

Chapter 11

Andalusi Arabic

Ángeles Vicente

University of Zaragoza

This chapter covers an ancient contact language situation: Andalusi Arabic with two other languages – the Romance varieties spoken by the local population, and the Berber varieties brought by different Berber speakers arriving in al-Andalus during its existence. The situation of bilingualism whereby the Romance language was sociolinguistically dominant for most of the population over the course of several centuries resulted in numerous contact-induced changes in all areas of grammar. In addition, interaction between Arabic-speaking and Berber-speaking populations constituted a second locus of language contact with consequences for Andalusi Arabic.

1 Historical development of Andalusi Arabic

A dialect of the Western Neo-Arabic type, Andalusi Arabic is currently a dead language. It was spoken from the eighth to the seventeenth century in a changing territory following historical vicissitudes.

Arabic arrived in the Iberian Peninsula in the eighth century with Arabic-speaking tribes coming from different zones at various stages.¹ According to historical sources, the number of Muslims initially arriving was small, most of them probably partially Arabized Berber-speakers from North Africa.² Over time, the society of al-Andalus (the name given to the territory in the Iberian Peninsula

¹Historians have long argued for the ethnic variety of the Arabs who invaded the Iberian Peninsula, particularly referring to the presence of Syrian and Yemeni tribes. See Terés Sádaba (1957), Al-Wasif (1990) and Guichard (1995).

²Historians agree that it is extremely difficult, if not impossible, to establish what the level of Arabization of this population was. According to Manzano Moreno (1990: 399), it seems that linguistic Arabization was not widespread among Andalusi Berbers at least during the eighth century.



under different Muslim–Arab systems of rule for eight centuries) would eventually come to use a distinctive variety of Maghrebi Arabic known as Andalusí Arabic.³ This variety evolved through dialectal levelling and changes resulting from contact with other languages present in the zone, and had become a reasonably unified variety by the tenth century. The political success of the Umayyad dynasty and the establishment of their caliphate in the year 929 CE may have contributed to language levelling, though dialect variation continued to exist in the form of diatopical variants from various regions; scholars thus refer to the existence of an Andalusí “dialect bundle” (e.g. Corriente 1977: 6; 1992a: 446). For instance, the Granadian variety seems to have been more conservative than dialects spoken in other regions.⁴ The regional Andalusí variety spoken in Valencia was the last to disappear with the expulsion of the *moriscos* (Muslims forced to convert to Christianity) in the seventeenth century (Barceló & Labarta 2009: 117).

Even though Andalusí Arabic was a vernacular variety, the few extant sources are always written, and therefore reflect a higher register than that of the language used for daily communication. In fact, hardly any material reflecting the everyday dialectal level is available, since most of the sources consist of texts written in Middle Arabic (i.e. a written form intermediate between Classical and spoken dialectal Arabic; see Lentin 2011). Furthermore, complications arise due to the use of Arabic script to record dialect variants.⁵

Consequently, a comprehensive view of all the periods and places where this language was spoken is lacking. For instance, sources are scarce regarding the use of the language in the eighth and ninth centuries. As Wasserstein (1991: 3) puts it: “A linguistic map of Islamic Spain for any period between the middle of the eighth century and the middle of the thirteenth century would be extremely difficult to draw.”

Nevertheless, written documents in Andalusí Arabic are available from the tenth century until the expulsion of the *moriscos* in the seventeenth century. The oldest documented and preserved Andalusí text is an early form of *zağal* poetry dating from 913 CE, illustrated in (1).⁶

³Andalusí Arabic features the only common discriminating trait of Maghrebi varieties, that is, the *n-* and *n...-u* desinences for the first person singular and plural of the imperfect (cf. Benkato, this volume).

⁴According to Corriente (1998a: 56), this is because Granada was relatively isolated from the Andalusí mainstream, and played a secondary political role, at least initially. An example that Corriente gives of this conservatism is the retention of strong *imāla* (raising of originally low front vowels) found in Granadian Arabic, since this feature was eliminated or reduced in other Andalusí varieties with written attestation.

⁵An overview of sources for the description of Andalusí Arabic can be found in Corriente et al. (2015: xxiii–xxiv).

⁶It consists of a verse by one of the supporters of ʿUmar ibn Ḥaṣṣūn, insulting the caliph ʿAbd ar-Raḥmān III. It appears in the historical chronicle *al-Muqtabis V*, by Ibn Ḥayyān.

(1) Tenth-century Andalusi Arabic (Corriente et al. 2015: 237).⁷

- a. labán úmm-u fi fúmm-u
 milk mother-3SG.M in mouth-3SG.M
 ‘His mother’s milk is in his mouth.’
- b. rás ban ḥafşún fi ḥúkm-u
 head Ban Ḥafşún in power-3SG.M
 ‘Ban Ḥafşún’s head is at his disposal.’

The latest attestations of this language consist of private documents written by *moriscos* from Valencia from the seventeenth century, in which interesting instances of Romance dialectalisms and influence of Catalan, the Romance language spoken in the region, Aragonese and Castilian can be observed (Barceló & Labarta 2009: 119).

Andalusi Arabic continued to be spoken in the Iberian Peninsula after the end of al-Andalus as a Muslim–Arab state in 1492 CE, as some of the Arabic-speaking population remained in certain regions up until the seventeenth century, when the last *moriscos* were expelled. This language was therefore taken by the migrant population to various places in North Africa in different periods from the Middle Ages up to the Modern Era.⁸

Initially a second language (L2) for most of the population, after a two-century gestation process (from around the time of the conquest in 711 until the beginning of the caliphate in 929), Andalusi Arabic gradually became the first language (L1) of the majority of the population, overtaking the Romance dialect spoken by the original local population. The main reason for this was the growing social prestige attached to Arabic in an Islamic society, in contrast to the lower social status of Andalusi Romance, which became the local L2 and eventually disappeared.⁹

Andalusi Arabic became the dominant language (regardless of religion) thanks to the political and social situation of al-Andalus. Furthermore, the advent of an Arabic-speaking population from the east, especially in the Umayyad caliphate (929–1031), played a major role in the expansion of Arabization. According to some scholars such as Fierro Bello (2001) and Corriente (2008: 104), al-Andalus became a society largely monolingual in Andalusi Arabic around the eleventh

⁷ Acute accents on vowels in transcription of Andalusi Arabic represent stress rather than vowel length. See §3.1.1 for further details.

⁸ This is the reason why Andalusi Arabic has played a very important role in the formation of Moroccan Arabic (cf. Vicente 2010; Heath, this volume).

⁹ Mixed marriages between Muslims and Christian women constituted a significant factor in the propagation of Andalusi Arabic amongst Christians until it also became their L1 (Guichard 1989: 82–83; 1995: 456–457; Chalmeta 2003).

century, though communities using other languages did exist, especially in rural areas (see §2.1 for more details).

The vernacular Arabic variety spoken in al-Andalus even reached the status of a literary language, appropriating part of the domain of Classical Arabic through proverbs and a number of stanza-based poetic forms (including some *haraġāt* and the *azġāl*). Andalusī Arabic poetry reached the circles of the court and the palaces of Taifa kings. Such social and cultural prestige reveals the extent to which Andalusī Arabic had become the dominant language in this society, and it is for this reason that it is the best-documented vernacular Arabic variety of all those spoken in the Middle Ages.

Andalusī Arabic does not conform neatly to either the Bedouin or the pre-Hilali sedentary type of dialect in the classification usually applied nowadays to Maghrebi Arabic dialects (cf. Benkato, this volume). It shares features of both types of dialects. For instance, in the phonological system, the three interdental phonemes are the same as those in Old Arabic, as is the case in Bedouin-type Maghrebi dialects;¹⁰ however, /q/ is realized using the voiceless variant [q] as in sedentary-type dialects, rather than the voiced variant [g], as in Bedouin-type dialects.¹¹

According to Corriente (1992b: 34), the number of speakers of Andalusī Arabic was at its largest between the eleventh century – a time when the Andalusī koiné reached maturity – and the twelfth century.

2 Contact languages

Andalusī Arabic developed in the Iberian Peninsula through the interaction of various different Arabic dialects along with two contact languages.¹² This situ-

¹⁰In sedentary-type Maghrebi dialects these are typically pronounced as occlusives. The data do show that the occlusive pronunciation of interdentals was known in Andalusī Arabic, though it was considered vulgar and was repressed (Corriente et al. 2015: 29).

¹¹That said, /q/ may have been realized as a voiced [g] in some registers, regions or periods in Andalusī Arabic (see Corriente et al. 2015: 64).

¹²Besides Eastern Neo-Arabic varieties brought by invaders in the eighth century, from which Andalusī Arabic emerged, this language continued to evolve in interaction with Maghrebi dialects, particularly with Moroccan Arabic. Owing to this, it is possible to find intra-Arabic contact-induced language change, for instance in the Andalusī variety of Granada. Some instances of transfer from Moroccan are the verbs *šāf* ‘to see’ and *ġāb* ‘to bring’, and the second element in the negative *ma šāf šī* ‘he did not see’ (cf. Corriente 1998a: 57). For example, the particle *lās* or *līs* (a variant of *lās* with *imāla*) was the most frequently used negation particle in Andalusī Arabic, while the *ma... šī* construction was generally exceptional in older sources, though not in the work of aš-Šustarī, a Granadian author, due to his travels to North Africa,

ation spanned a long period of time, resulting in a significant amount of transfer. This has been analysed by various authors (e.g. Ferrando 1995; 1997; Vicente 2006), and particularly by Corriente (e.g. Corriente 1981; 1992b; 2000; 2002).

The languages with which Andalusi Arabic was in contact were the Romance varieties spoken by the Andalusi population and the Berber varieties brought by different Berber speakers arriving in al-Andalus during its existence.

2.1 Andalusi Romance

Andalusi Romance is a dialect bundle originating in the Romance varieties that were spoken in the Iberian Peninsula when the Islamic invasion occurred in 711,¹³ and which underwent a particular evolution through interaction with Arabic. This Ibero-Romance dialect was the L1 of a large proportion of Andalusi society regardless of their religion. It is also the oldest documented variety of Ibero-Romance: according to Corriente, the language of the *haraġāt* (see below) reflects the Romance dialect bundle used in al-Andalus between the ninth and eleventh centuries (Corriente 1995; 1997a; 2000).

The language is not well known: only a few written sources are available, transmitted by copyists who may have had limited knowledge of the language. These sources are written both in Arabic and Latin scripts.

Sources in Arabic script consist of bilingual dictionaries and botanical, agromonomical and medical glossaries. These evidence a limited number of Andalusi Romance loanwords in Andalusi Arabic, constituting less than 5% of the lexicon according to Corriente (1992b: 142).

Another source in Arabic script are *haraġāt*, the final refrains of each stanza of the *muwaššahāt*, one of the two types of Andalusi strophic poetry. A few of these refrains were partially written in Andalusi Romance.¹⁴ In addition to these *haraġāt*, loanwords of Andalusi Romance origin were also transmitted in the *zaġal* poems of Ibn Quzman.

Latin-script sources also exist, in toponymy, for instance, as well as in loanwords from Andalusi Romance in more northerly Romance dialects, though the data these contribute need to be treated with caution, since adaptation to other

according to Corriente et al. (2015: 212–215). In addition, Classical Arabic had an influence, especially on the lexicon. The migration of the Bedouin population into North Africa, however, did not have an influence on the evolution of Andalusi Arabic.

¹³These varieties in turn descended from Iberian Vulgar Latin, with substrate influence from pre-Romance Iberian languages and Visigoth lexical borrowings.

¹⁴Up to 68 *haraġāt* in Andalusi Romance have been found (42 in Arabic script and 26 in Hebrew script) with one or more words in this language (Corriente 1997a: 268–323), all of them dating from the tenth–eleventh centuries (Corriente 1997a: 343).

Romance dialects blurs features of the source language, making them of limited use from a linguistic point of view.

Andalusi Romance has been analysed by Corriente (1995; 2000; 2012); who has compiled lists of lexical borrowings from Andalusi Romance into Andalusi Arabic in botanical glossaries and in *ḥaraġāt* poetry.

In the first centuries of the history of al-Andalus, Andalusi Romance was the L1 used by the majority of Andalusi society, even by some Muslims, such as the *muwalladūn* (converted Muslims), who would learn Arabic as their L2 for self-promotion in society. In time, however, as an Arabic variety became the dominant language, diastratic differences become noticeable. Thus, Andalusi Romance was the L1 used by the rural population and lower classes, whereas the urban Andalusi population underwent more rapid Arabization due to increased exposure to Arabic through mosques, schools, trade, pilgrimages, and so on. Thus, the inhabitants of cities and, above all, leading members of society always had Andalusi Arabic as their L1.

No concrete evidence exists as to when monolingualism in Andalusi Arabic became established. The most commonly accepted date for the disappearance of Romance as a common means of communication in al-Andalus is the late twelfth century, under Almoravid rule. This period saw migrations north out of al-Andalus of the Christian Mozarabs, although most of these were in fact Arabic speakers, as instances of lexical borrowings from Andalusi Arabic in Romance languages from the north reveal. Corriente (1997b; 1992b: 443; 2005) suggests that bilingualism no longer existed by the thirteenth century, and that in the eleventh and twelfth centuries it was merely vestigial. In contrast, Galmés de Fuentes and Menéndez Pidal have defended the existence of bilingualism in Andalusi society up until the thirteenth century (Galmés de Fuentes 1994: 81–88; Menéndez Pidal & de Fuentes 2001).¹⁵

2.2 Berber

The arrival of a Berber-speaking population in al-Andalus occurred in the eighth and thirteenth centuries, first as auxiliary troops and later as conquerors, though many of them may have already become Arabic-speaking and used an early form of North African Arabic as L2 or even as L1 in the case of those arriving later.

Modern historiography (e.g. Manzano Moreno 1990; Guichard 1995; Chalmeta 2003) reveals that a significant number of Berbers played a major role in the conquest of al-Andalus, a population which grew larger with the later arrival of

¹⁵While some Romance-speaking communities may indeed have lasted up until the thirteenth century, note that this circumstance does not imply the existence of a wider bilingual Andalusi society.

the Almoravid and Almohad dynasties in the twelfth and thirteenth centuries. Interaction between Arabic-speaking and Berber-speaking populations on both sides of the Strait of Gibraltar facilitated lasting language contact.

The role of Berber in the language development of al-Andalus has not been analysed in depth, however. This is due to data being scarce regarding not only the state of Berber varieties at the time, but also their impact on Andalusi Arabic and the speed of their disappearance from the language scene in the Iberian Peninsula. No sources exist written directly in Berber, plus interpretation issues arise due to the transmission of Berber loanwords in Arabic or Latin script, as the phonological systems of these languages do not fully coincide.

Berber varieties had no social prestige in al-Andalus, and were associated with lower registers, a fact which had obvious effects on the direction of transfers in contact-induced changes. According to scholars such as Chalmeta (2003: 160) and Guichard (1995) the reason behind this could be the Berbers' social organization, who tended to settle in rural zones.

As a result of all of the above, plus the fact that the number of local Romance speakers was much higher, there is far less transfer into Andalusi Arabic from Berber than there is from Romance.

These transfers basically consist of lexical borrowings, which are mainly to be found in Arabic-script botanical glossaries, and have been analysed by various authors, including: Ferrando (1997),¹⁶ Corriente (1981; 1998b; 2002) and Corriente et al. (2017; 2020).

3 Contact-induced changes in Andalusi Arabic

3.1 Contact with Andalusi Romance

A special feature of the linguistic history of al-Andalus is that, within a few centuries, a situation of bilingualism, whereby the Romance language was the L1 for most of the population while Andalusi Arabic was L2, was reversed, eventually leading to a third phase of monolingualism using only Andalusi Arabic.

Transfers from Romance to Andalusi Arabic probably took place during the first of the bilingualism phases, a situation which, according to Corriente (2005; 2008), must have lasted two hundred years, from the eighth to the tenth century.

It is difficult to diagnose what type of transfer took place in such an ancient contact situation. When the agents of change used Romance (the source language; SL) as L1 and Andalusi Arabic (the recipient language; RL) as L2, the type

¹⁶This work includes a previously unpublished analysis conducted by G. S. Colin.

of change was imposition, according to the framework of Van Coetsem (1988; 2000). As we have seen, however, this situation would evolve, and the agents of change would come to have Andalusi Arabic (the RL) as their L1 and Romance (the SL) as their L2, meaning that transfer in this situation would be classified as borrowing in Van Coetsem's framework.

However, in cases such as this where the precise sociolinguistic situation at a given time is impossible to judge, it is difficult to establish whether the agents of change had two L1s or one L1 and one L2. Thus, the possibility exists that the contact-induced language changes taking place are a convergence type of transfer (in the terms of Lucas 2015).

3.1.1 Phonology

One contact-induced language change from Romance concerned the prosodic rhythm of Andalusi Arabic. The quantitative rhythm of Old Arabic was replaced by the intense stress system of early Romance languages in the Iberian Peninsula.¹⁷ Thus, while all Old Arabic and Neo-Arabic varieties feature a prosodic rhythm that distinguishes long and short syllables, Andalusi Arabic is the only variety where this quantitative rhythm was replaced by a system where there is no phonemic vowel length (Corriente 1977; 1992a; Corriente et al. 2015: 75–78).

In this case, the agents of change were presumably L1 speakers of Andalusi Romance, making the transfer a case of imposition on the L2, Andalusi Arabic.

The altered use of the *matres lectionis* in the Arabic script constitutes graphemic evidence of this change in prosodic rhythm. Thus, in Andalusi sources, the graphemes which traditionally mark the Old Arabic long vowels are sometimes used to mark etymologically short vowels, to indicate that these are stressed. For instance: مقاص *muqāṣ* = /muqáṣṣ/ 'pair of scissors' (OA *miqaṣṣ*), أسقوف *usqūf* = /usqūf/ 'bishop' (OA *usquf*), قنفود *qunfūd* = /qunfūd/ 'hedgehog' (OA *qunfud*).

Moreover, historically long vowels that were not stressed are often represented without the regular *matres lectionis*, for instance: فران *firān* = /firān/ 'mice', عم *ʕam* = /ʕam/ 'year'.

Another instance is the very name *al-Andalus*, pronounced by its inhabitants as /alandalús/, a fact known due to the *matres lectionis* for /ū/ which appears in the final syllable, indicating that this syllable is stressed: اندلوس *al-andalūs* = /alandalús/.

In addition, lexical borrowings from Andalusi Arabic currently found in Ibero-Romance languages also attest to this change of prosodic rhythm. For instance, the Spanish word *andaluz* (stressed on the last syllable) can only originate in

¹⁷A change which had taken place in Latin about one thousand years earlier. This language evolved from a quantitative stress system to an intense stress system in some of its daughter languages. The same process took place later in Andalusi Arabic.

the Andalusī word /alandalus/, while the Spanish word *azahar* ‘orange blossom’ (also stressed on the last syllable) comes from the Andalusī word /azzahár/, rather than directly from Old Arabic *zahr* ‘flower’.

The use of *matres lectionis* in this way was by no means systematic, since less cultivated scribes inserted or suppressed them arbitrarily; a fact which could be interpreted as indicative of an incipient evolution towards the loss of the phonological value of stress in Andalusī prosody (Corriente et al. 2015: 76, fn. 213), a phenomenon that today characterizes Moroccan Arabic, perhaps the last step of this evolution in Maghrebi Arabic dialects.

In some cases, a graphic gemination of the following consonant instead of the grapheme of the vocal quantity is an alternative means of indicating a stressed vowel, for instance: *أسقف* *usquff* = /usqúf/ ‘bishop’, *ثقة* *θiqqa* = /θíqa/ ‘trust’, (Corriente et al. 2015: 77).

Andalusī Arabic also features the appearance of three marginal phonemes /p/, /g/ and /č/ as transferred from Andalusī Romance, which, however, may not have existed in some Andalusī sub-dialects. Bearing in mind that these phonemes were incorporated through loanwords (Corriente 1978), we can assume that the agents of change had Andalusī Arabic as L1 and that therefore this is a borrowing type of transfer. Examples include: *čípp* ‘trap’, *čiqála* ‘cicada’, *čírniya* ‘blackbird’ (Corriente et al. 2015: 57). As these phonemes exist even in late toponymy it may be concluded that they were part of the Andalusī phonological system.

Another example of a contact-induced phonological change was the partial loss of contrastive velarization in some phonemes. As velarization does not exist in Romance languages, we can assume that this was a case of phonological imposition by L1 Romance speakers on their L2 Andalusī Arabic.

The effects of this change are visible, for instance, in the frequent interchangeability of /s/ and /š/. Recurrent permutations between both realizations exist and pseudo-corrections are also in evidence. For example: /sūr, šūr/ ‘wall’, /nāqūs, nāqūš/ ‘bell’, /qaswa, qašwa/ ‘cruelty’. This is not, however, a very common feature and took place only in the early stages of the Arabization process (Corriente et al. 2015: 82).

The spirantization of occlusives is another example of contact-induced phonological change in Andalusī Arabic, due to imposition from Andalusī Romance. According to Romanists, this phenomenon was commonly found in Romance languages since the Latin period.¹⁸

¹⁸The spirantization of the occlusives is also a feature of some Arabic varieties spoken in Morocco, especially, though not exclusively, in the north (Sánchez & Vicente 2012: 235–236). In this case, the agents of change were Arabic–Berber bilingual speakers who imposed the phonology of their L1 Berber on their L2 Arabic. This may have also happened in Andalusī society, though data to corroborate it is insufficient.

For instance, spirantization of /d/ > [ð] can be observed. Authors of Andalusi Arabic would write ⟨ذ⟩ (ð) rather than ⟨د⟩ (d) for both *d and *ð because they considered both sounds to be allophones of /d/, particularly in postvocalic position.¹⁹ The realization of the /d/ phoneme clearly changed through contact with Andalusi Romance. This is a widespread feature noted in various authors, regions, ages and social groups. For instance: جدول /ǧaðwal/ ‘creek’ < ǧadwal, حفيد /ħafið/ ‘nephew’ < ħafīd, الأحد /al-ħaðð/ ‘Sunday’ < al-ħadd, سيدي /sīði/ ‘my lord’ < sīdi. This phenomenon seems to have been more common in lower and middle registers of Andalusi.

Another example is the spirantized allophone of /b/, [β], which could constitute a borrowing from Romance or Zenati Berber. This may be confirmed by the use of ⟨ف⟩ to represent /b/ (as in قسפורى *qasfūrā* < *kuzbara* ‘coriander’, فش *fiš* < *baš/biš* ‘in order to’), or by confusion between both phonemes: *baysāra/faysāra* ‘a dish of cooked beans’ (Corriente et al. 2015: 19).

3.1.2 Morphology

A noteworthy contact-induced morphological change concerns the elimination of a gender distinction in the second person singular of both pronouns and verbs, as in *taqtúl* ‘you kill’, *tikassár* ‘you break’, *tahtarám* ‘you respect’, *tahriǧ* ‘you throw’ (Corriente et al. 2015: 154–155).

The addition of Romance suffixes to Arabic words to produce hybrid terms was another example of morphological transfer. These suffixes are numerous. For instance, the augmentative suffix *-ūn*, as in *ǧurrún* ‘big jar’ < *ǧarra* ‘jar’, *raqadún* ‘sleepyhead’ < *rāqid* ‘asleep’, and the agentive suffix *-áyr*, as in *ǧawabáyr* ‘cheeky’ < *ǧawāb* ‘answer’ (cf. Corriente 1992b: 126–131; Corriente et al. 2015: 230–231).

3.1.3 Syntax

Changes in gender agreement also arguably result from contact-induced change: *fáyn* ‘eye’, *šáms* ‘sun’, and *nár* ‘fire’ are generally feminine in Arabic but were occasionally treated as masculine in Andalusi Arabic, as their translation equivalents are in Romance. Likewise, *má* ‘water’ and *dwá* ‘medicine’ are masculine in Arabic but were sometimes considered feminine in Andalusi Arabic, again on a Romance model (Corriente et al. 2015: 232). This was presumably a case of imposition, where the agents of change were L2 speakers of Andalusi Arabic.

There are cases of concordless determination constructions in qualifying syntagms following the Romance construction, for instance: *alšaqd θānī* ‘the second contract’ instead of more typical *al-šaqd aθ-θānī* (Corriente et al. 2015: 186).

¹⁹This spirantization is also realized in other positions, however.

These examples come from texts written by bilingual Mozarabs from Toledo; since they were either dominant in Andalusi Arabic or had both Andalusi Arabic and Andalusi Romance as L1s, this change must have been either an instance of borrowing or of convergence.

There are instances of a construction using the analytic genitive with the preposition *min* ‘of’ as well as innovative uses of *li* ‘for’. These are found particularly in late texts with strong influence from Andalusi Romance (cf. Corriente 2012). As in the previous case, we are dealing here with agents of change who are either dominant in Andalusi Arabic and thus borrowing from Andalusi Romance, or this is an instance of convergence brought about by speakers of both languages as L1s.

(2) Late Andalusi Arabic (Corriente et al. 2015: 233–234)

- a. *mudda min ʕām-ayn*
period from year-DU
‘a two-year period’
- b. *min ʕām*
from year
‘one year old’
- c. *naḥruġ li wild-ī*
go_out.IMPF.1SG to father-OBL.1SG
‘I look like my father.’

The examples in (2) are clearly calqued on Romance expressions: *un periodo de dos años*, *de un año* and *salgo a mi padre*, respectively.

3.1.4 Lexicon

Lexical borrowings from Romance in Andalusi Arabic constitute less than 5%, according to Corriente (1992b: 142).²⁰

²⁰The number of lexical borrowings from Andalusi Arabic into Romance languages spoken in Spain is larger. According to Corriente (2005), its number is close to two thousand, not counting the lexical derivations and place names included by other authors, who have put the number at four thousand or even five thousand. Many of the terms in question are nowadays obsolete (Corriente 2005: 203, fn. 59). We must not forget that these languages had a different social status during the period of bilingualism, a major element in contact-induced language changes. In such situations, less prestigious languages always receive a larger number of transfers (cf. Corriente et al. 2019).

The most common semantic fields are botanical terms of species endemic to the Iberian Peninsula, as in *ūliyā* ‘olive’, *amindāl* ‘almond’, *blātur* ‘water lily’, *bulmuš* ‘elm tree’, and zoological terms, as in *burrays* ‘lamb’, *poḥóta* ‘whiting’, *buṭrah* ‘mule’, *ṭābaraš* ‘capers’. For more examples, see Corriente et al. (2017). Other semantic fields are parts of the body, as in *imliq* ‘navel’ and *muḡḡa* ‘breast’, family relations, as in *šuqru* ‘father-in-law’, *šubrīn* ‘nephew’, and household items and technicalities of various professions, as in *šuqūr* ‘axe’ and *šayra* ‘basket’, (Corriente et al. 2015: 224).

Some words even adapted to the pattern of broken plural in Andalusī Arabic, for instance *š(u)nyūr* ‘sir’, pl. *šanānīr*, though most used the regular plural suffix *-āt*.

3.2 Contact with Berber

As with the Arabic–Romance contact situation, lack of information regarding the sociolinguistic status of Berber speakers in al-Andalus in the relevant period makes it difficult to classify the relevant changes according to the types of agentivity involved. That said, since we have no reason to think that significant numbers of native Arabic speakers would have acquired Berber languages as L2s, the changes described here seem most likely to be the result of imposition by L1 Berber speakers.

3.2.1 Phonology

Available data is always from written sources and it is therefore hard to be certain about the existence of contact-induced phonological changes.

The realization of *k as [ħ] has been considered a Zenati Berber influence (Corriente 1981: 7). For instance: *aḥḥar* ‘more’, *aḥḥubar* ‘October’ (Corriente et al. 2015: 61).

The replacement of /l/ with /r/, as in Tarifit Berber, could be another instance of transfer from Berber. Thus, the following spellings in documents written in Latin script could be instances of possible assimilation-induced allophones: *Huaraç*, *Hurad*, *Uarat* < *walad* ‘boy’. The late source where these spellings are found, documents written by Valencian *moriscos* in the second half of the sixteenth century (Labarta 1987), suggests that this change could have been introduced through contact with the last Berber immigration waves into al-Andalus (thirteenth century). However, this trait may not have been generalized in the speech of the wider community, and could merely represent idiolectal variation or even misspelling.

3.2.2 Lexicon

While contact-induced changes in Andalusi Arabic from Berber were initially considered very scarce, more comprehensive analyses of the sources have revealed that changes may not have been so insignificant.²¹ In fact, the list compiled by Corriente in 1981 contained 15 Berber loanwords in Andalusi Arabic (1981: 28–29), the list in his dictionary of 1997 listed 62 (Corriente 1997b: 590), and the compilation made by Ferrando the same year included 82, of which 39 corresponded to an unpublished study by G. S. Colin and 43 were compiled from proposals made by various other scholars (Ferrando 1997: 133). The most recent list contains 115 Berber loanwords (Corriente et al. 2017: 1432–1433).

As Ferrando (1997: 140) points out, these borrowings appear mostly in earlier sources, and their number decreases considerably in later sources. This fact could be put down to the social and cultural prestige Andalusi Arabic achieved in later centuries, even contributing to social cohesion and, therefore, linguistic cohesion. Most lexical transfers must have taken place in the early centuries of the existence of al-Andalus, prior to the arrival of new Berber speakers, the Almoravids and the Almohads. For obvious geographical reasons it is quite likely that the Berber-speaking Muslims (already Arabized) who reached the Iberian Peninsula with the first Muslim troops came from an area in modern northwestern Morocco, the region known as Jbala. Ghomara and Senhaja are the vernacular Berber varieties from this region. These non-Zenati varieties are different from those spoken in the Rif (Kossmann 2017). It is therefore probable that Ghomara and Senhaja Berber were the sources of a good deal of these borrowings, though any attempt at classifying them is hindered by the lack of detailed phonetic or morphological data.

Semantically, most of these lexical borrowings correspond to phytonyms and zoological terms, socio-political symbols and names of weapons, clothing, food, and household goods. The number of Berber loanwords that were regularly used by the Andalusi population is not easily determined, as many are names of plants that probably only occurred in Berber botanical treatises.

The following are some examples from Corriente et al. (2017):²² *azarūd* ‘sweet clover’ < *azrud/azrud*, *aṭṭifu* ‘take him’ < *aṭṭaf* ‘take’, *āwurmī* ‘garden street’ <

²¹For instance, linguistic analyses of some sources, such as the botanical glossaries written in al-Andalus, have yielded a large number of Berber loans in Andalusi Arabic (cf. al-Iṣṣīlī 2004; 2007; Corriente 2012).

²²The Berber origin of some of the lexical borrowings from these lists is only probable, not certain. Due to the characteristics of the sources, written in Arabic or Romance by possibly non-Berber-speaking scribes, the available information sometimes does not allow us to go beyond mere working hypotheses. It is also difficult to decide which Berber variety they belong

awurmi/iwurmi, *aylāl* ‘snails’ < *aylal*, *tamayra* ‘banquet’ < *tamayra* ‘wedding party’, *zuyzal* (with agglutination of the preposition *s-* ‘with’) ‘half-pike (Berber weapon)’ < *ugzal*, *tāqra* ‘terrine’ < *tagra* ‘wooden dish to make couscous’, *aqrūn* ‘pancakes cut into squares and eaten with honey’ < *ayrum* ‘bread’.²³

Some of these loans present a chronological problem. The problematic items are those which have an ungeminated /š/ or /q/, phonemes that were transferred to the Berber varieties through contact with Arabic.²⁴ These would appear, therefore, to be later loans that arrived with the Berber already Arabized or through Moroccan Arabic, for instance: *išir* < *iššir* ‘boy’, *finniš* ‘mule’ < *afanniš* ‘snub-nosed’,²⁵ *barqī* < *abərqi* ‘slap’.²⁶

Some of these loans do not appear in modern dictionaries of Berber varieties, such as *aryīs* ‘barberry’ < *aryis*,²⁷ *āḍiqal* ‘watermelon’ < *adigal*, *maqāqūn* ‘stallion’ < *amaka*.²⁸

In some cases we have loans that come from Vulgar Latin to Andalusī Arabic via Berber, for instance: *fullūs* ‘chicken’ < *afallus* (Berber) < *pullus* (Vulgar Latin), *bāqya* ‘large clay dish’ < *tabaqit/ṭabəqqiṣθ* (Tarifit) ‘great dish of superior quality’²⁹ < *bacchia* (Vulgar Latin) ‘goblet, water jug’, *hirkāsa* ‘rustic leather shoe’ < *arkasən* (Kabyle) or *arkas*, *ahərkus* (Tarifit) perhaps < *calcēus* (Vulgar Latin), *tirfās* ‘truffles’ < *tərfas* (Berber) < *tuferas* (Vulgar Latin), *zabzīn* ‘low-quality couscous’ < *zabazin* (Berber, with agglutination of the preposition *s-* ‘with’) < *pisellum* (Vulgar Latin, diminutive of *pisum* ‘pea’).³⁰ These transfers are very likely to have

to: Tarifit, Taqbaylit and Tashelhiyt have all been found. Note also that all Arabic items in this section are rendered as transliterations of their Arabic-script orthography, rather than transcriptions of their (assumed) phonology.

²³This item exists in Taqbaylit with the meaning ‘unleavened cooked pasta cookie’ (Dallet 1982). The ending *-um* becomes *-un* due to a metanalysis that associates it with the Romance suffix *-on*, which is highly productive in Andalusī Romance.

²⁴I thank Maarten Kossmann for this and other valuable comments on the section of this work dealing with contact between Andalusī Arabic and Berber varieties.

²⁵In Moroccan Arabic *fənniš/fənnūš* (de Prémare 1998: 167).

²⁶According to de Prémare (1993: 5), the Moroccan Arabic word *ābərəq* ‘slap’ is also a loanword of Berber origin.

²⁷The Berber origin of this item has nevertheless been affirmed by Colin and Ferrando, based on the data provided by Ibn al-Bayṭār (Ferrando 1997: 110–111). It is documented in Moroccan Arabic, *aryīs* ‘barberry’ (de Prémare 1995: 151), and in Spanish it has become *alargue* and *alguese*, and in Portuguese *largis* (Corriente et al. 2020). A fall into disuse in the SL is perhaps the reason for its absence from the current dictionaries.

²⁸The last two lexical borrowings are documented in the Andalusī source *kitābu ṣumdati ṭ-ṭabīb*, by Abu l-Ḥayr al-ʿIṣbīlī (2004; 2007), a botanist of the eleventh century. However, their Berber origin is quite doubtful for M. Kossmann (personal communication).

²⁹See Ibáñez (1949: 272) whose transcription is *zabeqqixz*.

³⁰The word exists in Moroccan Arabic as *ābāzīn* (de Prémare 1993: 5), and in Kabyle Berber as *tabazint* (augmentative of *abazin*).

first taken place in North Africa (the northern part of present-day Morocco), since we know that some variety of Vulgar Latin was in contact there with the Berber variety of the region before the arrival of Muslim troops (cf. Heath, this volume). The Berber-speaking Andalusians would have then later transferred these items to Andalusī Arabic.³¹

Some of these lexical borrowings have certain characteristics that demonstrate greater integration than others in Andalusī Arabic:

1. Morphophonemic adaptations.

- a) Phonemic adaptation to Arabic (although this may simply be a problem of orthography, since the Arabic script lacks a means of representing the Berber phonemes /g/ and /z/). /g/ is represented as ⟨k⟩, ⟨q⟩ or ⟨ḡ⟩: *akzal/aqzal* ‘pike (characteristic weapon of the Berbers)’ < *agzal*; ³² *āḍiqal* ‘watermelon’ < *adigal*; *arḡān* ‘argan tree’ < *argan*, *qillid* ‘Berber prince’ < *agallid*, while /z/ is represented as ⟨z⟩: *zawzana* ‘mutism’ < *aḏizun*, *lazāz* ‘werewolf’ < *azzaz*.
- b) Elimination of typically Berber morphemes: e.g., the loss of prefix *a-* of masculine nouns: *bāzīn* ‘a dish of couscous, meat and vegetables’ < *abazin*, *dād abyad* ‘white chameleon’ < *addad*, *mizwār* ‘manager, commander’ < *aməzwaru* ‘first’, *fīnniṣ* ‘mule’ < *afənniṣ* ‘snub-nosed’, *mazad* ‘Quranic school’ < *amzad*. Likewise the loss of prefix and suffix *t...-t* of feminine nouns: *zaynaz* ‘brooch, buckle’ < *tisəynəst* (Tarifit), ³³ *muzūra* ‘horse braid’ < *tamzurt* (Tarifit and Kabyle), *saryant* ‘root of the orpine plant’ < *tasəryint*, as well as elimination of prefix *t-*, as in *abyā* ‘wild bramble’ < *tabya*.

2. Another process for the integration of lexical borrowing involves fitting Berber words to Arabic patterns, as in *zawzana* ‘mutism’ (with the Arabic pattern CaWCaCa) < *aḏizun*, *harkama* ‘tripe stew’ (with the Arabic pattern CaCCaCa) < *urkimen*, *hirkāsa* ‘rustic leather shoe’ (with the Arabic pattern CiCCāCa) < *arkasən* (Kabyle) or *arkas*, *ahərkus* (Tarifit).

³¹A number of these Berber loans have then gone on to reach the Romance languages through Andalusī Arabic. The most recent list includes forty of these borrowings in Romance languages (Corriente et al. 2019).

³²Andalusī Arabic seems to have had a diminutive form of this item: *tagzalt* (modern dictionaries give the diminutive *tagəzzalt* ‘small stick’; Taifi 1991). This could then be the source of Castilian *tragacete* and Portuguese *tragazeite* ‘dart’ (Corriente et al. 2020).

³³This is a noun of instrument derived from the verb *ynəs* ‘to tie with a brooch’. Corriente derives it from *asəgnəs* ‘needle’, see (Corriente et al. 2020), but the phoneme /ɣ/ makes the first option more likely (M. Kossmann, personal communication).

4 Conclusion

Andalusi Arabic developed in the Iberian Peninsula through intra-Arabic leveling and contact with two other language types: Romance and Berber. This situation spanned a long period of time and resulted in a good deal of contact-induced change.

Initially the L2 of most of the population, after a two-century gestation process, Andalusi Arabic gradually became the dominant language, overtaking the Romance dialect spoken by the local population. The main reason was the growing social prestige attached to Arabic in an Islamic society, in contrast to the lower social status of Andalusi Romance, which first became an L2, before the bilingual situation eventually disappeared. This contact situation resulted in a number of contact-induced changes in all areas of grammar, but it is often difficult to diagnose what type of transfer took place in such an ancient contact situation.

Concerning Berber varieties, modern historiography reveals that the interaction between Arabic-speaking and Berber-speaking populations on both sides of the Strait of Gibraltar facilitated lasting language contact. The role of Berber in the language development of al-Andalus, however, has not yet been analysed in depth. The nature of the available data is such that lexical borrowings are the only transfers that have been well described at present.

Future research would be particularly desirable with regard to contact-induced changes in Andalusi Arabic due to the presence of Berber varieties in the Iberian Peninsula. This should involve collaboration between scholars of Berber and of Arabic.

Further reading

- Corriente (1997a) provides a linguistic analysis of Andalusian strophic poetry.
- Corriente (2005) offers valuable information concerning the impact of Andalusi Arabic on Ibero-Romance.
- Corriente et al. (2015) is the most up-to-date book-length description of Andalusi Arabic grammar. It contains a section dealing with transfer from Romance and Berber.
- Ferrando (1997) offers an etymological description of some Berber loanwords in Andalusi Arabic.
- Vicente (2010) details the Andalusi influence on the dialects of northern Morocco.

Abbreviations

1, 2, 3	1st, 2nd, 3rd person	OA	Old Arabic
DU	dual	OBL	oblique
IMPF	imperfect (prefix conjugation)	RL	recipient language
L1	first language	SG	singular
L2	second language	SL	source language
M	masculine		

References

- al-Išbīlī, Abū l-Ḥayr. 2004. *Kitābu ‘umdati ṭṭabīb fī ma‘rifati nnabāt likulli labīb: Libro base del médico para el conocimiento de la botánica por todo experto*. Joaquín Bustamante Costa, Federico Corriente & Mohand Tilmatine (eds.). Vol. 1: *Texto árabe*. Madrid: Consejo Superior de Investigaciones Científicas.
- al-Išbīlī, Abū l-Ḥayr. 2007. *Kitābu ‘umdati ṭṭabīb fī ma‘rifati nnabāt likulli labīb: Libro base del médico para el conocimiento de la botánica por todo experto*. Mohand Tilmatine, Federico Corriente & Joaquín Bustamante Costa (eds.). Vol. 2: *Traducción anotada*. Madrid: Consejo Superior de Investigaciones Científicas.
- Al-Wasif, Muhammad-Fajri. 1990. La inmigración de árabes yemeníes a al-Andalus desde la conquista islámica (92/711) hasta fines del siglo II/VIII. *Anaquel de Estudios Árabes* 1. 203–219.
- Barceló, Carmen & Ana Labarta (eds.). 2009. *Archivos moriscos: Textos árabes de la minoría islámica valenciana, 1401–1608*. Valencia: Universidad de Valencia.
- Chalmeta, Pedro. 2003. *Invasión e islamización: La sumisión de Hispania y la formación de al-Andalus*. Jaén: Universidad de Jaén.
- Corriente, Federico. 1977. *A grammatical sketch of the Spanish Arabic dialect bundle*. Madrid: Instituto Hispano-Arabe de Cultura.
- Corriente, Federico. 1978. Los fonemas /p/, /č/ y /g/ en árabe hispánico. *Vox Romanica* 37. 214–218.
- Corriente, Federico. 1981. Notas de lexicología hispanoárabe (III y IV). III: Los romancismos del Vocabulista. IV: Nuevos berberismos del hispano-árabe. *Awraq* 4. 5–30.
- Corriente, Federico. 1992a. Linguistic interferences between Arabic and the Romance languages of the Iberian Peninsula. In Salma Khadra Jayyusi (ed.), *The legacy of Muslim Spain*, 443–456. Leiden: Brill.
- Corriente, Federico. 1992b. *Arabe andalusí y lenguas romances*. Madrid: Editorial MAPFRE.

- Corriente, Federico. 1995. El idiolecto romance andalusí reflejado por las *xarajāt*. *Revista de Filología Española* 75. 5–33.
- Corriente, Federico. 1997a. *Poesía dialectal árabe y romance en Alandalus: Cejeles y xarajāt de muwaššahāt*. Madrid: Gredos.
- Corriente, Federico. 1997b. *A dictionary of Andalusí Arabic*. Leiden: Brill.
- Corriente, Federico. 1998a. On some features of late Granadian Arabic (mostly stress). In Jordi Aguadé, Patrice Cressier & Ángeles Vicente (eds.), *Peuplement et arabisation au Maghreb occidental: Dialectologie et histoire*, 53–57. Madrid, Zaragoza: Casa de Velázquez, Universidad de Zaragoza.
- Corriente, Federico. 1998b. Le berbère à Al-Andalus. *Études et Documents Berbères* 15–16. 269–275.
- Corriente, Federico. 2000. El romandalusí reflejado por el glosario botánico de Abulxayr. *Estudios de Dialectología Norteafricana y Andalusí* 5. 93–241.
- Corriente, Federico. 2002. The Berber adstratum of Andalusí Arabic. In Otto Jastrow, Werner Arnold & Hartmut Bobzin (eds.), “*Sprich doch mit deinen Knechten aramäisch, wir verstehen es!*”: 60 Beiträge zur Semitistik: Festschrift für Otto Jastrow zum 60. Geburtstag, 105–111. Wiesbaden: Harrassowitz.
- Corriente, Federico. 2005. El elemento árabe en la historia lingüística peninsular: Actuación directa e indirecta. Los arabismos en los romances peninsulares (especialmente en castellano). In Rafael Cano Aguilar (ed.), *Historia de la lengua española*, 185–206. Barcelona: Ariel.
- Corriente, Federico. 2008. *Romania arábica: Tres cuestiones básicas: Arabismos, “mozárabe” y “jarchas”*. Madrid: Editorial Trotta.
- Corriente, Federico. 2012. Une première approche des mots occidentaux (arabes, berbères et romans) dans l’ouvrage botanique d’As-Sarif Al-Idrisi. In Alexandrine Barontini, Christophe Pereira, Ángeles Vicente & Karima Ziamari (eds.), *Dynamiques langagières en Arabophonies: Variations, contacts, migrations et créations artistique. Hommage offert à Dominique Caubet par ses élèves et collègues*, 57–63. Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo (IEIOP).
- Corriente, Federico, Christophe Pereira & Ángeles Vicente. 2015. *Aperçu grammatical du faisceau dialectal arabe andalou: Perspectives synchroniques, diachroniques et panchroniques* (Encyclopédie Linguistique d’Al-Andalus, vol. 1). Berlin: De Gruyter.
- Corriente, Federico, Christophe Pereira & Ángeles Vicente. 2017. *Dictionnaire du faisceau dialectal arabe andalou: Perspectives phraséologiques et étymologiques* (Encyclopédie Linguistique d’Al-Andalus, vol. 2). Berlin: De Gruyter.

- Corriente, Federico, Christophe Pereira & Ángeles Vicente. 2019. *Dictionnaire des emprunts ibéro-romans: Emprunts à l'arabe et aux langues du Monde Islamique* (Encyclopédie Linguistique d'Al-Andalus, vol. 3). Berlin: De Gruyter.
- Corriente, Federico, Christophe Pereira & Ángeles Vicente. 2020. *Le substrat roman et l'adstrat berbère dans le faisceau dialectal andalou* (Encyclopédie Linguistique d'Al-Andalus, vol. 4). Berlin: De Gruyter.
- Dallet, Jean-Marie. 1982. *Dictionnaire kabyle-français, français-kabyle*. Paris: SELAF.
- Ferrando, Ignacio. 1995. Los romancismos de los documentos mozárabes de Toledo. *Anaquel de Estudios Árabes* 6. 71–86.
- Ferrando, Ignacio. 1997. G. S. Colin y los berberismos del árabe andalusí. *Estudios de Dialectología Norteafricana y Andalusí* 2. 105–146.
- Fierro Bello, María Isabel. 2001. *Al-Andalus: Saberes e intercambios culturales*. Barcelona: Icaria.
- Galmés de Fuentes, Álvaro. 1994. *Las jarchas mozárabes*. Barcelona: Crítica.
- Guichard, Pierre. 1989. Otra vez sobre un viejo problema: Orientalismo y occidentalismo en la civilización de la España Musulmana. In Generalitat Valenciana (ed.), *En torno al 750 aniversario: Antecedentes y consecuencias de la conquista de Valencia*, 73–96. Valencia: Generalitat Valenciana.
- Guichard, Pierre. 1995. *Al-Andalus: Estructura antropológica de una sociedad islámica en Occidente*. Granada: Servicio de Publicaciones de la Universidad. Facsimile edition prepared by Antonio Malpica Cuello. Originally published in 1976 by Barral.
- Ibáñez, Esteban. 1949. *Diccionario rifeño-español (etimológico)*. Madrid: Instituto de Estudios Africanos.
- Kossmann, Maarten. 2017. La place du parler des Senhaja de Sraïr dans la dialectologie berbère. In Ángeles Vicente, Dominique Caubet & Amina Naciri-Azzouz (eds.), *La région du Nord-Ouest marocain: Parlers et pratiques sociales et culturelles*. Zaragoza: Prensas de la Universidad de Zaragoza.
- Labarta, Ana. 1987. *La onomástica de los moriscos valencianos*. Madrid: Consejo Superior de Investigaciones Científicas.
- Lentin, Jérôme. 2011. Middle Arabic. In Lutz Edzard & Rudolf de Jong (eds.), *Encyclopedia of Arabic language and linguistics*, online edn. Leiden: Brill.
- Lucas, Christopher. 2015. Contact-induced language change. In Claire Bowerman & Bethwyn Evans (eds.), *The Routledge handbook of historical linguistics*, 519–536. London: Routledge.
- Manzano Moreno, Eduardo. 1990. Beréberes de al-Andalus: Los factores de una evolución histórica. *Al-Qantara* 11(2). 397–428.

- Menéndez Pidal, Ramón & Alvaro Galmés de Fuentes. 2001. *Islam y cristiandad: España entre las dos culturas*. Málaga: Universidad de Málaga.
- de Prémare, André-Louis. 1993. *Dictionnaire arabe-français*. Vol. 1. Paris: l'Harmattan.
- de Prémare, André-Louis. 1995. *Dictionnaire arabe-français*. Vol. 5. Paris: l'Harmattan.
- de Prémare, André-Louis. 1998. *Dictionnaire arabe-français*. Vol. 10. Paris: l'Harmattan.
- Sánchez, Pablo & Ángeles Vicente. 2012. Les mots turcs dans l'arabe marocain. In Alexandrine Barontini, Christophe Pereira, Ángeles Vicente & Karima Ziamari (eds.), *Dynamiques langagières en Arabophonies: Variations, contacts, migrations et créations artistique. Hommage offert à Dominique Caubet par ses élèves et collègues*, 223–252. Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo (IEIOP).
- Taïfi, Miloud. 1991. *Dictionnaire tamazight-français (Parlers du Maroc central)*. Paris: L'Harmattan.
- Terés Sádaba, Elías. 1957. Linajes árabes en Al-Andalus según la “Yamhara” de Ibn Ḥazm. *Al-Andalus* 22. 55–111.
- Van Coetsem, Frans. 1988. *Loan phonology and the two transfer types in language contact*. Dordrecht: Foris.
- Van Coetsem, Frans. 2000. *A general and unified theory of the transmission process in language contact*. Heidelberg: Winter.
- Vicente, Ángeles. 2006. *El proceso de arabización de Alandalús: Un caso medieval de interacción de lenguas*. Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo (IEIOP).
- Vicente, Ángeles. 2010. Andalusí influence on northern Morocco following various centuries of linguistic interference. In Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.), *The Arabic language across the ages*, 141–159. Wiesbaden: Reichert.
- Wasserstein, David. 1991. The language situation in al-Andalus. In *Studies on the Muwaššah and the Kharja: Proceedings of the Exeter international colloquium*, 1–15. Oxford: Ithaca Press.