On Phonological Exceptions, Sound Change, and Learned Words

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Phonologists have had difficulties narrowing down the rules governing the deletion of Catalan /-n/ in word final position. Usually, long lists of exceptions are appended to the general rule of deletion in historical and synchronic grammars. Here we intend to demonstrate that most of the alleged exceptions can be accounted for historically and that true exceptions are due to the learned nature of the words. The following data, in phonemic transcription, should illustrate the problem.

DELETION OF /-n/

1. \(n \rightarrow \emptyset / \emptyset\) #
   a) plural derivatives
      \begin{align*}
      \text{pá} & \quad \text{(bread)} & \text{páns} & \quad \text{panéra} & \quad \text{(bread bin)} \\
      \text{tő} & \quad \text{(tone)} & \text{tóns} & \quad \text{tonalitát} & \quad \text{(tonality)} \\
      \text{kamí} & \quad \text{(road)} & \text{kamíns} & \quad \text{kaminál} & \quad \text{(path)}
      \end{align*}
   b) masc sg fem sg masc pl fem pl
      \begin{align*}
      \text{plá} & \quad \text{(flat)} & \text{plána} & \quad \text{pláns} & \quad \text{plánes} \\
      \text{sá} & \quad \text{(healthy)} & \text{sána} & \quad \text{sáns} & \quad \text{sánes} \\
      \text{oportú} & \quad \text{(opportunity)} & \text{oportúna} & \quad \text{oportúns} & \quad \text{oportúnes}
      \end{align*}
   c) té tén ténen tení~tín dre
      \begin{align*}
      \text{(he has)} & \quad \text{(you have)} & \quad \text{(they have)} & \quad \text{(to have)} \\
      \text{vé vén vénen vení~vín dre}
      \text{(he comes)} & \quad \text{(you come)} & \quad \text{(they come)} & \quad \text{(to come)}
      \end{align*}
   d) redó redóns redonét (roundish)
      \begin{align*}
      \text{segó} & \quad \text{(branch)} & \text{segóns} & \quad \text{segonét} & \quad \text{(fine branch)} \\
      \text{blá} & \quad \text{(soft)} & \text{bláns} & \quad \text{blanét} & \quad \text{(softish)}
      \end{align*}

2. \(n \rightarrow \emptyset / \emptyset\) #
   a) sme (man) smens omenét (little man)
      \begin{align*}
      \text{jóve} & \quad \text{(young)} & \text{jóvens} & \quad \text{joventút} & \quad \text{(youth)} \\
      \text{zrge} & \quad \text{(organ)} & \text{zrgens} & \quad \text{organísta} & \quad \text{(organist)}
      \end{align*}

All the /-n/ deleting items in 1 are oxytones whose underlying /-n/ surfaces when the word is modified by a morpheme designating feminine gender, plural, or a suffixal derivation. For the paroxytones in 2 (from Latin proparoxytones), we obtain the same result in Western Catalan.
NON-DELETION OF /-n/

3. plural derivatives
   kárn (meat) kárns karnisér (butcher)
   ivérn (winter) ivérns ivernénk (wintry)
   fórn (oven) fórnas fornét (little oven)

4. sán (saint) sáns santedát (sanctity)
   jén (people) jéns ýjenteríla (rabble)
   món (mountain) móns montíkle (hill)

5. món (world) móns mundiál (world-wide)
   segón (second) segóns sekundári (secondary)
   pregón (deep) pregóns pregonéza (deepness)

6. sén (he feels) sénén (they feel) sentír (to feel)

7. ofén (he offends) ofénen oféndre (to offend)
   vén (they offend) vénen vénárdre (to offend)
   (he sells) respónen respóndre (to sell)
   (he responds) (to respond)

8. pín (she lays eggs) pónen póndre (to lay eggs)
   román (they lay eggs) románen romándre (to lay eggs)
   (he remains) (to remain)

9. jóán (John) jóáns jóánst (big John)
   nén (child) nén (to remain)
   són (sleep) sóns sonétá (little sleep)

10. un#úmero# (one number) número#i# (number one)
    bón#sme# (good man) bór#smé# (good man)

11. plural
    áton (unstressed) átons
    ozón (ozone) ozóns
    klán (clan) kláns
    jérmen (germ) jérmens
    órgan (organ) -biology- organs

Items in 3 (Cn#) do not meet the structural description of the rule: n → Ø / V, while those words in 4, 5, 6, 7, and 8 suggest an underlying dental stop that is recoverable in some derivatives, yielding thus the environment VnC#.

The synchronic description of the final /-n/ deletion phenomenon has leaned heavily on the concept of
idiosyncratic exceptions. With only three items as explicit data ("tener", "venir", and [fon]), Brasington (1972) concluded that the deletion of the /-n/ of the 3sg forms of "tener" and "venir" should be marked as idiosyncratic, considering that most verbs present the /-n/ retention feature:

\[ n \rightarrow \emptyset / \text{[-verb]} \] (Brasington 1972:116)

A similar treatment is found in Mascaró (1978) who contends that items like /segón/ and /sín/ "are simply exceptions to N-deletion that cannot be characterized but idiosyncratically" (1978:61). Mascaró proposes the following rule which, due to its broadness, would require a cumbersome number of diacritics to account for the alleged exceptions:

\[
[+\text{nas}] \quad \rightarrow \quad \emptyset / \quad [+\text{syll}] \quad [+\text{str}] \quad \text{##}
\]

Wheeler (1979) recognizes an underlying stop in some final /-n/ retaining words and points out liaisons in popular Barcelona speech that bring up the stop. Thus [bâzin] (let them go) recovers a -t- when the adverbial pronoun hi is added: [bâzinti] (let them go there). Wheeler, however, being hindered by his synchronic framework, cannot account for historical exceptions like /móñ/ (world) and leaves the rule essentially with the same constraints as his predecessors. He includes a condition for those Eastern Catalan dialects with /-n/ deletion in paroxytonic plurals, e.g.; /simes/ (men).

\[
[+\text{nasal}] \quad [+]\text{coronal} \quad \rightarrow \quad \emptyset / \quad [+\text{syllb}] \quad \left[<\text{-stress}>_b\right] \quad \langle+C\rangle_a \quad \text{##}
\]

condition: if a, then b.

(Wheeler 1979:274)

Wheeler also realizes that some exceptions such as origen, organ and examen must be marked as [+learned] with respect to the main rule.

One would expect that historical phonologists could have pinpointed more precisely the nature of /-n/ deletion and retention. After all, the wealth of information on Latin, the parent language, and parallel phenomena in other Romance languages should have helped Catalan linguists to clarify this problem. Unfortunately, the uncritical reliance on analogy, the all-purpose crutch of language historians, has perpetuated a
series of patchy descriptions strewn with far-fetched idiosyncrasies. This fallacy originated in Fouché's study of /-n/ exceptions (1960:124 -reprint from the 1924 edition-). Fouché contended that the /-n/ retention in 3sg verb forms like /vén/ (he sells) and /respón/ (he responds) must be due to analogy with 2sg /-ns/ forms, e.g.; /véns/ (you sell), /respons/ (you respond). This proposal, however, fails to account for the lack of /-n/ in /té/ and /vé/ (he has, he comes), whose 2sg also contain /-ns/ forms: /téns/, /véns/. Griera (1931:63) went along with Fouché's tenet, and, what is more, so did Badía Margarit (1951:225) who acknowledged Fouché when he discussed the reasons for final /-n/ retention: "c) la -N final se mantiene también en algunas formas verbales de 3.ª persona del singular, por analogía con otras formas: PONIT > pon pón ; DONET > ant. y dial. don dón ; REMANET roman fumán ; parece que el inductor de estas analogías ha sido la 2.ª persona, que lleva -n: TENES tens téns , VENIS véns béns ". Since then, most studies on Catalan final /-n/ (with the exception of generative synchronic works) have appealed to either analogy (e.g.; Rasico 1982:219 and Blasco Ferrer 1984:51-52), or have claimed that /-n/ retention verbs do not conform to the general rule (Roca-Pons 1973:186 and Duarte i Montserrat and Alsina i Keith 1984:206). The arbitrariness of the analogical explanation for exceptions is most evident when we compare two conflicting studies that rely on analogical levelling. One of them attributes the /-n/ deletion in plural paroxytones like /5mes/ (men) and /térmes/ (boundaries) to analogy with the singular: /5me/, /térme/ (Rasico 1982:231). Conversely, Duarte i Montserrat and Alsina i Keith (1984:207) postulate that words like /glá/ (acorn) have undergone final /-n/ deletion "gràcies al seu ús freqüent en plural, glanes". Therefore, analogy is taken to act in either direction according to the linguist's fancy. Furthermore, if analogy was responsible for the elimination of /-n/ in Eastern Catalan plural paroxytones, as Rasico suggests, why did it not apply as well to plural oxytones? Also, why does /rédò/< ROTÚNDU elide its final /-n/ whereas /segòn/< SEGÚNDU (with a similar historical environment for -n) does not? Duarte i Montserrat and Alsina i Keith's postulation that /segòn/ has not undergone /-n/ deletion because it is mainly restricted to the masculine singular in regular speech (p.207) is not even accurate on data, for both /segónə/ (fem.) and /segónəs/ (masc. pl.) are common in popular speech.

We suggested above that the environment for exceptions should be either Cn# for items in 3 or nC# for
those words in 4, 5, 6, 7 and 8. Group 3 contains the blocking consonant in the actual phonetic representation of the sg. nouns. In 4 and 6 the recovery of the underlying consonant is effected through derivatives. Groups 5, 7 and 8 pose some difficulties, however. Thus in 5 /pregón/ does not yield any blocking /d/ in derivatives, while in 7 and 8 the only /d/ is found in infinitives. Group 10 displays /-n/ retention of words in proclitic position, but items in 9 and 11 do not show any trace of consonantal blocking. Furthermore, items like /món/< MÜNDO and /segón/< SECUNDU contrast with /redó/< ROTÚNDU and /segó/< SECÚNDU, all having an etymological -ND- cluster but yielding different results. On the other hand, verb forms like /pón/< PONIT and /román/< REMANET do not originate from Latin -ND- forms but retain the /-n/. Contrary to the ad hoc analogical explanations aforementioned, we posit a single rule of deletion that affected all items conforming to the intermediate historical pattern /-Vn#/. To arrive at that stage, we propose first one rule of reduction: nd> nn> n, e.g.; SECUNDU>segónno>segón>segó/ (bran); and then one of epenthesis for the infinitive of verbs of group 8, e.g.; PONERE>póndre/>/>póndre/ which spread to the 3sg and prevented the deletion of /-n/ in /pón/ and /román/. The dental stop in verbs from group 7 are etymological, e.g.; /vén/< VENDIT. Thus groups of words which, due to their historical makeup, would have been expected to shield the fall of /-n/ with a stop did not and viceversa. Only by positing these intermediate stages can we arrive to a satisfactory explanation of the exceptions, i.e.; when the /-n/ deletion rule took place, the changes of reduction and epenthesis must have been present necessarily, i.e.; ROTÚNDU had yielded [redón] and PONIT [pónd]. Also, in order to account for the /-n/ retention in words from group 9 we must postulate a late duration of the -nn- cluster in /Joán/< JOHANNES and in /nénu/< NINNU. The original blocking element of /són/< sóno/< sóno/< SOMNU is recoverable in the forms of the verb /somiér/ (to dream). Nevertheless, there are three historical exceptions: /món/ (world), /segón/ (second) and /pregón/ (deep). These are learned words which never participated in the general reduction (cf. /segó/ (bran) also from SECUNDU, which underwent the change). To support the differentiation between learned and common words in Catalan, we may point at parallel occurrences in two neighboring languages. In Spanish /mundo/, /segundo/ and /profundo/ a /ú/ retention (instead of an /ò/) betrays these words as learned (cf. /mónd/
MÜNĐU (clean, bare) and /óndõ/ < FÜNĐU (deep)). French /s¿/ (second) contrasts with /s¿/ (bran) < SECÜNĐU, while /m¿/ < MÜNĐU contrasts with /r¿/ < ROTÜNĐU in its retention of /-d/. The proposal advanced here, therefore, calls for a general rule of -n deletion of the type: (C)V¿# < (C)Vn#, e.g.; /b¿/ "good" (masculine), but /b¿na/ "good" (feminine). Exceptions to this rule, on the other hand, follow the conditioning environment: (C)Vn# < (C)Vn¿, e.g.; /ón/ (where) but /önt#s/ (where is it?). A minor rule will assign to the lexicon a group of specialized words like /ɔrgan/, /ozón/, etc. as [+learned]³. Likewise, proclitics will be marked as non-deleting, e.g.; /õn#õme#/, but /õme#õs#. The following rule formalizes what has been said:

\[
\begin{array}{c}
\text{[+nas]} \rightarrow \emptyset / [\text{+syll}] \quad \# \quad [\text{-proclitic}] \\
\text{[+cor]}
\end{array}
\]

It must be emphasized that this rule does not represent a contemporary stage of the language. This rule stands for the reconstructed period of Catalan when the deletion of /-n/ took place. Consequently, we assume that all the items that fitted the structural description Vn# underwent /-n/ deletion.

We have attempted to delineate a principled account of Catalan /-n/ deletion. In the process, two main theoretical points have surfaced: 1. Historical exceptions reflect an archaic phonetic residue caused by external factors of a conservative tendency; for example, ecclesiastical usage of some Romance words, toponym and antroponym resistance to change, etc.

2. Unwarranted analogical levelling has been used too often in historical linguistics to describe regular sound changes which can be explained otherwise by phonological rules. Specific sound changes are best studied as overall phenomena. There is no a priori reason for which verb forms should be marked as being phonologically idiosyncratic with respect to the rest of the lexicon. This is not to say that paradigms are not susceptible to phonetic analogy. They are, as the paradigmatic spread of /-d/ from the infinitives /p¿ndre/ and /romándre/ indicates. Nevertheless, in the case of Catalan /-n/ deletion, sound change must have applied regardless of the grammatical nature of the lexical item.⁴

NOTES

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1. This transcription is based on the Valencian dialect spoken in the mountain areas of Alicante. Nevertheless, most of the data and the phonological phenomena here discussed are common to all Catalan dialects, with the only exception of the dialect of Ribagorza on the northwest limits of the Catalan speaking area which, according to Badía (1951:225), does not undergo final /-n/ deletion. For counter-evidence see Martí i Castell (1985:265-6): camí—camíns (road-roads). These words are written in the standard orthography from a phonetic transcription of the Ribagorzan dialect of La Litera.

2. In Eastern Catalan, however, final /-n/ is deleted in all the paroxytonic plurals, although it reappears in derivatives, e.g.; /ʒóbe/, /ʒóbes/ (young sg&pl), but /ʒobensá/ (youngster), /ʒobeneža/ (youth). In some Valencian dialects, the underlying /-n/ is productive even with nouns which have no final /-n/ etymologically, e.g.; /kafé/, /kaféns/, /kafenėt/ (coffee, coffees, little coffee). Conversely, in the Catalan dialect of Roussillon there is a complete elision of /-n/ in both the singular and the plural, regardless of the position of the stress, e.g.; /má/, /más/ (hand, hands); /ʒme/, /ʒmes/ (man, men) (Pouché 1980:167). A transitional dialect, in this respect, seems to be the one spoken in the countryside of the province of Tarragona. Not only is there /-n/ retention in paroxytones, e.g.; /ʒmens/, /ʒbens/, in "very high percentages" (Recasens Vives 1985:152), but there also exists non-etymological /-n/ insertion in the plural (as in Valencian), e.g.; /sofá/, /sofáns/ (sofa, sofas), as recorded by Recasens Vives in 33% of the cases in his fieldwork data (ibid.). In this regard, it is worthy to mention the phonetic realization of etymological /-nt/ among speakers of some Valencian dialects, particularly in the lowlands, e.g.; /parlánt/ (talking) /realmént/ (actually). (Cf. standard /parlán/, /realmén/).

3. The /u/ < Ū retention sets off these derivatives as learned. The regular development from Latin Ū would have yielded /o/ in Catalan.

4. Among other aspects, Eastern Catalan contrasts with Valencian in the lax pronunciation of unstressed vowels, cf. [kázə] (house), [ʒmens] (men) (Valencian); [kázə], [ʒmes] (Eastern Catalan). A lax articulation of unstressed syllables must be responsible for the loss of /-n/ in plural paroxytones. The fact that many speakers produce non-etymological -n's in oxytones but never in paroxytones (e.g.; /kafé-kaféns/ but /ạire- ạires/ supports our observation on the influence that stress and tenseness exert on /-n/.
5. There exists however the relic form Pregonda<PROFUNDÁ>, a toponym on the island of Minorca.

6. The -d- in the infinitive suggests an underlying -d in other forms of the verbal paradigm. Notice that dialects with /tíndre/ (to have) for the infinitive (e.g.; Valencian), use the imperative singular form /tíṅ/ < CVnC, whereas those Eastern Catalan dialects with /tenír/ as their infinitive exhibit an /-n/-less imperative singular form: /téṅ/ < CVnV. None the less, all Catalan dialects, regardless of their infinitive base (/tenír/~ /tíndre/), have a /téṅ/ form for the 3sg but a /tíṅk/ form for the lsg of the present indicative. This vowel alternation suggests a combination of forms from both paradigms of the two infinitives. See Nonell y Mas (1895:219-224) for a philological review of this phenomenon.

7. By proclitic here, we understand not only adjectives, pronouns and adverbs, but also nouns that, as compounds, are customarily employed along with their modifiers, e.g.; /panfígoľ/ (figbread), /vrjen#maría#/ (Virgin Mary).

8. In /prófʒ/ < PROFUNDÚ, the retention of intervocalic -f- is irregular with respect to many other French words where it has been deleted. Therefore, here we may also claim the distinctiveness of this word as learned.

9. Cf. /ʒrge/ (a musical instrument) and /ʒrgan/ (biology) from the common etymon ORGANÚ, and the minimal pair /segón/ (second) and /segó/ (bran) from SECÚNDÚ.

10. I wish to acknowledge the comments and criticism from some of my colleagues of the Berkeley Romance Philology Group. I am especially indebted to Al Muth. My appreciation also to Maite Bernabeu from Alcoy who helped me with the data. Any errors of content and form are solely my responsibility.

REFERENCES