



Judith Meinschaefer\*

# Language contact between Italian and English: a case study on nouns ending in the suffix *-ing*

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**Abstract:** The article deals with how English deverbal nouns with the suffix *-ing* have been imported into Italian. The focus is on the semantic characteristics of these borrowed nouns in Italian and, in particular, on the question of whether they have been borrowed not as simple sign-concept pairings but with argument and event structure. In previous research, it has been claimed that argument and event structure need to be licensed by some overt functional element. Hence, borrowed deverbal nouns should have argument structure and event structure only if they have an overt affix, in other words, only if the forms are not borrowed holistically as unsegmented words but retain internal morphological structure, implying that morphological borrowing of the affix has occurred. When a foreign affix combines with native bases of the recipient language, this is often considered an important criterion for morphological borrowing, which is clearly not the case for the suffix *-ing* in Italian. Here, it will be shown that contrary to expectation, numerous occurrences with argument and event structure may be found in a large Italian web corpus for a sample of English deverbal nouns ending in *-ing*, borrowed into (certain registers) of Italian.

**Keywords:** event structure; Italian language; loan words; morphological borrowing; nominalization

## 1 Introduction

The project described here investigates how English deverbal nominalizations with the suffix *-ing* have been imported into Italian. In current written Italian there are many such forms, and for some of them a corresponding base verb has also been attested in Italian; (1). All examples are taken from the *itTenTen16* corpus (Jakubíček

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\*Corresponding author: Judith Meinschaefer, Institut für Romanische Philologie, Freie Universität Berlin, Habelschwerdter Allee 45, 14195 Berlin, Germany, E-mail: judith.meinschaefer@fu-berlin.de. <https://orcid.org/0000-0002-6606-4774>

et al. 2013) unless indicated otherwise; a list of the forms under study is given in the Appendix; see Table 1.

- (1) a. *diviene importante ... un costante **screening** dello stato di salute*  
 ‘a constant **screening** of the state of health becomes important’  
 b. *3.279 pazienti ... **sono stati screenati***  
 ‘3.279 patients ... **have been screened**’

The focus of this article is on the semantic characteristics of these borrowed deverbal nouns in Italian, and in particular on the question of whether they have been borrowed not as simple sign-concept pairings but with argument and event structure. Previous research on deverbal nominalization has assumed that argument structure and event structure in a deverbal noun must be licensed by some overt affix (Borer 2014; Grimshaw 1990; Smith 1972). This implies that a loan noun – in case it is attested with argument and event structure – is not borrowed holistically but rather retains its internal morphological structure and, thus, that morphological borrowing of the affix must have occurred. According to Gardani (2021), morphological borrowing of an affix from a source language (SL) to a recipient language (RL) should be said to have occurred only when this affix shows an ability to combine with native elements of the RL; Gardani (2021: 134) considers combinations with non-native bases not to be morphological borrowing. In Italian, the distribution of the suffix *-ing* is restricted to English bases, i.e., to bases from the SL; hence, no morphological borrowing has occurred. English nominalizations ending in *-ing* appearing in Italian should thus not possess argument and event structure, nor should the affix and base appear as productively combinable, distinct morphemes.

Here, it will be shown that contrary to this expectation, numerous occurrences with argument and event structure may be found in a large Italian web corpus for a sample of 81 English nominalizations ending in the suffix *-ing* that have been borrowed into (certain registers) of Italian. Section 2 summarizes previous research relating to morphological borrowing, with a particular focus on two different views of morphological borrowing developed by Seifart (2015) and Gardani (2021). Some background information on the morphosyntax of the English suffix *-ing* and on Italian action nominalizations will be introduced, and finally, I present a synopsis of existing work on the borrowing of English forms ending in *-ing* into Romance languages, including Italian. Section 3 describes how the corpus data were collected and processed. Section 4 gives a brief overview of the types of borrowings contained in the sample under analysis. Sections 5 and 6 next address the questions of whether the deverbal nominalizations ending in *-ing* in the sample present occurrences with argument structure and with complex event-structure readings. A brief conclusion explores some implications for our understanding of morphological borrowing and of the borrowing of verbal semantics more generally.

## 2 Previous research

### 2.1 Borrowing and morphological borrowing

By borrowing we “refer to a process whereby a language acquires some structural property from another language that is contemporary to it” (Moravcsik 1978: 99). Here, I focus on the lexicon, that is, words and their constituents as well as the rules and principles that govern their form and interpretation. I further restrict borrowing to refer to such processes as are brought about by speakers who are dominant in the recipient language (RL), i.e., in the language that acquires the structural property in question, rather than being brought about by speakers who are dominant in the source language (SL) from which the structural property comes (cf. the concepts of RL agentivity vs. SL agentivity as introduced by Van Coetsem [1988: 3]). For outcomes of processes of borrowing, various classifications have been proposed (cf. Haspelmath [2009] for an overview); we follow the classification developed by Winford (2005), going back to Haugen (1950). We thus distinguish between pure loanwords that imitate form and meaning of some lexical item in the SL (e.g., the Italian noun *briefing*) and loan blends, which do so only partially, combining, e.g., a base of the SL with an affix of the RL (cf. the Italian verb *hackereare* ‘to access a computer without authorization’). Winford’s classes of loan shifts and of loan creations will not be relevant here. One additional category is, however, useful to account for the data under analysis: the mirror image of Winford’s loan shifts (which imitate meaning, but not form) are borrowings which imitate some form of the SL, but not its meaning. Such borrowings are termed false anglicisms or pseudo-anglicisms: a lexical unit which either is “homographic to an English lexeme and has acquired a different or additional sense in the RL” or which “is made up of a combination of English morphemes and/or lexemes, but has no established meaning in any native variety of English” (Renner and Fernández-Domínguez 2015: 148). An Italian example is the English noun *shopping* when used in Italian in the sense of ‘shopping bag’ (Lopriore and Furiassi 2015: 218).

Not all aspects of language are equally likely to be borrowed in language contact; generalizations have sometimes been formulated as implicational hierarchies of borrowing, where elements of a lower order in the hierarchy are expected to be borrowed in a particular contact scenario only if elements of a higher order are likewise borrowed (cf., e.g., Moravcsik [1978], Thomason and Kaufman [1988], and cf. Matras [2011] for a synopsis). Most studies agree that nouns are borrowed more easily than other word classes, and free forms more easily than bound forms, but they also agree that most, if not all aspects of linguistic structure

can in fact be borrowed (cf. Thomason and Kaufman [1988], but see Eliasson [2019] for counterevidence, drawn from languages with highly complex inflectional systems). Recently, the borrowing of word components, i.e., bound forms, and of word formation patterns has received growing attention (Gardani 2018, 2020; Gardani et al. 2015; Renner 2018; Seifart 2015). Various scenarios of morphological borrowing are conceivable. Seifart (2015) describes two such scenarios, distinguishing between indirect and direct borrowing of affixes. In indirect borrowing, a RL first borrows a number of words containing a given affix, and subsequently these loan words are analyzed as morphologically complex in the RL, so that eventually the affix may become productively used with native bases of the RL (Seifart 2015: 511). In direct borrowing, speakers of the RL also have knowledge of the SL, and this knowledge of the SL makes it possible for them to use an affix of the SL productively with bases of the RL, even in the absence of the borrowing of morphologically complex words (Seifart 2015: 512). From a different perspective, Gardani (2021) claims that three cases need to be distinguished, in which morphemes of a SL may be found in linguistic utterances that belong to a RL. He starts from the assumption that languages can have multiple grammars as often claimed in formal linguistic approaches that attempt to provide a generative model for a language. With respect to how such grammars, or “co-morphologies”, as he terms them (Gardani 2021: 132), interact, he mentions the following possibilities. In the first case, borrowing of morphologically complex words has occurred. Morphemes of a SL may be found in linguistic utterances that belong to a RL, but their distribution is restricted to words of the SL and are entirely governed by morphological principles of the SL. In this situation a language comprises two strictly compartmentalized co-morphologies (Gardani 2021: 132–134). In the second case, there are partially compartmentalized co-morphologies: Morphemes of a SL may occur in hybrid formations or on lexical bases belonging to other non-native etymological strata of an RL (Gardani 2021: 134–136). According to Gardani (2021: 136–139), only in the third case, in which formatives of the SL are found on native bases of the RL, has morphological borrowing occurred. In following sections, we shall see that the suffix *-ing* in Italian is found only on SL bases (as in *screening*), but the stems of English nouns ending in *-ing* combine with RL affixes (as in the verb *screen-are* and also in the deverbal noun *screen-aggio*). Thus, while the distribution of the SL suffix *-ing* is characteristic of Gardani’s first stage (strictly compartmentalized co-morphologies), the SL bases do not appear to be confined to a non-native co-morphology of English origin but combine with some flexibility with native inflectional and derivational affixes, as assumed by Gardani for the third stage.

## 2.2 Nominalization in English and Italian

Since the morphosyntax and semantics of English words ending in *-ing* is as complex as the morphosyntax and semantics of Italian deverbal nouns, a few remarks on both topics are in order. According to the *Cambridge Grammar of the English Language* (Huddleston and Pullum 2002), two different forms ending in *-ing* are to be distinguished in English: the gerund-participle and the gerundial noun (Huddleston and Pullum 2002: 81–82). By the term gerund-participle, they refer to the two distinct uses of forms ending in *-ing* that in traditional grammar have been termed participle (2a) and gerund (2b–c), respectively (Huddleston and Pullum 2002: 81–83). While Huddleston and Pullum regard the formative *-ing* in the first two forms as inflectional, it is deemed lexical in the third form (Huddleston and Pullum 2002: 1702), i.e., it is used to derive new lexemes.

- (2) English participle, gerund and lexical noun ending in *-ing*
- a. Participle            *the train is approaching, an approaching train*
  - b. Gerund              *I regret destroying the files.*
  - c. Gerundial noun    *She had witnessed the killing of the birds.*
- (Huddleston and Pullum 2002: 81–83)

We will not be concerned with truly verbal and adjectival uses of forms ending in *-ing*, as in (2a), that is, with what is traditionally termed participles, but only with nominal uses as in (2c); see Section 3.3 for more details.

Italian deverbal nouns with eventive readings can be derived with a variety of suffixes; among these the most productive are *-mento*, *-azione*, *-aggio* and *-atura* (Gaeta and Ricca 2006; Iacobini and Thornton 2016; Rainer 2016), see (4).

- (4) a. *-mento* *posizionamento* < *posizionare* ‘to position’  
*i posizionamenti degli impianti fotovoltaici*  
‘the positions of photovoltaic systems’
- b. *-azione* *familiarizzazione* < *familiarizzare* ‘to become familiar with’  
*la familiarizzazione con l’uso del computer*  
‘the familiarization with the use of the computer’
- c. *-tura* *asciugatura* < *asciugare* ‘to dry’  
*un’asciugatura veloce*  
‘a fast drying’
- d. *-aggio* *monitoraggio* < *monitorare* ‘to monitor’  
*il monitoraggio continuo delle apparecchiature*  
‘the continuous monitoring of the equipment’

These four suffixes compete with each other (in the sense of Plag 1999) in the formation of deverbal nouns with an eventive reading. In many cases, the selection of

one or the other suffix is motivated by morphological restrictions (e.g., verbs in *-izz-*, as in (4b), tend to select *-zione*, cf. Gaeta [2004: 330]), in other cases, suffix selection is a matter of register or terminology. This is particularly relevant for *-tura* and *-aggio*, which are both found in many neologisms pertaining to the domains of technology, sports, agriculture and other specialized terminologies (Gaeta 2004: 334–338). In this respect, the Italian suffix *-aggio* is similar to the French suffix *-age* (Fleischman 1976); in fact, *-aggio* goes back to French *-age* (Fleischman 1976; Rainer 2016) or possibly to Occitan *-atge* (Gsell 1995: 285). If morphological borrowing of the English suffix *-ing* were to occur in Italian, one would expect *-ing*, which just like *-aggio*, seems to prevail in specialized terminologies, to compete with *-aggio* and *-atura* more strongly than with other suffixes. In fact, for French it has been argued by Heinold (2009: 76) that *-ing* competes mainly with the suffix *-age*, i.e., with the French cognate of Italian *-aggio*. For reasons of space, this question will not be further addressed in this study; suffice it to say that the corpus under study does contain a number of doublets or quasi-doublets of nouns ending in *-ing* and in *-aggio* such as *undocking* – *dockaggio*, *dewatering* – *wateraggio*, *mentoring* – *mentoraggio*, *shifting* – *shiftaggio*, *skilling* – *skillaggio*, *restocking* – *stockaggio*, *twittering* – *twittaggio* or *zapping* – *zappaggio*.

### 2.3 Language contact between English and Romance languages, and Italian in particular

In the last fifty years, the most important source of borrowing for Italian, as well as for other Romance languages, has been English, serving as an adstrate to Italian (Smith 2020). The research literature on the contact between English as a SL and Italian as a RL is comprehensive (cf. Pulcini [2004] for an older synopsis, see also Thibault and LoVecchio [2020: 14] for more recent bibliographical indications, and Fusari [2012], Gaudio [2012], Gazzardi and Vásquez [2022], and Vettorel [2013] for studies on the integration of anglicisms in specialized domains of the Italian language). However, hardly any studies have focused on English loanwords ending in *-ing* in Italian. An exception is a recent corpus-linguistic study by Maniez (2020), who shows, on the basis of a quantitative analysis of the *Europarl* corpus, that English nouns of the form *V-ing* are transferred more often in their SL form (i.e., as pure loan words) into Italian than into French, where in fact they are more often replaced by native French equivalents, thereby confirming the often made assumption that Italian is less resistant to borrowing from English than French (cf. also McLaughlin [2018: 656] for a comparative view, and Walsh [2014] on French, and Pulcini [1997] on Italian).

Nevertheless, in French the suffix *-ing* is recognized as a French suffix by dictionaries like the *Grand Robert* (GR) and by the *Trésor de la langue française*

*informatisé* (TLFI), and there is a growing body of studies dealing with this suffix in French; cf. Mudrochová (2016: 7–8) for a review. The earliest borrowings into French go back to the eighteenth century (TLFI, *-ing*) or possibly to even earlier dates (Mudrochová 2016: 8). Attested in French are not only pure loan words, but also numerous pseudo-anglicisms (e.g., *surbooking*, cf. Mudrochová [2016: 13–15]) and formations with French bases (such as *rentring* from *rentrer* ‘come back’, cf. Lewis [2007: 53]). As shown by Cartier and Viaux (2018), the coining of constructions of the form N or Adj followed by a deverbal form ending in *-ing* is highly productive in current French. A detailed semantic analysis of French forms ending in *-ing* is presented by Heinold (2009), which will be discussed in more detail in Section 6 below.

In Spanish, the suffix *-ing* is attested with English bases as well as with native bases, e.g., denominal *puenting* ‘bungee jumping’ (Mott 2015: 180). As evident from the lists given in Mott (2015: 180–181) and García Velasco (2020: 126–127), the number of hybrid formations in current Spanish is considerable (cf. the study by Balteiro [2014] on Spanish fashion terminology), so that García Velasco (2020) argues that *-ing* is indeed a productive suffix in the Spanish language, and that its current usage in Spanish presents indications for both direct and indirect suffix borrowing in the sense of Seifart (2015) at the same time. The relatively high degree of integration of the suffix *-ing* in Spanish is also evidenced by phonological and orthographical adaptations as in *mitin* > *meeting* and *esmoquin* < *smoking* (García Velasco 2020: 135–136; Mott 2015: 177–178).

To summarize, the research literature on English loan words ending in *-ing* is much scarcer for Italian than for French and Spanish. Whether the borrowing of forms in *-ing* really has led to a higher degree of integration of the suffix into French and Spanish than into Italian, as may be concluded from this brief overview of the research literature, awaits to be seen in the light of more comprehensive research on Italian.

## 3 Methods

### 3.1 Selection of the corpus and data collection

This study is based on word lists and concordances drawn from the *itTenTen16* corpus (Jakubiček et al. 2013), containing roughly 5 billion words. The *itTenTen16* is of the type ‘web for corpus’ (Schryver 2002), that is, the world wide web has been used as a source for corpus collection, but the corpus itself has been thoroughly cleaned and linguistically annotated. Yet, in working with the *itTenTen16* the same problems arise as with web corpora in general (Dal and Namer 2015): The researcher has no access to information regarding authorship, including questions of language

proficiency or whether texts have at all been produced by human speakers or by machines. Not all words contained in the corpus have the same status: Some words may have been coined for special purposes, they may be playful formations or simply direct transfers from other languages, mostly English in the case at hand. In fact, despite a thorough cleaning of the material, the corpus under study contains not only Italian, but also English texts, and some contexts in the corpus are simply incomprehensible, due to technical or other jargon (e.g., jargon of particular user groups such as video game players). The data need to be treated with care. Some of these problems could have been avoided by using a reference corpus for Italian, such as the *Coris/Codis* (Rossini Favretti 2001), which is much less comprehensive (150 million words as compared to 5 billion words) and more representative for contemporary written Italian, and it also contains much less noise than the *TenTen* corpora. In a study of 46 non-adapted anglicisms, Lukasik and Pulcini (2021) show that anglicisms are used in similar ways in the *Coris/Codis* corpus and in the *itTenTen16* corpus. Note, however, that the *Coris/Codis* is a few decades older than the *itTenTen16*, showing usage of Italian from the last decades of the twentieth century, while the *itTenTen16* reflects usage in rather specific registers in 2016. Indeed, for some of the less frequent *-ing* forms found in our sample drawn from the *itTenTen16*, a search in the *Coris/Codis* yields less than or only two or three occurrences. However, the large and noisy *itTenTen16* corpus appears to be convenient for the topic at hand, despite its disadvantages: Since the language of the web is hardly subject to any normative pressure, it contains many recent neologisms, and contact to English plays an important role in many of the text genres contained in it. It is certainly not representative of Italian, but it is, as we believe, a valuable resource for studying the internalized, intensional, individual language (i.e., the I-language, cf. Freidin 2013: 15 for discussion) of speakers of Italian, by which we understand the set of all potentially acceptable utterances that individuals who have learned Italian as a first language (and, like most younger Europeans, English as a second language) are able to produce.

For the present study, the *itTenTen16* corpus has been searched by means of the *Sketchengine* interface (<https://www.sketchengine.eu/>) using the wordlist function for word forms ending in *ing#* which are tagged as nouns. Non-words were not included in the search, and the search was restricted to the domain ‘.it’. Only those nouns were considered for which at least 20 occurrences were attested. The search resulted in a word list containing 5,838 items. After manually cleaning the search results (deleting, among other things, many apparent spelling errors and word forms which are not English *-ing* forms but other forms of foreign origin, such as *Ottakring*, and English *-ing* forms which are adjectives rather than nouns), a list of 2,296 *-ing* forms was obtained which appeared to be English nouns ending in *-ing*, but which, as



later inspections revealed, still contained typographical errors and forms which are not English nouns ending in *-ing*.

To further reduce the amount of data to a dimension that would make semantic analyses doable in reasonable time, I selected a random sample of 100 *-ing* forms by means of the random sampling function of the statistical software package JMP. For each of these 100 Italian *-ing* nouns I extracted a concordance from the *itTenTen16* corpus; thus, each concordance shows one line of context material for each token of the given noun in the corpus. If a given noun occurred more than 10,000 times (as is the case for *screening* and *networking*), I extracted a random sample of 10,000 contexts from its concordance. A closer inspection of the concordances revealed that the first clean-up of the word list was too shallow. Forms whose inclusion in the list resulted from typographical or segmentation errors were then excluded. For the lemma *screening*, the written forms *screening* and *sceening* were both in the random sample; for *multitasking*, the written forms with and without hyphen were in the sample. In the analysis I considered only one of the two forms each (the correct orthography in the case of *screening*, the more frequent form without hyphen in the case of *multitasking*; see Appendix, Table 1). The form *esharing*, which corresponds to a wrongly segmented form *timesharing*, was excluded. The resulting list thus contained 97 lexemes.

### 3.2 Lexemes in the sample under study

Most of the forms in the list are common nouns. Since the present study is concerned with deverbal nominalizations, these forms are of primary interest. Few of the borrowed forms are used as verbs, (5a) or as adjectives, (5b). These will be discussed first, but they will not be considered in the remainder of this study.

- (5) Forms ending in *-ing* that are not or not predominantly used as common nouns
- a. Verbs: *responding, worrying, asking, calling*
  - b. Adjectives: *winning, connecting, free-standing, smiling, disgusting, leaning*
  - c. Forms that are used more often as adjectives than as nouns: *enchanted, punishing; easy-listening*

Of the 37 occurrences of *responding*, 21 occur in the complex noun phrase *voice responding system*, and all remaining forms occur as verb forms in longer stretches

of English discourse.<sup>1</sup> Likewise, of the 34 occurrences of *worrying* all but two occur as verb forms in longer stretches of English discourse. The two occurrences of *worrying* not surrounded by English discourse come from an online dictionary and explain the meaning of that form. A similar picture may be seen for *asking*; of the 87 occurrences, all but four occur in English discourse. Of the four, one is again an explanation of the meaning of the English word *asking*, and the remaining three are participles used as adjectives, (6).

- (6) *asking*, 87 occurrences  
*alternando momenti “telling” ... a momenti “asking”*  
 ‘alternating between “telling” moments ... and “asking” moments’

Of the 458 occurrences of the form *calling*, a large majority are of the form *London calling*, *Berlin calling*, or similar constructions with a variety of proper names. Many other instances of *calling* occur as verb forms in English discourse, and in a few dozen cases *calling* is used as an adjectival participle that modifies an English loan noun (*calling card*, *calling order*, *calling station*). In not more than a dozen cases, *calling* is used as a noun; see (7). Since the majority of the occurrences of this form are not common nouns, however, and since I aimed at having at least 20 occurrences for analysis, I decided to exclude *calling*.

- (7) *calling*, 458 occurrences  
*vocatio nel senso paolino e poi nel senso calvinista, o calling o Beruf*  
 ‘vocatio in the Pauline sense and then in the Calvinist sense, or calling or Beruf’

The forms classified as adjectives are used rather consistently as present participles that modify an English noun, be it in English discourse or, in Italian discourse, in loan NPs. Examples for a few frequent collocations in which the *-ing* form is a present participle are given in (8).

- (8) a. winning condition, winning wing, winning hearth, winning moment, ...  
 b. connecting flight, connecting mobility, connecting time, connecting box  
 ...

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<sup>1</sup> One challenge in the automatic creation of large corpora from the web consists in the removal of material which is not in the desired language, in this case, of webpages or parts of webpages that are found under the domain \*.it, but are not Italian (cf. Jakubiček et al. [2013] for the *TenTen* corpora, cf. Kehoe [2020: 336–339] for more general information on the cleaning of web corpora). This task is not always successfully completed by the algorithms, so that the *itTenTen16* corpus contains not only webpages that are written in Italian, but also many webpages written in English. It is these parts of the corpora that will be referred to as ‘longer stretches of English discourse’.

- c. *prodotti* free-standing, *frigo* free-standing, *cucina* free-standing, ...
- d. leaning tower, leaning post, leaning object, ...

Finally, the list contains three proper nouns, (9), which will likewise not be discussed any further.

(9) Proper nouns: *assofranchising*, *interhosting*, *bluerating*

From the reduced list of 97 forms ending in *-ing*, I thus exclude sixteen more forms (thirteen forms for which less than 20 uses as nouns are attested, as well as three proper nouns). The final list contains 81 forms in *-ing* that are used as common nouns in at least 20 instances in the corpus. Of these, 20 lexemes are recorded in the newest version of the Italian dictionary *Lo Zingarelli* (Zingarelli 2020). The final list is given in the Appendix, Table 1.

All common nouns in the sample are attested in the corpus with determiners that are inflected for masculine gender (*il meeting*, *un meeting*). Many instances of plural nouns are contained in the sample; in the large majority of occurrences, the form ending in *-ing* does not inflect for number (*i briefings che si sono tenuti* ‘the briefings that were held’, *gli screening condotti per la diagnosi* ‘the screenings carried out for diagnosis’), but a few instances of the English plural inflectional marker *-s* on a noun ending in *-ing* are attested in the corpus (*migliaia di postings* ‘thousands of postings’, *gli ultimi briefings* ‘the last briefings’). No occurrences of forms ending in *-ing* with the Italian plural marker *-i* (or *-e* in the case of feminine gender) are attested in the corpus.

## 4 Types of borrowings in the sample

Most nouns ending in *-ing* in the sample under study are pure loan words (in the sense of Winford 2005; Haugen 1950), i.e., words that imitate both form and meaning of the corresponding English lexical item. To be sure, many of the forms are polysemous and are used with a variety of readings in English as well as in Italian, such as *shifting* or *booking*. Given this high degree of polysemy, a close comparison of readings which are found in the SL and in the RL is beyond the scope of the present study; undoubtedly the meaning of a given noun in *-ing* is often not exactly the same in the SL and the RL. On the other hand, some of the words in the sample have a highly specialized semantics, such as *kriging* ‘method of interpolation in statistics’, which is imported quite exactly.

In collecting the data for this study, it became clear that the stems<sup>2</sup> and the roots<sup>3</sup> on which the forms in *-ing* are built occur in a variety of loan blends (in the sense of Haugen 1950; Winford 2005) in the corpus, i.e., in words that imitate only partially the form and meaning of elements from the SL, combining an element from the SL with an element from the RL. Since this study is concerned with the borrowing of deverbal nominalizations, it was decided to concentrate on loan blends which are verbs. With the aim of getting a more precise idea of whether for the 81 nouns ending in *-ing* studied here, the *itTenTen16* corpus contains morphologically related verbs, I generated, for all 81 nouns in the list, firstly, hypothetical verb forms in *-are* (which is the unmarked inflectional class of Italian) that begin with the stem of the nouns ending in *-ing* (i.e., consisting of the form without the suffix *-ing*, e.g., *prefetch-* followed by *-are* – *prefetchare* – for *prefetching*) and, secondly, hypothetical verb forms that begin with the root of the nouns ending in *-ing* (i.e., consisting of the base without any affixes, e.g., *fetch-* followed by *-are* – *fetchare* – for *prefetching*) and then checked whether these hypothetical forms are attested in the corpus. Thirdly, I checked unsystematically for potential orthographical variants that I thought might exist, such as *fecciare* as a variant to *fetchare*, where the Italian grapheme <cci> is homophonous to the English grapheme <tch>. Finally, I also noted variants of morphologically related verbs that I had not systematically searched for, but which I came across while working with the corpus, such as *networkizzare* as a variant for *networkare*, *hackareare* as a variant for *hackare* or *twitteare* as a variant for *twittare*. This resulted in a list of 66 Italian verbs that are morphologically related to one of the 81 nouns in the list; see Appendix, Table 1. According to Table 1, there are only 26 nouns ending in *-ing* for which no morphologically related verb form, neither built on the stem nor on the root of the noun, was found in the corpus. For more than two thirds of the nouns in the sample, in contrast, a morphologically related verb, sharing at least some aspect of meaning with the noun, is attested.

Among the 81 nouns ending in *-ing*, one form may be classified as a loan blend, i.e., the neologism *venertuning*, which has a rather specialized meaning, referring to an event where persons show their tuned cars in public on a Friday evening. To date, this word continues to have a very specialized usage and it appears to be far from familiar to the common speaker of Italian.

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2 The concept of stem is to be understood here in the traditional sense as a word without any inflectional material (Kiparsky 2021: 1). A stem is thus always the stem of a given word. The stem of the inflected Italian word form *vignett-arono*, 3.PL.PRF of the verb *vignett-are* ‘edit a digital picture in a specific way’ is *vignett-*, the stem of the noun *vignetting* is – as the word is uninflected – identical to the word, thus, *vignetting*.

3 The term root is understood here as a “base that cannot be analyzed any further into constituent morphemes” (Haspelmath and Sims 2010: 19). The root of *vignetting* is *vignett-* (or possibly *vign-*, depending on the analysis), the root of *microprinting* is *print*.

That some Italian anglicisms ending in *-ing* are so-called false anglicisms has long been noted in the research literature (Gottlieb and Furiassi 2015; McLaughlin 2018; Renner and Fernández-Domínguez 2015). The Italian noun *lowering* illustrates this class. While the English noun *lowering* is a fully transparent nominalization of the causative verb *lower*, the Italian noun *lowering* is found in the corpus only as a piece of specialized terminology, pertaining to meteorology.

A surprising result of the present study is that we find not only pure loan words, but also a number of loan blends, and in particular verbs that share a stem or root with a noun ending in *-ing*; see Appendix, Table 1 for a list. These may be taken as evidence that speakers of those registers of Italian in which these forms are used have acquired some sort of representation of the morphological structure of these forms. To give an example, for speakers of Italian who use the noun *prefetching* as well as the verbs *prefetchare* and *fetchare*, it appears that their Italian mental lexicon contains a root *fetch* and a stem *prefetch* that have been added to the first conjugation class and are related by form and by meaning to a borrowed deverbal noun *prefetching*. A derivational suffix *-ing* (which, however, does not attach to native Italian bases) somehow connects the base verbs *fetchare* and *prefetchare* with the borrowed deverbal noun *prefetching*. Is this then a genuine case of borrowing on the level of constituent morphemes? Even though *-ing*, as suggested above, does not attach to native Italian bases and is thus not part of the native Italian noun morphology, a special subset of corpus examples indicate that, at least in this special pattern, some sort of morphological segmentation can be attested.

## 5 Do borrowed nouns ending in *-ing* have argument structure?

A dimension of semantics that is often considered as characteristic for verbs and that is much less relevant for morphologically underived nouns, is argument structure, (or valency in a different terminology), i.e., the level of semantico-syntactic representation on which information about the semantic roles that are assigned by a predicate is stored (Williams 1981). Verbs typically have at least one argument (e.g., *laugh*, which only assigns an agent role) but often more (e.g., *give*, which assigns three roles: agent, theme and goal or beneficiary), while prototypical nouns often do not have arguments to which they assign a semantic role (but in that case they do have a referential argument Baker [2003: 93]). Deverbal nominalizations, in contrast, have often been shown to inherit the argument structure of their base verbs (cf. Booij [1992], Williams [1987], Zwanenburg [1990] and much subsequent research). In previous studies on event structure and argument structure of

deverbal nominalizations, it has been claimed that argument structure in nominalizations, and also complex event structure (see the discussion in Section 6) needs to be licensed by overt affixes (an assumption going back to Grimshaw [1990], Smith [1972] and which is taken up by, e.g., Borer [2014]). In fact, in studies on language contact, a similar restriction has been proposed: As early as 1975, Moravcsik (1975: 4) claimed,

that borrowed verbs, by internal syntactic composition, are (at least) bimorphemic and that they are bilingual, consisting of a generic verb constituent whose form is indigenous, and of a more specific nominal constituent whose phonetic form corresponds, by identity or similarity, to the phonetic form of the source verb.

In other words, verbs which are borrowed from a SL are integrated into the RL by adding some native functional element of the RL (which in Moravcsik's view may be phonetically filled or unfilled, i.e., empty) that licenses what Moravcsik (1978: 111) terms verbal semantics, of which event structure and argument structure is one aspect (for a more fine-grained case study on argument structure in the borrowing of verbs, see Schirakowski, this issue). If Moravcsik's claim is correct, then borrowed nouns in general are not expected to have argument structure (and complex event structure) – unless morphological borrowing in Gardani's (2021) sense has occurred. Now, there is currently no evidence for morphological borrowing of the suffix *-ing* into Italian in Gardani's sense since it does not attach to native bases. In this section, I will therefore address the question of whether the borrowed nominalizations in the sample occur in argument-realizing structures in the corpus.

Generally speaking, Italian nominalizations can realize their arguments in prepositional phrases headed by different prepositions (10a–b), as well as in a pronominal possessive determiner (10c), cf. Gaeta (2015) for an overview on Italian. In this respect, the Romance languages are quite similar (cf. Meinschaefer [2003] for French, Meinschaefer [2005a] for Spanish, Meinschaefer [2016] for a comparative Romance view), and they do not differ much from English (Rappaport 1983). To avoid manual inspection of thousands of occurrences from the corpus, I chose to focus on syntactic constructions in which the realization of the arguments of a deverbal noun is most likely; examples are given in (10).

(10) Argument realization in Italian nominalizations

- a. Prepositional phrase headed by *di* 'of' or one of its Portmanteau forms
  - i. Theme or patient
    - il rifiuto della verità*<sub>THEME</sub>
    - 'the refusal of the truth'<sub>THEME</sub>
  - ii. Agent
    - il rifiuto di Gianni*<sub>AGENT</sub> (*della verità*)

- ‘Gianni’s<sub>AGENT</sub> refusal (of the truth)’
- b. Prepositional phrase headed by *da parte di* ‘by’, realizing the agent  
*il rifiuto della verità da parte di Gianni*<sub>AGENT</sub>  
 ‘Gianni’s<sub>AGENT</sub> refusal of the truth’
- c. Prenominal possessive determiner realizing the agent  
*il suo*<sub>AGENT</sub> *rifiuto della verità*  
 ‘his<sub>AGENT</sub> refusal of the truth’
- Examples adapted from Gaeta (2015: 1210–1211); subscripts inserted by author

The more than 50,000 occurrences of the 81 Italian *-ing*-nouns that had been extracted from the *itTenTen16* corpus were thus searched with the help of the *Ant-Conc* concordancer (Anthony 2022) for the sequences of word forms given in (11), which are the most common structures in which Italian deverbal nominalizations realize their arguments.

(11) Common argument-realizing structures in Italian

- a. Arguments realized by a postnominal prepositional phrase headed by *di*  
 Definite article + *\*ing* + *di* + article, e.g.,  
*il \*ing di un, lo \*ing dei, ...*
- b. Arguments realized by a prenominal possessive determiner  
 Definite article + possessive pronoun (3rd Sg) + at most one intervening word + *\*ing*
- c. Arguments realized by a postnominal prepositional phrase headed by *da parte di*  
 Definite article + *\*ing* + at most one intervening word + *da parte*, e.g.,  
*lo \*ing da parte, l’ # \*ing da parte, ...*

The searches resulted in 1,021 occurrences of Italian *-ing*-nouns with the relevant structures, which were exported from the corpus in spreadsheet format and then manually inspected and annotated for whether the respective prepositional phrases or possessive determiners in fact realize an argument of the event denoted by the Italian *-ing*-noun. After inspection, 163 occurrences were excluded because no arguments are realized; see (12) for examples. In Italian, not only the possessive determiner but also a prepositional phrase headed by *di* can have a possessive interpretation, as in (12a). Possessive interpretations are very rare among the occurrences under analysis, in which the noun in *-ing* refers to an event, but they are expected with nouns that have a concrete object reading, such as *casing* in (12a). Since most of the nouns ending in *-ing* refer to events in a broad sense (although

they are not necessarily complex event nouns, see Section 6), temporal interpretations of the PP with *di* are far more frequent, as in (12c).

(12) Examples for Italian *-ing*-nouns without argument structure

- a. *Il suo casing in solido alluminio*  
'its casing in solid aluminium'
- b. *una soluzione per il cablaggio networking della fibra ottica*  
'a solution for the networking cabling of the optical fiber'
- c. *durante il briefing delle 20,30 di ieri*  
'during the briefing at 20:30 yesterday'

All in all, the concordances of the 81 nouns ending in *-ing* under study thus contain (at least) 858 contexts in which the noun has argument structure; see (13) for examples.

(13) Examples for Italian *-ing*-nouns realizing one or more arguments

- a. Prepositional phrase headed by *di* 'of'
  - i. Theme or patient  
*provoca il **tightening** immediato dei tessuti*  
'it provokes the immediate **tightening** of the tissues'  
*effettuare il **forwarding** dei pacchetti*  
'carry out the **forwarding** of the packages'
  - ii. Agent  
*un think tank che resti attivo ... facilitando il **networking** dei partecipanti*  
'a think tank that remains active ... facilitating the **networking** of the participants'
- b. Prenominal possessive determiner realizing the agent  
*Durante il suo **briefing** giornaliero il vice Comandante ... ha spiegato come ...*  
'during his daily **briefing** the vice commander ... has explained how ...'
- c. Prepositional phrase headed by *da parte di* 'by' realizing the agent  
*un client VPN ... che l'opposizione usa per evitare lo **snooping** da parte del regime*  
'a VPN client ... that the opposition uses to avoid **snooping** by the regime'

It is also evident, however, that only some of the Italian *-ing* nouns show argument structure in the corpus. For more than half of the Italian *-ing* nouns in the sample, none or only very few tokens appear with arguments; see Appendix, Table 1, for details. It remains to be studied which factors determine whether a noun ending in *-ing* can have argument structure or not. For our purposes here, the important point is that hearers and readers of these nouns are often being confronted with syntactic



structures that can only be interpreted by attributing argument structure to the borrowed nouns. They thus acquire lexical items that are not simple pairings of sign and meaning, but have argument structure as well.

## 6 Do borrowed nouns ending in *-ing* have event structure?

A second semantic dimension which is typical for verbs is event structure. Verbs can refer to different kinds of events, among which we find processes that unfold in time but do not have a culminating point (e.g., *boil*), but also accomplishments, which likewise unfold in time until they reach a point of culmination (e.g. *melt*). Since previous studies have often claimed that complex event structure in deverbal nouns needs to be licensed by an overt affix (e.g., Borer 2014; Grimshaw 1990; Smith 1972) – which lacks in the *-ing* forms under study as long as no morphological borrowing has occurred – we will have a closer look at the eventive properties of the loan nominalizations in the sample.

The distinction between complex event nouns (CEN), simple event nouns (SEN), and result nouns (RN) was introduced by Grimshaw (1990: 45). To which of the three classes a given event noun pertains can be tested by means of various distributional diagnostics; see below. Only CEN share with their base verbs the property of taking arguments; (14a). CEN and SEN pattern together in that they refer to events, (14a–b), while RN refer to objects (14c). SEN and RN, on the other hand, pattern together in not having argument structure, (14b–c), in contrast to CEN, (14a).

- (14) a. Complex event noun (CEN)  
*La costruzione della Chiesa ... si protrasse per circa vent'anni.*  
 'The construction of the church ... lasted for about twenty years'  
 (Melloni 2012: 25)
- b. Simple event noun (SEN)  
*Un altro incidente è occorso questa mattina.*  
 'Another incident occurred this morning'
- c. Object/result noun (RN)  
*Una costruzione abusiva è stata demolita due anni fa.*  
 'An illegal construction was demolished two years ago'  
 (Melloni 2012: 25)

The distinction between CEN and SEN has often been claimed to be associated with various distributional differences, such as the compatibility of the singular noun with certain modifiers like *frequent* or *gradual*, which modify the event structure,

(15a–b) (cf. Melloni [2012: 25–27; 95–102] and Russo and Caselli [2021] for discussion of relevant criteria and their application to Italian, and Meinschaefer [2005b, 2016] for Romance languages more generally).

- (15) a. CEN: Event structure modification with singular noun is possible  
*Solo l'applicazione frequente dei prodotti porterà un risultato visibile.*  
 'Only the frequent application of the products will bring visible results.'
- b. SEN: Event structure modification is possible only with plural noun  
*I viaggi frequenti sono sempre fonte di stanchezza e stress.*  
*\*Il viaggio frequente è sempre fonte di stanchezza e stress.*  
 '{Frequent trips are}/{\*A frequent trip is} always a source of fatigue and stress'

In a previous study on French and German loan nominalizations ending in *-ing*, Heinold (2009) has dealt with the question of how to describe the exact nature of the event-structural properties of these forms. She considers loan nominalizations ending in *-ing* in French and German contrastively, comparing them with the native English forms as well as with the native French suffixes *-age* and *-ment* and the native German suffixes *-ung* and *-en* (i.e., the nominalized infinitive). From studies on French nouns ending in *-ing*, Heinold (2009: 77) infers that in French this suffix can attach to native bases, hence, morphological borrowing seems to have occurred (see Section 2.1 above). For German, in contrast, Heinold (2009: 80) claims that *-ing* cannot attach to native bases, but this claim does not appear to be based on systematic data collection or previously published research. Heinold's main point is that in French, nouns ending in *-ing* can have both durative and terminative aspect and refer to result states and objects (similar to the native suffix *-ing* in English),<sup>4</sup> while in German they only can have terminative aspect and refer to results. Although Heinold's (2009) concepts of durative and terminative aspect are slightly different – but they may be more precise (see Heinold 2009: 71) than Grimshaw's concepts of Complex Event Nouns and Simple Event Nouns, – it appears that nominalizations with durative aspect are CEN although Heinold (2009: 76) claims (without showing that this is indeed the case by applying the relevant diagnostics) that French deverbal nouns ending in *-ing* cannot be CEN. Her point thus seems to support the general view that event structure needs to be licensed by an overt affix (e.g., Borer 2014; Grimshaw 1990; Smith 1972), which is indeed present in French loan words ending in *-ing* – since in French morphological borrowing has occurred (and nouns ending in *-ing* can have a durative reading) – but absent in German, where *-ing* is attested only in English loan words (and can have only a terminative reading). It is, however, not entirely

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<sup>4</sup> Heinold (2009: 82) claims that English nouns ending in *-ing* cannot refer to resultant states or objects, which is contradicted by her own examples such as *piercing* or *styling*.

clear whether Heinold's description, and thus her more general claim, is correct as it is not based on any systematic data collection, neither on corpus data nor on a controlled acceptability study. Her German data are based on her own introspection (Heinold 2009: 79), while the French data for nouns ending in *-ing* are taken from Farge (2004) and refer to only a single distributional criterion, i.e., countability of the noun ending in *-ing* when preceded by *faire* 'do' (as in *faire du camping*, in which *camping* is a mass noun and preceded by a partitive, which Heinold therefore classifies as durative, and *faire un briefing*, in which *briefing* is a count noun and preceded by an indefinite article in the singular, which is therefore classified as terminative); cf. Meinschaefer (2005b) for a discussion of the relation between the countability of deverbal nouns and their status as CEN.

While Heinold's claim is interesting and is compatible with the general view that complex event structure is available only in the presence of an overt affix, I will in a first step only be concerned with the question of whether nouns ending in *-ing* can have complex event structure at all – despite the fact that Italian *-ing* does not attach to native bases and that no morphological borrowing seems to have occurred according to Gardani (2021). As diagnostics I use the compatibility of nouns ending in *-ing* with event-modifying and with agentive adjectives in the present corpus. To be sure, a next step would consist in a closer inspection of their event-structural features in contrast to those of Italian nouns in *-aggio*, *-tura*, *-zione* or *-mente*, but this goes beyond the scope of this article.

To find contexts in which Italian *-ing*-nouns present complex event structure readings, I extracted concordances of *-ing*-nouns that co-occur with the event-modifying adjectives given in (16a), with the agentive adjectives listed in (16b), and with the eventive verbs listed in (16c).

(16) Distributional diagnostics for CEN readings

a. Event-modifying adjectives

<i>frequente</i>	'frequent'
<i>ripetuto</i>	'repeated'
<i>continuo</i>	'continuous'
<i>graduale</i>	'gradual'

b. Agentive adjectives

<i>annoiato</i>	'bored'
<i>compulsivo</i>	'compulsive'
<i>disinteressato</i>	'disinterested'
<i>distratto</i>	'distracted'
<i>ossessivo</i>	'obsessive'
<i>svogliato</i>	'lazy'
<i>volontario, volontario</i>	'voluntary'
<i>nevrotico</i>	'neurotic'

- c. Eventive verbs  
*avvenire, svolgersi* ‘happen, take place’  
*effettuare* ‘carry out’  
*assistere a* ‘assist to’

The corpus search resulted in 234 occurrences, which were exported in spreadsheet format from the corpus. All occurrences were annotated manually for whether the Italian *-ing*-noun in fact has an eventive reading. After deletion of those examples in which a diagnostic was present in the larger context, but where the noun did not have an eventive reading, we were left with 135 occurrences of nouns ending in *-ing* with event structure; see (17) for examples.

(17) Examples for Italian *-ing*-nouns with event readings

- a. Event-modifying adjectives  
*frustrazioni provocate dallo **scrolling** ripetuto per la lettura di un testo*  
 ‘frustrations caused by the repeated scrolling for the reading of a text’
- b. Agentive adjectives
- i. *solo un terzo dei nuovi giunti in carcere si sottopone a **screening** volontario*  
 ‘only one third of the newly arrived in prison undergo a voluntary **screening**’
- ii. *durante una seduta di **zapping** compulsivo*  
 ‘during a session of compulsive **zapping**’
- c. Eventive verbs
- i. *si è svolto un **briefing** alla presenza del direttore centrale*  
 ‘a **briefing** happened in the presence of the central director’
- ii. *l'**undocking** dalla Stazione avviene il 5 settembre*  
 ‘the **undocking** from the station happens on the 5th of September’
- iii. *si assiste a uno **zapping** continuo e purtroppo confuso di generi*  
 ‘one assists at a continuous and unfortunately confusing **zapping** of genres’

The examples thus present clear indications that at least some nouns ending in *-ing* not only refer to events but also have complex event structure in the sense of Grimshaw (1990).

## 7 Discussion and concluding remarks

This study has shown that English deverbal nouns ending in *-ing* borrowed into Italian, such as *screening*, can have argument structure and complex event readings.

Following Gardani's (2021) observation that in the RL Italian the segment *-ing* is found only on bases from the SL English, this may be taken as evidence that morphological borrowing has not yet occurred so that the forms in question do not present an overt affix that could license argument structure and event structure. Should we therefore give up the assumption that argument and event structure need to be licensed by an overt affix, as proposed by Smith (1972), by Grimshaw (1990) or Borer (2014)?

Recall that a similar proposal was made by Moravcsik (1975: 4) with respect to the borrowing of what she terms "verbal meaning" (Moravcsik 1978: 111), and of which I assume argument and event structure are two aspects. On Moravcsik's view, verbal meaning needs to be licensed in borrowed verbs by some (overt or covert) native functional element. While Moravcsik (1975) does not make entirely clear which elements of the RL can serve this function, it seems plausible that in borrowed verbs, inflectional affixes of the RL suffice to license verbal "meaning", or structure; hence, a borrowed verb like *screen-are* can have argument and event structure because of its RL inflectional affixes (as in *screen+ano* '3.PL.PRS' or *screen+avano* '3.PL.PRET', as attested in the *itTenTen16*). Thus, the finding that these borrowed verbs show argument and event structure presents no contradiction to Moravcsik's hypothesis: argument and event structure in *screenare* are licensed by the Italian verbal suffixes.

For the borrowed English roots like *screen*, many of which combine with native Italian inflectional affixes, the RL thus shows a "higher degree of entrenchment of the once-foreign elements" (Gardani 2021: 136) than for the borrowed element *-ing*. The question arises: what does Gardani's "higher degree of entrenchment" actually consist of when considered from the perspective of the speaker? We believe that in the mental lexicon of a speaker of (at least certain registers of) Italian, who uses loan words like *screenare* and *screenaggio*, such words are represented as morphologically complex: they are segmented into root and affix, just like native Italian verbs. In other words, both the root and the affix must be mentally represented as distinct morphemes. In this context, it is also worthwhile to mention the concept of accessibility of borrowings as discussed by Winter-Froemel (this issue).

Now, what about the status of *-ing* in borrowed deverbal nouns like *screening*, whose roots are recognized as morphemes by (some speakers) of Italian? Research on morphological priming, which is one window into the mental lexicon of the speaker, has shown that a morphological segment (i.e., a segment for which morphological priming occurs) is not necessarily a genuine morpheme, combining both form and meaning. Again and again, it has been shown that morphological priming occurs not only for morphemes as segments with form and meaning, as in *walk* and *walk-er*, but also for pseudo-affixes, as in *corn* and *corner* (Marslen-Wilson

et al. 1994; Taft 1981; cf. Frost et al. 2008: 934 for a brief review). From such findings we can conclude that segmentation of the formative *-ing* has certainly occurred in the mental lexicon (i.e., in the I-language) of (some) speakers of Italian, in the sense that this affix is mentally represented as a formative that can be separated from its root in processing. This finding allows us to understand why deverbal nouns can be borrowed with what Moravcsik has termed ‘verbal meaning’ and even exhibit argument structure and complex event readings: In the mental lexicon of the speaker, then, there is a morphological segment that, so it appears, fulfills the relevant function. However, we have no evidence that *-ing* has acquired the status of a derivational morpheme in Italian – differently from French and Spanish – since it combines only with English roots, producing words that are also found in English.

The reason for this contrast may be found in the different structures of the three Romance languages. Thus, French has lost all nominal class and gender markers (Klausenburger 1992) and Spanish has generally preserved them, with the exception of word-final /e/ after coronal consonants (Harris 1991, 1992). It is exactly to this form class that loan words ending in *-ing* are assigned, as in *mitin*, SG – *mitines*, PL (Mott 2015: 178). Italian, in contrast, has preserved nominal inflection across the board (Dressler and Thornton 1996: 5). Morphological integration of foreign affixes with the native lexicon is thus a more complex matter in Italian, an inflecting language, than in French, which has lost all nominal inflection, and Spanish, which has only one class with simplified morphological exponence. This, therefore, may very well be the reason for the resistance of speakers of Italian to combine *-ing* with roots from the RL Italian.

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## Appendix

**Table 1:** List of 81 nouns ending in *-ing* attested in the *itTenTen16* corpus that are considered in this study.

Lemma	N	Freq/ Mio	AS	CEN	LZ	Verb stem	Verb root	Other verbs
screening	35,091	5.98363	71	14	y	screenare		
networking	15,920	2.71464	30	3	y	networkare	workare	networkizzare
briefing	6,633	1.13104	132	39	y	briefare		
multitasking	5,206	0.88771	33	1	y			
booking	5,100	0.86964	42	0	y	bookare		

Table 1: (continued)

Lemma	N	Freq/ Mio	AS	CEN	LZ	Verb stem	Verb root	Other verbs
planning	2,909	0.49604	148	0	y	plannare		
hacking	2,669	0.45511	9	1	n	hackare		hackerare, hackerizzare
zapping	2,075	0.35382	19	44	y	zappare		zappingare
mentoring	1,678	0.28613	9	1	y			
carpfishing	1,671	0.28493	0	0	n			
scrolling	1,438	0.2452	133	15	y	scrollare		
encoding	1,156	0.19712	2	0	n	encodare		
boxing	1,032	0.17597	1	0	y	boxare		
provisioning	752	0.12823	61	1	n	provisionare		
cooling	713	0.12158	4	2	n			
sexting	619	0.10555	0	0	y			
blocking	516	0.08799	1	0	n	blokkare		bloccare
crowdfunding	499	0.08509	31	2	y			
reforming	356	0.0607	16	0	y	reformare	formare	riformare
forwarding	353	0.06019	28	1	n	forwardare		
tapping	330	0.05627	3	0	y			tappare
tracing	287	0.04894	6	1	n			tracciare
overloading	274	0.04672	1	1	n		loadare	
shifting	269	0.04587	5	2	n	shiftare		
steering	267	0.04553	2	0	n			
comarketing	175	0.02984	0	0	y		marktare	
tweeting	158	0.02694	8	0	n	twittare		twitterare, twitteare
sputtering	153	0.02609	1	0	n			
lowering	145	0.02473	0	0	n			
bombing	142	0.02421	1	0	n			bombare
casing	112	0.0191	1	0	n			
highlighting	103	0.01756	0	0	n			
societing	99	0.01688	1	0	n			societare
stepping	82	0.01398	0	0	n	steppare		
trail-running	76	0.01296	0	0	y		runnare	
kriging	70	0.01194	0	0	n			
wheezing	60	0.01023	0	0	n			
tiering	56	0.00955	1	0	n			
dewatering	55	0.00938	1	0	n		waterare	
firewalking	55	0.00938	0	0	n		walkare	
immunoblotting	54	0.00921	0	0	n		blottare	
phishing	54	0.00921	0	0	y			
multiprocessing	53	0.00904	0	0	n			processare
blanking	51	0.0087	0	0	n	blankare		
preshading	50	0.00853	0	0	n			
web-hosting	48	0.00818	0	0	n		hostare	
restocking	46	0.00784	2	0	n		stockare	stoccare

Table 1: (continued)

Lemma	N	Freq/ Mio	AS	CEN	LZ	Verb stem	Verb root	Other verbs
snooping	45	0.00767	3	0	n			
repowering	44	0.0075	6	0	n		powerare	
tightening	43	0.00733	2	0	n			
vesting	42	0.00716	0	0	n			
joining	41	0.00699	0	0	n	joinnare		joinare
email-marketing	40	0.00682	0	0	y			
matting	40	0.00682	0	0	n			mattare
skilling	40	0.00682	0	0	n	skillare		
socialnetworking	40	0.00682	0	0	n		networkare, workare	networkizzare
dogging	39	0.00665	0	0	n			
prefetching	38	0.00648	2	0	n	prefetchare	fetchare	fecciare
microprinting	37	0.00631	0	0	n		printare	
sunning	36	0.00614	0	0	n			
transforming	36	0.00614	0	0	n	transformare	formare	trasformare
undocking	35	0.00597	0	1	n		dockare	
venertuning	35	0.00597	0	0	n		tunare	
agenting	34	0.0058	1	0	n			
charting	32	0.00546	0	0	n			
greylisting	32	0.00546	2	0	n		listare	
cabling	31	0.00529	0	0	n	cablare		
counseling	30	0.00512	35	5	y			
vignetting	30	0.00512	0	0	n	vignettare		
refilling	28	0.00477	1	0	n	refillare	fillare	
busting	27	0.0046	0	0	n	bustare		
auto-tuning	26	0.00443	0	0	y		tunare	
hatching	26	0.00443	0	0	n	hatchare		
bi-wiring	24	0.00409	0	0	n			
mispricing	24	0.00409	2	0	n			
frameserving	23	0.00392	0	0	n			servare
pinging	23	0.00392	1	1	n	pingare		
blushing	22	0.00375	0	0	n			
trampling	21	0.00358	0	0	n			
eco-packaging	20	0.00341	0	0	n			
videomarketing	20	0.00341	0	0	n		markettare	
Total: 81		Mean= 0.19	858	135	20	26	18	18

Freq/Mio, frequency per million of the lemma ending in *-ing* in the *itTenTen16* corpus; AS, absolute number of occurrences of argument-realizing constructions found in the corpus; CEN, absolute number of occurrences of CEN readings found in the corpus; LZ, is the noun ending in *-ing* recorded in *Lo Zingarelli?*; Verb stem, verb built on the stem (i.e., including prefixes or compounding elements) of the noun as attested in the *itTenTen16* corpus; Verb root, verb built on the root of the noun (i.e., excluding prefixes or compounding elements) as attested in the *itTenTen16* corpus; Other



verbs, other verbs that are related (at least partially) in form and/or meaning to the noun as attested in the *itTenTen16* corpus.

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