123): “There does not seem to be any discernible phonological conditioning of the choice of one rather than another of these and alternate forms do exist for some words with different consonants.”
(2) So-called irregular intensive adjectives in Turkish

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensive Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) karışık ‘mixed’</td>
<td>karmakarışık ‘completely confused’</td>
</tr>
<tr>
<td>dağınık ‘spread out’</td>
<td>darmadağın ‘in utter confusion; all over the place’</td>
</tr>
<tr>
<td>b) parça ‘piece’</td>
<td>paramparça ‘broken to pieces’</td>
</tr>
<tr>
<td>c) çıplak ‘naked’</td>
<td>çırcıplak–çırıp – ‘stark naked’</td>
</tr>
<tr>
<td>çıplakdak ‘naked’</td>
<td>sırtıçırıplak ‘sopping wet’</td>
</tr>
<tr>
<td>*sıklam ‘wet’</td>
<td>sırısıklam–sırısıklam ‘sopping wet’</td>
</tr>
<tr>
<td>d) sağlam ‘healthy’</td>
<td>sapasalgam–sapsalgam ‘robustly healthy’</td>
</tr>
<tr>
<td>yalnız ‘lonely’</td>
<td>yapayalnız–yapayalnız ‘absolutely alone’</td>
</tr>
<tr>
<td>düz ‘flat’</td>
<td>düpedüz ‘downright, openly’</td>
</tr>
<tr>
<td>çevre ‘surroundings’</td>
<td>çepeçevre–çepeçevre ‘all around’</td>
</tr>
<tr>
<td>gündüz ‘daytime’</td>
<td>güpegündüz ‘in broad daylight’</td>
</tr>
<tr>
<td>genç ‘young’</td>
<td>gepegenç–gepgenç ‘very young’</td>
</tr>
</tbody>
</table>

Previously, these adjectives have often been analyzed with those in (1) under the general heading of ‘emphatic reduplication,’ which has caused many difficulties. Note, for example, Göksel & Kerslake (2005: 99), who give a typical description:

“In some cases the reduplicated segment contains an additional segment. (1) -A: ... gi+p+e+gündüz ... (2) -Il or -Am, in some cases where the reduplicative consonant is ‘r’: ... çı+r+ıl+çıplak ... pa+r+am+parça ...” (Göksel & Kerslake 2005: 98; Emphasis original)

In this account the irregular intensive forms in (2b-d) are said to occur with the same set of linking consonants as in (1) but with an extra element added, which could be either a simple vowel /-A/, or a vowel plus a consonant such as /-Il/ or /-Am/.

Demircan (1987: 29), on the other hand, gives a phonetic account of the examples in (2d): “... as the plosion of /p/ cannot take place before /d/, it will lack full articulation; therefore ... such loss is recovered by the addition of a harmonic vowel after /p/ in düPE.düz ...” For the examples in (2c) she notes: “The /r/ is ... devoiced before a (voice) consonant, which may extend the emphatic part to two syllables”; then adds: “As the form “çıRI” overlaps with the possessive form çırim, it is further
nonsensed into çiRIL- (7).” For paramparça in (2b), she says that a harmonic vowel provides full articulation giving two syllables, with further closure with /m/. What she means is that this form repeats the first CVC (/par/) rather than the CV (/pa/) of the base /parça/ with the harmonic vowel /A/ added before the linking consonant /m/. This is contrary to the assumption she maintained up to now: that emphatic reduplication repeats the first CV of the base and a harmonic vowel is sometimes added after the linking consonant to facilitate articulation.

The inconsistency in Demircan’s (1987) analysis, perhaps the first serious attempt to explain both regular and irregular intensives under one analysis, shows the extent of difficulty that such an integrated approach suffers. For this reason, many recent works either simply ignored the examples in (2) (e.g. Yu 1999; Wedel 2000; Kelepir 2000) or would include some of them without explaining how they fit into their rule scheme (e.g. Müller 2003; Karabay 2004).

It is obvious, then, that the irregular intensives such as sapasağlam, çırcıplak and paramparça cannot be explained away as simple extensions from regular intensives of sapsağlam, çırcıplak and *parparça, for, beside no *parparça exists in modern Turkish, the origins of /A/, /ll/ and /Am/ are not clear. A new analysis is called for. This paper claims that the short forms sapasağlam and çırcıplak are reductions from their corresponding long forms, either by optional loss of the unstressed enclitic vowel as in sapasağlam > sapsağlam (cf. paramparça < *para-ma-parça as explained below) or by compound reduction, a morphological rule by which the first element of the compound reduces to initial CVC as in çırcıplak > çırcıplak. Under this analysis /A/, /ll/ and /Am/ are not additions but parts of various morphemes: the vowel /A/ assumed by Demircan to let the preceding /p/ fully articulated in düpediz is there as part of the emphatic particle /pA/, which comes right after the reduplicated CV; similarly the assumed extensions of /ll/ and /Am/ in çırcıplak and paramparça are actually part of the first member of a compound in which two synonymic/alliterative adjectives occur juxtaposed, sometimes with an enclitic marker /mA/ as in (2d), e.g. paramparça < *para-ma-parça, sometimes without, as in (2c), e.g. çırl-çıplak.
A number of considerations went into this new proposal, which I elaborate on in the next section. First is the abundance of compounding in Turkic languages, especially of the synonymic/alliterative type exemplified by (2a-c) above; in fact, this word formation process is so prevalent that Turcologists use a special name for it: 'hendiadys'. Erdal (2004: 533), for example, notes “paired lexemes in the nominal or verbal domain [that] render a single notion, e.g. tütrüm türiş ‘profound’ and bəy bəramlık ‘wealthy’ ...” In section 2.1 I argue that the adjectives in (2a-c) have the same origin, even though they are distinguished further by subtypes: (2a-b) are syndetic hendiadys, with an enclitic /mA/ linking the two adjectives, while (2c) are asyndetic, without any conjunctive enclitic marker.

Analysis of (2c-d), on the other hand, reveals that even though the reduction in (2d), e.g. sapaşğlam > sapaşğlam, is explained phonologically, by syncope, the reduction in (2c), e.g. çırılçılak > çırçılak, is not. In section 2.2 I present arguments from my previous analysis to claim that what occurs in the latter is a morphological reduction of compounds by which the first constituent of a binominal compound reduces to initial CVC.

An evidence that the irregular intensives in (2) are indeed compounds comes from their stress position. In Turkish the word stress rule generally stresses the final syllable, except in compounds in which the main stress falls on the first element of the compound, on its last syllable if multisyllabic: deniz “sea” + altı “its underside” > denizaltı “submarine” (Lewis 1967: 23; Göksel & Kerslake 2005: 28). If the forms in (2) were not compounds, their final syllable should have been stressed according to this word stress rule. That none of them does and no other explanation is available for this non-final stress supports the view that they are compounds (cf. Dobrovolsky 1987).

There is however disagreement on where in the first element of the compound the stress really falls. For example, some dictionaries stress karmakarışık in (2a) on the first syllable while others stress its second

2) The term is actually a variation of 'hendiadyoin', which is used in German and originally from the Greek phrase ὥν δία δύο ἄν [hen diá duoin] ‘one through two’. Cf. Johanson (1998: 50).
syllable. This contrasts with parâmparça in (2b), which all dictionaries stress on the second syllable. In section 2.3 I compare major dictionaries and other sources for the variant stress positions of the adjectives in (2) to conjecture that they are being restructured in modern Turkish, from a syndetic type of hendiadys with unstressed enclitic /mA/ and /pA/, to an asyndetic type without such enclitic marker. Due to this restructuring the stress shifts from the previous first syllable to the final (i.e. the second) syllable of the first element of the compound.

Finally, the adjectives in (2d) are considered in relation to origins of partial reduplication. These adjectives are peculiar in that: 1) an emphatic particle /pA/ comes between the CV-reduplicant and the base, which resembles the syndetic compounds in (2a-b) where the enclitic /mA/ links the two adjectives; 2) like the adjectives in (2c) they sometimes reduce, yielding short forms that strikingly resemble the regular intensives with linking /p/ in (1), e.g. sapasaglam > sapsaglam ‘robustly healthy’ in (2) and sapsari ‘bright yellow’ in (1); 3) unlike the examples in (2a-c), however, these are ‘reduplicative’ compounds that repeat initial CV rather than CVC. In section 2.4, I explore the origins of this reduplicative syndetic compound with two things in mind: to see if this emphatic particle /pA/ is etymologically related to the conjunctive enclitic /mA/, which allomorphically alternates with /pA/ in Western Yugur (Roos 2000); and to confirm that the particle is one of the multiple sources of linking /p/ that appears predominantly in the regular intensives of Turkish and other Turkic languages.

2. Irregular Intensive Adjectives: A new analysis

2.1 Hendiadys: formation of compound adjectives
Compounds formed by hendiadys have several characteristics in Turkic languages. First, the two lexemes combined are often synonymous and/or alliterative, even though they could also be antonymous and/or rhymeforming (Johanson 1998: 50). Second, it could be either syndetic with a conjunctive linking the two lexemes, or asyndetic without it (cf. Johanson 1998: 50;
Southern 2005: 62). Third, sometimes only one of the two lexemes has a lexical meaning, as in, for example, Turkish çoluk çocuk “family, wife and children” in which the first constituent, çoluk, is not a word in Turkish: The compound is based on çocuk “child” and its first element is a variation of this base (by changing the middle consonant to /l/). 3)

We note that the so-called irregular intensives in (2a-c) share these characteristics: They are all synomyic/alliterative compounds and from this characteristic derives their intensive meaning as well as the confusion with the regular intensives in (1); Examples in (2a-b) are all syntetic in that the lexemes are linked by the enclitic /mA/, although syncope of enclitic vowel obscures this fact in paramparça < *para-ma-parça; Examples in (2c), on the other hand, are all asynthetic, having no such conjunctive enclitic. Moreover, the first adjectives in çırılçaplaç and strıtlıskläm, 4) are no longer recognizable just as in çoluk çocuk mentioned above.

Menges’ (1968: 116) following statement, though speculative and lacking in details, also suggests the connection between (2a) and (2b) to be a viable hypothesis:

The adnominal nouns have an augmentative, intensivic formation by which the word is originally doubled, as done in many languages for emphasis, and connected by the emphatic enclitic -mu/-mü or -ma/-mä attached to the first noun. The first noun is generally reduced by the effect of accentuation and the weakness of intermediary syllables to the root vowel and, if there was any, the preceding, i. e. root-initial, consonant. In many cases, -mu undergoes occlusive assimilation so that qap-qara ‘entirely

3) Note however Stachowski (2009: 118): “... çoluk was first attested in Old Turkic with the collective meaning ‘family; children; helpers’ ... and is being combined, in modern Turkish, with çocuk into a hendiadys.” He also cites delik deşık ‘full of (riddled with) holes’ which, according to him, is clearly a variation of one and the same word. Both delik and deşık occur as independent words in modern Turkish. These examples show how phonological change as well as reanalysis by new generation of speakers can influence formation of a hendiadys and obscure its origins. I thank Kamil for sending me his father’s article on the etymology of çocuk ‘child’.

4) Cf. Lewis (1967: 53) who says strılmı is an adjective meaning ‘wet’ no longer in use. According to Nişanyan (2002-2008), strılı- is also a base meaning ‘smeared,’ in which case it is no longer unidentifiable.
black", ... *sap-sary*' entirely yellow", ... arose from *qa-m'-qara < *qara-mu-qara, *sa-m'-sary* < *sary*-mu-sary* etc.

I have been unable to ascertain /mU/ as an enclitic marker in Turkic languages, but the examples in (2a-b) evince the enclitic /mA/: karma-karis(uk) ‘completely confused’, dar-ma-dağın(ik) ‘in utter confusion; all over the place’ and paramparça < *para-ma-parça “broken to pieces”.

According to Nişanyan (2002-2008), darmadağın has two elements meaning ‘scatter’: dar ‘scatter’ and dağan ‘scatter, disperse’, which occur together in the 14th c. syntactic compound with the same meaning: dar-dağan. It thus appears that the old and the new forms are different only in the type of henodiads: the former is syntactic with no enclitic, but the latter, syntetic with the enclitic /mA/.

Previously, karmanarsık has been considered an syntactic compound, i.e. karma-karansık, as both karma “mixed” and karansık “confused” are found in modern Turkish. However, it is quite possible that it has the same structure as darmadağın, with /mA/ as the enclitic: kar-ma-karansık. The correct analysis depends on where the stress position is: If it is on the first syllable (karma-karansık), the latter structure (kar-ma-karsık) is correct because enclitics are, as Menges notes, generally unstressed; if it is on the second syllable, then the former structure (karma-karsık) is correct because that would be the position stressed by the compound stress rule. Unfortunately, dictionaries vary between these two positions: Both Bony & ˙Iz (1957) and Akdikmen & Uzbay (1986) stress the first syllable, whereas Redhouse (1968) does not mark the stress on the word, which presumably means that the stress is on the second syllable by the above

5) A possible candidate, as suggested by both an anonymous reviewer and Kamil, is the interrogative particle /mi/ that sometimes occurs in reduplicated adjectives, e.g. Turkish güzel mi güzel bir kiz ‘a remarkably pretty girl’ (Göksel & Kerslake 2005: 100-101; Lewis 1967: 235-236). I thank both for this suggestion. The emphatic /pU/ and /pA/ as occurring in the Mongolic language of DongXiang (Hugliltu 1998: 214; Field 1997), e.g. hu-pu-laghang~ hu-pa-laghang ‘very red’ and si-pu-laghang~ si-pa-laghang ‘very yellow’, may also share the same origin with enclitic /mU/ and /mA/ as /mA/ and /pA/ sometimes vary allomorphically, e.g. in Western Yugur as explained in 2.4.2 below.
compound stress rule. The stress placement in this and other intensive adjectives are examined further in the next subsection.

While the variant stress placement in the above intensive adjectives in Turkish remains problematic, the following intensives in Karaim provide a clear support for the enclitic /mA/: 

(3) Intensive adjectives with -ma- in Karaim (cf. Stachowski 2010: 151-152):

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensive adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>*dagý- 'scatter(ed)'</td>
<td>darmadagylgan; darmadagan; darmadagyn</td>
</tr>
<tr>
<td>karyšyk 'mixed'</td>
<td>karmakaryšyk; karmakiryšyk</td>
</tr>
<tr>
<td>syk 'often, thick'</td>
<td>sykmasyk 'full; overfilled'</td>
</tr>
<tr>
<td>tolu 'full'</td>
<td>tolmatalu; toppmatolu</td>
</tr>
</tbody>
</table>

The /mA/ in these examples is the same enclitic that occurs in modern Turkish congener narcemagn(ı) and karmeris(ı). The last intensives in (3) also have a congener in modern Turkish, dopdolu “chockful” (Kar. toptolu) which however belongs to the regular intensives in (1), while the corresponding Karaim intensives tol-ma-tolu and top-ma-tolu are both syndetic.

Now consider parárparça, the stress of which dictionaries uniformly mark on the second syllable. It is thus clear that this adjective is also a compound, but what is the first element? Beside parça “piece”, there is no *param attested. Nişanyan(2002-2008) cites 17th c. asyndetic pararparça/pararparça, which is based on Farsi stems of pāra and pārça, both from *pāra “piece”. The same stem also appears fully reduplicated in modern Turkish pare pare “all in pieces”. These observations suggest that parárparça is from *para-ma-parça with the enclitic /mA/ linking the two bases and the stress falling on the last syllable of the first element by the compound stress rule. There has been a development parallel to darmadagın: as the 14 c. asyndetic dargağın was replaced later by the syndetic darmadagın < *dar-ma-dağın, the 17th c. asyndetic compound paraparça has been replaced by the new syndetic compound parárparça < *pará-ma-parça.

But why would an unstressed enclitic vowel drop in paramparça < *para-ma-parça but not in karmakarısık, nor in darmadagın? The answer lies with the number of consonants surrounding the enclitic vowel: The
vowel drops if it is preceded by one consonant as in *pará-ma-parça >parámparça, but retains if there are more than one consonant preceding as in kár-ma-karışık and dár-ma-dağın. This follows a general constraint on syncope, which depends on the number of consonants surrounding the vowel, applying preferentially after (or before) one consonant, and after (or before) two consonants only as a generalization (H-S. Kim 1993, 1995).

The same preferential syncope also occurs in the following intensive adjectives:

(4) Syncope in intensive adjectives

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensive Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>çiplák ‘naked’</td>
<td>çírilçiplak ‘stark naked’</td>
</tr>
<tr>
<td>çipıldák ‘naked’</td>
<td>çírilçipıldak ‘stark naked’</td>
</tr>
</tbody>
</table>

The adjectives in the left column receive stress on the final syllable by the Turkish word stress rule, while the intensive adjectives on the right, being compounds, receive stress on the second syllable, the final syllable of their first element. According to Nişanyan (2002-2008), the adjective çiplák ‘naked’ is of onomatopoeic origin, appearing over the years (between 14th-20th century) in various forms of cavlak/ciblak/cibildak. He gives cibi/cibil as the base, from which we can deduce the underlying base *çipıl for the modern forms: çiplák < *çipil-ak and çipıldák < *çipildak. Syncope drops the unstressed vowel in the former though not in the latter because it is followed by one consonant in the former but by two consonants in the latter. This is the same principle that governs preferential syncope in paramparça <*para-ma-parça.

From this etymological analysis it is also possible to think of a new explanation of çírilçiplak: that the first member of the compound, çíril, is a variation of the underlying base of the second member, *çipıl, the variation having been effected by changing the middle consonant from /p/.

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6) Interestingly, all these bases or their modifications occur as intensive adjectives in Turkish: The first base occurs in cas-cavlak ‘completely naked or bald’, while the last two are given in (4).
to /r/. Recall çoluk çocuk ‘family, wife and children’ where the first member of the compound has changed the same middle consonant, in this case, from /c/ to /l/.

(5) Compound formation in çırilçiplak

\[
\begin{array}{llll}
\text{çipil-ak} & \text{çipil-çipil-ak} & \text{çipil-çipil-dak} & \text{stress assignment} \\
\text{çipilák} & \text{çipilçiplak} & \text{çipilçiplak} & /p/-to-/r/ diss. \\
\text{çipilák} & \text{çirçiplak} & \text{çirçiplak} & \text{syncope}
\end{array}
\]

2.2 Compound reduction

The preceding section has established that the long adjectives in (2c) are all formed by asyndetic hendiadys, being either a reduplicative compound (with dissimilation of /p/ to /r/ and syncope), e.g. çırilçiplak < *çipil-çipil-ak; or a binomial with two adjectival bases, e.g. sırsıklaam. How do they then have shortened to the corresponding forms çırçiplak and sırsıklaam? I propose that they have morphologically reduced the first element of the compound to initial CVC.

This morphological reduction of compounds is different from the phonological reduction that occurs in (1d), e.g. sapasağlam > sapsağlam, where the unstressed vowel of the emphatic particle /pA/, which happens to be in medial position, drops by syncope. The former occurs as part of morphological operations; the latter, as a phonological rule, after the morphological operations. For a similar type of compound reduction, note McCarthy and Prince (1986/1996: 74) who suggest ‘compound truncation’ as a mechanism of full-to-partial reduction in Madurese reduplication. Another well-known example of morphological reduction,

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7) According to Southern (2005: 91) the reason the dissimilation rule changes to /r/ in çırilçiplak rather than /l/ as in çoluk çocuk is due to dissimilation of l,l,r,l: *çipil->çipil->çırl. While such dissimilation is well known, English colonel [kəˈnɔl], its examples are rare in Turkish, making it difficult to draw any conclusion on the claim.

8) But morphological rules such as reduplication, if productive and persistent enough, do occur after phonological rules, which results in surface reduplicative identity. See H-S. Kim (2008) and the references therein for further details.
though not of compounds, is ‘truncation’ that occurs in hypocoristic reductions of proper names, e.g. Dan for Daniel, Nora for Eleanora and Zabe for Isabelle, etc. (cf. Steriade 1988). These reductions are not governed by any phonological rule, which suggests its morphological character.

I have previously explained how this compound reduction works (H-S. Kim 2009), which I summarize briefly here with full-to-partial reduction of reduplicative compounds in Korean and Turkish. Let us first consider partial prefixal reduplication in Korean:

(6) Formation of partial prefixal reduplication in Korean

<table>
<thead>
<tr>
<th>Full</th>
<th>Partial</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>t’ekul-t’ekul</td>
<td>t’ek-t’ekul</td>
<td>‘rolling’</td>
</tr>
<tr>
<td>tu’nšil-tu’nšil</td>
<td>tu-tu’nšil</td>
<td>‘floating’</td>
</tr>
<tr>
<td>kolu-kolu</td>
<td>kol-kolu</td>
<td>‘evenly divided’</td>
</tr>
</tbody>
</table>

A problem that has plagued Korean reduplication for long is the fact that a prefixal partial reduplication such as (6) is being observed in an agglutinating language like Korean. This is against the general typology of Altaic languages, as Menges (1968: 73) notes:

... the Altaic languages are agglutinative, and within the multitude of agglutinative languages they ... show agglutination by suffixation only.9)

It is also against Greenberg’s (1966) implicational universals: that VSO languages are overwhelmingly prepositional but SOV (which Korean belongs to), mainly postpositional (cf. his implicational universals 3 and 4).

The problem of prefixation has also been noted in Turkish, another agglutinating language with SOV word order:

The vast majority of derivation in Turkish is achieved through suffixation. Prefixation is used, to a very limited extent, for reduplication ... and in a few loan words... (Göksel & Kerslake 2005: 52)

This problem can be resolved if the partial reduplications in (6) are

found to be reductions from their corresponding full reduplications, via
compound reduction. This rule reduces the first constituent of the full
reduplication compounds to initial CVC, giving *t’ek-t’ekul, *tun-tunṣil and
*kol-kolu, to which then applies a phonological rule of dissimilation that
drops a velar consonant in a cluster if it is followed by another velar
cluster:

(7) Full-to-partial reduction in Korean reduplication

\begin{align*}
\text{t’ekul-t’ekul} & \quad \text{tuṇsil-tuṇsil} & \quad \text{kolu-kolu} \\
\text{t’ek-t’ekul} & \quad \text{tuṇ-tuṇsil} & \quad \text{kol-kolu} \\
\text{’} & \quad \text{tuṇṣil} & \quad \text{’} \\
\text{full-to-partial reduction} & \quad \text{diss. of velar clusters}^\text{10}
\end{align*}

I have built my argument for this analysis on the origins of partial re-
duplication itself. Steriade (1988) claims that all partial reduplications are
reductions from their corresponding full reduplications. Even though I do
not agree with this claim in toto, especially her claim that ‘partial re-
duplication is nothing but a subtype of stem truncation’, I find her view
and that held by Bybee et al. (1994) quite convincing:

... the fullest, most explicit form of reduplication, total reduplication,
[is] the originating point for all reduplications, with the various types of
partial reduplication as reductions and thus later developments from this
fullest form. (Bybee et al. 1994: 166)

This is because reduplication as a linguistic process is likely to have be-
gun by repeating words, and it is only later that partial reduplications
are developed by reduction of such iterated forms.

An evidence that the full-to-partial reduction in Korean is a viable
process comes from similar reduction of non-reduplicative compounds such
as the following:

---

10) Partial reduplication has a long analytic history in Korean phonology, ex-
planation of which is beyond this paper. See H-S. Kim 2003 and the refer-
ences therein for a detailed explanation of this rule as well as other rules
of Korean partial reduplication.
Reduction of sound symbolic compounds meaning ‘swarming’

<table>
<thead>
<tr>
<th>Full compound</th>
<th>Full-to-partial reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>*wakil-sikil</td>
<td>wak-sikil</td>
</tr>
<tr>
<td>*okil-sikil</td>
<td>ok-sikil</td>
</tr>
<tr>
<td>*ukil-sikil</td>
<td>uk-sikil</td>
</tr>
<tr>
<td>*tikil-sikil</td>
<td>tik-sikil</td>
</tr>
</tbody>
</table>

That these are compounds is obvious from full reduplications formed with same bases, e.g. wakil-wakil, okil-okil, ukil-ukil, tikil-tikil, sikil-sikil, all of which also mean ‘swarming’. These examples suggest that the forms in (8), e.g. wak-sikil, are derived from an asyndetic hendiadys of two rhyming bases, e.g. /wakil/ and /sikil/, with the first base reduced to initial CVC by the same full-to-partial reduction that occurs to the fully reduplicated forms in (6) above. The only difference is that unlike in (6) the reduction here is obligatory.

Since this compound reduction occurs independent of reduplication (e.g. *wakil-sikil > wak-sikil), it cannot occur as part of the reduplication process, as was assumed in many previous analyses of (6). Rather, these sound symbolic forms began their life as a case of full reduplication, but as a result of characteristic compound reduction, the first base has morphologically reduced to initial CVC, giving credence to the reductive origin of partial reduplication cited above as well as the thesis that no prefix exists in a postpositional language such as Korean. It is easy from this analysis to see that a parallel compound reduction has occurred in Turkish compounds in (2c), e.g. çırm-çıpöldak > çırcıpöldak and srıl-sıklam > sırsıklam.

Both Wedel (1999: 86) and Kelepir (2000: 17f) mark Turkish per-perišan “utterly scattered” as an exception to their rule of intensive reduplication because it repeats the whole CVC of the base without varying the coda of the first syllable. But the form would be no longer exceptional under a compound reduction analysis, which is plausible because: 1) compound reduction occurs in Turkish intensive adjectives in (2c), e.g. srıl-sıklam > sırsıklam; 2) CVC reduplication of intensive adjectives occurs in other Turkic languages: Chuvash (Krüger 1961: 128), e.g. tak-takär ‘absolutely flat’, yıp-yêpe ‘soaking wet’ and Karaim (Stachowski 2010: 150), e.g. boštuna ‘in
vain’-boşboşuna – boşboşuna (beside bomboşuna), jumarlık ‘round’- jumju-
marlık (beside jusjuvarlık), which are also likely to be reductions from 
corresponding full duplications; 3) in languages such as Korean, fully 
reduplicated compounds reduce with the initial CVC remaining in first of 
the two constituents, e.g. t’ekul-t’ekul > t’ek-t’ekul ‘rolling’.

Since per-perişan belongs to these compound reduction examples, it no 
longer constitutes an exception to emphatic adjective formation in (1), 
the overriding principle of which is that you never repeat the same CVC 
of the base adjective. Similarly, since the above reductions in Korean 
and Turkish occur as a result not of affixation but of a rule applied at 
the boundary of morphology-phonology, the first part of the compound 
cannot be prefixal (because what is not an affix cannot be a prefix). 
What we have instead is an alternate, morphologically reduced form of 
full reduplication. This analysis thus eliminates the need to assume pre-
fixes in Korean and Turkish compounds, recognition of which was against 
the universal tendency that SOV languages with agglutinative morphol-
ogy are mainly postpositional.

2. 3 Stress variation and restructuring of intensive adjectives
The following table shows how the stress positions of the adjectives in 
(2) vary in dictionaries.

(9) Variant stress positions in irregular intensive adjectives

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>karmakarış(ik)</td>
<td>1</td>
<td>1</td>
<td>2(?)</td>
</tr>
<tr>
<td>darmandağın(ik)</td>
<td>1</td>
<td>2(?)</td>
<td>2(?)</td>
</tr>
<tr>
<td>paramparça</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>çürçaplak</td>
<td>2(?)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>sırsluklam</td>
<td>—</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>sapağlam</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>yapayalmız</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>düpedüz</td>
<td>1</td>
<td>1</td>
<td>2(?)</td>
</tr>
<tr>
<td>çepeçevre</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
The numbers indicate the stressed syllable, counted ordinally from the initial. The question marks indicate that the dictionary lacked the stress mark on the word, which was then assumed to be on the second syllable in accordance with the compound stress rule. Some dictionaries, e.g. Hony & İz (1957), specifically mention this default compound stress rule in the preface while others, e.g. Akdikmen & Uzbay (1986), make no mention of it. I have assumed the same stress rule in both cases.

This variation of stress position in the irregular adjectives of (2) is also noticeable in the writings of major authors on Turkish linguistics. For example, Göksel & Kerslake (2005: 99) say:

> Words which undergo emphatic reduplication are stressed on the initial syllable (e.g. kâpkara, sâpasağlam, ápâçik) except when the reduplicated form contains -ll or -Am, in which case this latter syllable bears stress (e.g. çuılcıçplak). (Italics in this and other quotes that follow in this section are all original-HSK)

According to this rule then, the stress is on the first syllable of the adjectives in (2d), e.g. sâpasağlam, but on the second syllable in (2b-c), e.g. parâmparça, çuılcıçplak. The stress position of karmakarsıç(ık), darma-dağın(ık) in (2a), though not mentioned in the rule because they are not reduplicated, is assumed to be on the second syllable as per their compound stress rule given elsewhere (Göksel & Kerslake 2005: 28).

The following authors, however, all put the stress on the second syllable for the irregular adjectives in (2):

In compound words the accent usually falls on the end of the first element: çuılak ‘naked’, çuılcıçplak ‘stark naked’... (Lewis 1967: 23)

Accent is on the syllable preceding the stem: bómbos, ápâçik, yápyalınz, yapáyalınz. (Underhill 1976: 437)

diiPEdiz, yaPAyalınz, çePEçevre, gePEgenç saPAçalın, güPEgündüz, çuıLCıçplak,
sürülşiklam, parámparça (Demircan 1987: 29; stressed syllables marked by capital letters)

A few words occur with more complex reduplication patterns: ... çırtlçıplak, ... karmakarışık, ... yapşayalnız, ... darmadağınız (Swift 1963: 124)

A rather lengthy but interesting comment regarding the variation of stress in Turkish intensive adjectives is made by Zimmer (1970: 161):

In a compound in which the first element is dissyllabic the main stress of the construction would normally be on the second syllable of the first element of the compound (cf. kadın doktor, above), and it is indeed on the second syllable that the forms in question are usually stressed [e.g. çırtlçıplak from çıplak]. However, there seems to be some tendency to move the stress to the first syllable; thus, of two informants I consulted, one said diüпедиpus 'utterly smooth', but the other one preferred diüpediçius. The dictionary of the Turkish Linguistic Society [Türkçe Sözlük (3rd ed.), Ankara, 1959] lists a number of these forms with initial stress (e.g. yı payşayalnız 'utterly alone'; both my informants preferred yapşayalnz); thus the phonological situation does not, after all, appear to be entirely clear-cut in favor of an analysis which treats the intensive adjectives as conforming to the stress pattern of compounds.

It is clear from the above quotes and the table in (9) that the irregular adjectives in (2) vary their stress position between the first and the second syllable. Four adjectives, however, do not seem to vary: parámparça, çırtlçıplak, sürülşiklam, and çepçeçevre. It is remarkable that three of them are unreduced nonreduplicative hendiadys, either syndetic with enclitic /mA/ (parámparça < *para-ma-parça) or asyndetic (çırtlçıplak and sürülşiklam). These three strictly follow the Turkish compound stress rule that stresses the last syllable of the first element of the compound. Since enclitics are generally unstressed, the stress always falls on the last syllable of the first element of the compound, whether syndetic or asyndetic. I take then this to be the original stress position in Turkish intensive adjectives in (2).

According to this rule, çepçeçevre and other intensive adjectives in (2d) should have been stressed on the first syllable because /pA/ as an em-
The emphatic particle is also unstressed. But this original, first syllable stress seems to have moved to the second syllable in some of the recent speeches and dictionaries. Although Zimmer in the above quote suggests the stress on the second syllable to be original in düpedüz and says that it tends to move to the initial syllable, such an interpretation would be contrary to his finding that many of these adjectives have initial stress in the dictionary of Turkish Linguistic Society (Türkçe Sözlük, 3rd ed.) published in 1957.

The original first syllable stress is also evinced by the fact that some adjectives in (2d) have reduced forms, due to optional elision of the unstressed vowel /A/. If the stress was originally on the second syllable, which is the syllable that comprises the emphatic particle /pA/, the enclitic vowel would not have dropped by syncope and these adjectives would have had difficulty reducing phonologically. They may still be able to reduce morphologically via compound reduction, one may argue, but this is unlikely because being partially reduplicated, they already have a reduced structure. Besides, compound reductions that we have seen in Korean and Turkish are all of asyndetic compounds, without a connective linking the two constituents. In Korean, for example, asyndetic compounds reduce, e.g. t'ekul-t'ekul > t'ekt'ekul “rolling” and *wakil-sikil > wak-sikil “swarming” but syndetic compounds remain, e.g. kanil-ti-kanin ‘very thin’ (cf. J-M. Song 2003). Similarly compound reduction in Turkish intensives seems to occur only with asyndetic compounds as in (2c), e.g. çirçaplağ > çirçaplağ but not with syndetic ones as in (2a-b), e.g. paramparça < *para-ma-parça.

With the first syllable established as the original stress position in (2d), the next question that arises is, why is the stress shifting in these adjectives? Note that the same question also arises for the examples in (2a), i.e. karmakanış(ik) and darmadağın(ik), because unlike paramparça < *para-ma-parça in (2b) they also vary the stress between the first and the second syllable.

My answer is that these adjectives are undergoing restructuring in modern Turkish, from earlier syndetic compound to asyndetic one, by reanalyzing the enclitic /mA/ and emphatic /pA/ as part of the first ele-
ment of the compound, thus shifting the stress position from the original first syllable to the new, second syllable as per the Turkish compound stress rule.\footnote{11} As happens with such restructuring, the change progresses on a word-by-word basis, with some adjectives leading ahead while others lagging behind. The fact that çepçevre is uniformly stressed on the second syllable by all dictionaries suggests that it belonged to the former group. This restructuring, however, must have occurred earlier in karmakarış(ik) < *kar-ma-karış(ik) and darmadağın(ik) < *dar-ma-dağın(ik) than in parâmparça < *para-ma-parça. If not, the latter, with its enclitic newly stressed by the compound stress rule, would have resisted syncope and yielded an incorrect form *paramá-parça.\footnote{12}

2.4 Origins of emphatic /pA/ and /mA/: Western Yugur intensive formation

2.4.1 Grammaticalization of /pA/
Evidence that /pA/ in (2d) is an emphatic particle is also adducible from intensive adjectives in other Turkic and Altaic languages. For example, in Dagur Mongolian the intensive adjective carries an affixal element /be/ after copying the initial CV of the base:


<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensive adjective</th>
<th>‘snow white’</th>
</tr>
</thead>
<tbody>
<tr>
<td>cigaan</td>
<td>cabe-cagan\footnote{13}</td>
<td></td>
</tr>
</tbody>
</table>

\footnote{11} This is of course barring dialectal and sociolectal differences, which I have not been able to investigate in this paper due to lack of data available. My judgement here is based on the fact that the variation seems to occur in dictionaries and grammar handbooks as well as among individuals; So what figures is that the stress varies not only in the relatively conservative descriptions of standard dialect but also in the innovative colloquial speeches of individuals, from which I concluded that there is an ongoing shift in stress position for these adjectives in modern Turkish due to restructuring.

\footnote{12} Or, alternatively, syncope of the enclitic vowel would have obscured the enclitic marker, essentially blocking the morphological change; this supposition however entails a phonological rule preceding a morphological change.
hare              habe-hare                   'jet black'  
šari              šabe-šari                   'vivid yellow'
adili             ab(e)-adili                    'the very same'
amere.han         ab(e)-amere.han                  'most easy'

Some of these adjectives directly correspond to the Turkish regular intensives in (1); DM habe-hare corresponds to Turk. kapkara; DM šabe-šari to Turk. sapsart. This suggests that the linking /p/ at least in these two adjectives could be from the emphatic particle /pA/ by syncope of the unstressed medial vowel.

The intensive adjectives in Karachay-Balkar also supports our analysis:

(11) Karachay-Balkar intensive adjectives (Hubey 2003; Seegmiller 1996)
    a. vowel initial stems:
       With /pA/
       appaçi < appa-açi ‘bitter’
       appaçiq < appa-açiğ ‘very clear’
       appa-aq ‘completely white’
       appa-aç ‘hungry as a wolf’
       öppe-örge ‘very high’
       uppa-uzaq ‘very distant’
    b. consonant-initial stems:
       With /pA/
       cappa-caŋŋi ‘very new’
       ceppe-ceŋŋil ‘instantly’
       cippa-cili ‘very warm’
       çuppa-çubar ‘spotted’
       qappa-qara ‘jet-black’
       soppa-soqr ‘absolutely blind’
       suppa-suwäq ‘very cold, icy’
       töppe-tögerək ‘very round’
       toppa-tolu ‘completely full’
       tuppa-tuzlü ‘very salty’
       tüppe-tüz ‘absolutely correct’
       With /p/ only
       cap-caŋŋi
       cep-ceŋŋil
       cip-cili
       çup-çubar
       qap-qara
       sop-soqr
       sup-suwäq
       töp-tögerək
       top-tolu
       tup-tuzlü

13) According to Martin (1961: 127), cagan is a variant form of cigaan.
These examples clearly show that what is added after the linking /p/ is not just a vowel but the whole emphatic particle /pA/. Note especially the examples with the vowel-initial base, e.g. appa-aq ‘completely white’. If the addition of a vowel is due to lack of prosody of the linking /p/ that precedes the base as Demircan (1987) claims, there is first of all no reason to add such a vowel with vowel initial bases, let alone the whole particle /pA/. This then indicates that /pA/ is inserted to add emphasis.

But why should one add an emphatic particle /pA/ to an adjective that already has an emphatic particle, albeit in a reduced form? To answer this question, consider grammaticalization, an interesting aspect of which is that grammaticalization sometimes results in ‘loss of expressivity’ of the function that the ungrammaticalized form performed; In such cases, it often happens that the same function is ‘rejuvenated through new collocations filling more or less the same role’ (Hopper & Traugott 1993: 23). Since syncope has rendered the semantic role played by the emphatic /pA/ less visible, the same affix is inserted again to make sure the role is properly encoded.14)

This analysis suggests a possible scenario for development of linking /p/ in some of the intensive adjectives in (1). First, syncope reduces the enclitic /pA/ to /p/, which is then morphologized as the linking consonant. The Turkish intensive adjectives with /pA/ in (2d) are the fossilized remnants of this process. Second, this morphologization results in loss or weakening of ‘expressivisity’ that the unreduced emphatic particle /pA/ used to carry, so the same particle is inserted again to recover the emphatic meaning lost, as in the above Karachay-Balkar examples.15)

14) The same ‘loss of expressivity’ is the motivation behind optional reduplication of Korean case endings such as -in->-n-in and -il>ilil after vowel-final stem: chaek-in ‘book-Top’ but na-n~na-nin ‘I-Top’, etc. Moreover, such rejuvenation of grammatical function seems to have been quite prevalent in Turkic languages. Cf. Erdal (1991: 60) who notes on reduplication of the intensifying enclitic -Ok: ‘Ok after consonants, just k or a strengthened variant kOk after vowels’.

15) Note the same addition of /pA/ in Karaim (Stachowski 2010: 140 & 151): appačyk, appak, kiuppekiindües.
2.4.2 Western Yugur intensive adjectives

According to Roos (2000: 79) Western Yugur intensive adjectives occur with linking /p/ that sometimes assimilates to the following consonant, e.g. sap-sariy ‘very yellow’, thop-tholü ‘very full’, qiğ-qizil ‘very red’ and qağ-qara < *qaq-qara ‘pitch black’. But with the vowel-initial base aq ‘white’, reduplication occurs by means of the particle /mA/: *aq ma aq > *aq pa aq > aqpaq. The choice between /mA/ and /pA/ in this language is allomorphic: /pA/ appears after plosives and /mA/ elsewhere. Note the same distribution observed with the verbal noun suffix /-MV/: temirsoq-pa ‘smith’, örçisat-pa ‘merchant’, yizitük-pi ‘tailor’ but malqara-ma ‘herdsman’, yertar-ma ‘farmer’, ohtyaz-ma ‘strawmat’ etc.

Roos’ statement can be partially confirmed in Hugiilu (1998: 219), according to whom Western Yugur has the usual /p/ as the linking consonant for intensive adjectives such as qaçoara ‘pitch-dark’, qopqojuy ‘very dense’, jipjimsaq ‘too soft’, etc. but ‘for some monosyllables, the linking element is -ba/-be after words ending in occlusive consonants and -ma/me after words ending in fricatives, or the /p/ is first inserted then -ba/-be can be added’.16) Thus:


<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensive adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>aq ‘white’</td>
<td>aq ba aq ~ aq baq ~ ap ba aq ‘snow-white’</td>
</tr>
<tr>
<td>gòk ‘blue’</td>
<td>gòk be gòk ~ gòkbek ~ gòp ba gòk ‘azure blue’</td>
</tr>
<tr>
<td>duz ‘straight’</td>
<td>duz ma duz ~ dup ba duz ‘perfectly straight’</td>
</tr>
<tr>
<td>jiɣ ‘light’</td>
<td>jiɣ me jiɣ ~ jiɣ ba jiɣ ‘very light’</td>
</tr>
</tbody>
</table>

The varying intensive forms in (12) present a number of questions that we cannot properly answer in this paper.17) Nevertheless the data

16) Note that -ba/-be here and in (12) below is equivalent to Roos’ (2000) /pA/.

17) For example, the emphatic particle that correctly follows the vowel harmony rule should be /be/ in jip ba jiɣ and gòp ba gòk. The pair gòk be gòk ~ gòkbek ‘azure blue’, on the other hand, seems to suggest a reduction via elision of /e/ and the following /g/, but the process(es) for this reduction are not evident.
reveals some valuable insights for our analysis. First of all, it shows that the reduplication in intensive adjectives, at least with monosyllabic bases, repeats the whole, rather than part, of the base: *aq ba aq, duz ma duz*, etc. Second, as in the above Turkish and Karachay-Balkar examples, reduplicated adjectives appear with a particle, but the form varies between /mA/ and /bA/(i.e. Roos' /pA/). Third, in such constructions if the same vowels happen to occur in sequence, they reduce: */a-a/> a, e.g. aq ba aq~aq baq. Finally, the enclitic /mA/~/bA/ that appears in the first intensive forms of (12), e.g. aq ba aq, gök be gök, and duz ma duz, is certainly the same conjunctive /mA/ that we have seen in Karaim and Turkish, e.g. Kar. syk-ma-syk, Turk. kar-ma-karşık, while the particle /bA/ (i.e. Roos' /pA/ that appears in the second intensive forms of (12) also occurs as /pA/ in Karachay-Balkar: K-B. appa-aq, WY ap ba aq; K-B. tüppe-tüz, WY dup ba duz.

An interesting question that I could not find an answer to in this paper is whether the conjunctive forms in the first and second intensives in (12), i.e. /mA/~/bA/ vs. /bA/, are etymologically related, and if so, how. But the above Western Yugur data are interesting in clearly showing the three basic types of intensive formation often observed in Turkic languages. As a summary of the section, I therefore present the following table in which the intensive formations are compared in Western Yugur, Karachay-Balkar, Karaim and Turkish:

(13) Types of intensive adjectives in Turkic languages

<table>
<thead>
<tr>
<th>Types of intensive formation</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C)V-</td>
<td></td>
<td>(C)VC-</td>
<td>(C)Vp-</td>
</tr>
<tr>
<td>p/m/s/r-</td>
<td></td>
<td>mA/pA-</td>
<td>pA-</td>
</tr>
<tr>
<td>(C)VC...</td>
<td></td>
<td>(C)VC-</td>
<td>(C)VC...</td>
</tr>
</tbody>
</table>

18) The data in this table are based on the following references, with my interpretation sometimes added: Roos (2000) and Hugliltu (1998) for Western Yugur; Hubey (2003) and Seegmiller (1996) for Karachay-Balkar; Stachowski (2010) for Karaim; Swift (1963), Lewis (1967) and Göksel & Kerslake (2005) for Turkish. The upper row for each language refers to vowel-initial bases; the lower row to consonant-initial bases.
<table>
<thead>
<tr>
<th>Western Yugur</th>
<th>aq ba aq—aqbaq (aqpaq)</th>
<th>ap ba aq</th>
</tr>
</thead>
<tbody>
<tr>
<td>thop-tholılı</td>
<td>duz ma duz gôk be gôk</td>
<td>dup ba duz</td>
</tr>
<tr>
<td>Karachay Balkar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>top-tolu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karaim</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apak</td>
<td>top-tolu tümütz tüiptüz</td>
<td>tol-ma-tolu</td>
</tr>
<tr>
<td>toptolu tömtüzi tüiptüz</td>
<td></td>
<td>küppekündüzi</td>
</tr>
<tr>
<td>Turkish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apak</td>
<td>dopdolu düimdüz</td>
<td>kar-ma-karış</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(düpedüz)</td>
</tr>
</tbody>
</table>

Type I is the ‘regular intensives’ in which the linking consonant is always /p/ with vowel-initial bases but varies among /p, m, s, r/ with consonant-initial bases: /p/ only in Western Yugur; /p/ or /m/ in Karaim; /p/, /m/, /s/ or /r/ in Turkish. Type II is the typical reduplicative syndetic hendiadys with the conjunctive enclitic /mA/, which varies its form allomorphically in Western Yugur but not in Turkish nor in Karaim. Type III has the characteristics of types I and II, and appears with /pA/ which I have analyzed in this paper as a particle independent of the conjunctive /mA/~/pA/ in type II. I claim that this particle was added to encode the emphatic function that had been weakened when syncope reduced it to /p/.

A question I have pursued in the previous version of this paper concerns the origin of the linking consonant /m/ in examples such as Turk. düimdüz ‘absolutely level,’ which certainly belongs to type I but is also related to Turk. düpedüz ‘downright, openly’ as they share the same base düz ‘flat’. I thought that as the emphatic /pA/ reduces by syncope and leaves only /p/ (e.g. sapasglam–sapålaml), the linking /m/ could also be related to the type II conjunctive enclitic /mA/ that also occurs in Turk. kar-ma-karış. This hypothesis initially looked promising, especially because we have frequent variation between linking /m/ and /p/ in many Turkic languages, e.g.
(14) /m/ and /p/ variation in Turkic intensive adjectives

Tatar: kapkək ~ kəmkək ‘azure blue’
Turkish: gömgök; Uzbek: kəmkək; Uyghur: kapkək
Uyghur: jəp jəfıl ‘very green’; Uzbek: jəm jəfıl; Tatar: jem jefıl;
Turkish: yemyəşil; Chagatay: yam-yaşið ~ yap-yaşið
Turkish: düpədiz ~ dümdiz ‘absolutely level’
Karaim: tümtüz, tüptüz (cf. tüz ‘straight’)

As one of the reviewers pointed out, however, the same variation already existed in Old Turkic, as DLT (cf. Dankoff & Kelly 1982-1985 vol. III: 276) also gives köp kök ~ köm kök with the former in non-Oguz and the latter in the Oguz languages. Under my hypothesis this would imply that type II intensive formation already existed in Old Turkic, which seems improbable in view of the fact that unlike type I, which is attested in Old Turkic (cf. Erdal 1991, 65; 2004, 151), type II is unattested in Old Turkic, which is thus a relatively recent development, possibly a grammaticalization of ‘indefinite/concessive particle’ (cf. Roos 2000: 79).19)

3. Conclusion

A group of adjectives in Turkish that Lewis (1967: 23) has called ‘irregular intensive adjectives’ strongly resemble the so-called regular intensives such as kapkara ‘coal black’ but do not really follow the rule of intensive reduplication. These are formed either by ‘hendiadys’, a compounding process that juxtaposes two bases that are often synonymous and alliterative, or by CV-reduplication and insertion of emphatic particle /pa/: e.g. çurtçaplak ~ çurtçaplak ‘stark naked’; sapasığlam ~ sapaşğlam ‘robustly healthy’. An etymological and comparative study on the origins of these adjectives has revealed a number of interesting facts:

19) The change in hendiadys type mentioned above, from 14th c. asyndetic dar-dağan to the syntactic dar-ma-darğın(ik) in Turkish, also evince the recentness of this formation. I am grateful to the reviewer for pointing out the improbability of relating the linking /m/ in Turkish dümdiz to the enclitic /mA/.
1) Turk. *parámparça* 'broken to pieces' is from *pará-ma-parça* and thus has the same syndetic structure as *kár-ma-karş(ik)* 'completely confused', even though the latter is being restructured as a syntetic compound and as a result the stress is moving to the second syllable (*karş-karş(ik)*), the last syllable of the first element of the compound.

2) Turk. *çirlçiplak* is underlyingly a reduplicative syntetic compound, from *çüpîl-çüpîl-ak*, but its first constituent changes to *çirl-* by dissimilation (of /p/ to /r/ when followed by another /p/) while the second constituent loses its unstressed medial vowel by syncope. The alternate short form *çırçiplak* arises from the longer *çirlçiplak* via compound reduction, by which the first constituent of a binomial compound reduces to initial CVC.

3) Turk. *sapasağlam*—*sapsağlam* 'robustly healthy’, on the other hand, reveals a phonological reduction of the long adjective, by syncope of unstressed vowel of the emphatic particle /pA/. The reduced form strongly resembles the regular intensive adjectives such as *sapsart* ‘bright yellow’, which suggests that this particle is one of the multiple sources of the linking /p/ that appears in the majority of intensive adjectives in Turkish.

4) Generally speaking, there are three types of intensive formation observed in Turkic languages: 1) (C)I-(p, m, s, r)-(C)VC...; 2) (C)VC mA/pA (C)VC...; 3) (C)Vp-pA-(C)VC... The first type is formed by CV-reduplication plus a linking consonant which often varies with consonant-initial bases. The second type is often a reduplicated compound linked by an enclitic /mA/, but can also appear in nonreduplicative compounds such as Turk. *dar-ma-dağın(ik)* 'in utter confusion' and varies its form allomorphically in Western Yugur. The third type is also formed by CV-reduplication with linking /p/ as in the first type but an emphatic particle /pA/ is added after the linking /p/ to recover the emphatic meaning lost by syncope of the original emphatic particle.

In short, a lot have been revealed by the analysis; some points may be insightful but some, only conjectural, while many more remain to be discovered. So the old maxim is still true: that an historical linguistic analysis sometimes raises more questions than answers them.
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