

The Spanish Learner's Dictionary *DAELE* on the Panorama of the Spanish E-lexicography

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Abstract

This paper presents a prototype of an Internet-based Spanish dictionary for foreign learners, the *Diccionario de aprendizaje del español como lengua extranjera (DAELE)*, <http://www.DAELE.eu>, focusing on the possibilities that the new electronic format offers, as well as the details of the editing of the dictionary and the properties of the user interface. *DAELE* is, first of all, a dictionary, and the adjective *electronic* comes after paying attention to all the classic lexicographical tasks: in a context—that of Spanish lexicography—where paper format and traditional approaches are most frequently found, *DAELE* has been created from scratch. Firstly, we start off by offering a short retrospective of Spanish and European e-lexicography; secondly, we explain the characteristics of the dictionary as a learners' tool, developed under the influence of Sinclair's conception of lexicography (put in practice in *COBUILD*, Sinclair and Hanks, 1987). Thirdly and finally, we adhere to De Schryver's account of lexicographers' dreams (2003), and we contribute with our suggestions to the future—a future that still seems far away and some dreams that seem to be already ageing.

Keywords: corpus-driven lexicography; monolingual lexicography; online dictionary projects; Spanish learners' dictionaries

1. Introduction

This paper¹ describes the main features of the *Diccionario de aprendizaje de español como lengua extranjera (DAELE)*, a prototype of a learners' web-based dictionary created from scratch in terms of both contents and format. On the following pages, we will try to show that these two aspects (content and format) are strongly interconnected, as the format the Internet provides seems to be the most suitable medium for one of the most salient characteristics of the dictionary: focusing at the same time both on production and reception. Thus, this web interface allows for an exhaustive exploitation of crucial information, such as grammar, extensive exemplification and other complementary aspects (see section 3). It seems, in the case of lexicography, that technological innovations pave the way for the materialization of consolidated ideas about how a good learners' dictionary should be. *DAELE* is currently in progress and it is too soon to properly call it a dictionary, but it is at least a dictionary project or prototype, with only a group of about 350 verbs published on the Internet. In spite of its short and modest story, the fact that from its inception it was never meant to be available in printed version makes it, even in the present days, a very uncommon and innovative project both in the Spanish and European context.

Our objective on the following pages will be to describe this prototype and examine it within the European

context, and, specifically, in the context of Spanish e-lexicography. The paper has been divided into the following sections: firstly, we begin offering a short retrospective of Spanish and European e-lexicography; secondly, we explain the main features of *DAELE* in general, as a Spanish learners' dictionary and describe the web interface, with slight comparisons with other current Spanish web dictionaries; and finally we explain our future plans related to improvements in the interface and the compilation process.

2. A Short Retrospective of Spanish and European E-lexicography

With the popularisation of the Internet, a wide number of lexicographic studies paid attention to this new revolutionary format, whose invention has been considered one of the most important technical changes in history related to the transmission of knowledge (Harnad, 1991). Very early, lexicographical theory wondered about how an online dictionary could be and what advantages the new medium had. As this does not seem to be the place to make a wide state-of-the-art consideration, we consider as referential—among other works—the studies of Atkins (1996), De Schryver (2003), De Schryver and Joffe (2004), Verlinde, Leroyer and Binon (2010) and Rundell and Kilgariff (2011). In Dzemianko (2010) and Chen (2010), comparisons are made between paper and electronic dictionaries, with quite optimistic results praising the latter.

Apart from numerous metalexicographical studies, practical lexicography is gradually incorporating and adapting new resources to the Internet realm. Cerquiglini (in Pruvost, 2000:118, cited in De Schryver, 2003:143-144) describes this progressive integration of dictionaries to the electronic age in three stages: first

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stage, lexicographers helped themselves with computers; second stage, they put the paper versions onto CD-ROMs, the web or other media which are currently obsolete (such as diskettes); third stage, the next step has to do with creating electronic dictionaries from scratch, as brand-new, independent products. These three stages are conceived by Cerquiglini as consecutive, but in fact, nowadays, they are superimposed. To focus on the Spanish tradition, most current dictionaries are distributed also in digital version, a few of them (and the most renowned ones belong in this group) available in both paper and digital—CD-ROM / Internet—versions, and no Spanish dictionary (as far as we are concerned) has been created directly for the Internet. Thus, when we talk about “online” or “web” dictionaries, one first important distinction must be made (according to the three stages listed above) between those in paper versions slightly modified to fit the digital format and those genuinely thought of as electronic products. From this perspective, *DAELE* is closer to European learners’ dictionaries such as DAFLES (Selva, Verlinde and Binon, 2002; <http://ilt.kuleuven.be/blf>) or ELDIT (Abel and Weber, 2000; <http://dev.eurac.edu:8081/MakeEldit1/Eldit.html>) than web versions – for Spanish as well as for other languages – which start from previous materials published in paper. In our opinion, it is not pertinent to pay much attention to a comparison between *DAELE* and other online Spanish dictionaries because the conception is too different. We will offer, however, some short remarks on some of these dictionaries in the next section.

2.1 New Tools, Traditional Approaches

As already mentioned, dictionaries do not yet seem to have accomplished a fully adaptation to the Internet age. Probably due to commercial reasons, the majority of the online lexicographic products are of inferior quality than their CD-ROM counterparts (when there is a CD-ROM version). If we focus on Spanish monolingual dictionaries for the general public, in our opinion, the following ones must be considered: *Diccionario de la lengua española (DRAE)*, *Clave: diccionario de la lengua española (Clave)*, *Diccionario Salamanca de la lengua española (Salamanca)* and the aggregators *Diccionarios.com* (which offers the *Diccionario de uso del español de América y España, DUEAE*) and *Wordreference*. All of them are (or contain) versions of the traditional paper-format dictionaries, and very few changes have been made. They can be summarised as follows:

- A basic use of hyperlinks.
- Some search facilities.
- Direct links to verb conjugation.
- Meanings offered in separated paragraphs.
- Use of colour.
- Exploitation of web 2.0 resources.

Despite the easiness to implement some of these features, not all the dictionaries mentioned before offer them to

users. Hyperlinks or search facilities are, in our opinion, underexploited resources. Some webs do not include hyperlinks at all in the microstructure. In other cases, there are hyperlinks only to synonyms, when, ideally, all words should be linked to their head entry (as *Wordreference* and *Diccionarios.com* do). In relation to search facilities, in many cases they do not exist or are insufficient (with the exception of *Wordreference*). In most of these web sites, the use of forums or other web 2.0 resources is not implemented either, with the exception of — again — *Wordreference* and *Diccionarios.com*. In sum, in spite of the space and other resources that can be used on the web, all of them are exact copies of paper versions, and, thus, they very often lack examples and other complementary information such as lexical combinatory or morphological relations. Hyperlinking is an underexploited resource, as for linking pages of the same web as for linking the web to other webs. As a consequence of all these aspects, this group of widely used dictionaries are not as good as they could be, their quality being inferior to that of the CD-ROM versions. In addition to that, they do not make the most of a medium with a great potential.

2.2 Experimental Online Lexical Databases in Spanish

In a different context, there are other projects (in progress and not oriented to a general public) which represent new ways of offering lexicographic—or, more generally, lexical—resources on the web for the Spanish language. Two databases are being developed for verbal analysis: *SenSem* (Fernández-Montraveta, Vázquez and Castellón, 2006, <http://grial.uab.es/synset/synset2.php>) and *Adesse* (García-Miguel and Albertuz, 2005, García-Miguel, González Domínguez and Vaamonde, 2010; <http://adesse.uvigo.es/ADESSE/Inicio>). Both are devoted to syntactic and semantic description of Spanish verbs. *SenSem* lexical database analyses 250 Spanish verbs and offers lexicographical definitions, semantic roles of verb arguments, argument structure as well as other types of information. For each verb, *SenSem* contains a rather low number of example sentences per verb (100 approximately), but still the database is very complete if the most frequent Spanish verbs are considered. Every verb is linked to its definition and sentences are semantically and syntactically annotated. The *Adesse* database also offers a semantic-syntactic approach, adding analysis of lexical combinatory of verbs and other differences.

We should not finish this section without mentioning some other well-known lexical resources (which will not be described here): *WordNet* (Fellbaum 1998) and *FrameNet* (Fillmore, Wooters and Baker, 2001, Fillmore, Johnson and Petruck, 2003), each of which having a corresponding Spanish version, *Spanish WordNet*, currently in its 3.0 version (Fernández-Montraveta, Vázquez and Fellbaum, 2008, <http://grial.uab.es/synset/synset2.php>), and *Spanish*

FrameNet (Subirats and Petruck, 2003; <http://gemini.uab.es/SFN>). These projects, although not strictly “lexicographical”, represent the exploitation of electronic lexical resources for the Spanish language probably in a more satisfying way than those web dictionaries shown in section 2.1. One of the differences—described below—with *DAELE*’s approach is that these projects are addressed to a specialised public, whereas *DAELE* targets the general public, particularly foreign-language learners, thus a discussion on pedagogical aspects is necessary regarding the conception of the tool.

3. *DAELE*, an Online Spanish Learners’ Dictionary Project

As it has already been pointed out in the introduction, *DAELE* seeks to be a completely new dictionary and intends to take advantage of as many web utilities as possible, but an important clarification must be made: the *DAELE* project has started from scratch in electronic format without disregarding any of the classic

lexicographic tasks. The work, thus, has a double face: on the one hand, an innovative (considering today’s Spanish dictionaries in any format) dictionary is offered, and, on the other hand, the strictly new contents mentioned above are designed and offered directly for the Internet version. Other online dictionaries have shown many good ideas, yet they just reflect the contents that were created for another medium.

3.1 General Features

In previous papers (Battaner and Renau, 2008; Renau and Battaner, 2010, DeCesaris and Bernal, 2006, Mahecha and DeCesaris, forthcoming, among others), several features of the dictionary strictly related to the lexicographic conception have already been explained. Basically, we adopt the approaches of both Sinclair (1991; 2004) and Hanks (2004, forthcoming), who claim that meanings are associated with the context in which a word appears.

The screenshot shows the DAELÉ online dictionary interface. At the top, there is a search bar with the word 'rebelar' entered. Below the search bar, there are links for 'Presentación', 'Créditos', 'Aviso legal', and 'Ayuda'. The main content area displays the entry for 'rebelar/se' (verbo). It includes a 'Conjugar' button and a section for '1 ENFRENTARSE'. Under this section, there are two sub-entries: 'a' and 'b'. Entry 'a' describes 'rebelarse (contra) pronominal' and includes several example sentences. Entry 'b' describes 'rebelarse (contra/ante/frente a) pronominal' and also includes example sentences. Below these, there is a section for '2 HACER SENTIR/SENTIR RECHAZO' with two sub-entries: 'transitivo' and 'rebelarse (contra/ante/frente a) pronominal'. The entry concludes with a 'combi (sust.)' section and a 'FAMILIA' section. At the bottom, there is an 'OBSERVACIÓN' section.

Figure 1. The entry *rebelar/se* in DAELÉ.

Consequently, in order to know what a word means, it is necessary to analyse its context, in terms of syntax but also with regard to combinatory and semantic types of

arguments. Sinclairian theories were put into practice in the *COBUILD* project (Sinclair and Hanks, 1987), and this is the type of dictionary we took as reference to

create *DAELE*. In addition to that, Hanks' Corpus Pattern Analysis (CPA) is the procedure that we use for the analysis of the data (Renau and Alonso, forthcoming, show how this analysis process is made).

DAELE's microstructure of verb entries is organised following semantic criteria: the entry is divided into big general sense groups (meanings), generally subdivided into specific meanings related to patterns of usage. Each of these meanings is labelled with a hypernym or another general word or phrase which helps the user to easily find the definition they are looking up (Battaner, 2010). Every meaning has at least one "sub-meaning", which in fact corresponds to what we usually know as "meaning": the definition with some syntactic characteristics (such as the grammatical structure or syntactic aspects), exemplified by one or more slightly modified corpus sentences and other common informations. Apart from the numerous grammatical aspects included within each entry, word family (basically the morphologically-related words) and also lists of collocates (words that often combine with the verb, usually nouns in direct object position) are considered innovative lexicographical data.

As an example, see figure 1, corresponding to the entry *rebelar/se* ('to rebel'). This entry is organised in two general meanings: 'to face an authority' (meaning 1, ENFRENTARSE) and 'to display contempt for others' (meaning 2, HACER SENTIR/SENTIR RECHAZO). The two general meanings are represented by full sentence definitions and exemplified with sentences taken from various corpora. Synonyms (such as "levantar/se" or "sublevar/se") are also offered, and some examples also include notes (like the ones in green—colour which signals a clause in subject position, "subordinada suj., subjuntivo"). There are also notes for lexical combinations (in orange, in the last meaning), word families (FAMILIA) and general notes about the whole entry (OBSERVACIÓN; in this case, there is a spelling note about a usual confusion between *rebelar/se* and *revelar*, 'to reveal'). Finally, bold type is used for prepositions and other important words in definitions and examples.

3.2 Electronic features

As we explained above, in Renau and Alonso (forthcoming) there is a description of the process of corpus analysis and how some computational use to lexicographical work are implemented. In this section, we will only pay attention to aspects related to the electronic interface. We must say in advance that *DAELE*, as product designed for the Internet, is still far from realizing the lexicographers' dreams mentioned by De Schryver (2003). Nevertheless, if we take his review as a reference, we must emphasize that *DAELE* has exploited the following advantages of the web format:

- As there are *no space constrictions*, we can offer a large number of examples for every

meaning (currently, about 6 examples per meaning). In contrast, having unlimited space leads us to the problem of how to organise the information (Atkins and Rundell, 2008:20-24; Bernal and Renau, 2010).

- It is possible to *quickly update the dictionary*, so that it is easy to make corrections, additions, suppressions or other changes in the database (TshwaneLex, Joffe and De Schryver, 2004).
- It is a *free, open resource*, which can be consulted simultaneously by hundreds of people at no cost. This is crucial for the numerous schools teaching Spanish as a foreign language in the world.
- *It can be used anywhere* (at home, in the classroom, etc.) as long as users have access to the Internet. In general, it is free of abbreviations, so the metalanguage is easier to understand.
- It has *customising options* (see the explanation below) which allow users to organise the data, facilitating access to the information.

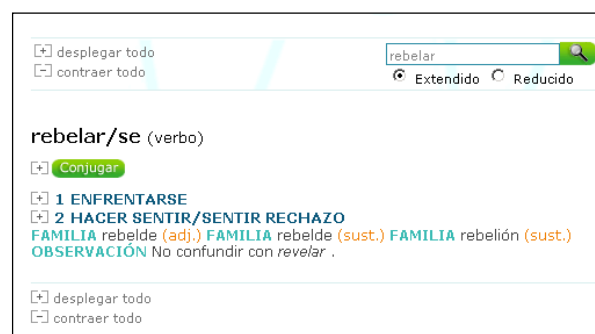


Figure 2. The initial menu for the entry *rebelar/se* in *DAELE*.

With regard to this last aspect, when a user looks up a verb, what appears is just the menu with the most general semantic labels, along with some other general information such as the morphological family or notes on the whole entry (figure 2). After reading this initial information, the user can open other sections by using the [+] buttons. If users click on "desplegar todo" ('display all') the whole entry opens. The rest of the buttons, at the beginning of every part, only open the corresponding section. Once the learners access to the selected information, they can use the two versions of the dictionary: the extended one ("Extendido") or the concise one ("Reducido"). The concise version offers the same information with only two examples per meaning and without other complementary data (e.g. notes, morphological family or combinatory).

4. Concluding Remarks: Going Beyond the Traditional Concept of Dictionary

In the previous sections, we have expounded the main characteristics of *DAELE* as we set the dictionary within the context of the current Spanish lexicography available

on the net. These are the aspects to be implemented in the future:

- Addition of the pronunciation at head words.
- Improvement of the way in which examples are shown, in order to make the information search process easier. It is necessary to improve the two options which are currently available, that is, “extended” and “concise”, in order to make them more dynamic and useful.
- Improvement of the looking-up process, making possible, for instance, searching not only head words, but also in the whole entry (definitions and examples).
- Similarly, users could be given the possibility of using a corpus to be able to retrieve more usage examples. The ideal scenario would be that in which every meaning would be connected to its correspondent corpus concordances, annotated following CPA criteria. As Hanks (2010) points out,

“Electronic dictionaries of the future will be much in demand— for computational, pedagogical, and other applications—if they can be used as resources for mapping word meaning systematically onto word use”.
- The use of full sentence definitions makes possible to use colours for distinguishing the parts of the sentence (e.g. subject, verb and direct object). The same colours could also be used in some of the examples. This could help to carry out the syntactic analysis providing a better understanding of the examples.

Current technology makes possible to easily implement all of these improvements, so most of them will be available in 2012. Nevertheless, it is soon to implement some of them (for example, a complete use of hyperlinks or the use of a corpus) because only some few entries have already been completed. With the work which already has been done and what will be accomplished in the near future, we expect to make our modest contribution to the model for the “dictionary of the 21st century”, bringing the future a little bit closer.

Finally, Spanish is one of the most spoken languages in the world, and it is currently one of the most learnt as a foreign language. It is also one of the most widely used on the Internet². Thus, in this context, better Spanish lexicographic tools are required on the web, and DAELE could be one of the references to create them.

² According to Moreno and Otero (2007), there are approximately 400.000.000 native speakers of Spanish (currently one of the most spoken languages in the world) and approximately 23.000.000 speakers with no native competence. It is the third or fourth most spoken language in the world depending on sources. It is also one of the most used on the Internet (Rojo and Sánchez, 2010:103-107). In all cases, the number is increasing every year.

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