

Received 25 September 2012.

Accepted 21 October 2012.

THE LOSS OF INTERVOCALIC AND FINAL /d/ IN THE IBERIAN PENINSULA

Ana ESTRADA ARRÁEZ

Universidad Autónoma de Madrid

ana.estrada@estudiante.uam.es

Abstract

Currently there is an ongoing process of loss of intervocalic and final /d/ in the Spanish of the Iberian Peninsula. This loss already appears in the *Atlas Lingüístico de la Península Ibérica* (ALPI) of nearly a century ago, some of whose unpublished data are mapped in this paper. Thanks to these, it can be shown that the loss is distributed in a geographically irregular way across the Peninsula, dividing its territory into several areas. The data suggest that the factors influencing this loss, for which there is no agreement, could be not only phonetic or phonological, but also morphological and syntactic.

Keywords

Loss of intervocalic consonants, dental consonants, phonetic change, interaction between phonetics and grammar

LA PÉRDIDA DE LA /d/ INTERVOCÁLICA Y FINAL EN LA PENÍNSULA IBÉRICA

Resumen

Actualmente está teniendo lugar un proceso de pérdida de la /d/ intervocálica y final en el español de la Península Ibérica. Esta pérdida ya aparece reflejada en el *Atlas Lingüístico de la Península Ibérica* (ALPI) de hace casi un siglo, cuyos datos inéditos son cartografiados en este trabajo. Gracias a ellos, puede demostrarse que la pérdida está distribuida de manera geográficamente irregular en la Península, dividiendo su territorio en varias áreas. Los datos sugieren que los factores que influyen en esta pérdida, sobre los cuales no hay ningún acuerdo, parecen ser no tan solo de carácter fonético o fonológico, sino también morfológicos y sintácticos.

Palabras clave

Pérdida de consonantes intervocálicas, consonantes dentales, cambio fonético, interacción entre fonética y gramática

1. Introduction

The loss of intervocalic and final /d/ is a phenomenon that has appeared in peninsular Spanish repeatedly throughout its history. The last outbreak of this phenomenon (in contemporary Spanish), which is still operating today, shows up in the *Atlas Lingüístico de la Península Ibérica*,¹ for which data were collected in the 1930s; however, although many authors have referred to it, none have studied this loss from a dialectological and peninsular point of view. There is also no agreement on the factors that contribute to the loss of /d/, or on their relative importance. The aims of this study are, on the one hand, to define the geographic distribution of the phenomenon in the Peninsula, and on the other, to analyse the linguistic factors that influence the evolution of the phoneme /d/.

The data I use for the analysis are composed of thirty-eight maps prepared from thirty-five questions from the first ALPI notebook.² Using the ALPI as corpus restricts the study, firstly, because of the informants: they were mostly elderly uneducated men and women who lived in rural areas and, therefore, sociolinguistic factors cannot be taken into consideration in this study (although we cannot forget that such social

¹ The *Atlas Lingüístico de la Península Ibérica* [Linguistic Atlas of the Iberian Peninsula] or ALPI was a project conceived by Menéndez Pidal in the 1920s and directed by his disciple Navarro Tomás. Most of the surveys were carried out in the 1930s on 527 villages by a team of seven dialectology fieldworkers. The questionnaire is made up of two notebooks, one with questions about Phonetics and Grammar and the other about Lexicon. This Atlas disappeared in the early sixties after the publication of the first volume in 1962, but it reappeared in 2001. Currently there is a project for digitizing this atlas. For more information about the origins, history and current projects of the ALPI, see the following studies: the introduction to the first volume of the *Atlas Lingüístico de la Península Ibérica* (CSIC, 1962), García Mouton (2009, 2010) or Heap (2008), among others.

² The words I have analysed (in **bold**) and the questions they come from are the following: 115 **Cuadrado**, 198 **Desbocado**, 328 *Se ha puesto **nublado***, 260 *Mis **cuñados** y mis primos*, 338 *Fui **soldado** en África*, 373 *El invierno **pasado** hubo muchas lluvias*, 68 **Segador**, 28 **Dedo**, 241 **Tejedor**, 72 **Sudor**, 40 **Nudo**, 149 **Pedazo**, 354 *Me pidieron que los **ayudase***, 387 *Si **estudiase** aprendería*, 388 *Si **podiera** la mataría*, 355 *Al enfermo hay que **cuidarle***, 370 *En el huerto se **podían** plantar rosales*, 17 **Oído**, 356 *Al niño le pusieron un **vestido***, 360 *Aquella desgracia le costó la **vida***, 406 *Estaba medio **dormida***, 326 **Todo** *se alcanza teniendo paciencia*, 379 *Hoy ha hecho viento **todo** el día*, 310 *La **criada** friega los pucheros*, 252 ***Cada** uno debe pagar sus **deudas***, 314 ***Cada** mes cambia **de** oficio*, 257 *Hicieron una caja **de madera***, 280 *A ninguna le agrada ponerse la ropa **de** otra*, 345 *Bebeos este vaso **de** aguardiente*, 348 *Se me cayó **del** bolsillo*, 405 *Voy a casa **del** maestro*, 116 **Pared**, 146 **Sed**, 239 **Verdad**, 253 *Lo primero es la **salud***.

variables have a strong influence). Secondly, because of the date of the atlas fieldwork: the majority of Spanish surveys were carried out between 1931 and 1936, so we can only analyse the situation of the consonant in the first half of the twentieth century. Nevertheless, this corpus offers the additional advantage of having data for the entire territory of the Iberian Peninsula and Balearic Islands, including Catalan and Portuguese areas.

1.1. State of affairs

The majority of studies that deal with the loss of the dental consonant mention the situation of the phenomenon in the twentieth century, but they do not study it from the point of view adopted in this study. We can find three perspectives regarding the loss of the /d/. The first comprises diachronic studies, which deal with the subject in depth, although they barely tackle the latest outbreak of the phenomenon. They focus on the changes that occurred during the transition from Latin to Spanish (*CADERE* > *caer*) and in verbs between the fourteenth and seventeenth centuries (*amades* > *amáis* / *amávades* > *amabais*).³ The second perspective is adopted in studies that strive to give a general description of Spanish phonetics or phonology, which means that although they mention the loss of the consonant, this is not analysed in depth.⁴ Finally, there are dialectal studies, which analyse the phenomenon in depth, but only in a regional way.⁵

As for the most important factors of change proposed in these studies, the authors fail to agree on which factors these are, on their number, or on their relative importance. Among the elements that have been proposed, the most often mentioned is the vocalic context. This seems to be accepted as an influence in most studies, albeit from different perspectives. Pensado Ruiz (1984: 183) points out that “el influjo favorable o desfavorable de las vocales es claro; sin embargo es frecuente que las vocales del mismo timbre que las consonantes ejerzan un influjo contradictorio sobre ellas, puesto que pueden favorecer su pérdida y también condicionar su reposición”.⁶ Other authors,

³ Some studies which have this perspective are those by Pensado Ruiz (1984) or Ariza Viguera (1992).

⁴ A study with this perspective is that by Navarro Tomás (1968).

⁵ For example, Narbona, Cano & Morillo (1998) or Molina Martos (1998). Molina Martos refers to some peninsular data from the ALPI, but her study focuses on Toledo.

⁶ “There is a clear positive or negative vocalic influence: however, vowels with similar timbre to consonants often exert a contradictory influence on the latter, as they may hasten their loss and condition their replacement”.

like Moreno Fernández (2004) or Molina Martos (1998), think that *-ado* is the most favourable context for the elision of the /d/ compared to *-ada*, *-ido* or *-udo*, which are more resistant to elision. Similarly, Menéndez Pidal (1989) argues that the loss of the /d/ appears above all in the participle ending *-ado*, whereas it is kept in the feminine and in participles ending in *-ido/-ida* (at least in learned speech).

In most studies this factor is not considered enough by itself to cause the change, so other influences are suggested. Menéndez Pidal (1989: 100) proposes that the frequency of *-ado* plus its “secondary” nature within the word make this context more prone to loss. In the same way, there are other authors, like Díaz Castañón (1975), who believe the frequency of occurrence to be an important factor: the more frequent the context or the word, the greater the chance of loss.

This “secondary” nature of the element in which the /d/ occurs is not mentioned by other authors, at least not under this name. Nevertheless, they mention other closely related factors, such as the grammatical category of the word, which would explain, for example, the greater loss in participles than in nouns (Díaz Castañón 1975, Narbona, Cano and Morillo 1998, Molina Martos 1998). Another related factor is the morphemic nature of the element in which the consonant is found, with a greater loss of /d/ in suffixal contexts (as pointed out by Narbona, Cano & Morillo 1998).

Finally, there is another factor mentioned most especially in diachronic studies: the position of stress accent. Pensado Ruiz (1984), as well as other authors such as Ariza Viguera (1992), cites as an example the evolution of the /d/ in second-person plural forms in verbs: paroxytone forms (*-ades*) lost the consonant in the course of the fifteenth century, whereas the proparoxytone forms (*-ávades*) lost it in the seventeenth century.

It must be taken into account when handling these factors that, although some authors agree about some of them, there is no agreement about the importance of each factor, whether individually or in connection with the others.

2. The intervocalic and final /d/ in the ALPI

In this section I present the situation of intervocalic and final /d/ in the Iberian Peninsula based on data I have extracted from the ALPI. I should point out that the

maps reflect not only the loss and preservation of the /d/, but also the different degrees of relaxation of the consonant which are shown in the atlas, since they can be useful to understand the evolution of the /d/. The phonetic realizations of /d/ I have taken into account are the following: [d] — “voiced apicodental plosive consonant” —, [ð] — “voiced dental fricative consonant” — and [ð̞] — “relaxed voiced dental fricative consonant” — (ALPI 1962: 12-13). However, I have not taken into account other realizations that I do not consider relevant to this study, such as [ð̞] (dental) or [ð̞] (apical).

On the other hand, sometimes the /d/ is replaced by other consonants, either by phonetic proximity or by other factors. This kind of change is also reflected in the maps, but in these cases I have not taken into account the different degrees of aperture or relaxation: *g* is equivalent to both [g] and [ɣ].

2.1. Geographical distribution

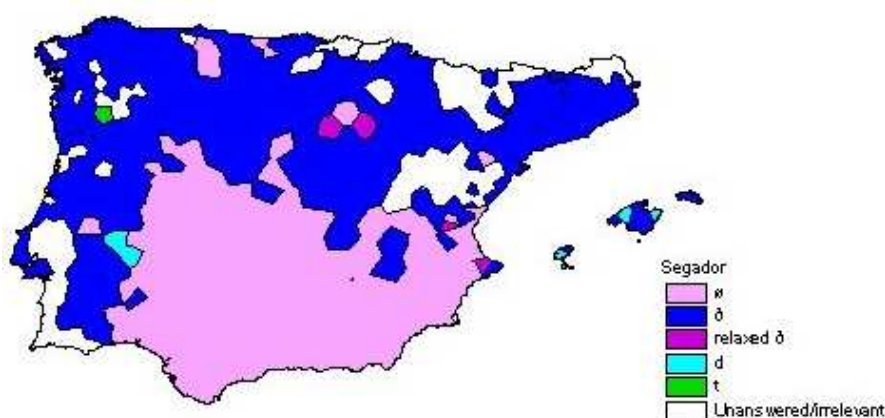
The differences between the most conservative and the most innovative areas can be seen quite clearly in the data. To show which are the most conservative areas, I present below one of the maps depicting the greatest loss, *cuadrado*⁷ (Map 1). As shown, the most conservative areas are Galician-Portuguese, Catalan (including the Balearic Islands) and a region in the centre of the Peninsula whose extension is seen to be variable according to the maps.



Map 1. *Cuadrado*: outcomes of -d-

⁷ Other maps with the same geographical distribution are *Mis cuñados y mis primos* (with some differences in Catalan area), *soldado*, *desbocado*, *nublado* and *El invierno pasado hubo muchas lluvias*.

Although it may seem that the Galician-Portuguese and Catalan areas show similar behaviour, in this case the coincidence is due to the apocope of the final vowel in Catalan (which in turn caused the devoicing of the final /d/). The comparison between Map 1 (*cuadrado*) and Map 2 (*segador*),⁸ where the consonant remained in an intervocalic position both in Portuguese and Catalan, shows that the /d/ is not preserved in all the Catalan area, but is deleted in the south of the region. The reasons for this difference are the following: in the case of *cuadrado* the word has undergone the apocope, which has left the consonant in a final position. In that position, the /d/ is preserved without any exception in all the Catalan area, as in the Portuguese.⁹ However, the Catalan behaviour changes if the /d/ remains in an intervocalic position: if the loss reaches the Catalan area (which depends on the context in which it occurs) the /d/ disappears, as shown in Map 2.



Map 2. *Segador*: outcomes of *-d-*

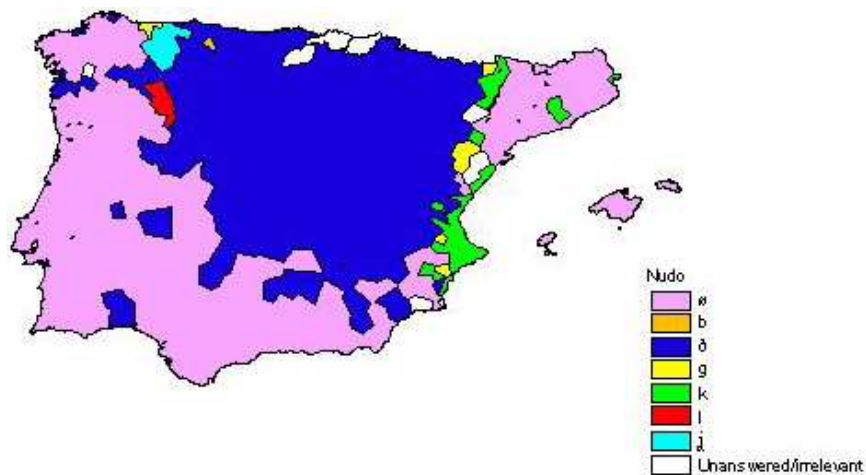
This pattern regarding intervocalic /d/, with its loss in the southern half of Spain (including the Valencian area), is only altered in the *-udo* context. As can be seen in Map 3 (*nudo*),¹⁰ Catalan and Galician-Portuguese areas are the most innovative. Whereas in the above cases (and those we will see below) the elision seems to appear in Andalusia and to spread to other regions from south to north, in this case the map

⁸ Other maps with a similar geographical distribution are *dedo* and *tejedor*.

⁹ In some cases, there are certain differences between Portugal and Galicia which would be interesting to study.

¹⁰ *Sudor* has a similar geographical distribution except because the loss has not spread to Galicia as in *Nudo*.

suggests that the origin of the phenomenon is at the eastern and western edges of the Peninsula.¹¹



Map 3. *Nudo*: outcomes of -d-

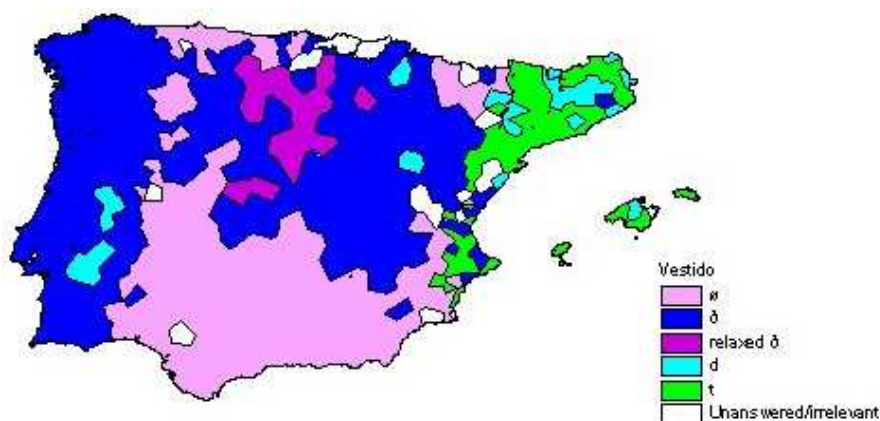
The most innovative areas regarding the elision of the consonant are Andalusia and Asturias, a fact that has already been pointed out by Ariza Viguera (1992: 111) and that can be corroborated in Map 4 (*oído*), where only Andalusia and Asturias show a widespread loss. This behaviour is predictable for Andalusia, since it is the most innovative area on the Peninsula regarding phonetics. However, in order to explain this behaviour in Asturias (and other occidental points) further study would be necessary.



Map 4. *Oído*: outcomes of d

¹¹ The spread of the loss to the south of Spanish speaking area is probably due to the innovative nature of that region regarding phonetics.

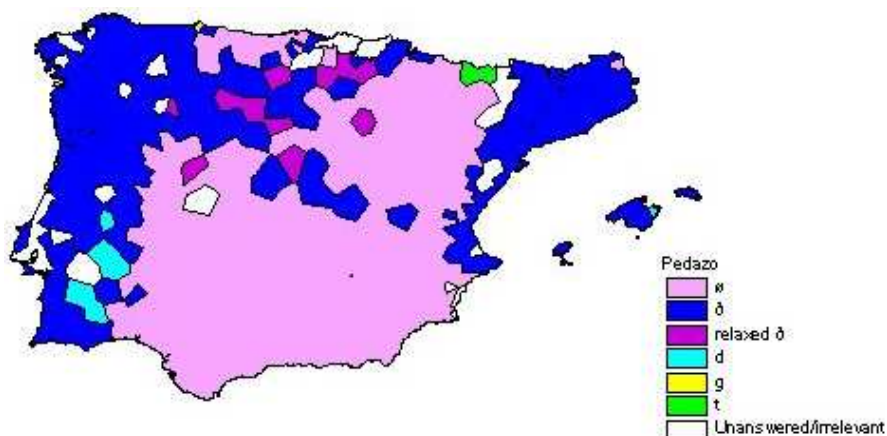
The maps of *segador*, *oído* and *nudo* are another example of the well-known division of the Peninsula in two phonetic areas: the conservative northern half and the innovative southern half. This divide occurs in addition to the division between the eastern and western halves of the Castilian area, in strips stretching from north to south (cf. Fernández-Ordóñez 2012). Map 5 (*vestido*) allows us to visualize this double division: first, there is a clear difference between north and south (the south being much more innovative). This pattern could be due to the area of origin of the phenomenon, which seems to be in Andalusia in most cases. Secondly, there is a division between east and west (the western half being the more innovative).¹²



Map 5. *Vestido*: outcomes of *-d-*

Although this second division usually favours consonant loss in the west, there is a counterexample in the data: in the word *pedazo* (Map 6) the /d/ is lost with more intensity in the northeast than in the northwest. To be able to explain the reasons for this behaviour more data would be necessary, since it is not clear whether this is a particular case or a trend.

¹² The north-south division is seen on almost all maps in which the loss has not covered the entire peninsular territory. As regards the east-south division, other maps have the same loss pattern, e.g. *dedo* or *tejedor*. This is also shown in the map of *Me pidieron que les ayudara* (Map 11) or the first map of *todo* (12, see below).

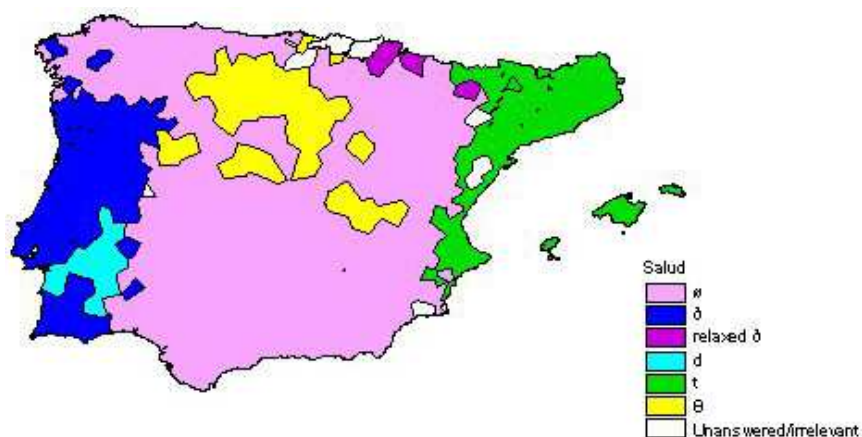


Map 6. *Pedazo*: outcomes of *-d-*

2.2. Variables relevant to the evolution of /d/

From the three basic contexts I have analysed (syntactic intervocalic, word intervocalic, and word final position) the one that shows most loss is word final position. I start by referring to this context. Although there is preservation of the /d/ in a large proportion of points in the central region of the peninsula, in most of these the final /d/ appears as the realization [θ], which reveals a trend towards the elision of the consonant after its neutralization with final [θ] (Map 7, *salud*).¹³ The Portuguese and Catalan areas, as I have already mentioned, keep the /d/ in almost all cases in which this context appears. It could be thought that the dental consonant in word intervocalic position undergoes more loss than in word final position; yet, if we take into account all the maps, the elision is stronger in word final position.

¹³ Other maps with a similar geographical distribution are *pared*, *sed* and *verdad*.



Map 7. *Lo primero es la salud*: outcomes of final -d

It is in the syntactic intervocalic context, however, where the lowest incidence of elision is found. In the majority of these maps the loss barely appears, with the exception of *Voy a casa del maestro*, which I explain below. The questions with word intervocalic /d/ are those with the greatest variation, ranging from the strongest loss to a total preservation of the consonant.

The differences among these contexts can be explained for the most part by the influence of certain linguistic factors that shape the evolution of /d/. Those factors are the following:

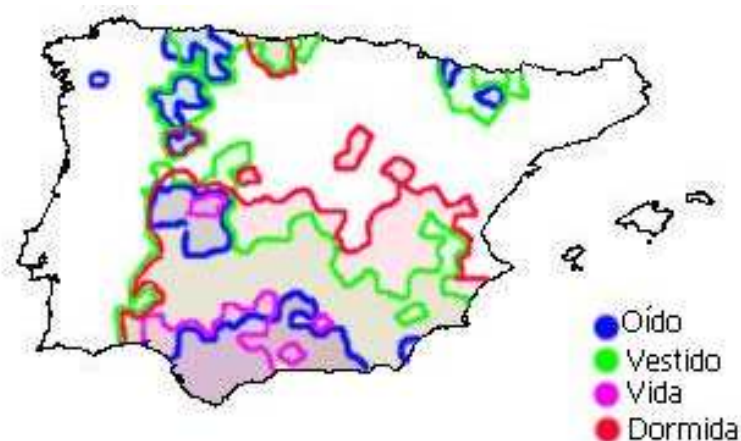
First, it can be deduced from the maps that the vocalic context is highly relevant. This influence is particularly stronger with the glides, which completely prevent the loss (Map 8, *estudiase*).¹⁴ As for the other vocalic contexts, the influence is not so clear, although there are some patterns: obviously, the context *-ado* (Map 1) shows more wide-spread elision — but not in all cases —, which is something that has already been pointed out by other authors like Menéndez Pidal (1989). In my opinion, vocalic context and its frequency of appearance lead the way among factors leading to the loss of /d/ but, once the process has started, there are other factors which play a more important role.

¹⁴ Other maps with a similar geographical distribution are *Si pudiera la mataría*, *Al enfermo hay que cuidarle* and *Cada uno debe pagar sus deudas*.



Map 8. *Si estudiase aprendería*: outcomes of -d-

The second factor is the morphemic nature of the element in which /d/ occurs within the word (Map 9: *vestido*, *oído*, *dormida* and *vida*, where the loss is shown as a coloured area).¹⁵ If this morphemic nature appears, as in *dormida*, the loss is more probable.¹⁶ In my opinion, certain factors traditionally indicated by critics could be grouped under this factor: the grammatical category of the word and the “secondary” nature of the element in which the /d/ occurs. The morphemic nature explains equally, for example, both the stronger loss of /d/ in participles than in nouns and the higher regularity in the elision in verbs than in nouns.



Map 9. *-ido* and *-ida* contexts

¹⁵ When I talk about “morphemic nature” I mean that the /d/ is not in the root, but in affixes, both inflectional (as in participles) and derivational (as in *segador*).

¹⁶ It must be taken into account that in the atlas *oído* and *vestido* are unequivocally nouns, not participles. This can explain the fact that more loss occurs in *dormida* (used as a participle in the ALPI) than in *vestido* although, in general, the feminine variants of these endings are better preserved than the masculine.

The data show that a morphemic boundary is another significant factor, since consonant loss is less probable in this situation. This is obvious in a syntactic intervocalic position (Map 10, *Hicieron una caja de madera*),¹⁷ where the /d/ already has little chance of being lost due to its word-initial position, but it can also be seen in other examples, as in *ayudara* (Map 11). We can also connect to this factor the huge difference observed between *cuadrado* and *segador* (Maps 1 and 2). Whereas the consonant in *cuadrado* is in an inflectional morpheme, in *segador* it is in a derivational suffix where it marks boundary between root and suffix, so that it has less elision than other words. All this suggests that the consonant drops more easily when it is in an affix, provided that it is not in the morpheme boundary.¹⁸ With regard to this matter, I think it would be interesting to study /d/ in word final position at the end of an utterance, since elision may be weaker (cf. Map 7) in order to mark the word boundary.



Map 10. *Hicieron una caja de madera*: outcomes of -d-

¹⁷ Other maps with a similar geographical distribution are *Cada mes cambia de oficio*, *A ninguna le agrada ponerse la ropa de otra*, *Bebeos este vaso de aguardiente* and *Se le cayó del bolsillo*.

¹⁸ Although in my opinion this hypothesis works for both inflectional and derivational affixes, in all the examples of derivational affixes that have been analysed in this paper the /d/ is in the morphemic boundary, so more data would be necessary. The idea is supported by Narbona, Cano and Morillo (1998: 180): “la consonante se pierde con mucha mayor intensidad cuando tales elementos tienen carácter sufijal, bien sea en la forma de las terminaciones verbales de los participios o en sufijos derivativos de otra naturaleza”.

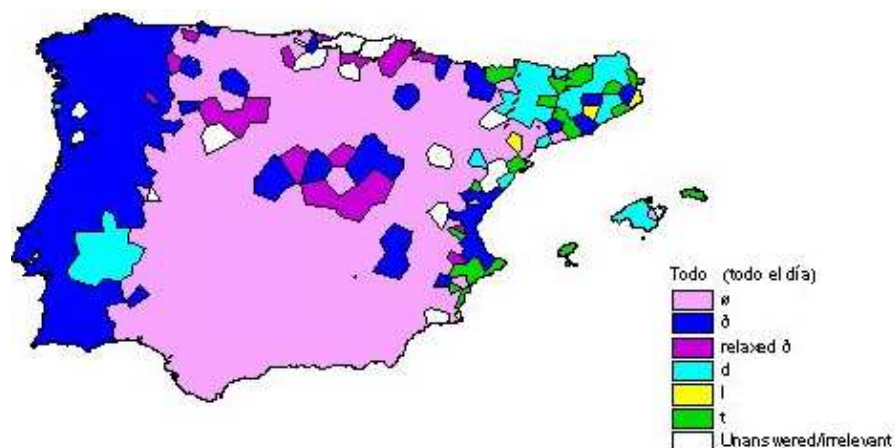


Map 11. *Me pidieron que los ayudase*: outcomes of *-d-*

The syntactic function could well have a similarly significant role, although the data I have are insufficient to confirm this point. However, this possibility is suggested by certain differences between the two contexts for the quantifier *todo* (Maps 12 and 13). In the first case (*todo se alcanza teniendo paciencia*) the word occupies the head position, whereas in the second case (*hoy ha hecho viento todo el día*) *todo* is a quantifier which modifies a noun phrase and, because of that, it can be proclitic. As can be seen in Maps 12 and 13, the second context undergoes greater loss.



Map 12. *Todo se alcanza teniendo paciencia*: outcomes of *-d-*



Map 13. *Hoy ha hecho viento todo el día*: outcomes of *-d-*

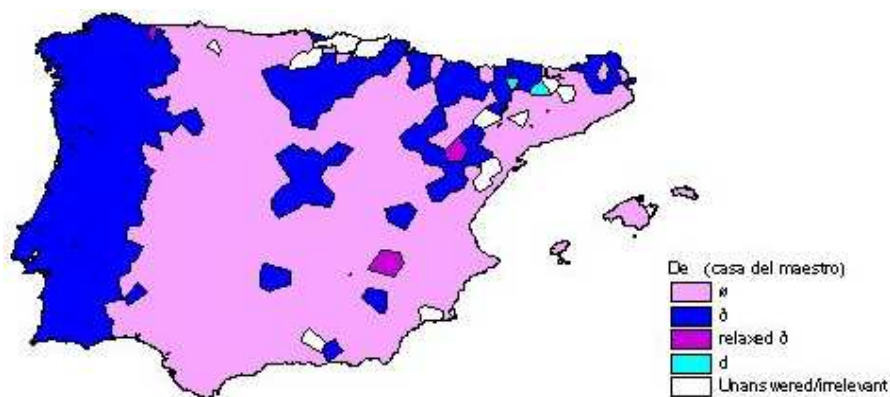
The last factor I shall refer to is stress accent, which is mentioned by some other authors too.¹⁹ Its influence seems to be very significant, although the data sample I have used is not enough to present a reliable hypothesis. Some of the behaviours that suggest this influence are the following: first, all data for word intervocalic position and word final position have the accent on the same syllable as the /d/ or on the preceding syllable. In all these cases, except those with a glide, there is loss (to a greater or lesser extent). Nevertheless, the syntactic intervocalic position cases preserve the consonant throughout almost all the territory. As I have already remarked above, the morphemic boundary could be the reason for this behaviour, but it is possible that the accent has some influence as well, since in the preposition data²⁰ the accent is not on the same or preceding syllable as /d/, but on subsequent syllables because of the proclitic trend found in Spanish.²¹

The only case of syntactic intervocalic /d/ in which a different situation arises is *Voy a casa del maestro* (Map 14), where the loss is widespread. This change may have occurred because the expression *casa de* has become a fixed expression in the language, which is reflected in its usual reduction to *ca'l*, where there is not only a loss of the /d/ but also a phonetic erosion of *casa > ca* and merging of the noun and article vowels. All this means, firstly, a certain loss of morphological boundary, and secondly, that the preposition can lean prosodically on *casa* instead of the following word.

¹⁹ Pensado Ruiz (1984), among others.

²⁰ Cf. Map 10, *Hicieron una caja de madera*. Other maps are *Cada mes cambia de oficio*, *A ninguna le agrada ponerse la ropa de otra*, *Bebeos este vaso de aguardiente* and *Se me cayó del bolsillo*.

²¹ In Spanish, the unstressed words — such as articles, pronouns or auxiliary verbs — tend to lean on the following word instead of in the previous one.



Map 14. *Voy a casa del maestro*

There are further data that could support the influence of the accent in the evolution of /d/, such as the difference between *cuadrado* (/d/ after the accent) and *segador* (/d/ before the accent);²² however, as I have already said, it is necessary to analyse much more data in order to provide a reliable hypothesis. In this regard, it should be noted that Menéndez Pidal (1989) discussed a series of words with *-ado* which do not drop the /d/, such as *hígado* or *sábado*; he explained these words by referring to the “secondary” nature (i.e. morphemic nature) of the element. Nevertheless, the acceptance of this explanation as the only trigger would imply the assumption that the word *soldado* cannot have any elision of the consonant, which does not happen in practice (in the ALPI, *soldado* has the same behaviour as *cuadrado*, cf. Map 1). In my opinion, the lack of loss in *hígado* and *sábado* is another possible example of the influence of stress accent.

As can be deduced from the data analysed, phonetic and phonological elements are by no means the only influence on the evolution of the consonant, as morphology and syntax play a significant role as well. The loss of the /d/ is not just a phonetic change, but needs an interpretation which takes into account the grammar of the language. The geographic distribution of the loss, differentiated by various vocalic, accentual and grammatical contexts, allows us to affirm that, as a general rule, the phenomenon has spread from south to north through the centre of the peninsula.

²² It could be thought that the behaviour of *pedazo* is due to this factor, but there are other words, like *ayudara* (Map 11) or *madera*, with the /d/ before the accent, that apparently do not have the same distribution.

References

- ALPI (1962) *Atlas Lingüístico de la Península Ibérica, vol. I. Fonética*, Madrid: CSIC
- ARIZA VIGUERA, M. (1992) *Manual de fonología histórica del español*, Madrid: Síntesis.
- DÍAZ CASTAÑÓN, C. (1975) “Sobre la terminación ‘-ado’ en el español de hoy”, *Revista Española de Lingüística*, 5, fasc. 1, 111-120.
- FERNÁNDEZ-ORDÓÑEZ, I. (2012) “El norte peninsular y su papel en la historia de la lengua española”, in S. GÓMEZ Seibane / C. SINER (eds.), *Estudios sobre tiempo y espacio en el español norteño*, San Millán de la Cogolla: Cilengua, 23-68.
- GARCÍA MOUTON, P. (2009) “El *Atlas Lingüístico de la Península Ibérica* como fuente de documentación”, in E. MONTERO CARTELLE (ed.), *Actas del VIII Congreso Internacional de Historia de la Lengua Española*, Madrid: Arco Libros, 273-276.
- GARCÍA MOUTON, P. (2010) “El procesamiento informático de los materiales del *Atlas Lingüístico de la Península Ibérica* de Tomás Navarro Tomás”, in G. AURREKOETXEA / J. L. ORMAETXEA (eds.), *Tools for Linguistic Variation*, Bilbao: Supplements of the Anuario de Filología Vasca “Julio de Urquijo”, LIII, 167-174.
- HEAP, D. (2008) “The Linguistic Atlas of the Iberian Peninsula (ALPI): A geolinguistic treasure lost and found”, *Toronto Working Papers in Linguistics* 27, 87-96 (<http://twpl.library.utoronto.ca/index.php/twpl/article/view/6165/3154>, accessed: 3-sept-2012).
- MENÉNDEZ PIDAL, R. (1989) *Manual de gramática histórica española*, Madrid: Espasa Calpe.
- MOLINA MARTOS, I. (1998) *La fonética de Toledo. Contexto geográfico y social*, Alcalá de Henares: Universidad de Alcalá.
- MORENO FERNÁNDEZ, F. (2004) “Cambios vivos en el plano fónico del español: variación dialectal y sociolingüística”, in R. CANO (coord.), *Historia de la lengua española*, Barcelona: Ariel, 973-1010.
- NARBONA, A., R. CANO & R. MORILLO (1998) *El español hablado en Andalucía*, Barcelona: Ariel.
- NAVARRO TOMÁS, T. (1968) *Manual de pronunciación española*, Madrid: CSIC.
- PENSADO RUIZ, C. (1984) *Cronología relativa del castellano*, Salamanca: Ediciones Universidad de Salamanca.