Research Article

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The sound of the Italian comic book: Representing noises, senses, and emotions across 80 years

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Abstract: This article will describe the long-time use of sound symbolic forms (including ideophones and interjections) in Italian Disney comic book publications, from the 1930s until recent times. This is achieved through the diachronic analysis of ~4,700 entries coming from a corpus of sound symbolic forms as compiled by the author, taken from 210 Disney stories. Each of the entries was classified according to five different sound symbolic types based on the event, scenario, or situation they referred to. This analysis will provide an ideal chance to comment on several features exploited in the creation and use of sound symbolic forms and will be offered together with elucidations on a few under-researched areas within the linguistic study of sound symbolism. Quantitative data will be provided on (1) the lexical status of these forms, (2) their language of origin, and (3) the frequency of the five sound symbolic types. Additional commentary will also be offered on the various lexical and phonaesthetic experimentations featured in the comic strips. The results will be based on the comparison of the data coming from the corpus with existing research on these topics.

Keywords: comic books, sound symbolism, phonaesthesia, Italian, English, corpus, Disney

1 Introduction

This article aims to analyse the long-time use of sound symbolic forms in Italian Disney comic books across an 80-year time frame. The need for further research on the syntactical and phonological features of sound symbolism has been mentioned in the literature (Catricalà and Guidi 2015), and comic books have been proposed as a fruitful source of examples, which can provide a clearer picture of the grammatical status of ideophones in use. Sound symbolic words have been shown not to be arbitrary and are "characterised by a specific connection with some kind of external universe" (Catricalà and Guidi 2015, 176) but now we may ask ourselves what this universe consists of (Catricalà and Guidi 2015). The idea for this project arose because there proved to be little, if any, published research on the use and history of Italian sound symbolism, as indicated by Dovetto (2012, 204), particularly in those written media where it is often employed, such as comics. The originality linked to the use of these forms has been influencing the Italian language for the past 80 years by encouraging lexical experimentation and spurs of creativity on the part of Italian cartoonists and translators. More studies based on corpora are very much needed particularly for languages such as Italian.

Disney magazines in Italy have reflected approximately 80 years of the country's linguistic vicissitudes. In addition to this, they have been effectively "embodying one of the miracles" (Boschi 2012, 503) of pre- and post-war Italy. They received such a great accolade that, 6 years after their importation (1937), Italian original

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stories (approved by Disney) started being published (Bono et al. 2012, 79) – production that has continued without interruption until the present day. By the 1960s, Italian stories were in the majority, and some of them had even been translated for foreign markets (Stajano 1999, 15). The pages of Disney comic book publications in Italy have been the catalyst for the development of a specific linguistic register in Italian comics, effectively "exploiting the peculiarities and tendencies of contemporary Italian language while playfully intensifying them" (Pietrini 2013; translation mine). They provided linguistic stimuli to young and older readers, who have thereby been exposed to a "very rich lexical base" (Verda 1990, 59), which in turn offers a fertile source of material for the researcher.

2 Literature review

Casas-Tost (2014, 40) defines ideophones as "phonetically driven words …with enormous expressive capacity." As such, ideophones refer to any descriptive iconic renditions intended to depict sensory images, which can be sounds (in which case they are usually called 'onomatopoeias'), movements, and also, but less frequently, feelings, tastes, colours, or manners.

This study will also partly focus on the status and use of 'interjections', as many of them are found in the pages of comic books. Interjections (or exclamations) are single (or 'nonsentence') words pronounced by speakers to express different emotions. Often followed by an exclamation mark, they can be divided into primary and secondary interjections (classification offered by Poggi 1981, 69–72). Primary interjections can have either an emotive function (attempting to show emotion, such as *ahi, ohi, urrà,* and *ehi*) or a conative function (requiring attention from the interlocutor, see *uff* for boredom, *mah* for doubt, *ehm* for hesitation, and *ohibò* for astonishment). Secondary interjections instead refer to greetings, congratulations, or imprecations (*Help*!; *Damn*!; *Good*!). As such, speakers tend to be aware of their existence and use them to readily express certain spontaneous feelings in, often, a holophrastic fashion (i.e. they are used on their own as single utterances). The main difference between ideophones and interjections is the fact that interjections are usually to be found in dictionaries, and as such, they have a more official status in languages' lexicons. Indeed, interjections involve less phonetic symbolism than ideophones. Still, the two types do share some features, which will be commented on during the analysis as well. For the purpose of this article, the expression 'sound symbolic' words/forms will be used to refer to both ideophones and interjections. When the analysis focuses on one category in particular, this will be clearly stated.

The semantic substance of ideophones is usually rather clear and direct. The main problem lies, rather, in their categorisation within the syntactical and grammatical system of a particular language. The great morphological and phonological flexibility of the device lends it considerable cross-linguistic variability. Despite some features of sound symbolism being detected across all languages (Oszmiańska 2001, 149), words of this type undergo a certain degree of adaptation to fit the "phonemic and orthographic resources of language, thus they are likely to take varied forms in different speech communities" (Chapman 1984, 40). A crosslinguistic study of ideophones – like the present one – will thus show both the "common quality of human acoustic perceptions and also the disparities between their realisations" (Chapman 1984, 40). This comes to light when noticing the inconsistencies in the ways different languages represent animal noises (Abbott 2004). If one decides to include the concept of onomatopoeia "within the scope of the term ideophone," as should be the case in this writer's opinion, "the ideophone may be recognised as a feature of universal language" (Noss 2003, 41). The notion that ideophones are "conspicuously undeveloped and poorly structured in the languages of Europe" (Diffloth 1972, 440) and are only prominent in certain African and Asian languages should thus not be supported anymore, particularly in studies that delve into their extensive use within comics.

Note that sound symbolic tendencies and characteristics have been found in many languages (Dingemanse 2012, 655). Nevertheless, one should always keep in mind that as much as ideophones are an open class, the same openness applies to their classification. It follows that offering examples of how ideophones act and how they represent sensory images in specific contexts seems the best path to follow in order to fully grasp their function and modalities. As explained by Poggi (1981, 51), the classification is sometimes uncertain, depending

on context or interpretation. Thus, certain words can be classified both as interjection and ideophone. To cite an example, *uffa* (*oof* in English, used to express boredom or annoyance) can be perceived both as interjection, since it is the exact word articulated by the speaker, and as ideophone, in the form of an iconic rendition of a grumbling act.

The unique linguistic condition of ideophones also has a neural counterpart: neurological investigations (Hashimoto et al. 2006) have produced evidence that ideophones are processed "by extensive brain regions involved in the processing of both verbal and nonverbal sounds" (Hashimoto et al. 2006, 1762). This confirms the special status of ideophones; they seem to serve as a "bridge between nouns and sounds" (Hashimoto et al. 2006, 1762), not fully belonging to either of the two categories but representing, even neurologically, the passage from one type of stimulus to another.

There are no significant theoretical studies available on the use of ideophones in oral Italian, but one can undoubtedly say that the use of these forms in Italian is usually relegated to certain written genres or playful oral exchanges. The first all-embracing piece of research on the linguistic properties of Italian ideophones was published in 1994 by Fernando Dogana (*Le parole dell'incanto*, 'Words of Enchantment'). The book aims to present an overview of the iconic potential of Italian words and phonemes and any other expressive exploitations of the vernacular through iconic words, including a meticulous and enlightening analysis of the symbolic value of each of the 21 graphemes of the Italian alphabet. Similar to Dogana's research is Nobile's analysis of the phonosymbolic values of Italian vowels, published in 2003 and entitled *L'origine fonosimbolica del valore linguistico nel vocalismo dell'italiano standard* ('The Phonosymbolic Origin of Vowels in Standard Italian'). In terms of comprehensiveness and strictly linguistic analysis, these two studies represent the only resources available. Dogana's research in particular will be used to formulate a theory on the phonaesthetic properties of the forms as found in the corpus in order to investigate whether the phonaesthetic categories brought forward by Dogana are applicable in the context of the manually compiled corpus used in the current research project. Studies that mention Italian ideophones from various perspectives are, instead, slightly more numerous (Barbieri 2014, Dovetto 2012, Ficarra 2012, Frezza 2012, Gadducci and Tavosanis 2012, Chmielewska 2011, Ozumi 2011, Beccaria 2010, Celotti 2008, Poggi 2009, Eco 2008, Ippolito 2008, Semprini 2006, Sanna 2005, Pellitteri 1998, Zanettin, 1998, Verda 1990, Poggi 1981).

An important contribution to the study of Italian ideophones in new media was made by Mioni (1990, 1992) in two articles about their function in comics. Mioni's ideas were supported and further developed by Pellitteri with his book *Sense of Comics* (1998), which focuses on multimodality in Italian comics. Scattered mentions of the creation and of the problems in translating ideophones exist (Catricalà 2000, Semprini 2006, Eco 2008, Ippolito 2008, 2008a, Gadducci and Tavosanis 2012, Dovetto 2012, Sinibaldi 2012), but specific studies based on acquired data are scarce. Except for Pietrini's analysis of the role of ideophones as part of her research on the language of Disney comics, published in 2009, "systematic studies based on extended corpus are nonexistent" (Gadducci and Tavosanis 2012, 114; translation mine). Missing also are investigations on how the use and creation of Italian ideophones in comics have changed over time – although there is a small number of unpublished academic dissertations and an academic article (Dovetto 2012) that partly cover this – together with clear data regarding their impact on the Italian language in use. The current piece is based on some of the results that were offered in the author's doctoral thesis (Pischedda 2016), and further contributions to the field have been offered by the author of this article in the last decade, in the form of several publications that analysed the same corpus but through different perspectives and methodologies (Pischedda 2020, 2017).

Sound symbolic words are thought to be generated from a "conflation of iconicity and systematicity" (Thompson and Do 2019, 1). Various studies have shown that iconicity is achieved through "perceptuo-motor analogies derived from oral articulatory gestures" (Thompson and Do 2019, 1). Analogy is indeed what makes sound symbolic words and their iconicity universal (Thompson and Do 2019). Systematicity still plays a role in all this. Sound symbolic words have indeed shown to still adapt to the phonological system of languages so in all the iconicity there is still space for some partial arbitrariness. Ideophones have proven to be an "ideal testing ground" (Thompson and Do 2019, 1) for this sort of studies that look into phonaesthesia. The phenomenon according to which certain sounds trigger certain sensory values, which will be now analysed, goes under various nomenclatures. Notions of 'sound or phonetic symbolism', 'phonaesthesia', 'phonosymbolism', and 'phonosemantics' all try to encapsulate this specific concept. Written or spoken sounds can be used to

convey both sounds ('direct symbolism', as defined by Marchand 1969, 397) and feelings ('expressive symbolism', Marchand 1969, 397) and often do so through different phonemic and graphemic symbolisms. This is what has been also defined in the past as the 'bouba-takete effect', whereby people tend to associate curvilinear images with the word 'bouba' and angular images with the word 'takete', due to the specific sounds included in each of the two words. In particular, the way certain sounds are articulated or silently performed in the reader's mind or through inaudible movements of lips and throat – what Petersen calls 'sub-vocalisation' (2007, 579) – seems to have a major effect on the iconic values triggered by ideophones. As a consequence, these properties when used in comics create certain universalities, that is recurrence of the same phoneme or grapheme to represent certain emotional and kinaesthetic events. Sounds with similar places or modality of articulation are indeed prone to symbolise similar sets of senses as does the shape of letters. Hence, similarly shaped letters tend to represent similar sets of senses. The process is, of course, not completely based on instinct and non-arbitrariness. The influence of conventions is fairly widespread, both because the comic itself slowly trains its readers to link certain phonemes/graphemes to specific sensorial experiences and also because the words present in a language's lexicon can somehow interact with this non-arbitrary symbology. Hence, the presence of many lexicalised forms in the corpus, which some readers might consider iconic despite their crystallisation within the language system.

This effect is at play not on all aspects of a language but only in certain expressive contexts, such as ideophonic use. Despite this, languages do still tend to place ideophones within the linguistic system in an effort to mould them into the language. Some studies (Akita and Dingemanse 2019) have, for instance, shown that ideophones obey certain phonotactic[1] constraints although, at the same time, other studies (Pischedda 2017) have shown that some phonotactic deviation can indeed be noticed. So, again, there seem to be various dynamics at play, a tantalising mix between arbitrariness and iconicity which, in itself, does not necessarily cancel the expressiveness or originality of these forms.

Despite sound symbolism being commonly considered to resist language change, the creation of ideophones is indeed motivated by a common process that instigates morphological linguistic changes in languages. In the case of ideophones, this process seems to only be used with a neological function – i.e. to create new words from scratch. Data extracted from the corpus have been at times employed to examine recurrent values given to specific phonemes, graphemes, and clusters, a phenomenon called conventional sound symbolism or 'phonaesthesia' (McGregor 2011, 91) and how these phonaesthetic representations differ according to the various categories listed in the corpus. Several studies focusing on phonetic symbolism in both Italian (in particular: Dovetto 2012, Dogana 1994, Mioni 1990, 1992) and English (Marchand 1969, Reid 1967) have been used as a basis for this particular investigation and have been supported and updated with data coming from the corpus.

The current study does not aim to discuss to what degree ideophones are or are not iconic or arbitrary but wants to analyse a corpus of ideophones in order to assess whether its contents fit within the existing frameworks with regard to ideophonic use.

3 Methodology

The majority of the results will be based on a manually compiled corpus, which was created thanks to bibliographic resources found at comic book libraries in Cremona (Italy) and Florence (Italy). Initially, the plan was to use a specific, more advanced piece of software to collect and analyse the data but, after consultation with other scholars, it was decided that a Microsoft Excel spreadsheet file would have represented the most appropriate option. The final corpus adds up to a total of around 4,700 entries (including both ideophones and interjections) coming from 210 Disney comic book stories published in Italy (both original and

1 'Phonotactics' refers to the study of all the possible consonantal and vocalic combinations that are permissible within the syllables of a given language.

translated ones). Each entry was manually categorised according to different parameters, which I will not hereby cover in their entirety as only a handful of these are relevant to this specific article. In particular, for the purpose of this inquiry, only three categorisations will be considered, and these are related to (1) whether the form was lexicalised or non-lexicalised, (2) what sound symbolic types the form belonged to, and (3) what its language of origin was. Further information on each of them will be provided below.

During the collation of the corpus, it was deemed appropriate to group both ideophones and interjections into specific 'sound symbolic types' according to the kind of event they were attempting to represent. Specifically, it was decided, for the purposes of this research, to place each entry of the corpus in one of the following five categories (which were originally designed by the author): (1) environmental, (2) emotional, (3) mechanical, (4) animal, and, finally, the (5) miscellaneous category. Environmental forms refer to any noises caused by people's movements (running, chewing, punching, typing, etc.) or natural noises (the crackling of leaves, the sound of the wind, etc.). Human noises refer to any interjectional and ideophonic expressions used to express feelings, of both lexicalised and non-lexicalised origin ('groan!' to express upset, 'eww' to express contempt, etc.). Mechanical sounds refer to those forms that are used to depict the noise produced not only by technological devices (such as computers and phones) but also by machines (cars and motorbikes, for instance). The animal category instead covered animal cries (a dog's barking, a cat's meowing, a frog's croaking, etc.). Anything that did not fit in the previous four descriptors was instead included in the 'miscellaneous' category.

Each entry was also categorised according to two other classifications, related to their language of origin and their lexicalised nature. Both of these will be used to analyse certain diachronic features across the forms. In relation to the language of origin, each entry specifies if the form is (1) Italian, (2) English, (3) belonging to any other language (but not Italian or English), or whether it is of (4) unknown origin. This study will make the most of this by also investigating whether forms coming from a certain language are more frequent than others.

Finally, forms were categorised according to their lexical status – i.e., whether the form is lexicalised or non-lexicalised. To be part of the 'lexicalised' category the ideophone needs to be in a dictionary (dictionaries used: 'Merriam-Webster Online' 2022, for English and 'De Mauro Dictionary of Language in Use' 2000, for Italian).[2] Non-lexicalised forms instead refer to those entries that cannot be found in the selected dictionaries. Examples include nonsensical forms such as *vrrrr*, *brum*, and *zzzzzz*. These forms have also been defined by Anderson (1998, 124) as 'paraverbals'.

Overall, the study can be split into three different inquiries, each focusing on a specific question and also making the most of the three different descriptors as outlined above (sound symbolic types; lexical status; language of origin). The list is as follows:

i. *Sound symbolic type frequency* – What is the most common type of sound symbolic word out of the five categories (environmental, human, mechanical, animal, and miscellaneous) taken into consideration in the corpus?
ii. *Lexicalised vs non-lexicalised* – Do certain sound symbolic forms tend to feature more lexicalised rather than non-lexicalised forms?
iii. *Italian vs English forms* – Are Italian forms more common than English forms? Does this change across the years? Second, if any English forms are present, when did they start being employed?

Additional remarks will also be offered on other smaller inquiries. For instance, some comments in relation to the phonaesthetic patterns noticed will also be mentioned in passing, although this does not represent a central part of the study.

2 The most extended Italian dictionary is Battaglia (2004/1996) although this is not a dictionary of language in use so it only includes some of the ideophones and interjections of English origin, hence why it was deemed appropriate to use De Mauro for the main analysis although Battaglia will, at times, be consulted and referenced throughout the investigation.

4 Examination of sound symbolic types

Data on the occurrence and diachronic change of each have consequently been gathered, showing the predominance of certain types over others and the gradual modifications of these types through the eight decades under consideration. The corpus includes 3,887 ideophonic forms and 794 interjections. Since they all express human feelings, interjections were automatically placed in the 'human' category, so they are not included in Table 1, which shows the occurrence of ideophones across the corpus.

As one would expect, environmental sounds are the most common, encompassing almost half (42%) of the corpus material. The sounds representing actions and natural noises are the most common in the pages of the comics, as kicks, jumps, and rumbles play a quintessential role in conferring the strip with sensorial depth. Human noises are almost as common, with 1,272 forms (33% of the total), and are commonly expressed through ideophones representing sounds directly produced by the characters – coughing, sneezing, and sniffing being among the most common ones. This category also includes English forms that are non-lexicalised in Italian and foreign forms that are meant to depict feelings (i.e. *gulp, gasp, sigh, sob*), which were not included in the 'interjection' category for the scope of this project. Mechanical and animal noises are the next most common ones, with 559 and 382 forms, respectively. Miscellaneous forms are, by contrast, at the tail end with a comparatively low occurrence across the database. These include more obscure forms that could not be clearly assigned to any of the other three categories, see 'gnaf' used to refer to the action of stealing or 'poof' used to represent a character disappearing from the comic strip.

First of all, the different categories were analysed according to whether they were of lexicalised or non-lexicalised nature, as explained in the previous section. In short, lexicalised forms are those considered to be officially part of the language's lexicon and thus can usually be found in dictionaries. Non-lexicalised forms would commonly be seen as 'non-sensical' as they might have been invented from scratch for instance. Chart 1 summarises the findings across four different categories. In this case, the miscellaneous category was not included as there were not enough forms (only 49) for the data to be considered meaningful.

Also note the presence of the partially/mixed category. This was used to categorise forms that did not have a clear-cut lexical categorisation, often due to obscure etymology. Interesting is the fact that the mechanical category has the lowest number of lexicalised forms when compared to all the other sound symbolic types. The reason for the tendency of mechanical sounds to feature more non-lexicalised forms could be due to the fact that they are often trying to imitate sounds produced by machines and tools that cannot always be successfully replicated through our vocal cords (Assaneo et al. 2011, 4). This intrinsic characteristic of this sound symbolic type makes its forms more likely to involve nonlexicalised expressions. Vice versa, ideophones that are trying to iconically represent feelings, i.e., those included in the 'human' category, will more likely involve lexicalised forms (interjections, which are indeed included in this category). This is due to the fact that they are perceived as easier to perform by human beings as we can express feelings through our vocal tract/cords.

The next sections will focus specifically on two of the five sound symbolic types (environmental and emotional) with the aim of offering a more detailed overview of the sound, senses, and/or actions each of them is trying to depict and how these are achieved via iconic means. This choice was motivated by practical reasons as the other three categories do not include a considerable number of entries; hence, the quantitative analysis would have been quite limited.

Table 1: Percentage of sound symbolic types throughout the corpus (without considering interjections)

Ideophonic type	Total	%
Environmental	1,625	42
Human	1,272 (2,041 if one considers interjections as well)	33
Mechanical	559	14
Animal	382	10
Miscellaneous	49	1
Total	**3,887**	

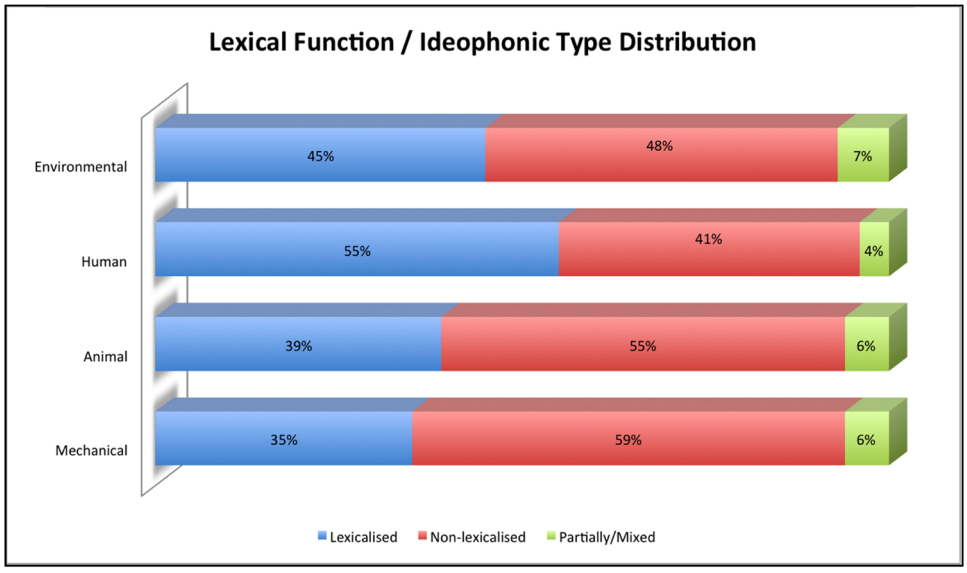

Chart 1: Distribution of lexicalised/non-lexicalised forms according to ideophonic type.

5 Environmental

These ideophones are generally used to depict sounds caused by inanimate objects (nonmechanical ones) or through movements performed by characters. They therefore include actions and natural sounds. When it comes to analysing the presentation of natural phenomena, the corpus reveals particularly interesting and innovative choices. Natural elements linked to water, fire, wind, and earth are all present and bear witness to some remarkable and inventive approaches in order to encompass events that are somehow not controllable by humans.

Water-related events are mainly represented through the action of falling into water. These representations are both non-lexicalised (i.e. *plunnf, ciaf, pluff, plaff, gllup, plosch, vluuf, zzzz fiiii, plink,* and *kersplop*) and nearly lexicalised or fully lexicalised (i.e. *splasc, splash, pop,* and *roomble*) forms. The sounds of rain and storms are also present with forms such as *plic plic ploc, brumble* and *sdruuumbl* (all from a story published in 1971). Spraying and throwing water is usually represented through both Italian (i.e. *spruzz* and *sciaff*) and English (i.e. *splash*) lexicalised words, but non-lexicalised forms are also present, such as *ksshhh* for a shower and *skish, splosh, svissh, sprussh, fssss, squoosh,* and *pssst* for spraying. In this case, one can note the dominant presence of the grapheme and phonemes for the /s/ and /sh/ sounds, which have been shown to carry various phonaesthetic meanings related to 'moving air', and 'hissing'/'buzzing' actions (Dogana 1994, 226 – translation mine). This seems to be due to the fact that fricatives can be sustained for a long; hence, they seem to be the best candidates to represent a continuous leaking or spraying of liquid substances. Other actions include boiling water (*bll blll blll, glurgh glurgh*) and the sound of sea waves (*swooss, splash, rrrumble, vloosh, skrataplash,* and *washhh*). Fire is a challenging element to represent as it produces very little sound, therefore clearly pushing the creative boundaries of cartoonists. The sound of sizzling fire is often represented with *zzrzzz, zzzrr, vuuumm, sviscc, fiiiii, wamp, fooosh* but vaguely lexicalised forms are also present, such as *sfamm, sfum, and flam* – which are presumably inspired by the Italian and English words for a flame (*fiamma* in Italian) – and *woosh.* In this case, the iconicity is somehow vague and far from being crystallised. If one were to read the words without the image, it would be very difficult to guess that these forms are used to refer to fire. One may conclude that for very specific niche sounds that do not have a common ideophonic realisation, the cartoonists found themselves struggling to come up with the right/perfect sound symbolic form. Wind, on the other hand, is not very heavily represented, with only one ideophone describing a tornado: *woooosh*. Earth sounds include those events related mainly to rocks falling, and the forms here to some degree resemble the ideophones used for explosions. The aim here is to express as much noise as possible through letters. Graphical

Table 2: Summary of data regarding environmental ideophones

Character's action	Function	Prevailing form(s)	Language of origin (total number of forms per language in brackets)	Grammatical function
Jumping	Motion	*Zomp*	Italian (1) (from the Italian verb *zompare*, 'to jump')	Clipping (1)
Character falling	Motion sound	*(S)cras(c)h* *Splas(c)h* *T(h/o)ump*	English (3)	Lexicalised (3)
Flying	Motion	*Swiss*	Presumably English (1) origin, as it contains the grapheme <w>	Non-lexicalised (1)
Running	Motion	*Zow* *Zip* *Zoom*	English (3)	Lexicalised (2) Non-lexicalised (1)
Punching and slapping	Sound	*(S)bonk* (EN) *T(h)unk* (EN) *Pum* (IT)	English (2) Italian (1)	Lexicalised (3)
Tripping, slipping, and sliding	Motion sound	n/a	n/a	n/a
Kicking	Sound	n/a	n/a	n/a
Door knocking	Sound	*Toc toc* (IT) *Knock* (EN) *Bam* (EN) *Thump* (EN)	English (3) Italian (1)	Lexicalised (4)
Clapping	Sound	*Clap* (EN)	English (1)	Lexicalised (1)
Kissing	Sound	*Sm(u)ack* (EN) *P(t)ciu(m)* (IT)	English (1) Italian (1)	Lexicalised (1) Non-lexicalised (1)
Throwing	Sound motion	*Splas(s/c)h* (EN)	English (1)	Lexicalised (1)
Scratching	Sound motion	*(S)grat* (IT)	Italian (1)	Clipping (1)

Event (involving an object)	Function	Prevailing form(s)	Language of origin	Grammatical function
Breaking	Sound	*Crash* (EN) *(S)crack* (EN)	English (2)	Lexicalised (2)
Crashing	Sound	*(S)cras(c)h* (EN) *(S)crac(k/h)* (EN)	English (2)	Lexicalised (2)
Exploding	Sound	*Bu(u)m* (IT) *Boom* (EN) *Bang* (EN)	English (2) Italian (1)	Lexicalised (2) Non-lexicalised (1)
Closing	Sound motion	*Slam* (EN) *Click(k)* (EN)	English (2)	Lexicalised (2)
Opening	Sound motion	*Clic(k)* (EN)	English (1)	Lexicalised (1)
Musical instruments	Sound	n/a	n/a	n/a
Falling	Motion	*Crash* (EN) *Bonk* (EN)	English (2)	Lexicalised (2)
Cutting and chopping	Sound motion	*Zac* (IT)	Italian (1)	Lexicalised (1)
Switching on/off	Sound motion	*Clic(k)* (EN)	English (1)	Lexicalised (1)
Total:			**English (27)** **Italian (7)**	**Lexicalised (28)** **Non-lexicalised (4)** **Clipping[a] (2)**

Note: 'IT' refers to 'Italian' forms, whilst 'EN' refers to 'English' forms. 'NLS' means 'Non-language specific'.
[a]Clippings are here seen as being part of a separate category as they are neither fully lexicalised nor non-lexicalised. These refers to cases where the morpheme of the word was truncated or 'clipped'.

features often support the cartoonist in creating his intended effect. See forms such as *br-r-rum buum, rroar, buum, ca-rasc, crash, clonk, craac, bwaam, cronch, crieek,* and *crumble* used for rocks sliding and falling in realisations that often involve the use of large, colorful fonts. From a phonaesthetic point of view, one can notice the presence of plosive sounds in this case, the voiceless velar plosive /k/ in particular. Plosives, in general, due to their specific articulation modality tend to be involved in 'abrupt and rapid' sounds (Dogana 1994, 209). This effect seems to be universal: a study by Ertel (Dogana 1994, 217) has for instance shown that, across 25 languages, voiceless plosives are most likely to be associated with 'strength'. Going back to ideophones related to earth sounds: it is interesting to notice that, for those forms that particularly stress physical movement, this is achieved via the actual lengthening of certain consonants and vowels, see *fiiii, zuigggg, vroooom*, and *wooosh*, in an attempt to analogically also provide a visual representation of the action via the word's spelling. Rock breaking is also present with mainly lexicalised expressions such as *slip, scrash, scratacrash, crash,* and *thudd.*

Generally, when cartoonists try to depict environmental events, a major creative task they face is to include a representation of both the sonic and kinaesthetic (i.e. motion) experiences consequent upon the actions performed by the characters in the strip. It is interesting for instance to notice that many ideophones that refer to the action of running include the grapheme ⟨z⟩, which in Italian is usually realised as one of two affricates: /t͡s/ or /d͡z/. Ertel's research has shown that certain affricates and sibilants indeed tend to be used to represent speed and dynamism (Dogana 1994, 233). In this case, there also seems to be a graphic symbolism at play if we consider the way that the ⟨S⟩ and ⟨Z⟩ letters/graphemes are visually represented. The iconicity of these expressions attempts to capture both the movement and the sound resulting from the action, a fact that sometimes fosters creativity. The following section will list some of the most frequent acts and actions performed by characters in the analysed strips. For each action, a few comments will be offered in order to summarise the main tendencies and identify predominant forms. The first column includes those words that are lexicalised, while the second one lists the non-lexicalised ones. This separation facilitates a direct comparison between the two. In certain cases, phonaesthetic remarks regarding the iconic values of certain consonants, vowels, or clusters will be offered.

Table 2 summarises the results of the analysis for environmental sounds resulting from both characters' actions and inanimate objects. The prevailing forms for each act have been highlighted, and the results will be further discussed.

The results show a striking predominance of prevailing English lexicalised forms used to represent environmental events. Out of 35 prevailing forms, only seven are of Italian origin: *zomp* for jumping, *pum* for punching, *toc toc* for door knocking, *pciu* for kissing, *sgrat* for scratching, *buum* for an explosion (note that this is English-derived), and *zac* for cutting. Out of these seven, *zac*, *toc toc,* and *zomp* are the only ones to have been used more or less consistently throughout the years. In most of the other cases, English words have replaced them in later years. In the case of *pum,* for instance, its last appearance was in fact recorded in 1949, and it was subsequently superseded by *(s)bonk* and *t(h)unk*. This exemplifies the early use of Italian lexicalised ideophones that was later abandoned for a more English-friendly environment. Nevertheless, this is not always the case; at times the Italian and English-derived forms cohabit for decades, as happens with *toc toc* and *knock knock*, both currently used to represent the sound of door knocking – but cases like these are much rarer.

When it comes to looking at the variety of forms used across the decades, some actions tend to foster more crystallised depictions that somehow appear to perfectly fit the event described. In other instances, a variety of expressions has been used through the decades, possibly because the action felt more difficult to depict or because cartoonists felt the need to play with the language before 'picking' a prevailing form. Somehow the 'natural selection' of comics has ruled some forms out automatically, for linguistic and/or sociocultural reasons. For certain actions, more experimentation has happened, particularly through the creation of non-lexicalised made-up forms, that have rarely stuck but that nevertheless show a willingness to revamp the sectorial vernacular of the genre. See the Italian-inspired *p(t)ciu(m)*, initially used to represent kisses, but which hardly anybody would recognise nowadays, or the different non-lexicalised realisations created through the years to represent characters and falling objects.

The tendency has been for Italian-derived forms to be employed at the beginning, with English expressions slowly taking over, particularly the post-60s and 70s. If one looks at all the ideophones present in the

Table 3: Percentage of lexicalised and non-lexicalised forms in English and Italian ideophones

Language of origin	Tot. ideophones	Lexicalised	Non-lexicalised
English	1,696 (45%)	1,495	201 (13% of all English-derived expressions)
Italian	578 (15%)	260	318 (81% of all Italian-derived expressions)
Italian rendition of English form	402 (11%)	9	393
Non-language specific	958 (26%)	0	958
Other language	18 (1%)	18	0
Uncertain	85 (2%)	n/a	n/a

corpus, of 3,737 forms (not including interjections and ideophonic series), 45% (1,696 entries) of these are in fact of English origin (Table 3), with only 578 ideophones coming solely from Italian – not to mention another 400 entries being Italian renditions of English forms. In other words, the English influence is present and undeniable. Non-language specific and Italian words sometimes manage to win the attention of cartoonists who, possibly in an attempt to provide more variety or just to update the existing forms, choose to momentarily pick or create new words. Table 3 and Chart 2 also show how the majority of Italian-derived expressions (81%) are of non-lexicalised origin. The opposite happens for ideophones taken from English, which boast a remarkably high lexicalised rate, with 87% of forms being lexicalised. This corroborates the English tendency to take ideophones directly from the language in use and Italian's reluctance to do the same.

In summary, the first 17 years (1932–1949) show a general willingness to experiment with varied forms, English, Italian, or non-language specific/non-lexicalised. While some of those Italian or non-lexicalised forms that were used initially do not seem to have become regular features in the pages of comics, the English ones that arrived later seemed to have been re-used more often. These eventually became accepted by the Italian linguistic community and sometimes even made appearances in Italian dictionaries. The results for the environmental forms taken as a whole show a genre that is open to modifications and new coinages, a type of new media that relies heavily on the reader's capability to grasp the meaning from the images and not only from the words.

The following section will delve into ideophones (and also interjections) that are used to represent human feelings. The 'emotional' category is, together with environmental sounds, the most represented in the corpus.

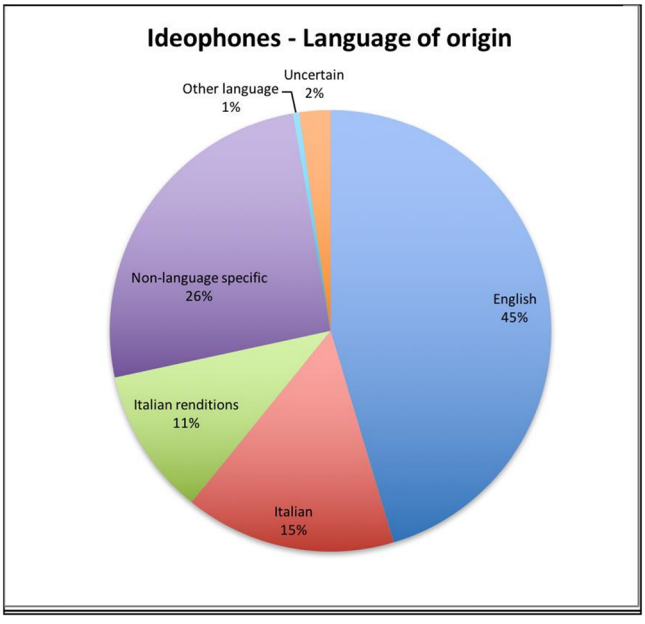

Chart 2: Percentage of ideophones according to their language of origin.

33% of the ideophones fall within it. As mentioned before, during the process of compiling the corpus, interjections were included in the human category, which resulted in it containing an even greater number of forms. This allowed a different type of analysis to be carried out for these forms, as will be now shown.

6 Human

The human category includes depictions that attempt to imitate sounds produced by human beings or to convey their emotional state. The data considered in this section also includes interjections as they represent a large proportion of these forms. For this reason, throughout this subsection, the terms 'sound symbolic' and 'sound symbolic form(s)' will be used, rather than 'ideophonic forms' and 'ideophones', so that interjections are also included. As explained earlier, interjections have been shown to differ substantially from ideophones in terms of iconic strength and intent.

An attempt to identify nine main emotional states has been made in order to facilitate classification and consequent analysis. Scholars usually consider six 'primary feelings' (surprise, happiness, anger, fear, disgust, and sadness) as a basis to define and categorise human emotional states (Dovetto 2012, 207), but for the purpose of this research, three more emotions have been added to the list. As a result, the following nine feelings have been used: (1) surprise (includes astonishment), (2) happiness (includes relief and contentment), (3) anger (includes frustration), (4) fear (includes tension), (5) disgust (includes annoyance, disapproval and complaint), (6) sadness (includes despair, disappointment, discomfort, feeling sorry, discontent, sighing, boredom, defeat, worry, discouragement), (7) pain, (8) doubt (includes hesitation, uncertainty and confusion), and (9) fatigue (includes tiredness). Negative emotions are more represented than the positive ones, with surprise being the most featured (a characteristic also spotted by Dovetto 2012, 207).

The nature of the feeling itself influences its phonosymbolic realisations. Anger, happiness, pain, and disgust are vocal feelings, meaning that people tend to often express them through words (i.e., shouts); hence, these feelings are often depicted in comics through interjections. However, internal, irrational feelings (i.e., fear) are often expressed with lexicalised or non-lexicalised abstract words that would not actually be expressed vocally.

Table 4 summarises the prevailing forms for each emotion, their language of origin, and the prevailing grammatical function of these forms (NLS stands for 'non-language specific').

Table 4 shows again a predominance of English-derived forms (21 as opposed to 13 Italian forms). Lexicalised depictions are also generally highly preferred. 36 forms out of 45 prevailing forms could indeed be found in dictionaries of language in use ('Merriam-Webster Online Dictionary' 2022, for English and 'De Mauro Dictionary of Italian Language in Use' 2000, for Italian). 'Sadness', 'anger', and 'fear' are the only three feelings that include at least two nonlexicalised forms as prevailing. 'Fear' is also the only emotion for which non-lexicalised forms are preferred to lexicalised ones.

The following section will consider the data gathered for each of the nine feelings. Considering their high frequency throughout the decades, ideophones and interjections representing feelings offer a clear overview on the continuous evolution of these forms throughout the years. The aim is to offer clear historical data on the changes of these forms throughout the decades and highlight changes in their use, while also considering if and when English or Italian forms start to prevail over each other.

6.1 Surprise

Surprise is the most represented feeling throughout the corpus, with 315 forms. This category features a predominance of English terms, with forms such as *gulp*, *ulp,* and *gasp*, particularly post-1960s. Until the end of the 1950s interjections were mostly used, these being monosyllabic forms such as *oh* and *toh* or lexicalised Italian interjections such as *perbacco*, *corbezzoli*, *capperi*, *accipicchia*, *perdinci*, and *ohibò*, which

Table 4: Prevailing forms for each emotion

Feeling	Prevailing form(s)	General Lexical preference	Language of origin (number in brackets is the total number of prevailing forms for that language)	Grammatical function
Surprise	*Ulp* (EN) *Gulp* (EN) *Gasp* (EN) *Toh* (IT) *Ua(o/u)* (IT) *Oh* (NLS)	Lexicalised interjections	English (3) Italian (2) NLS (1)	Lexicalised (5) Non-lexicalised (1)
Happiness	*Y(i)a(h/i)oo* (EN) *Urrà(h)* (IT) *Yuppi* (NLS)	Interjections	English (1) Italian (1) NLS (1)	Lexicalised (2) Non-lexicalised (1)
Anger	*(S)grunt* (EN) *(S)nort* (EN) *Grr* (NLS) *Gru(n/m)f* (NLS)	Lexicalised	English (2) NLS (2)	Lexicalised (2) Non-lexicalised (2)
Fear	*Gulp* (EN) *(S)gurgle* (EN) *Gasp* (EN) *Glom* (NLS) *Iih* (NLS) *Brr* (NLS)	Non-lexicalised	English (3) NLS (3)	Lexicalised (4) Non-lexicalised (2)
Disgust	*Um(p)f* (EN) *Pfui* (EN) *Tsk* (EN) *(S)grunt* (EN) *Groan* (EN) *Puah* (IT) *Uff(a)* (IT) *Glom(f)* (NLS)	Interjections	English (5) Italian (2) NLS (1)	Lexicalised (7) Non-lexicalised (1)
Sadness	*(A/U)rgh* (EN) *Oops* (EN) *Sigh* (EN) *Sob* (EN) *(A/O)himè* (IT) *Oh* (NLS) *Uh* (NLS) *Glom* (NLS) *Glab* (NLS)	Lexicalised Interjections	English (4) Italian (1) NLS (4)	Lexicalised (7) Non-lexicalised (2)
Pain	*Ouch* (EN) *A(h)i(a/o)* (IT) *Ohi(a)* (IT)	Interjections	English (1) Italian (2)	Lexicalised (3)
Doubt	*Mumble* (EN) *Mah* (IT) *Toh* (IT) *Uhm* (IT) *Ehm* (IT)	Interjections	English (1) Italian (4)	Lexicalised (4)
Fatigue	*Pant* (En) *Uff* (IT) *Puff* (NLS)	Lexicalised non-lexicalised	English (1) Italian (1) NLS (1)	Lexicalised (3)
Total:			**English (21)** **Italian (13)** **NLS (13)**	**Lexicalised (36)** **Non-lexicalised (9)**

Note: 'IT' refers to 'Italian' forms, whilst 'EN' refers to 'English' forms. 'NLS' means 'Non-language specific'.

were all used during the 1930s and would now be considered very antiquated, particularly if used in books for young readers.

There is a visible increase of English lexicalised forms post-1990s, but also a revival of certain Italian interjections such as *uao,* which reappears after an absence in 1985 and gets used more and more often from that date.

6.2 Happiness

Interjectional forms are definitely preferred when expressing feelings of happiness. The Italian forms *urrà* and *evviva* (both meaning 'hooray') are the most used throughout the decades. English interjections such as *yahoo* and *yippee* are more common post-1950s, together with the interjection *yuhuu, which* started appearing in the mid-eighties. There is also an interesting re-appearance of the Italian interjection *urrà* in 1992, in line with the revival of certain Italian expressions post-1990 that was mentioned earlier.

6.3 Anger

During the 1930s and 1940s, Italian interjections were mostly used (*diamine*, *diavolo*, and *dannazione*), together with the universally-known *grr*. After the 1950s, the Anglicisation already seen in other instances leads to widespread use of English lexicalised forms such as *(s)grunt* and *snort*. The latter, in particular, seems to have stuck around for longer, as it is nowadays the preferred ideophone to express anger, together with the everlasting *grr*. The non-lexicalised form *gru(m/n)f,* which makes a few appearances between the 1960s and the 1980s, should also be noted.

6.4 Fear

The theatrical nature of fear, which is the fact that people associate it with physical reactions such as screaming, shaking, or biting one's teeth (the occurrence of *rat-tat-tat-ta*, *brr brr,* and *tic tac*), is reflected in the ideophones and interjections used to represent the feeling. A variety of non-lexicalised nonsense forms have been invented by cartoonists throughout the years, almost as if representing fear requires a panic feeling from the creator, who starts throwing random letters onto the strip. Particularly during the first couple of decades, the balloons of characters in fear are filled with monosyllabic interjections such as *aaoh*, *iih, eeh, eiuu,* and *ahuu*. This trend continued up until the 1950s, after which English lexicalised ideophones such as *gulp* and *gurgle* came to the fore.

As in the representation of anger, a note should be made of the widespread use of the phoneme /g/ in both non-lexicalised and lexicalised expressions.

6.5 Disgust

Together with surprise, disgust is one of the most represented feelings (227 forms of 2041 'human' type forms). Interestingly enough, interjections seem to be preferred, with the Italian *puah*, *uff,* and *bah* being employed throughout the eight decades. *Umpf, tsk,* and the German-derived *pfui* join the list as most used after the 1960s–1970s. As always, English lexicalised forms, in this case *sgrunt* and *groan*, start appearing post-1960s.

6.6 Sadness

As seen in other instances, the first years of Disney publications in Italy witness the predominance of interjectional (often of Italian origin) expressions, in this case *(a/o)himè* and *oh* principally but also *ahi*, *uh*, *ohi,* and *diamine*. The 1950s and 1960s show a mix of both these expressions and the first English 'intruders', such as *sigh, sob, (s)gurgle, and (s)grunt*. There is a strikingly frequent occurrence of *sigh* and *sob* starting at the end of the 1990s and continuing to the present day. Between 2005 and 2012, most stories feature a continuous alternation of those two expressions to the detriment of the ones used theretofore.

6.7 Pain

This is the first case in which the supremacy of one single form throughout the years can be identified. The Italian interjection *ahia* and its related alternatives (*ai, ahi, ahia,* and *ahio*) are consistently used throughout the 80 years. Being in pain is a very vocal feeling, so interjections are among the majority of its realisations. The English form *ouch* increased in frequency after the 1960s.

6.8 Doubt

In the early years, 'doubt' was represented through the Italian interjections *mah*, *uhm,* and *ehm*. *Mah* has consistently been used throughout the years, while *ehm* and *uhm* are nowadays less frequent and are replaced by the lexicalised forms *mumble* (EN) and *boh* (IT).

6.9 Fatigue

The interjections *uff* and *puff* were the main ideophones used to signify fatigue states in the early years, and they have been joined by the English lexicalised form *pant* and the nonlanguage specific *anf* in later years. *Puff* and *pant* have been the most used post-2010.

In summary, the copious number of forms belonging to the human category has allowed an in-depth analysis of the historical change. The objective of this inquiry was to understand whether a pattern regarding the joining of English forms could be spotted throughout the years and to capture whether there was a preference for interjections or ideophones in certain periods. As mentioned before, the nature of the emotion represented clearly affects its realisations. Nevertheless, the results have revealed certain reoccurrences and trends that can be summarised with the following three main points:

– (1) Depictions used between 1932 and 1950s show a higher presence of interjectional Italian forms.
– (2) English lexicalised forms tend to often appear somewhere between the start of the 1950s and the end of the 1960s. If one considers all the prevailing English-derived forms, this is the order of their appearance as detected in the corpus (Table 5).

As can be seen, the first forms derived from English are all lexicalised (*gulp*, *sgrunt*, *snort*, *sigh,* and *mumble*) and are all present in the Italian De Mauro dictionary (2000) and categorised as interjections, while the first non-lexicalised English interjections started appearing a few years later (1955–1956). It is interesting to see that none of the English interjections have ever been added to dictionaries.

The presence of English lexicalised forms in dictionaries represents the recognition of their importance in both the sectorial language of new media and in orality, as the language of comics is often a reflection of

Table 5: Diachronic appearance of English ideophones

Form	Year of appearance	Lexical function in English	Present in Italian dictionary? (De Mauro 2000)	Included in the 'Grande Dizonario della Lingua Italiana'? (Battaglia 1996)[a]
(g)ulp	1949	Lexicalised	Yes (according to De Mauro 2000, it was first added to a dictionary in 1930 as interjection)	Yes (added as an interjection in the 2004 version)
(s)grunt, snort, sigh, mumble	1951	Lexicalised	Yes to all: *grunt* (1966), *snort* (1983), *sigh* (1990), *mumble* (1964), all as interjections	*Sigh* (as 'interjection of onomatopoeic English origin'; only form in this list included in the 1996 main version of the Dictionary); *mumble* was added in 2004
yahoo, argh, umpf	1955	Interjections	No	No
urgh, oops	1956	Interjections	No	No
gasp	1957	Lexicalised	Yes (1980, as interjection)	Yes (added as part of the 2004 Dictionary update)
ouch	1960	Interjection	No	No
pant	1963	Lexicalised	No	No
sob	1965	Lexicalised	Yes (1964 as interjection)	No
gurgle	1967	Lexicalised	Yes (1950, as phonosymbolism)	No
groan	1969	Lexicalised	No	No
tsk	1970	Interjection	No	No

[a]This refers to the main Battaglia Dictionary. Note that *gulp*, *sigh,* and *gasp* were included in the "Supplemento," additional volume that acts as an integration to the main Dictionary, published in 2004, and all three classified as English interjections of onomatopoeic origin.

spoken language and particularly young people's language (Dovetto 2012, 204). At the same time, they also provide evidence of the enormous Anglophonic influence in the Italian language of comics.

– (3) Finally, there is a slight but clear tendency to reintroduce certain Italian forms. This is not necessarily to the detriment of the English ones, which are generally still used. Examples of this include the revival of Italian interjections such as *uao* (from 1985), *urrà* (from 1992), *uffa* (from 2006), and *boh* (from 1970) as indicated during the analysis.

7 Conclusion

The main aim of this study was to provide an answer to the three inquiries that were presented in the Methodology section, in particular relating to (1) which of the five sound symbolic types was the most frequent, (2) the lexical nature of the forms and (3) their language of origin. In terms of inquiry #1, the environmental type seemed to be the most common when considering ideophones only, while the human type is more common if one also includes interjections within the mix. In relation to inquiry #2, regarding whether lexicalised or non-lexicalised forms were more common, the results depended on what categories were taken into consideration. When it came to the five specific types, mechanical forms included the highest amount of non-lexicalised forms, while the human category included the lowest amount. Instead, when considering the corpus as a whole, lexicalised forms seemed to be more frequent. When looking at specific languages, instead, the majority of Italian-derived forms (81%) have shown to be of non-lexicalised origin. Whilst, when looking at English forms, 87% of these were lexicalised, and thus could be found in dictionaries.

Finally, in relation to inquiry #3, English forms were the most prolific across the corpus, with a 45% rate, whilst solely Italian forms only amounted to 15% of the forms.

The results, overall, show a high reliance on English forms, a fact that has wider repercussions on the readers themselves, particularly when considering that the Italian Disney magazines are mostly targeted to a younger audience. This provides evidence of the expectation that Italian younger readers should become familiar with foreign-looking expressions, although it is not clear whether Italian kids see these as being of English origin or just as unspecified forms that simply rely on iconicity for semantic content. Interesting is the fact that Italian children are known for using certain English expressions coming from comic books as holophrastic interjections so it is not uncommon for them to utter 'groan!' and 'gulp!' in conversation, often pronouncing these following the phonetic conventions of Italian (a fact that was already mentioned by Pischedda 2017a). The results with regard to the lexical status of the forms make sense as a whole, particularly when considering that English ideophones seem to be taken from actual words that can be found in dictionaries, whilst Italian cartoonists and translators seem to prefer creating Italian-derived forms from scratch, often using paraverbals and non-sensical utterances.

Another important finding that emerged in the analysis is the evident revival of Italian-derived expressions, mainly interjections, in the last 15–20 years. Nevertheless, this does not happen to the detriment of English forms, which are still present. The Italian revival was identified following analysis of the diachronic change of sound symbolic forms belonging to the 'human' category. For instance, the interjection *uao* ('wow'), used to show feelings of surprise, reappeared in 1985 after decades of absence (previous use was recorded in 1935) and has been employed more and more often from that date. This is in line with the resurgence of Italianised expressions seen in the last fifteen years (2000–2015) in other interjectional forms such as *urrà* (from 1992), *uffa* (from 2006), and *boh* (from 1970) that is evident when looking at the database. It should be noted that this revival does not seem to be dependent on whether the story is original or translated. In fact, English forms used to represent feelings start to appear side by side with the numerically increasing Italian forms in both original and translated stories.

Future studies of this specific topic within literary, linguistic, and media studies will help to understand and foster discussion on the supposed *unclassifiable* nature of these forms and it is hoped that it will allow for a "disclosure of the fecundity of their use in different languages" (Bueno Pérez 1994, 23; translation mine). An

investigation of the way their peculiar roles in language can be and have been transposed to another linguistic and cultural landscape will shed light on their functions and cross-linguistic discrepancies.

I would like to draw attention to the possible limitations of this research project. The corpus was created according to archive availability, and so certain decades ended up being represented by more stories than others. Nevertheless, an effort has been made not to let this influence the integrity of the data by ensuring that a phenomenon had to be noted an acceptable number of times before it was deemed to be characteristic of a certain time window. Furthermore, sound symbolic forms are intrinsically an unpredictable feature of language, hence their unclear status within the grammatical and syntactical system of a given language – a fact that makes them difficult to categorise and describe with rigour, and at times this makes assumptions about their behaviour seem unproven or not certain. Finally, the corpus was manually compiled by the author of this article and each form was categorised according to his judgment. As much as the author believes himself to have done his best to maintain consistency within this empirical and methodical approach, it could be that some characteristics have been overlooked or that other people would have categorised certain forms in a different manner. In the cases in which uncertainties regarding the right categorisation arose, the choice was to insert the categorisation under the 'uncertain' category, and at times, this was a useful chance for the author to point these cases out and reflect upon the reason for this and use them as a source of reflection. Overall, this article has shed light on a majorly under-researched area, which will hopefully encourage other researchers to engage in further projects in order to produce more up-to-date data, also coming from other languages.

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References

Abbott, Derek. 2004. *Animal sounds*. University of Adelaide. http://www.eleceng.adelaide.edu.au/personal/dabbott/animal.html.

Akita, Kimi and Mark Dingemanse. 2019. "Ideophones (Mimetics, Expressives)." In *Oxford research encyclopedia of linguistics*, edited by Mark Aronoff. Oxford: Oxford University Press.

Anderson, Earl. 1998. *A grammar of iconism*. Madison, NJ: Fairleigh Dickinson University Press.

Assaneo, María Florencia, Juan Ignacio Nichols, Marcos Alberto Trevisan. 2011. "The anatomy of onomatopoeia." *PLoS ONE* 6(12), e28317.

Barbieri, Daniele. 2014. *Breve storia della letteratura a fumetti* [A brief history of comic book literature]. Roma: Carocci Editore.

Battaglia, Salvatore. 2004 [1996]. *Grande Dizionario della lingua italiana* [Italian Language Dictionary]. Torino: Utet.

Beccaria, Gian Luigi. 2010. *Il mare in un imbuto. Dove va la lingua italiana* [Sea through a funnel. Where the Italian language is going]. Torino: Einaudi.

Bono, Gianni, et al. 2012. "Il regime dell'avventura [The adventure regime]." In *Fumetto! 150 anni di storie italiane*, edited by Gianni Bono and Matteo Stefanelli, p. 74–87. Bari: Rizzoli.

Boschi, Luca. 2012. "Disney Made in Italy." In *Fumetto! 150 anni di storie italiane*, edited by Gianni Bono and Matteo Stefanelli, p. 501–5. Bari: Rizzoli.

Bueno Pérez, María Lourdes. 1994. "La onomatopeya y su proceso de lexicalización: notas para un estudio" [Onomatopoeias and their process of lexicalization: notes for a study]. *Anuario de estudios filológicos* 17, 15–26.

Casas-Tost, Helena. 2014. “Translating onomatopoeia from Chinese into Spanish: A corpusbased analysis.” *Perspectives: Studies in Translatology* 22(1), 39–55.
Catricalà, Maria. 2000. *Come parla il fumetto e la multimedialità* [The language of comic books and their multimodality]. Rome: Comic Art Publishing.
Catricalà, Maria and Annarita Guidi. 2015. “Onomatopoeias: A new perspective around space, image schemas and phoneme clusters.” *Cognitive Processing* 16(Suppl 1), 175–8.
Celotti, Nadine. 2008. “The translator of comics as a semiotic investigator.” In *Translating comics*, edited by Federico Zanettin, p. 33–49. Manchester: St Jerome.
Chapman, Raymond. 1984. *The treatment of sounds in language and literature*. Blackwell: London.
Chmielewska, Marta. 2011. “I suoni disegnati come elemento tipico dei fumetti. Le onomatopee nei fumetti italiani e polacchi – aspetto contrastivo” [Drawn sounds as typical element of comic books. Onomatopoeias in Polish and Italian comics – a contrastive approach]. *Romanica.doc* 3(4).
De Mauro, Tullio. 2000. *Grande Dizionario Italiano dell’Uso* [Big dictionary of Italian in use]. Torino: UTET.
Diffloth, Gerard. 1972. “Notes on expressive meaning.” *Papers from the Regional Meeting of the Chicago Linguistics Society* 8, 440–47.
Dingemanse, Mark. 2012. “Advances in the cross-linguistic study of ideophones.” *Language and Linguistics Compass* 6, 654–72.
Dogana, Ferdinando. 1994. *Le parole dell’incanto: esplorazioni dell’iconismo linguistico* [Enchanted words: an exploration of linguistic iconicity]. Milano: F. Angeli.
Dovetto, Francesca Maria. 2012. “Onomatopee in diacronia nel fumetto” [Onomatopeias in diachroneity in the comic book]. In *Comunicazione e ambiente. Orientare le risorse, Aiutare a capire, Stimolare ad agire, Ispirare il cambiamento*, curated by Alberto Manco, p. 201–11. Napoli: Università degli Studi di Napoli L’Orientale.
Eco, Umberto. 2008. “Mumble Mumble Crash.” *L’Espresso online*. https://lespresso.it/c/opinioni/2008/11/28/mumble-mumble-crash/25695.
Ficarra, Marco. 2012. *Manuale di lettering, le parole disegnate nel fumetto* [Handbook of lettering: drawn words in the comic book]. Pomezia: Tunué.
Frezza, Gino. 2012. “Figurazione del parlato e imagine statico-dinamica nei fumetti” [The representation of dialogues and the static-dynamic image in comic books]. In *Der Sprache(n) der Comics*, edited by Daniela Pietrini, p. 32–53. München: Meidenbauer.
Gadducci, Fabio and Mirko Tavosanis. 2012. “La scrittura non-standard dei fumetti italiani [Nonstandard writing in Italian comic books.” In *Der Sprache(n) der Comics*, edited by Daniela Pietrini, p. 113–26. München: Meidenbauer.
Hashimoto, Teruo, Nobuo Usui, Masato Taira, Izuru Nose, Tomoki Haji, and Shozo Kojima. 2006. “The neural mechanism associated with the processing of onomatopoeic sounds.” *Neuro Image* 31, 1762–70.
Ippolito, Margherita. 2008. “The Relationship between Text and Illustrations: Translating Beatrix Potter’s Little Books into Italian.” In *Whose story? Translating the verbal and the visual in literature for young readers*, edited by Maria Gonzales Davies and Riitta Oittinen, p. 85–96. Newcastle upon Tyne: Cambridge Scholars Publishing.
Ippolito, Margherita. 2008a. “Tradurre l’Oralità nei Libri per l’Infanzia” [Translating spoken language in children’s books]. In *Literary Translation and Beyond*, edited by Rosella Mallardi, p. 253–73. Oxford: Peter Lang.
Marchand, Hans. 1969. *The Categories and Types of Present-day English Word-formation*. München: Verlag C. H. Beck.
McGregor, William B. 2011. *Linguistics: An introduction*. London: Equinox.
Merriam-Webster. 2022. *Merriam-Webster’s Dictionary of English Usage*. Springfield: Merriam-Webster, Inc. https://www.merriam-webster.com/.
Mioni, Alberto. 1990. “Fece splash e, gluglu, affondò. L’ideofono come parte del discorso” [It splashed and sank. Ideophone as element of discourse]. In Parallela 4, Atti del Vo Incontro Italo-Austriaco della Società di Linguistica Italiana, edited by Monia Berretta, p. 255–67. Tübingen: Narr.
Mioni, Alberto. 1992. “Uao! Clap, clap! Ideofoni e interiezioni nel mondo dei fumetti” [Wow! Clap clap! Ideophones and interjections in the world of comic books]. In *Il linguaggio giovanile degli anni novanta. Regole, invenzioni, gioco*, edited by Emanuele Banfi and Alberto Sobrero, p. 85–96. Laterza: Bari.
Nobile, Luca. 2003. *L’origine fonosimbolica del valore linguistico nel vocalismo dell’italiano standard* [The phonosymbolic origins and linguistic values attached to vowels in standard Italian]. http://filologiacognitiva.let.uniroma1.it/fonosimbolismo.html.
Noss, Philip A. 2003. “Translating the ideophone: Perspectives and strategies of translators and artists.” *Creative Circle: Artist, Critic, and Translation in African Literature* 11, 40–58.
Oszmiańska, Aleksandra. 2001. “Sound symbolism as a universal drive to associate sound with meaning: A comparison between English and Japanese.” *Poznan Studies in Contemporary Linguistics* 37, 147–55.
Ozumi, Asuka. 2011. *Le onomatopee nei manga in Italia* [Onomatopoeias in mangas published in Italy]. [Powerpoint Presentation]. http://www.animeclick.it/news/27836-asuka-ozumi-j-pop-le-onomatopee-nei-manga-in-italia-ac-report.
Pellitteri, Marco. 1998. *Sense of comics: la grafica dei cinque sensi nel fumetto* [Sense of comics: Representing the five senses in the comic book]. Castelvecchi: Roma.
Petersen, Robert. 2007. “The acoustics of manga: Narrative erotics and the usual presence of sounds.” *International Journal of Comic Arts* 9(1), 578–90.
Pietrini, Daniela. 2009. *Parola di Papero: storia e tecniche della lingua dei fumetti Disney* [Duck words: history and techniques of language in Disney comics]. Firenze: Cesati.

Pietrini, Daniela. 2013. “Paperus in Fabula” [A duck’s tale]. *Treccani Enciclopedia Online*. https://www.treccani.it/magazine/lingua_italiana/speciali/fumetti/Pietrini.html.

Pischedda, Pier Simone. 2016. *Translating and Creating Sound Symbolic Forms in Italian Disney Comics: A Historical and Linguistic Inquiry*. PhD thesis. University of Leeds. https://etheses.whiterose.ac.uk/16698/.

Pischedda, Pier Simone. 2017. “Anglophonic influence in the use of sound symbolism in Italian disney comics: A corpus-based analysis.” *Open Linguistics* 3(1), 591–612. doi: 10.1515/opli-2017-0030.

Pischedda, Pier Simone. 2017a. “The linguistic rebel: Semantic and syntactic peculiarity in the use of Ideophones in Italian Disney comics.” *The Language Scholar* (3). http://languagescholar.leeds.ac.uk/the-linguistic-rebel-semantic-and-syntacticpeculiarity-in-the-use-of-sound-symbolic-forms-in-italian-disney-comics/.

Pischedda, Pier Simone. 2020. “A diachronic analysis of the translation of English sound symbolism in Italian comics.” *Open Linguistics* 6(1), 19–37. doi: 10.1515/opli2020-0002.

Poggi, Isabella. 1981. *Le Interiezioni. Studio del linguaggio e analisi della mente* [Interjections. A language study and analysis of the mind]. Torino: Bolinghieri.

Poggi, Isabella. 2009. “The language of interjections.” *Multimodal Signals: Cognitive and Algorithmic Issues*. International School Vietri Sul Mare, Italy, April 21-26, 2008 Revised Selected and Invited Papers. https://link.springer.com/chapter/doi: 10.1007/978-3-642-005251_17.

Reid, David. 1967. *Sound symbolism*. Edinburgh: Constable LTD.

Sanna, Valeria. 2005. *Codice verbale e codice visivo: problemi di traducibilità del medium fumetto* [Verbal and visual code: translation issues in the comic book]. BA Dissertation. Scuole Civiche di Milano, Italy. http://www.trad.it/codice-verbale-e-codice-visivo-problemidi-traducibilita-del-medium-fumetto/.

Semprini, Valentina. 2006. *Bam! Sock! Lo scontro a fumetti: dramma e spettacolo nel conflitto* [Boom! Sock! The comic book clash: drama and entertainment in the representation of conflict]. Milano: Tunué.

Sinibaldi, Caterina. 2012. “Dangerous children and children in danger. Reading and translating American comics under the Italian fascist regime.” In *The Nation in children’s literature. Nations of childhood*, edited by Kit Kelen and Bjorn Sundmark. London: Routledge.

Stajano, Francesco. 1999. *Disney comics from Italy*. University of Cambridge. http://www.cl.cam.ac.uk/~fms27/papers/1999-Stajano-disney.pdf.

Thompson, Arthur Lewis and Youngah Do. 2019. “Defining iconicity: An articulation-based methodology for explaining the phonological structure of ideophones.” *Glossa: A Journal of General Linguistics* 4(1), 72. 1–40.

Verda, Sandra. 1990. “La parola a Topolino. La lingua e lo stile del fumetto disneyano” [Mickey Mouse speaks. Language and style in Disney comics]. *Italiano & Oltre*, 2/90. 53–9.

Zanettin, Federico. 1998. “Fumetti e traduzione multimediale” [Comic books and multimodal translation]. *InTRAlinea*, 1. https://www.intralinea.org/archive/article/Fumetti_e_traduzione_multimediale.