Affixoids and Verb Borrowing in Aivaliot Morphology

Angela Ralli

1 Introduction

1.1 *Brief History of the Area*

Aivali (Ayvalik in Turkish) is located on the Edremit gulf in Western Turkey – Aeolian part of former Asia Minor – four to five miles east of the Aegean island of Lesbos. It was officially called Kydonies, after the plethora of clams in the gulf, or the wild quince trees that grow in the area (Ayvalik in Turkish means 'quince garden'). Opposite to Aivali there is a cluster of islands, the so-called Moschonisia, the main isle of which is Moschonisi (Cunda in Turkish), called simply Nisi till the beginning of the 20th century. Moschonisia received their name either from the aromatic wild plants which spring up on their hills, or after the name of a famous pirate, Moschos, who lived there during the late Medieval period (Karaiskaki 1973).

Moschonisi was inhabited since ancient times. The Ancient Greek historian Xenophon (430–355 BC) and the geographer Pausanias (110–180 AD) refer to it as Ekatonisos and mention its two towns, Nasos and Poroselini. Ruins of a medieval tower and some other sparse evidence indicate that the island was inhabited during the Medieval period as well. In contrast, Aivali was founded in late 16th or early 17th century, mainly by inhabitants of Lesbos, who moved to the region to avoid persecutions by the Ottomans (Sakkaris 1920).

In 1773, the Aivaliot notable Ioannis Dimitrakellis or Oikonomos acquired certain privileges by the Sublime Porte in Constantinople. For instance, Aivaliots and Moschonisiots were exempted from heavy Ottoman taxes and the language of communication and education was prescribed to be Greek. Due to these allowances, the two towns became prosperous and accepted residents from other parts of the Greek-speaking world.[1] Most scholars who have dealt with the historiography of the area have extensively referred to the important

---

[1] Figures for the society of Aivali and Moschonisi before 1821 are provided in the book *Histoire des Evénements de la Grèce*, written by Claude Denis Raffenel in 1822, and translated in Greek by an Aivaliot woman, Chariklia Stavrakis, in 1861.

educational work done in Aivali. For instance, in 1780, it was opened the first elementary school and twenty years later, the famous Academy of Kydonies was founded. The Academy operated from 1802 to 1821, had a particularly rich library, and teaching followed the spirit of European enlightenment (Sakkaris 1920). In fact, in both Aivali and Moschonisi, there was a major concern for the education of both men and women, cultivation of arts and letters, as well as learning of foreign languages.

In May 1821, an Aivaliot uprising against the Ottomans led to disaster. The city was burned and the inhabitants fled to the nearby Moschonisi. In June 1821, Moschonisi also revolted against the Ottoman Empire, the insurrection was suppressed, the town was destroyed and its inhabitants, Moschonisiots and Aivaliots, were forced to leave. Some years later, following an agreement between the Sublime Port and the Greek state, Moschonisiots and Aivaliots went back to their hometowns. By 1832, the towns' image had improved significantly and a period of growth began (Sakkaris 1920). During the rest of the 19th century, Aivali and Moschonisi experienced an economic boom, followed by a significant development of arts and letters. It is important to mention that at the beginning of the 20th century, education at the elementary and secondary level was provided to most men and women. Pupils were taught Greek, French and Turkish. Before the First World War, Aivali had about 30,000 residents, while Moschonisi counted circa 15,000 people. The basic language in education was Greek, but Turkish was used in trade and the administration.

The economic and cultural prosperity lasted less than a century. After the end of the war between Greece and Turkey (1919–1922) and the defeat of the Greek army, the inhabitants of the two towns suffered the tragic consequences of political and military developments of those times. Many people were executed in September 1922, mainly Moschonisiots, and generally men between 18 and 45 years old were imprisoned and ultimately brought to concentration camps (Venezis 1952). Others, women, children and older men, flew to Greece,[2] principally to the nearby island of Lesbos, where they settled in various dialectal enclaves.[3] In 2002, a handful of first-generation Aivaliot and Moschonisiot speakers could still be found in Lesbos and elsewhere in Greece and abroad, where they still remembered and practiced their mother tongue.[4] Nowadays,

---

2 Moschonisi and Aivali were deserted from their Greek speaking population in September 1922, months before the Lausanne treaty (July 1923) which led to an exchange of Muslim and Christian Orthodox people between Greece and Turkey.

3 A number of Aivaliots and Moschonisiots moved to other countries as well. Descendants from these refugees can be found in France, North America and Australia.

4 In 2002, the research team of the *Laboratory of Modern Greek Dialects* (LMGD) of the University of Patras (http://lmgd.philology.upatras.gr), within the frame of a research project

the dialect is on the way to extinction, since second-generation speakers either have a passive knowledge of it, or those living in Lesbos mix their own dialectal variety with the parent Lesbian.

1.2   *The Language: an Overview*

Aivaliot and Moschonisiot resemble Lesbian in many respects, since, as noted in section 1.1, many Lesbian people had moved to the Aivali and Moschonisi area around the end of 16th century and the beginning of 17th. Despite their differences (see indicative examples below), the three varieties share many phenomena and lexical items. Thus, I consider them as varieties of the same dialectal group, itself a sub-group of the larger set of Northern Greek dialects. Because of a long domination by the Ottomans, Aivaliot, Moschonisiot and Lesbian, have undergone a heavy Turkish influence, which is particularly seen at the vocabulary level. Most of their borrowed items originate from Turkish, but there are also loans from Italo-Romance, since before the Ottoman occupation (1462 for Lesbos, but earlier for the Asia Minor coast), and for two centuries (1355–1462), Lesbos was governed by the Genovese Gateluzzi family (Paraskevaidis 2005); in addition, till the decline of the Republic of Venice (16th, 17th century; Fanciullo 2008, 2011) the trade in the Aegean sea was in Venetian hands and Venetian, or a type of Standard Italian of that period, were used as a kind of lingua franca in trade and navigation.[5]

The data investigated in this section, as well as those in sections 2 and 3, are drawn from both written and oral sources. The written sources are mainly Sakkaris (1940, 1948, 1952) and Ralli (2017), while the oral ones come from the oral corpora of the *Laboratory of Modern Greek Dialects*. Before proceeding to a profound investigation of the morphological phenomena treated in sections 2 and 3, I will mention, firstly, a number or features, typical to the dialectal sub-group under question, and note some differences from one variety to another. As already mentioned, the three varieties show intra-dialectal variation, which can be detected in all grammatical levels, but mostly in phonology and morphology.[6]

---

funded by the Ministry of Aegean, conducted a field work in the dialectal enclaves in Lesbos and succeeded to document Aivaliot and Moschonisiot (www.mikrasia.lit.upatras.gr). There are about 45 hours of narratives, all in digitized form, stored in the database of LMGD oral corpora.

5   For a detailed account of Greek in contact with Italo-Romance see Ralli (2018).

6   Note that Lesbian spoken in 71 villages of the island displays a further internal variation. For an illustration, see the *Electronic Dialectal Map of Lesbos* (EDAL), created in LMGD (http://lesvos.lmgd.philology.upatras.gr, Ralli *et al.* 2018).

In phonology, this sub-group is characterized by compulsory high-vowel deletion and mid-vowel raising in unstressed position, being part of the larger group of Northern Greek Dialects, where these two phenomena determine the main isogloss dividing this group from that of the Southern dialects (Hatzidakis 1905–1907). For an illustration, consider the following examples:[7]

TABLE 7.1   High-vowel deletion and mid-vowel raising
               in Aivaliot/Moschonisiot/Lesbian

Greek	Aivaliot/Moschonisiot/Lesbian	
spíti	spit	'house'
kutí	kti	'box'
forá	furá	'time'
petó	pitó	'fly, throw away'

Nevertheless, among other things, they diverge with respect to the following phonological phenomena:

– *Unstressed secondary* [i] *deletion*: In Northern Greek Dialects, the application of the two laws, high-vowel deletion and mid-vowel raising, follow an extrinsic order, according to which high-vowel deletion occurs first, blocking the deletion of unstressed [i] and [u] which have resulted from mid-vowel raising. This order is confirmed in both Aivaliot and Moschonisiot, but not in Lesbian, as far as secondary [i] is concerned. For instance, the Greek[8] personal pronoun *eγó* appears as *iγó* in Aivaliot and Moschonisiot, after the application of mid-vowel raising, but becomes *γo* in Lesbian because of subsequent high vowel deletion.

– *Tsitacism*: Lesbian displays a systematic tsitacism of [c] before the front vowels [i] and [e] (e.g. *tsirós < cirós* 'weather', *atséfalus < acéfalus* 'headless'). Tsitacism is completely absent from Moschonisiot, but occasionally occurs in Aivaliot.

– *Regressing of alveo-palatal* [t] *in front of* [i] *and* [e]: This phenomenon is typical of Moschonisiot, as well as of the local variety of two areas in Lesbos, Plomari in Southern Lesbos and Mesotopos in the western part of the island, but it is entirely unknown in Aivaliot. For instance, the Greek words

---

7   In this paper, the Greek examples are given a broad phonological transcription.
8   I will use the term "Greek" to designate Modern Greek, "Ancient Greek" and "Medieval Greek" will refer to previous stages of the language, and "Standard Modern Greek" will indicate today's official linguistic form.

tirí 'cheese' and *télus* 'end' (Greek form *télos*) are pronounced as *cirí* and *célus* in Moschonisiot, and this pronunciation can still be heard in Plomari and Mesotopos.

In morphology, differences from one variety to another can be seen in inflection, derivation, and compounding. Space limitations allow me to give only indicative examples of certain divergences:

– In inflection, there is a major distinction between Aivaliot and Moschonisiot on the one hand and Lesbian on the other as far as the endings of the imperfect tense are concerned (Sakkaris 1940). For instance, consider the differences shown in the singular number of the imperfect tense of the verb *plénumi* 'to be washed':

TABLE 7.2   Intra-dialectal variation in the singular number of the imperfect tense

	Aivaliot/Moschonisiot	Lesbian
1 SG	plin-ómna	plin-ómdan/ómdun
2 SG	plin-ósna	plin-óstan/óstun
3 SG	plin-ódan/ótan	plin-ódan/ódun

– In derivation, an evaluative suffix *-el(i)*[9] of Latin origin (*-ellum,* see Ralli 2017) (e.g. *mur-éʎ* 'little baby', *spit-éʎ* 'little house') is very common in both Aivaliot and Lesbian, but completely absent in Moschonisiot, which utilizes the Greek suffix *-ac(i)* instead (e.g. *mur-ác* 'little baby', *spit-ác* 'little house').

– Generally, compounding displays the same structures as in Greek, but in both Aivaliot and Moschonisiot the influence of Turkish seems to be heavier than in Lesbian. Thus, in these sub-varieties one can find more compounds, where both constituents are Turkish, or some instances of structural transfer, as for example, the compound *ajéra-parasí* lit. wind money, '(do something or get something) in vain' (Ralli forthcoming), which consists of the Greek constituent *ajéra* 'wind', the Turkish one *pará* 'money', and the Turkish compound marker *-sI* – the latter in Turkish follows the combination of two nouns (see Göksel 2009).[10]

---

9   Following the high-vowel deletion in unstressed position (see table 7.1), the final [i] is deleted after having palatalized the [l].

10   For the Turkish influence on Greek compounding, see Bağrıaçık *et al.* (2017) and Ralli (forthcoming).

In morpho-syntax, enclisis in main clauses can be observed in certain areas of Lesbos, as for instance, in the village of Agiassos in southern Lesbos, while proclisis is common in Aivaliot/Moschonisiot and in Standard Modern Greek:

(1)   a. Agiassot

Tu   fármaku   éδusé   mi   tu   i   jatrós
the   medicine   give.PST.SG   me   it   the   doctor
'The doctor gave me the medicine'

b. Aivaliot/Moschonisiot

tu   fármaku   m(i)   tu   éδusi   i   jatrós
the   medicine   me   it   give.PST.SG   the   doctor
'The doctor gave me the medicine'

There are no purely syntactic phenomena which are typical of the three varieties since syntax does not considerably diverge as far as the most Modern Greek Dialects are concerned and is the least affected domain by language contact. A slight difference between Lesbian on the one hand and Aivaliot/Moschonisiot on the other can be observed though in a rather frequent use of verb final sentences, designating a trace of Turkish effect. Compare the following sentence in (2), as realized in Aivaliot/Moschonisiot, Lesbian and Greek, where (2a) is not under focus:

(2)   a. Aivaliot/Moschonisiot

tu   prásnu   kapélu   θéʎs?
the   green   hat   want.2SG
'Do you want the green hat?'

b. Lesbian

θéʎs   tu   prásnu   kapélu?
want.2SG   the   green   hat
'Do you want the green hat?'

c. Greek

θélis   to   prásino   kapélo?
want.2SG   the   green   hat
'Do you want the green hat?'

Generally, the study of Aivaliot and Moschonisiot is interesting with respect to a variety of phenomena, which are absent from Greek, and can offer a testing

bed for linguistic theory. In sections 2 and 3, I will deal in detail with a number of morphological topics which are common to Aivaliot and Moschonisiot. For easiness, I will use the term "Aivaliot" for both varieties, but, when needed, I will mention their differences. The topics are drawn from the domains of language-internal change and language contact. They refer to the challenging, and often disputing, issue of affixoids as well as to loan verb integration, which, in the Aivaliot case, exhibits the morphological constraints that a system can impose for adopting verbs from languages of different typologies.

2   Affixoids

Most authors who have stressed the non-radical distinction between derivation and compounding have drawn their main arguments from an intermediate category between lexemes and affixes, the so-called "affixoids" (see, for instance, Booij 2005 and Ralli 2010), the fuzzy status of which is generally accepted as the product of historical evolution. In order to determine the potential properties of affixoids, and by using evidence mainly drawn from German and English, Stevens (2000, 2010) has proposed the following five criteria:
– Affixoids productively create new formations.
– They exist alongside a formally identical, and usually free, "parent" morph.
– The meaning of an affixoid is more generalized and abstract than that of the formally identical parent.
– There is a change in the relationship between the parts of the formation, compared to the original morphologically-complex formation which has led to the creation of the affixoid.
– An affixoid is usually in competition or in complementary distribution with an affix.

Although linguists do not agree on their discrete category-status and consider them as a diachronically relevant category (see ten Hacken 2000 and Hartmann 2016, among others), with the help of the Aivaliot data, I show that there is a way to have a synchronic look at these items and claim that it is possible to consider their category as being morphologically distinct, aligning with Kenesei (2007). Moreover, in accordance with Kastovsky (2009), I argue that their existence is language dependent and that affixoids may appear in languages with stem-based morphology, such as Greek (Ralli 2005). Corroborating evidence is given from two Aivaliot bound items, *plaku-* and *sa-* for which there are arguments in favor of assigning them the status of prefixoids.

2.1   *The Data*

2.1.1   plaku-

plaku- expresses the bad mood of the speaker or denotes a thing or an activity, damned and wicked (Dimela 2010). It originally derives from the combination of the stem *plakon-* of the verb *plakóno* 'to be covered with slabs, be buried under, crash down', participating as first constituent of coordinative V(erb) V(erb) compounds,[11] and the compound marker *-o-* ([u] in unstressed position because of the Aivaliot mid-vowel raising law, see section 1) – a compulsory linking elements in all Greek compounds (Ralli 2008, 2013). The verb stem *plakon-* is itself a derivative item consisting of the noun *pláka* 'slab' and the derivational suffix *-on-*. In the compounding position, however, the verbalizer *-on-* does not surface because of the so-called "bare stem constraint" (see Ralli and Karasimos 2009 for details), asserting that the left-hand stem members of Greek compounds must be as bare as possible. For instance, the Aivaliot verb *plakutróɣu* 'eat in a bad mood' has historically descended from the VV compound *plakon-o-tróɣo which has acquired its actual form after the suffix deletion and the mid-vowel raising.

Words with a first constituent *plaku-* are currently frequent in Aivaliot, and to a lesser extent in the parent variety of the northern Aegean island of Lesbos, but do not belong only to verbs; they can also be nouns and adjectives as the examples in (3c, d) depict:

(3)   a. plakucmámi   'I sleep in a bad mood'   <   plaku-   cmámi   'sleep'
       b. plakutróɣu   'I eat in a bad mood'   <   plaku-   tróɣu   'eat'
       c. plakupuðár   'damned leg'   <   plaku-   puðár   'leg'
       d. plakumávrus   'damned black'[12]   <   plaku-   mávrus   'black'

as, for instance, in the phrase

(4)   Ti   épathi   símira   tu   plakupuðár-im   tsi   plakupuní?
       What   got   today   the   PLAKU.leg-my   and   PLAKU.is.in.pain
       'What happened today to my damned leg and it is in wicked pain?'

---

11   Greek coordinative VV compounds are [stem word] formations, that is, the left-hand verb constituent is a stem while the right-hand one is a fully inflected word. As a result, the compound as a whole bears the inflection of the second verb. For an illustration, see (i), drawn from Standard Modern Greek, and Ralli (2009) for details:

    (i)   anevokatevéno   <   anev(éno)   katevéno.
        'go up and down'   'go up'   'go down'.

12   This word also appears as plakómavrus, where [u], under stress, surfaces in its original form [o].

Since compounds of V(erb)N(oun)[13] or V(erb)Adj(ective) structural patterns are not generally acceptable in Greek (and Aivaliot), examples such as (3c, d) cannot be considered to belong to grammatically acceptable compounds. Consequently, this constitutes a strong indication that *plak-* has lost its character of a verb stem and has been recategorized as a rather functional element, probably a prefixoid. This change also involves a shift to the right of the morphemic boundary separating the compound constituent *plak-* from the compound marker *-o-* ([u] in unstressed position in Aivaliot). Thus, *plak-u* has been ultimately reanalyzed as *plaku-* (*plako-* under stress).

The general properties of *plaku-* are the following:

– Similar to affixes, *plaku-* is a bound element; it cannot become an independent word with the appropriate inflectional ending and never combines with derivational affixes in order to form derivative structures.

– Like functional elements, it does not bear a specific lexical meaning but has an expressive value; it brings a negative evaluation to the meaning of the head (right-hand constituent) of the construction, by mainly expressing a depressing mood of the speaker.

– It always appears as the left-hand member of morphologically-complex constructions and never assumes the role of head. As such, it is similar to a prefix, since prefixes are not heads of their constructions in Greek (Ralli 2004). Moreover, it cannot be a stem, since stems can appear both as left-hand or right-hand constituents of compounds (5a, b).

(5) a. xart-u-péz(u)[14]   <   xart(í)   pézu
         card-play   'card'   'play'
         'play with cards'

     b. laδ-ó-xart(u)   <   láδ(i)   xart(í)
         'oil paper'   'oil'   'paper'

– Contrary to prefixes which select a specific category to combine with, it can be added to verbs (3a), adjectives (3b) and nouns (3a). However, this lack of morphologically-based categorial selection brings it close to the category of stems which, as left constituents of Greek compounds, can be combined

---

13   Note that, nowadays, there are some rare examples of Greek exocentric compounds, the structure of which is [[VN]-suffix], such as *xas-o-méris* lit. who loses the day 'loafer' < [*xas-* 'to lose' + *mér(a)* 'day'] + *-is*. According to Ralli (2013) their structural pattern is not productive today, being a residue from Ancient Greek.

14   In this work, inflectional endings and other material irrelevant to the argumentation appear in parentheses.

with verbs (6a), adjectives (6b) and nouns (6c) (Ralli 2013), as illustrated by the following Aivaliot compounds:

(6) a. xart-u-péz(u)   <   xart(í)   pézu
         card-play   'card'   'play'
         'play with cards'

     b. kal-u-kámut(us)   <   kal(á)   kamut(ós)
         'well made'   'well'   'made'

     c. asm-ó-xartu   <   asím(i)   xart(í)
         'silver paper'   'silver'   'paper'

– Interestingly, when negation precedes, the insertion of a clitic can interrupt the cohesion of the structure containing *plaku-*, a phenomenon which is unknown to Greek/Aivaliot prefixation:

(7) a. (ð)e si   plakuíða   na   plen's tn   avlí   s
         not   you   PLAKU-saw   to   wash   the   yard   your
         'I did not damn see you to wash your yard'

     b. (ð)e plaku-s(í)-iða   na   plen's tn   avlí   s
         not   PLAKU-you-saw   to   wash   the   yard   your
         'I did not damn see you to wash your yard'

The five properties of *plaku-* indicate a rather ambiguous status, fluctuating between a stem and a prefix. These properties, together with the structural change described above, involving the morpheme boundary shift, argue in favor of the proposal to assign to *plaku-* the prefixoid status.

2.1.2   sa-

The second item under consideration, *sa-*, functions as an intensifier of the meaning of locative adverbs (Dimela and Ralli 2009). Its precursor is the Aivaliot directional adverb *ísa*[15] 'straight', when found as first constituent of Adv(erb)Adv(erb) compound structures. In compounds, *ísa* has undergone a phonological attrition with an initial [i] deletion: since Greek (and Aivaliot)

---

15   The corresponding adverb in Standard Modern Greek is *ísja*. In the dialect, it has under-
      gone a semi-vowel deletion due to a phonological law operating in Aivaliot and other
      Northern Greek varieties.

compounds are phonological words bearing one single stress (Ralli 2013), the unstressed initial [i] is expunged following the phonological law of high-vowel deletion (see section 1). Thus, a compound-like structure *isapéra[16] 'far away' (< ísa 'straight' péra 'away') has become sapéra.

Interestingly, ísa can still function as a verb modifier, as in (8), and can also be used to modify locative adverbs by intensifying their meaning, as in (9), a usage which diachronically led to the formation of an AdvAdv compound and ultimately to the bound element sa-.

(8) váli   tu   vivlíu   ísa   stu   raf
     put   the   book   straight   on.the   shelf

(9) éla   ísa   apánu   stu   vno
     come   straight   up   to.the   mountain

Similarly to plaku-, sa- frequently appears in Aivaliot (and Moschonisiot), but unlike plaku-, it is not unknown in other northern Greek varieties (see, for instance, the varieties of Thessaly, Papanagiotou p.c.), although it is not used to the same extent.

(10) sapéra   'far away'   <   sa-   péra   'away'
      sáðju   'over here'   <   sa-   éðju   'here'
      sácina   'over there'   <   sa-   écina   'there'[17]
      sakátu   'straight down there'   <   sa-   kátu   'down'
      sapánu   'straight up there'   <   sa-   apánu   'above'
      samésa   'more inside'   <   sa-   mésa   'inside'

A thorough examination of sa- leads to the hypothesis that the combination of sa- with adverbs could be analyzed as an instance of compounding, and thus sa- could be considered as a lexeme, since it also appears at the right-hand position of adverbial compounds, as in the following formation:

(11) ulóisa 'all straight'   <   úlu 'all'   ísa 'straight' (*ulósa)

---

16   Note that compounds which contain uninflected words at their left-hand side do not bear the compound marker -o-, the presence of which depends on whether the first compound constituent is a stem (Ralli 2008, 2013).

17   According to a vowel strength scale, firstly proposed by Hatzidakis (1905–1907), in a cluster containing the vowels [a] and [e], [e] is deleted as being weaker than [a].

However, the compounding hypothesis and the possible lexeme status of *sa-* run against the fact that:

– at the left-hand position of constructions, only the shortened form, *sa-,* is encountered, while the full form *ísa* is required at the right side (see (11));
– *sa-* combines only with locative adverbs (see (10)), contrary to the property of compound constituents to be free of selectional properties. In fact, like prefixes and in contrast with *plaku-*, *sa-* is subject to categorial selection, since it attaches to locative adverbs, functioning as an intensifier of their meaning.

Interestingly, even the prefixization hypothesis encounters problems:

– the phonological attrition (initial [i] deletion) cannot constitute a safe criterion for assuming a grammaticalization process and assigning *sa-* to prefixes, since the [i] deletion is due to a general phonological law, which applies to Northern Greek dialects, independently of the particular morphological environment of the *sa-* formations (see table 7.1);
– semantically, the meaning of *sa-* has been reduced into a simple intensifying function, something which could suggest a prefixal status, but the fact that for native speakers *sa-* is still semantically transparent with respect to *ísa* casts doubt on this hypothesis.

Since there is no sufficient semantic or formal justification for the hypothesis that *sa-* has become a prefix, nor that it is still a lexeme, one may suppose that it is a prefixoid, in accordance with Dimela and Ralli (2009) and Ralli (2010).

2.2　*plaku and sa- as Prefixoids*

The properties of affixoids proposed by Stevens (2010 [2005]) (see section 2) seem to generally match those of *plaku-* and *sa-*. However, with the exception of the Criteria 3 and 4 referring to the meaning and function of affixoids, there are some slight divergences due to either the particular type of the item under question, or to the word-formation process which led to its development: Criterion 1 applies to *plaku-* but does not apply to *sa-* because the range of *sa-*formations is very limited, *sa-* being added only to the closed category of locative adverbs. Criterion 2 claims a form identity between the affixoid and its parent morpheme. Considering the two items under examination, I would rather reformulate the phrase "form identity" into "certain form similarity" since both *plaku-* and *sa-* show a form variance with respect to their parent morphemes, which has resulted from the word-formation process responsible for their development through time: (a) The shape of *plaku-* has been first molded by the bare-stem constraint, which, as noted in 2.1.1, has deleted the derivational suffix *-on-* of its parent verb, and then, it acquired its final form by a reanalysis procedure, which has cancelled the morphological boundary

between *plak-* and the compound marker *-o-*, the two items, stem and compound marker being merged into one entity. (b) *sa-* has lost the initial [i] of its predecessor, *ísa,* due to the application of a phonological law deleting high vowels in unstressed position. Criterion 5 claims a competition or complementary distribution between an affix and an affixoid; although this property can usually apply to prefixoids, there is no equivalent competing or complementary prefix in Aivaliot for both *plaku-* and *sa-*.

Crucially, *plaku-* and *sa-* have resulted from a loss in lexicality and, in the case of *plaku-*, a structural reanalysis has occurred involving a stem and a compound marker. A framework closely related to diachronic linguistics, that is, grammaticalization,[18] could very well describe their development, as well as their synchronically parallel existence with their parent morphemes, since the predecessor items *plakón(u)* and *ísa* are still used as free verb and preverb, respectively:

(12) a. Episi   tu   spit   ki   ts   plákusi
        Fell.down   the   house   and   them   buried.under
        'The house fell down and buried them under'

     b. Ela   ísa   kátu
        Come   straight   down

Interestingly, the clearly discernible presence of diachrony concerning the status of these items makes this category debatable, as compared to that of stems and affixes, whose diachronic development may most of the times be obscure. Supposing that they constitute prefixoids, the crucial question which needs an answer is whether the general category of affixoids could be considered on synchronic grounds as an independent one, parallel to that of stems and affixes, or it is a rather diachronic byproduct, strictly depending on the blurred boundaries of these categories and the word-formation processes into which they participate.

On the basis of his discussion on affixoids, Stevens (2010 [2005]) concludes that there is no strict dividing line between synchrony and diachrony,[19] and adopts the notion of "panchrony" which would embrace the two domains without any clear separation between them (see also Lightfoot 2011 for the

---

18   See Stevens (2005: 5–8) for applying the tests and processes of grammaticalization to German affixoids.

19   In Stevens' own words: "… if we are not going to proceed in strict synchronic fashion, where do we draw the line between synchrony and diachrony?".

same view). This approach would lead us to consider the territory between stems and affixes as a slide with no sharp demarcation lines. Instead, in accordance with Kenesei (2007), I am tempted to claim a synchronically independent status for affixoids and view the range of morphological categories below the word level as a step-ladder connecting stems, affixoids and affixes. The rationale which has led me to this decision is the following:

– First, as shown above, the items under discussion display certain properties not shared by stems or affixes. For instance, contrary to typical prefixes which have categorial restrictions, and in prefixed words they are tightly bound with the base, *plaku-* can be added to nouns, adjectives and verbs (see (3)) and a clitic can break the cohesion between *plaku-* with the constituent they are combined with (see (7b)).
– Second, the properties of an affixoid as a whole cannot be clearly attributed to one or the other category, that is, to a stem or an affix, on synchronic grounds.
– Third, there cannot be any prediction when a lexeme will turn into an affixoid.
– Fourth, intermediate categories are a reality, even in synchronic terms, because categories do not have clear boundaries and only their prototypical status is clear.

Crucially though, evidence in this article proves that the existence of affixoids is language dependent, since critical notions that proved to be necessary for my argumentation, such as the property of stem-based morphology, are not universal.

3   On Borrowing Verbs

In this section, I will focus on lexical borrowing which is an important source of words in Aivaliot and Moschonisiot, since, as mentioned in section 1, these varieties have undergone a considerable influence from Turkish, but also from Italo-Romance, due to the long domination of the area by Ottoman Turks and Genovese (or by Venetians with respect to trade), respectively.[20] More specifically, I will focus on how Turkish and Italo-Romance verbs have been adopted and accommodated in the dialect.

Verbs are remarkably challenging for the study of borrowing, since it is claimed that they are particularly difficult, or sometimes impossible (see, for instance, Moravçsik 1975), to be adopted because, compared to nouns, they are

---

20   This section draws heavily on Ralli (2012a,b, 2016) and Bağrıaçık *et al.* (2015).

overloaded by information; for instance, they carry an argument structure. In fact, in various borrowability scales that have been proposed in the literature, verbs seem to come third after nouns and adjectives (Muysken 1981), or after nouns and conjunctions (Matras 2007). Nevertheless, the Aivaliot data prove that for a language it is possible to borrow verbs, provided that certain conditions are met. Aligning with Ralli (2012a, b, 2016), I would propose that in a language with rich morphology, such as Greek, the word-formation devices play a preponderant role for the accommodation of borrowed items. Moreover, I would argue that a certain matching between the morphological characteristics of the donor and those of the recipient language is of critical importance for the type of borrowing to occur. This position can be seen as a weakened view of Meillet's (1921) claim who suggests that the transfer of morphological structure can happen if there is identity between the morphology of the donor and that of the recipient, a view that has been reformulated as "morphological congruence" by Field (2002) and Myers-Scotton (2002).

The data are drawn from a corpus containing 580 verbal loans, most of which come from Sakkaris (1948, 1952) and Ralli (2017), as well as from the LMGD database of oral corpora of the University of Patras. The big majority of these borrowings are from Turkish origin, where the same integration strategies apply to many verbs transferred as such, and to verbs which have been built on Turkish nominal items. In contrast, while there is a considerable number of Italo-Romance verbs, formations on Italo-Romance nouns using the same integration strategies as verbs are very rare.

In what follows, it will become clear that the same dialectal system, that is Aivaliot, may use more than one accommodation strategy for integrating loan verbs. As argued below, the strategies do not depend on the dominant language these varieties are in contact with. By convention, the target examples are given in the first person singular of the present tense – the overtly realized infinitive being lost from the Greek language during the Hellenistic period (ca 3rd c. BC–3rd c. AD, see Horrocks 2010) – while the source types are listed either in the third person singular of the past tense, or in the infinitive, depending on the case. For clarity reasons, I provide a segmentation of the word-internal structure for both the source and the target language.

3.1   *Verbs of Turkish Origin*

Aivaliot verbs of Turkish origin constitute loanblends, in Haugen's (1950) terminology, in that while the stem is Turkish, the affixal part, that is, an optional verbalizer and the compulsory inflectional ending are Greek/Aivaliot. Generally, the output of a loanblend is subject to Greek phonological laws; for instance, no Aivaliot verbal form is subject to vowel harmony typical of

Turkish. In addition, in most cases, the meaning of the loanword is transparently linked to that of the original Turkish base.

Verbal loanblends can be accommodated according to two integration strategies: direct and indirect, in the sense of Wohlgemuth (2009) and Wichmann and Wohlgemuth (2008), who propose that in the direct strategy, the loan verb undergoes only slight phonological modification, before being introduced in the recipient language, while the indirect strategy presupposes the presence of an overt integrating element. Consider the following sets of examples, drawn from Ralli (2017):

TABLE 7.3   Borrowing of Turkish verbs via the indirect integration strategy in Aivaliot

Aivaliot		Turkish	
burd-íz-u	'to twist'	bur-mak[a]	'to twist'
kazad-íz-u	'to earn, to profit'	kazan-mak	'to earn, to profit'
furlad-íz-u	'to burn from anger'	fırla-mak	'to dash, flounce, pop up'
zurlad-íz-u	'to force, to stretch'	zorlan-mak	'to force, to stretch'

a   *-mAk* is the Turkish infinitival marker.

TABLE 7.4   Borrowing of Turkish verbs via the direct integration strategy in Aivaliot

Aivaliot		Turkish	
katsird-ó	'to escape'	kaçır-mak	'to take away, kidnap'
axtard-ó	'to overturn'	aktar-mak	'to transfer, mix'
sakind-ó	'to stand back/aside'	sakın-mak	'to beware, avoid'
savurd-ó	'to throw'	savur-mak	'to throw'

Examples in table 7.3 contrast with those in table 7.4 as far as the presence of a verbalizer *-iz-* is concerned which, by assuming the role of integrator, is added to the Turkish base in order to facilitate accommodation of the loan item in Aivaliot. This is a typical case of indirect integration. Examples in table 7.4, however, are an instance of direct integration, given the fact that the overt inflectional ending does not count as integrator being there by default (Wohlgemuth 2009).

3.1.1   Verbs Adopted by Indirect Integration

Leaving aside for the moment the direct integration cases (examples in table 7.4), it is important to note that the verbalizer *-iz-* is a Greek derivational suffix, which is also used to create verbs from native nominal bases, as in table 7.5:

TABLE 7.5   Verbalizer *-iz-*

Aivaliot verb		Aivaliot noun	
cirδ-íz-u	'to win/profit'	cérδ-us	'profit'
zuγraf-íz-u	'to paint'	zuγráf-us	'painter'

The morphologically-complex item [native or Turkish base + verbalizer] is further combined with the native inflectional ending *-o*, which becomes *-u* in unstressed position, as in table 7.3 and table 7.5, following the phonological law of mid-vowel raising applied to Northern Greek dialects (see section 1).

Note now that the verbalizer *-iz-* is only one from a range of five competing verbalizers in Aivaliot (as well as in Greek), that is, *-ev-, -iz-, -iaz-, -en-, -on-*, which serve to build verbs out of nominal bases, both from native (table 7.6) and Turkish ones (table 7.7), *-en-* (e.g. *xudrénu* in table 7.6) being reserved to native bases:

TABLE 7.6   Verbs derived from native bases with verbalizers

Aivaliot verb		Aivaliot noun	
psar-év-u	'to fish'	psár[a]	'fish'
cirδ-íz-u	'to win'	cérδ-us	'profit'
ciramδ-ón-u	'to put tiles on the roof'	ciramíδ	'tile'
psir-iáz-u	'to get lousy'	psíra	'lous'
xudr-én-u	'to become fat'	xudr-ós	'fat'

a   When Aivaliot nominal and verbal words are not listed with an
    inflectional ending, this ending is either a ø suffix (e.g. *psíra*) or has
    been deleted by the high-vowel deletion in unstressed position (e.g. *psar*).

TABLE 7.7   Verbs derived from Turkish bases with verbalizers

Aivaliot verb		Turkish nominal	
xabar-íz-u	'to be aware of'	haber	'news'
xazir-évɣ-u	'to make ready'	hazır	'ready'
tulum-iáz-u	'to hit somebody' 'make him look like an utricle'	tulum	'utricle'
batak-ón-u	'to sink'	batak	'mud'

With the exception of *-en-* which requires a native Aivaliot/Greek nominal base, the selection of a particular verbalizer seems to be rather ad hoc, since it is not subject to specific criteria: all the above-mentioned verbalizers produce equally transitive or intransitive verbs, and, with some exceptions, their presence is not conditioned by the phonology or the meaning of the nominal base. It is of crucial importance to note though that, contrary to denominal formations of Turkish origin, like those in table 7.7, verb-based loanblends contain only the verbalizer *-iz-,* as the examples in table 7.3 demonstrate.

A profound examination of the data listed above raises the following questions: (a) why is *-iz-* the only verbalizer that is used for the integration of verbs, while there is a range of verbalizers for the formation of verbs on the basis of Turkish nominals? (b) What is this stem-final consonant *-d-* which systematically appears in all Aivaliot verbs of Turkish origin? (c) Why are there verbs, such as those in table 7.4, which, parallel to instances with a verbalizer, do not display any integrator (direct integration cases)?

In an effort to find a plausible explanation why among the range of several competing verbalizers, *-iz-* has assumed the role of integrator, one could invoke the high productivity of *-iz-* in Greek and most of its dialects, as compared to the other verbalizers (see Ralli 2005; Koutsoukos and Ralli 2013). However, a simple appeal to productivity does not explain why *-iz-* is not the only choice when verbs are formed on loan nouns, as shown by the examples in table 7.7. In what follows, I argue that the factors which are operative in the process of forming verbal loanblends are primarily language-internal, pertaining to the word-formation properties of Aivaliot (and Greek in general), and not only language external, referring to the degree of exposure to the source language as well as to the degree of bilingualism among the speakers of the target, as claimed by Thomason and Kaufman (1988). In fact, a closer look at the structure of verbs like those in table 7.3 reveals that the Turkish *-dI-* stem, which serves as the base for the formation of Aivaliot loan verbs must have been transferred from the past tense paradigm, most probably from the third person

of the singular number, where the Turkish past tense marker is *-dI-* and there is no overt person/number ending, as depicted in table 7.8:[21]

TABLE 7.8   Loan verb formation from the Turkish past tense forms

Aivaliot		Turkish pst.3SG	
burd-íz-u	'I twist'	bur-dı	'(s)he twisted'
zurlad-íz-u	'I force, stretch'	zorlan-dı	'(s)he forced, stretched'

First, a possible motivation for the adoption of the Turkish past tense forms may be found in the key feature of Greek morphology to build deverbal derivatives on the basis of the perfective stem, which generally appears in both the past perfective (aorist) and the future perfective paradigms, commonly called "aorist" stem.[22] This is a diachronic tendency, pointed out by Hatzidakis (1905–1907) and repeated ever since (see, among others, Mackridge 1990; Janse 2004; Kiparsky 2009), which accounts for the formation of deverbal nouns, beginning with the Hellenistic period.[23] For an illustration, consider, for instance, the native deverbal nominals in (13c–e) which are formed on the basis of the aorist stem (13b):

(13) a. ðier-ó   'I divide'
      b. ðiére-sa   'I divided'
      c. ðiére-si   'division'
      d. ðieré-tis   'divider'
      e. ðiere-ménos   'divided'

I assume that molding a verbal loan with the help of a derivational suffix could also be considered as a kind of derivational process, something which would justify the adoption of the Turkish *-dI-* past tense form.

---

21   It is worth mentioning that another Asia Minor dialect, Cappadocian, displays verbs ending in *-dízo/u* and *-dó*, making use of the Turkish past tense form, as noted by Dawkins (1916: 42) and Janse (2001: 477). In contrast, Pontic (Papadopoulos 1955), which is considered to be closer to Cappadocian than Aivaliot (cf. also Dawkins 1916 and Karatsareas 2011) builds its verbal loans on the Turkish infinitival stem, with the help of the Greek suffix *-ev-*. See Ralli (2016) for an explanation of this discrepancy.

22   The reader is referred to Janse (2004), Ralli (2012a, 2016) and Bağrıaçık *et al.* (2015) for the same proposal.

23   More particularly, Kiparsky (2009: 7) states that the verbal stem is an innovative category of the Hellenistic times (ca 3rd c. BC–3rd c. AD); it gave rise to the formation of Greek deverbal words, while till that period, verbs had entered derivation as roots.

Second, it is a common assumption that the third person singular is generally the most frequent form in borrowing (see Matras 2009: 158). Besides, compared to the other paradigmatic forms which contain overt inflectional endings, this is the only form of the Turkish past paradigm without an overt inflectional ending denoting the features of person and number. Therefore, it is the most unmarked and the easiest form to be adopted:

TABLE 7.9   Turkish past tense of
             the verb *sevmek* 'to love'

	Past Tense
1 SG	sevdi-m
	sevdi-n
	sevdi
1 PL	sevdi-k
	sevdi-niz
	sevdi-ler

I further presume that, following the adoption of the past tense form, the Aivaliot speakers proceed to a reanalysis of the borrowed verbal types in *-dI-* in order to use them as stems. This reanalysis must be dictated by the properties of Greek morphology to be stem based, the verbal forms of which always consist of a stem and an inflectional ending (see Ralli 2005 for details). As a corollary of this reanalysis, one may also suppose that the Turkish forms have lost their structural transparency of [root + tense marker *-dI-*], turning into non-tensed ones, so as to feed further word formation in Aivaliot. In fact, the Turkish marker *-dI-*, as used in Aivaliot verbs, is deprived of the past tense feature, since the stems which bear it can appear in all tenses – not only in the past – as illustrated in (14):

(14) a. present tense: kazad-íz-u[24]
                               'I become rich'
      b. past imperfective: kazád-(i)z-a
                               'I was becoming rich'

---

24   The sequence of two identical vowels results into a vowel reduction, e.g. /di+iz/ → /diz/ in
      kazadizu. Moreover, [z]- is deleted before the /s/ of the ending (e.g. **kazád-iz-sa → kazád-
      (i)-sa, ϑa *kazad-íz-su → ϑa kazad-í-su*).

c. past perfective: kazád-(i)-sa
                              'I became rich'

d. perfective future: θa kazad-í-su
                              'I will become rich'

e. imperfective future: θa kazad-íz-u
                              'I will be becoming rich'

Third, a certain degree of phonological similarity between the Turkish past tense forms and the Greek past perfective stem ones seems to determine the selection of *-iz-* from the repertoire of Greek verbalizers, since, as shown in table 7.10, both Turkish and native Aivaliot forms end in /I/.

TABLE 7.10   Turkish and native Aivaliot past perfective stems ending in /I/

	Turkish		Aivaliot	
	kazan-mak	'to earn'	jiríz-u	'I turn/return'
PST.3SG	kazan-dı	'(s)he earned/became rich'	jír(i)-siᵃ	'she turned/returned'

a   [i] is deleted due to high vowel deletion in unstressed position, and [z] has disappeared in front of [s].

Following (Ralli 2012a, 2016), I assume that the outcome of this phonological similarity has triggered an analogy process in terms of Kuryłowicz (1949), which has contributed to the accommodation of verbal loanblends in *-iz-*, and thus, excluded the creation of those containing a different verbalizer, that is, *-ev-, -on-, -iaz-*, whose past perfective stems do not end in *-i*, as illustrated in (15).

(15)   3SG PST PFV
        a. -iz-   [jír-(iz)]-si   '(s)he turned/returned'
        b. -ev-   [xór-ip]-si   '(s)he danced'
        c. -on-   [láδ-u(n)]-si²⁵   '(s)he oiled'
        d. -iaz-   [paramíθ-ia(z)]-si   '(s)he told stories/lies'

---

25   [n] of *-on-* is deleted in front of [s].

Nevertheless, as shown in table 7.6 and table 7.7, these suffixes can serve as integrators for the formation of denominal verbs containing a Turkish nominal base. According to Ralli (2016) the different behavior with respect to the selection of an integrator between transferred verbs and verbs built on nominals is further due to the fact that, while source verbs are directly transferred to the target language – where they undergo integration – nominal items have already become part of the target's vocabulary before serving as bases for verb formation. As a result, verb formation from nominal loans follows the rules of native Greek morphology. In other words, similarly to native Greek nouns, nominal loans can become verbs after being combined with a productively used denominal verbalizer, the choice of which is rather ad hoc.

3.1.2 Verbs Adopted by Direct Integration

Additional support to the hypothesis that the almost identical stem-final vowel in Greek and Turkish in the past perfective context had an impact on the form of verbal loans comes from the borrowing of Turkish verbs via the direct integration strategy (table 7.4), that is, from those without the presence of an integrator. Structurally, these loans differ from verbs subject to indirect integration in two points: (a) they lack the suffix *-iz-* and (b) they inflect differently from those which have the suffix in the paradigms of present, imperfect and imperfective future. Note that for native verbs, the basic difference between the two common inflection classes lies on the presence of a systematic stem-allomorphy pattern *X ~ Xi* (cf. Ralli 2006), which is typical of verbs inflecting according to I(nflection) C(lass) II, while it is absent from those of ICI.[26] This pattern is particularly frequent in the Aivaliot verbal system, much more than in Standard Modern Greek, characterizes a considerable number of verbs, and relates two allomorphic stem variations, one ending in a consonant and appearing in the paradigms of the imperfective context, and another ending in *-i*, which characterizes the paradigmatic forms of the perfective context. For an illustration, consider the paradigms of present tense (imperfective) and aorist (past perfective) of the native ICI verb *kóvu* 'to cut' (table 7.11) and the also native ICII verb *aɣapó* 'to love' (table 7.12).

---

26 Note that contrary to the big majority of verbs which display the *X~Xi* allomorphic pattern, for a small number of verbs there is a different final vowel in the longer allomorph. For instance, *ðier-ó* 'to divide' has a stem allomorph in *-e* (*ðiére-sa* 'I divided') and *xal-ó* 'to destroy' an allomorph in *-a* (*xála-sa* 'I destroyed'). See Ralli (2000, 2005) for details about the Greek verbal inflection classes.

TABLE 7.11   Aivaliot paradigms of present (imperfective) and aorist
tense (past perfective) of the native ICI verb *kóvu* 'to cut'

	Present tense	Aorist (past perfective)
1 SG	kóv-u	é-kup-sa[a]
	kóv-s	é-kup-sis
	kóv	é-kup-si
1 PL	kóv-umi	kóp-sami
	kóv-iti	kóp-sati
	kóv-in	kóp-san

a   The prefixed *e-* is the augment and its overt realization in certain
Greek varieties, among which Aivaliot, and Standard Modern
Greek, depends on stress (Ralli 2005). It is present when stressed,
while it is absent in the unstressed position.

TABLE 7.12   Aivaliot paradigms of present (imperfective) and aorist
tense (past perfective) of the native ICII verb *aγapó* 'to love'

	Present tense	Aorist (past perfective)
1 SG	aγap-ó	aγáp(i)-sa[a]
	aγap-ás	aγáp(i)-sis
	aγap-á	aγáp(i)-si
1 PL	aγap-úmi	aγapí-sami
	aγap-úti	aγapí-sati
	aγap-ún	aγapí-san

a   [i] in the singular is deleted due to high-vowel deletion in
unstressed position.

As seen in table 7.11 and table 7.12, the two verbs have different inflectional
endings in the present tense (imperfective), while they share the same endings
in the aorist (perfective). They also differ as far as the perfective stem is con-
cerned, since that of ICII verbs, like *aγapó* (table 7.12) systematically ends in *-i*.

It is important to point out that verbs in *-iz-,* both native and non-native,
have also a stem final vowel *-i* in the aorist and perfective forms in general,
in spite of the fact that they belong to ICI. As a consequence, in these forms,

formal differences between ICII verbs and ICI ones in *-iz-* are neutralized. Compare the aorist paradigms of a native ICI verb like *xurízu* 'to separate' and the native ICII *aγapó*:

TABLE 7.13   Aivaliot aorist paradigms of the native
             ICI verb *xurízu* 'to separate' and the
             native ICII verb *aγapó* 'to love'

	Aorist (past perfective)	
1SG	xór(i)-sa	aγáp(i)-sa
	xór(i)-sis	aγáp(i)-sis
	xór(i)-si	aγáp(i)-si
1PL	xurí-sami	aγapí-sami
	xurí-sati	aγapí-sati
	xurí-san	aγapí-san

I suppose that since both verb types display the same aorist endings – although their imperfective paradigms belong to different inflection classes – it is possible for Aivaliot speakers to allocate the borrowed past tense forms indistinctively to ICI (with the additional use of the integrator) or to ICII. Therefore, it should not be particularly surprising that the accommodation of verbs borrowed from Turkish could occur not only by indirect integration, but also via the direct one, that is, with no verbalizer. Substantial proof to this hypothesis is the fact that in all grammatical contexts and communicative situations, there are Turkish verbal loans displaying two alternating types with no difference in meaning, as the following examples illustrate:

TABLE 7.14   Borrowing of Turkish verbs via the direct and the indirect
             integration strategies

Aivaliot		**Turkish 3SG PST**
axtard-íz-u/axtard-ó	'to overthrow'	axtardı
dajad-íz-o/dajad-ó	'to resist'	dajadı
sakind-íz-u/sakind-ó	'to stand back'	sakindi

Nevertheless, although this alternation is a rather common situation, there are some verbs which seem to prefer the indirect integration, while the opposite situation, that is, verbs which are inserted only via the direct integration, does not occur:

TABLE 7.15   Borrowing of Turkish verbs via the indirect integration strategy

Aivaliot		Turkish 3SG PST
kazad-íz-u/*kazad-ó	'to become rich'	kazandı
burd-íz-u/*burd-ó	'to twist'	bur-dı

3.1.3   Conclusions

In this section, we have seen that the same donor, that is, Turkish, can affect the same recipient system in divergent ways, in that Aivaliot can incorporate Turkish verbs by using more than one integration strategy, and that in the case of indirect strategy the integrating element originates from a range of competing native derivational affixes. The patterns which are associated with Aivaliot verbal loanblends of Turkish origin are determined by certain major features of the native morphology. More specifically, these features are: a) the property of Aivaliot (and generally Greek) word formation to be stem-based; b) the use for derivative purposes of a specific stem which appears in the perfective paradigms; c) the presence of a systematic stem allomorphy pattern, which is widely spread in a considerable number of Greek native verbs and makes them inflect following a particular inflection class. Generally, verbs of Turkish origin appear to adopt the same structural patterns as the native Greek ones as far as their inflectional and generally morphological behavior is concerned. Finally, the accommodation of Turkish loan verbs according the native structural patterns is also facilitated by a certain phonological similarity between the Turkish and the Greek verbal stems in the past perfective context.

3.2   *Verbs of Romance Origin*

The argumentation of section 3.1, has rendered clear that the importance of the stem category in Greek word formation is also valid in Aivaliot, where all Turkish verbal loans, adopted by indirect or direct integration, are reanalyzed as stems in order to accept the Greek-based inflectional endings. The same prevalence of stems is also confirmed by the verbal loans of Italo-Romance

origin. This time, however, the borrowed items are not the inflected forms of the third person singular of the past tense, but the entire infinitival words, that is, mainly forms in *-ar(e)*, and some scarce occurrences in *-ir(e)* and *-er(e)*.[27] Once adopted, the Aivaliot speakers reanalyze them as stems to which Greek inflection is attached:

TABLE 7.16   Verbs of Italo-Romance origin in Aivaliot

Aivaliot		Venetian/Italian	
sirvér-n-u	'to serve'	serv-ir(e)[a]	'to serve'
batér-n-u	'to dip, sag, tilt'	bat(t)-er(e)	'to beat'
salter-n-u	'to jump'	salt-ar(e)	'to jump'
arivér-n-u	'to arrive'	arriv-ar(e)	'to arrive'
kurér-n-u	'to take care of'	cur-ar(e)	'to take care of'
aɣantér-n-u	'to resist'	agguant-ar(e)	'to nab'
kalmer-n-u	'to calm'	calm-ar(e)	'to calm'

a   Venetian infinitival endings are deprived of the word final *-e* (compare the Italian *arrivare* with the Venetian *arrivar*). Since Venice used a form of Standard Italian in the administration (cf. Fanciullo 2008), there is no certainty whether the transferred word in Aivaliot is Venetian or Standard Italian.

As shown in table 7.16, the borrowed Italo-Romance infinitives have assumed a phonological modification as far as the initial vowel of the original infinitival ending is concerned, which always appears as [e] in the imperfective context, that is, in the paradigms of present tense, imperfect, and imperfective future, the latter sharing the same endings with the present tense. See, for instance, the first person singular forms *sirvér-n-u* 'I serve', *batér-n-u* 'I dip, sag, tilt' and *arivér-n-u* 'I arrive'. Moreover, there is also a *-n-* insertion between the Italo-Romance base and the Greek inflectional ending. A crucial question relates to the presence of this *-n-*, that is, whether it can be treated as a suffix and thus as an integrator, in the same way as has been the *-iz-* for Turkish loans. On this issue, the historic evolution of the language is very informative: in the

---

27   There are also some rare examples of Italo-Romance origin, which show a different pattern of integration, similar to that of Turkish loans: *skuduró* 'to strike, bump against' (Italian *scontrare*), *dalavirízumi* 'to deal with, be in business' (Italian *dare-avere* 'to give-have/receive'). Given their scarcity, I believe that these instances do not constitute counter-examples to the general rule, according to which Italo-Romance verbs are integrated in Aivaliot with their infinitival endings and without the assistance of the *-iz-* integrator.

early middle ages (ca 6th–12th c.), or even earlier for Hatzidakis (1905–1907, vol. 1: 287–288), the use of a -*n*- into forming imperfective stems (stems used in the tenses present, imperfect and imperfective future) had become a very productive process in Greek (see also Dieterich 1898). According to Browning (1969: 70) the productivity of the process had increased with the years to such an extent that -*n*- had become responsible for reshaping many native perfective stems into imperfective ones. For instance, the verb *erimóo* (Ancient Greek *erēmoō*) 'to untie' became *erimóno* in the present tense, the verb *lío* (Ancient Greek *lyō*) 'to untie' became *líno*, etc. On the basis of this historical change, it would be reasonable to suppose that, during the 13th, 14th and 15th centuries, that is, during the period of the Venetian of Genovese domination of the eastern Aegean islands and the opposite Asia Minor coast, the Italo-Romance verbal loans got reanalyzed as perfective stems, necessitating the insertion of the imperfective marker -*n*- between the base and the inflectional ending in order to appear in the imperfective tenses, that is, in the present, imperfect and imperfective future. Analogy must have also contributed to the final modeling of imperfective stems. For Hatzidakis (1905–1907, vol. 1: 303), the appearance of [e] before the consonant cluster [rn] of Italo-Romance verbal loans was triggered analogically to Greek native verbs in -*er*-, like *δéro* (Ancient Greek *derō*) or *féro* (Ancient Greek *pherō*), which had undergone a -*n*- insertion becoming verbs in -*ern*-, that is, *δerno* 'to beat' or *ferno* 'to bring'.[28]

It is of major importance to specify that, in the medieval period, -*n*- did not have the status of a derivational suffix, since it did not fulfill the basic criterion of being a functional element: contrary to other verbal suffixes (e.g. -*ev*-, -*iz*-), it was not used to build new items (items belonging to a new grammatical category). Therefore, -*n*- of the -*ern*-forms should be considered as a simple formative, which served to create new stem allomorphs, that is, allomorphs to be used in the imperfective context, from stem forms utilized in the perfective one. Being a simple formative, -*n*- could not be an integrating element, at least like the verbalizers -*iz*-, -*ev*-, and -*iaz*-, which are detected in loans of Turkish origin. Substantial proof to this suggestion comes from the fact that in Aivaliot, as well as in the other dialects where the Italo-Romance verbal loans show an -*ern*- form (e.g. Lesbian and Cretan), -*n*- is confined to specific stem allomorphs, that is, to those used in the imperfective context. For an illustration, consider the following verbal types of the Aivaliot/Lesbian loan verb *saltérnu* 'to jump' in the imperfective and perfective tenses:

---

28   The oldest testimony of this change is dated around the 8th–9th c. AD (see the verb *perno* (Ancient Greek *pairō* 'to take') in Theophanes, Chronogr. 224.21).

TABLE 7.17   The Aivaliot/Lesbian loan verb *saltérnu* 'to jump' in the
                       imperfective tenses

	Present	Imperfect	Imperfective future
1SG	saltérn-u	sáltirn-a[a]	θa saltérn-u
	sirvérn-u	sérvirn-a	θa sirvérn-u
	batérn-u	bátirn-a	θa batérn-u
1PL	saltérn-umi	saltérn-ami	θa saltérn-umi
	sirvérn-umi	sirvérn-ami	θa sirvérn-umi
	batérn-umi	batérn-ami	θa batérn-umi

a   *sáltirna* derives from *sálterna*, since unstressed [e] becomes [i].
      Compare also *sáltirna* with *saltérnami.*

TABLE 7.18   The Aivaliot/Lesbian loan verb *saltérnu*
                       'to jump' in the perfective tenses

	Aorist	Perfective future
1SG	saltár-sa	θa saltár-u
	sirvír-sa	θa sirvír-u
	batár-sa	θa batár-u
1PL	saltár-ami	θa saltár-umi
	sirvír-ami	θa sirvír-umi
	batár-ami	θa batár-umi

In these stems, there is use of the Italo-Romance infinitival form. Intriguingly, in the singular number of the aorist tense (table 7.18), there is a peculiar situation related with the presence of a set of inflectional endings containing the common Greek perfective marker -*s*-, which is absent, though, from both the plural and the entire paradigm of the perfective future. I would like to propose that in verbal loans of Italo-Romance origin, the aorist stem of the singular number has been remodeled into a stem ending in -*i*, analogically to native verbs containing the final cluster -*ari*, like *xarízu* 'I give, donate', *xár(i)sa* 'I donated' (table 7.19). Analogy has supported this change but, in my opinion, the main reason for its occurrence is the need for loans to be explicitly marked as perfective in the past tense, that is, with the presence of the perfective marker

-*s*-. For an illustration, compare the aorist forms of the Italo-Romance loan *saltérnu* 'to jump' and the native *xarízu* 'to donate':

TABLE 7.19   The aorist forms of the Italo-Romance loan
             saltérnu 'to jump' and the native *xarízu* 'to donate'

	Turkish loan	Aivaliot native
1 SG	saltár(i)-sa	xár(i)-sa
	saltár(i)-sis	xár(i)-sis
	saltár(i)-si	xár(i)-si
1 PL	saltár-ami	xarí-sami
	saltár-ati	xarí-sati
	saltár-an	xarí-san

In the aorist of native verbs like *xarízu*, the stem final [i] disappears in the unstressed position but is overtly present in the plural, where it carries stress. Nevertheless, remodeling of the aorist stem has not been spread to the paradigmatic slots of the plural number in the aorist tense and is completely absent from those of the the perfective future (see table 7.18).

Finally, it is worth adding that, in Aivaliot, verbs of Italo-Romance origin descend principally from verbs and there are only few occurrences built on nouns, as for instance the loan *kialérnu* 'to watch attentively', based on the noun *occhiali* 'eye glasses' (old Italian *occhiale*). Interestingly, however, as opposed to Turkish borrowings, which adopt different integration patterns, depending on whether they come from verbs or from nominals (see section 3.1), denominal verbal loans of Italo-Romance origin are integrated in the same way as the deverbal ones.

3.3   *Conclusions*

As far as verbal loans in Aivaliot are concerned, I have shown that external factors triggered by high exposure to Turkish or Italo-Romance may lead to the need of borrowing verbs in Aivaliot, but the decisive factor for the shape of these loan verbs is heavily affected by language-internal factors, referring to the type of morphology that is operative in Aivaliot for word-formation purposes, among other things, the inherent characteristic for stem-based morphology which prompts the reanalysis of borrowed words into stems necessitating the presence of inflectional endings.

A last question which requires an answer now is why Turkish verbs are introduced in Aivaliot as third person singular forms of the past tense, while Italo-Romance ones enter the language under their infinitival form. I believe that the explanation is twofold: on the one hand, this explanation should be searched in the degree of exposure to the donor language: as noted in section 1, Turkish had been the dominant language of the area for a very long period, while Italo-Romance might have been the language of trade for about four centuries (13th–17th) but never became the official language, even during the Genovese domination. Therefore, while most speakers were familiar with the Turkish inflected words – among which the third person singular of the past tense – they had little knowledge of Italo-Romance, since only the aristocracy spoke this language.[29] On the other hand, when becoming stems, the borrowed inflected types from Turkish had a somehow formal similarity with a number of Aivaliot native stems, both ending in *-I*. This similarity made the Aivaliot speakers to integrate and thus inflect the verbal loans as the native correspondent verbs, that is, by using either the direct strategy, or the indirect one with the help of the integrator *-iz-*. In contrast, Italo-Romance infinitives which had no correspondent form in Aivaliot were first reanalyzed as stems and then were directly integrated, without the use of a Greek suffix. Nevertheless, their imperfective stem got further reshaped as the *-ern-* one, analogically to those native verbs whose stem also ended in *-ern-*.

Acknowledgments

References

Bağrıaçık, Metin, Angela Ralli and Dimitra Melissaropoulou. 2015. Borrowing verbs from Oghuz Turkic: two linguistic areas. In Francesco Gardani, Peter Arkadiev and Nino Amiridze (eds.), *Borrowed Morphology*, 109–136. Berlin/New York: Mouton de Gruyter.

Bağrıaçık, Metin, Aslı Göksel and Angela Ralli. 2017. Copying compound structures. The case of Pharasiot Greek. In Carola Trips and Jaklin Kornfilt (eds.), *Further*

---

29   For details on how Romance has affected Greek in general see Ralli (2018).

Investigations in to the Nature of Phrasal Compounding, 183–230. Berlin: *Language Science Press*.

Booij, Geert. 2005. Compounding and derivation. In Wolfgang Dressler, Dieter Kastovsky, Oskar Pfeiffer and Franz Rainer (eds.), *Morphology and its Demarcations*, 109–132. Amsterdam/Philadelphia: John Benjamins.

Browning, Robert. 1969. *Medieval and Modern Greek*. London: Hutchinson University Library.

Dawkins, Richard. 1916. *Modern Greek in Asia Minor*. Cambridge: Cambridge University Press.

Dieterich, Karl. 1898. *Untersuchungen zur Geschichte der griechischen Sprache*. Leipzig: Teubner.

Dimela, Eleonora. 2010. *Η προθηματοποίηση στις νεοελληνικές διαλέκτους. Συγχρονική και διαχρονική προσέγγιση* [Prefixization in Modern Greek Dialects. A synchronic and diachronic approach]. Ph.D. Dissertation. Patras: University of Patras.

Dimela, Eleonora and Angela Ralli. 2009. Prefixation versus compounding: a case study from the dialects of Aivali and Moschonisia. *Patras Working Papers in Linguistics* 1: 95–106.

Fanciullo, Franco. 2008. Gli italianismi del neogreco. *L'Italia Dialettale* LXIX 69: 1–41.

Fanciullo, Franco. 2011. Lingua e lingue nell'Europa e nel Mediterraneo. In Alessandro Barbero (ed.), *Storia d'Europa e del Mediterraneo* XI, 85–121. Roma: Salerno.

Field, Fredric. 2002. *Linguistic borrowing in bilingual contexts*. Amsterdam/Philadelphia: John Benjamins.

Göksel, Aslı. 2009. Compounds in Turkish. *Lingue e Linguaggio* 8: 213–36.

Hartmann, Stefan. 2016. Compound constituents or affixoids? An exploration of German compound landscapes. Paper presented at *Societas Linguisticae Europaeae 2016* (Naples, Aug 31–Sept. 3, 2016).

Hatzidakis, Georgios. 1905–1907. *Μεσαιωνικά και Νέα Ελληνικά* [Medieval and Modern Greek], 2 volumes. Athens: Sakellariou.

Haugen, Einar. 1950. The analysis of linguistic borrowing. *Language* 26: 210–231.

Horrocks, Geoffrey. 2010. *Greek: A history of the language and its speakers*. London: Wiley/Blackwell.

Janse, Mark. 2001. Morphological borrowing in Asia Minor. In Yoryia Aggouraki, Amalia Arvaniti, Dionysis Goutsos, John Davy, Marilena Karyolemou, Anna Panagiotou, Andreas Papapavlou, Pavlos Pavlou and Anna Roussou (eds.), *Proceedings of the 4th International Conference of Greek Linguistics*, 473–479. Thessaloniki: University Studio Press.

Janse, Mark. 2004. Animacy, definiteness and case in Cappadocian and other Asia Minor dialects. *Journal of Greek linguistics* 5: 3–26.

Karaiskaki, Sitsa. 1973. *Μοσχονήσια, η πατρίδα μου* [Moschonisia, my homeland]. Athens.

Karatsareas, Petros. 2011. *A study of Cappadocian Greek nominal morphology from a dia-chronic and dialectological perspective*. Ph.D. dissertation. Cambridge: Cambridge University.

Kastovsky, Dieter. 2009. Astronaut, astrology, astrophysics: about combining forms, classical compounds and affixoids. In R. W. McConchie, Alpo Honkapohja and Jukka Tyrkkö (eds.), *Selected Proceedings of the 2008 Symposium on New Approaches in English Historical Lexis* (*HEL-LEX 2*), 1–13. Somerville, MA: Cascadilla.

Kenesei, István. 2007. Semiwords and affixoids: The territory between word and affix. *Acta Linguistica Hungarica* 54 (3): 263–293.

Kiparsky, Paul. 2009. Verbal co-compounds and sub-compounds in Greek. *MIT Working Papers in Linguistics* 57: 1–8.

Koutsoukos, Nikos and Angela Ralli. 2013. Elements with ambiguous morphological status: the marker *-idz(o)* in Griko. *Quaderns de Filologia-Estudis Lingüístics* 18: 13–23.

Kuryłowicz, Jercy. 1949. *The inflectional categories of Indo-European*. Heidelberg: Carl Winter Universitaets Verlag.

Lightfoot, D. 2011. Testing the suffixoidization of German -MANN '-man'. *Linguistica* 51 (1): 273–283.

Mackridge, Peter. 1990. Some pamphlets on dead Greek dialects. *The Annual of the British School in Athens* 85: 201–212.

Matras, Yaron. 2007. The borrowability of grammatical categories. In Yaron Matras and Jeanette Sakel (eds.), *Grammatical borrowing in cross-linguistic perspective*, 31–74. Berlin: Mouton de Gruyter.

Matras, Yaron. 2009. *Language contact*. Cambridge: Cambridge University Press.

Meillet, Antoine. 1921. *Linguistique historique et linguistique générale*. Paris: Champion.

Moravçsik, Edith. 1975. Verb borrowing. *Wiener Linguistische Gazette* 8: 3–30.

Muysken, Pieter. 1981. Halfway between Quechua and Spanish: the case for relexifi-cation. In Arnold Highfield and Albert Valdman (eds.), *Historicity and variation in Creole studies*, 52–78. Ann Arbor: Karoma.

Myers-Scotton, Carol. 2002. *Language contact: bilingual encounters and grammatical outcomes.* Oxford/New York: Oxford University Press.

Papadopoulos, Anthimos. 1955. *Ιστορική γραμματική της ποντικής διαλέκτου* [Historical grammar of the Pontic dialect]. Athens: Epitropi Pontiakon Meleton.

Paraskevaidis, Panayotis. 2005. *Μυτιλήνη επί Γατελούζων* [Mytilene under the Gateluzzi]. Mytilene: Petras.

Ralli, Angela. 2000. A feature-based analysis of Greek nominal inflection. *Glossologia* 11–12: 221–227.

Ralli, Angela. 2004. Stem-based versus word-based morphology: the case of Modern Greek preverbs. *Lingue e Linguaggio* 2: 241–275.

Ralli, Angela. 2005. *Μορφολογία* [Morphology]. Athens: Patakis.

Ralli, Angela. 2006. On the role of allomorphy in inflectional morphology: evidence from dialectal variation. In Giandomenico Sica (ed.), *Open problems in linguistics and lexicography*, 101–120. Milano: Polimetrica.

Ralli, Angela. 2008. Compound markers and parametric variation. *STUF – Language Typology and Universals* 6: 19–38.

Ralli, Angela. 2009. Modern Greek V V dvandva compounds: a linguistic innovation in the history of the Indo-European languages. *Word Structure* 2 (1): 48–67.

Ralli, Angela. 2010. Compounding versus Derivation. In Sergio Scalise and Irene Vogel (eds.), *Cross-Disciplinary Issues in Compounding*, 57–71. Amsterdam/Philadelphia: John Benjamins.

Ralli, Angela. 2012a. Morphology in language contact: verbal loanblend formation in Asia Minor Greek (Aivaliot). *STUF, Language Typology and Universals* 12: 185–201.

Ralli, Angela. 2012b. Verbal loanblends in Griko and Heptanesian. A case study of contact morphology. *L'Italia Dialettale LXXIII*: 111–132.

Ralli, Angela. 2013. *Compounding in Modern Greek*. Dordrecht: Springer.

Ralli, Angela. 2016. Strategies and patterns of loan verb integration in Modern Greek varieties. In Angela Ralli (ed.), *Contact Morphology in Modern Greek Dialects*, 73–108. Newcastle upon Tyne: Cambridge Scholars Publishing.

Ralli, Angela. 2017. *Διαλεκτικό λεξικό Κυδωνιών, Μοσχονησίων και βορειοανατολικής Λέσβου* [Dialectal dictionary of Kydonies, Moschonisia and Northeastern Lesbos]. Athens: Historical Studies Foundation.

Ralli, Angela. 2018. Greek in contact with Romance. In *the Oxford Research Encyclopedia of Linguistics*. Oxford: Oxford University Press.

Ralli, Angela. forthcoming. Matter versus pattern replication in compounding: Evidence from the Asia Minor Greek dialectal variety. *Morphology*.

Ralli, Angela and Thanasis Karasimos. 2009. The bare-stem constraint in Greek compound formation. *Gengo Kenkyu* 135: 29–48.

Ralli, Angela, Vasileia Alexelli and Charalambos Tsimpouris. 2018. The electronic linguistic atlas of the Aegean island of Lesbos (EDAL). In *Proceedings of the 7th Annual conference of the Associazione per l'informatica umanistica e la cultura digitale*. Bari: University of Bari.

Sakkaris, Georgios. 1920. *Ιστορία των Κυδωνιών* [History of Kydonies]. Kydonies. Reprinted in 1940 in Athens, by the Academy of Athens.

Sakkaris, Georgios. 1940. Περί της διαλέκτου των Κυδωνιέων εν συγκρίσει προς την Λεσβιακήν [On the Kydonies dialect in comparison with Lesbian]. *Mikrasiatika Chronika* 3: 74–141.

Sakkaris, Georgios. 1948. Περί της διαλέκτου των Κυδωνιέων. Λεξιλόγιον [On the Kydonies dialect. Vocabulary, Part I]. *Mikrasiatika Chronika* 4: 49–81.

Sakkaris, Georgios. 1952. Περί της διαλέκτου των Κυδωνιέων. Λεξιλόγιον [On the Kydonies dialect. Vocabulary, Part II]. *Mikrasiatika Chronika* 5: 49–101.

Stevens, Christopher. 2000. The Derivational Suffixes and Suffixoids of Old Saxon. A Panchronic Approach to a Linguistic Category. *American Journal of Germanic Linguistics and Literatures* 12: 53–79.

Stevens, Christopher. 2010 [2005]. Revisiting the affixoid debate: On the grammaticalization of the word. In Torsten Leuschner, Tanja Mortelmans and Sarah De Groodt (eds.), *Grammatikalisierung im Deutschen*, 71-84. Berlin: Mouton de Gruyter.

ten Hacken, Pius. 2000. Derivation and Compounding. In Geert Booij, Christian Lehmann and Joachim Mugdan (eds.), in collaboration with Wolfgang Kesselheim and Stavros Skopeteas, *Morphologie* Vol. 1, 349–360. Berlin/New York: Walter De Gruyter.

Thomason, Sarah and Terrence Kaufman. 1988. *Language contact, creolization and genetic linguistics.* Berkeley: University of California Press.

Venezis, Elias. 1952. *Το νούμερο 31328.* [The number 31328]. Athens: Estia.

Wichmann, Søren and Jan Wohlgemuth. 2008. Loan verbs in a typological perspective. In Thomas Stolz, Dik Bakker and Rosa Salas-Palomo (eds.), *Aspects of language contact. New theoretical, methodological and empirical findings with special focus on romancisation processes*, 89–121. Berlin/New York: Mouton de Gruyter.

Wohlgemuth, Jan. 2009. *A typology of verbal borrowings*. Berlin/New York: Mouton de Gruyter.