

# When Numbers Surface as Verbs: A Qualia-Oriented Analysis of Denumeral Verbs

Costanza Marini  
Università di Pavia, Italia

Elisabetta Jezek  
Università di Pavia, Italia

**Abstract** This work puts forth a preliminary analysis of the semantics of English 'denumeral verbs', i.e., verbs resulting from the conversion of numbers into verbs, as in the case of *to 747* 'to fly on a 747 Boeing aircraft' or *to 991* 'to call the police dialing 911'. After retrieving 296 instances of denumeral verbs from the *EnTenTen15* corpus that were traced back to the same 47 denumeral verb lemmas, these were divided into ten categories based on their semantics and community of use. We adopted Generative Lexicon Theory – specifically Qualia roles – to investigate the contribution of the semantics of the base (i.e., the number) to the semantics of the converted verb. We were able to identify 21 denumeral verbs exploiting the Telic quale of their underlying number, 17 verbs exploiting the Agentive quale and 4 verbs exploiting the Constitutive quale. These findings suggest that Qualia values may not be all on the same level in terms of exploitability and that – at least for what concerns the verbs in our sample – accessing information concerning the goal (Telic quale) or origin (Agentive quale) of an entity is easier than accessing information on its internal composition (Constitutive quale) or ontological nature (Formal quale).

**Keywords** Denumeral verbs. Conversion. Qualia values. Generative Lexicon. Verb semantics.

**Summary** 1.1. Introduction. – 2.2. Theoretical Background. – 3.3. Corpus Analysis. – 3.1 Methodology. – 3.2. Working Classification. – 4.4. Qualia-Oriented Analysis. – 5.5. Conclusions.



## Peer review

Submitted 2025-05-05  
Accepted 2025-07-03  
Published 2025-10-14



## Open access

© 2025 Marini, Jezek | 4.0



**Citation** Marini, Costanza; Jezek, Elisabetta (2025). "When Numbers Surface as Verbs: A Qualia-Oriented Analysis of Denumeral Verbs". *Annali di Ca' Foscari. Serie occidentale*, 59, 55-82.

**DOI** 10.30687/AnnOc/2499-1562/2025/01/003

## 1 Introduction

In this work, we propose a preliminary analysis of the semantics of a fascinating, albeit underexplored, category of English denominal verbs consisting (in part or entirely) of numbers, which will henceforth be called ‘denumeral verbs’. This is the case of verbs like *to 991* ‘to call the police dialing 911’, *to 747* ‘to fly on a 747 Boeing aircraft’ or *to high 5* ‘to greet someone giving them a high 5’.<sup>1</sup>

After an overview on the different stances in the linguistic community concerning conversion in denominal verbs in Section 2, the focus is brought on the contribution that Generative Lexicon Theory, and especially Qualia values (Pustejovsky 1995), can provide to the analysis of denominal verb semantics starting from the semantics of their underlying base nouns, in this case numbers. To our knowledge, a previous Qualia-oriented analysis of denominal verbs was made by Fabrizio (2013) for Italian, but no similar study has been carried out for English nor for denumeral verbs.

Section 3 includes a first section devoted to the methodology that was followed to retrieve corpus examples containing instances of denumeral verbs from the *EnTenTen15* corpus (Jakubíček et al. 2013), and a second section revolving around the 10-class working classification that we adopted after cleaning our data and tracing back all corpus instances to 47 denumeral verb lemmas. In this section, denumeral verbs are grouped based on verb semantics and community of practice and their meanings are explained to facilitate the analysis which is carried out in Section 4. Section 5 is devoted to the Conclusions.

Despite the pervasiveness of the phenomenon, as attested by the nearly 300 retrieved corpus instances of denumeral verbs, this work only scratches the surface of the topic.

## 2 Theoretical Background

When it comes to word formation processes, the English language is able to form new lexemes not only by affixation or compounding, but also by merely shifting the part of speech of an already existing lexeme. This type of word formation has been referred to as ‘conversion’ (Lieber 1980; Don 1993; Beard 1995) and it is what happens when new verbs are created from nouns, as in the case of *to hammer* ‘to hit with a hammer’, *to fish* ‘to take fish from a body of water’, or *to summer* ‘to spend the summer’. It is only the syntactic

---

<sup>1</sup> We would like to thank the two reviewers for their insightful comments and suggestions on an earlier version of this paper.

context which allows to disambiguate the value of the lexeme. Valera defines conversion as “a word-formation process that changes the word class of existing words but not their form, for example *water* versus *to water something* [Italics in the original work]” (2006, 172). While also Ježek and Ramat agree with this definition, they prefer the term ‘transcategorization’ to ‘conversion’, as the latter “does not make clear that one is referring to the notion of category” (2009, 394).

Regardless of the choice of label, the range of meanings of the resulting denominal verbs is extremely large, which has always sparked debate on how to deal with conversion. Some argue that it should be treated as a specific type of affixation, which requires a phonologically null affix, and that it should therefore be called ‘zero-affixation’. However, this interpretation has been criticized by those who believe that the variety of meanings and related argument structures exhibited by converted verbs is beyond the semantic potential of a zero-affix, since no other overt affix shows a similar behaviour (Lieber 2005).

On the other hand, others – like Lieber herself – argue that conversion should be treated as a change of category requiring a ‘relisting’ or ‘recategorization’ in our mental lexicons (1980; 1992; 2004; 2005). As a matter of fact, her analysis considers conversion not as a morphological process, but as the result of a creative process called ‘coinage’, which belongs to the domain of language use and incorporates pragmatic information. Her approach has been criticized by Don (2005), according to whom the semantics of English denominal verbs is actually best described taking into account the semantics of the nouns (or adjectives) acting as the base of the conversion<sup>2</sup>, rather than by means of her relisting hypothesis. To do this, he relies, *inter alia*, on the verb groupings identified by Clark and Clark (1979), the first to analyse English denominal verbs systematically in their seminal paper “When Nouns Surface as Verbs”.

In their analysis, Clark and Clark (1979) identify nine categories of denominal verbs, based on the different roles parent nouns can take within the tailor-made argument structures that they created to paraphrase the denominal verbs they were working with. For instance, in the paraphrases of *locatum* verbs such as *to blanket* ‘to cover something with a blanket’, parent nouns become objects and locations become subjects, as you can see in example (1) and its paraphrase (1.a):

---

**2** Depending on the framework, the nouns at the base of the conversion may be called *parent nouns* (Clark, Clark 1979), *base nouns* (Gottfurcht 2008), *source nouns* (Michaelis, Hsiao 2021) or *corresponding nouns* (Suoizzi, Cardinaletti 2024).

(1) Jane **blanketed** the bed.

(1.a) Jane did something to cause it to come about that [the bed had one or more **blankets** on it].

Several other attempts at classifying denominal verbs based on the role played by the *denotata* of their base nouns in the events they denote have been carried out – *inter alia* by Marchand (1960), Gottfurcht (2008), Rimell (2012) and more recently by Michaelis and Hsiao (2021) – in line with the need identified by the likes of Aronoff (1980) and Kelly (1988) to focus on the semantic regularities of these verbs, i.e., the need to investigate “if and how [the] meaning [of a noun converted into a verb] ‘works’ in derivational processes” (Fabrizio 2013, 176).

However, despite these attempts, most denominal verb meanings remain not fully predictable, especially if compared to those of denominal suffixed verbs. Indeed, Clark and Clark themselves stress the often context-dependent nature of the semantics of innovative denominal verbs, whose interpretation must rely on the cooperation between speaker and hearer (1979, 787) – in line with Grice’s cooperative principle (1975) – and a similar stance is adopted by Michaelis and Hsiao (2021), who rely on the application of both Pustejovsky’s Principle of Co-composition (1995), Construction Grammar (Goldberg 1995), Frame semantics (Fillmore 2006) and Conceptual Blending Theory (Fauconnier, Turner 2002) to partially make up for the unpredictability of denominal verb meanings.

In this work, we will attempt to provide an analysis of the semantics of a peculiar category of English denominal verbs, namely ‘denumeral verbs’ – a label of our own making that we use to refer to those verbs resulting from the conversion of numbers into nouns and subsequently the conversion of said denumeral nouns into verbs. This is the case of *to 991* ‘to call the police dialing the 911’, but also of *to 4x4* ‘to drive a 4x4 vehicle’.

Our analysis will rely on Generative Lexicon Theory (GLT) and specifically Qualia roles. The notion that lexical items can store information relating to hidden events and activities associated with the word is a useful device for helping in the interpretation of linguistic expressions. In Pustejovsky (1991), a more elaborated set of relations is proposed, in addition to the hidden event, to represent the meaning of nominals. These relations are called Qualia, and the system of relations defining a single concept is called Qualia structure. A Qualia structure consists of four basic roles:

- Formal: encoding taxonomic information about the lexical item (the ‘is-a’ relation)
- Constitutive: encoding information on the parts and constitution of an object (‘part-of’ or ‘made-of’ relation)

- Telic: encoding information on purpose or function ('used-for' or 'functions-as' relation)
- Agentive: encoding information about the origin of the object (the 'created-by' relation).

Each Quale can be seen as answering a specific question about the object it is associated with:

- Formal: What kind of thing is it? What is its nature?
- Constitutive: What is it made of? What are its constituents?
- Telic: What is it for? How does it function?
- Agentive: How did it come into being? What brought it about?

Taken together, the answers to these questions can help elucidate the in-context meanings of words in the language. To provide an example, let us look at sentences (2) and (2.a).

(2) Sarah finished eating her sandwich.

(2.a) Sarah finished her sandwich.

The two sentences appear to convey the same meaning and differ only because the second sentence does not explicitly express the fact that the sandwich was eaten.

According to GLT, the process at play in sentence (2.a) could be seen as Qualia exploitation (Pustejovsky, Ježek 2008, 195), i.e., the verb 'to finish' forces the noun 'sandwich' into an event denotation by exploiting the value of the Telic Quale associated with it, namely 'eating'.

Interestingly, in a different context, sentence (2.a) could have also been interpreted as 'Sarah finished making her sandwich', allowing us to see that indeed also the Agentive Quale associated with sandwich is accessible for the phase verb 'to finish'.

Going back to sentence (1), we believe that a lighter paraphrase could be offered by sentence (1.b):

(1) Jane **blanketed** the bed.

(1.b) Jane [covered] the bed [with a] **blanket**.

From a GLT perspective, such a paraphrase could be traced back to the exploitation of the Telic Quale of blanket, i.e., 'to cover'. As for the morpho-syntactic category shift from noun to verb, we postulate that it is indeed the very availability and ease of access to the semantic information offered by the Qualia roles of the noun that allows for such an expedite shift via exploitation.

Our view is in line with that proposed by Fabrizio (2013), who suggests that the meanings of Italian converted denominal verbs are Qualia-oriented. For example, in the case of the verb *martellare* 'to hit with a hammer', it is the Telic Quale 'to hit' of the underlying noun *martello* 'hammer' that is activated in the verb meaning. This is also in line with Joh (2001, 219), who states that "the basic information for the new sense of denominal verbs is not from an infinite set of generic knowledge but from the structure itself in which the verbs are defined".

When it comes to denumeral verbs, the same applies, with the only addition that the noun whose Qualia structure is contextually exploited is at least partially expressed by numbers. A clear-cut example is that of the verb *to 747* 'to fly on a Boeing 747 aircraft', which is already quoted by Clark and Clark's (1979). Let us consider example (3) and its paraphrase (3.a).

(3) Connie **747'd** to London

(3.a) Connie [flew] on a **747** to London.

Obviously, such a sentence could not be decoded if one did not know that a 747 is an airplane, more specifically a Boeing aircraft whose model is 747. The fact that the model number 747 can be used to refer to the airplane is a metonymy by itself. However, once we accept 747 as a noun, we can easily agree that its Telic Quale is 'to fly', which gives rise to the paraphrase in (3.a).

The same goes for verbs like *to 4x4* 'to drive a 4x4', as in the case of example (4).

(4) The next day our itinerary consisted of **4x4ing** through the desert and riding camels.

(4.a) The next day our itinerary consisted of [driving] a **4x4** through the desert and riding camels.

According to our Qualia-based analysis, the paraphrase in (4.a) is possible thanks to the exploitation of the Telic Quale 'to drive' of the noun 4x4, which we can assume to be valid also for any other type of road vehicle.

### 3 Corpus Analysis

#### 3.1 Methodology

The corpus that was used for this analysis is the *English Web Corpus 2015 (EnTenTen15)*, Jakubíček et al. 2013), a 15-billion English corpus containing texts from the web, which can be accessed through the *Sketch Engine* platform (Kilgarrieff et al. 2014). The query that was built to retrieve instances of denumeral verbs is: [word="[0-9]+(ing|ed)"]. In this way, all the numerical strings ending with either '-ing' or '-ed' were identified. The verb endings '-s' and the zero morpheme '-Ø' were discarded since they were not as verbally distinctive.

It should be noted that, despite some denumeral verbs also have an alphabetic spelling (e.g., to zero), in this study we chose to focus only on figure-based verb forms, since the corpus is a web corpus, and numbers are usually preferred for their economy.

After a manual scrutiny of the hits, all retrieved verb occurrences were traced back to their corresponding lemmas, which were divided into ten categories. Before carrying out a Qualia-based linguistic analysis (see § 4), it was necessary to ascertain the meaning of most of the identified lemmas, often idiomatic and belonging to the specific lexicon of restricted communities of use.

When it was not possible to resort to standard resources, forums, websites and online dictionaries were consulted, first of all *Urban Dictionary*<sup>3</sup>, a well-known online slang dictionary based on the spontaneous contribution of its users.

The following section offers a detailed overview of the denumeral verbs attested in the *EnTenTen15* corpus.

#### 3.2 Working Classification

Having manually cleaned the inevitable noise from the initial 1598 hits of the query (frequency normalized to 0.09 per million), a total of 296 occurrences of denumeral verbs were identified (frequency normalized to 0.02 per million) and traced back to 47 lemmas.

Table 1 offers an overview of the 10 groups into which the identified lemmas were divided. For a complete list, see the Appendix.

---

3 <https://www.urbandictionary.com>.

Group	Denumeral verbs
I	to 0 something, to 0 something out, to 000000 a mobile
II	to 403, to 404, to 500, to 301 an URL to somewhere
III	to 19.5 somebody, to 21 somebody, to 36 somebody, to 50 somebody, to 5/5, to 1 for 2 somebody
IV	to 45 something, to 180 something, to 270, to 360, to 3/4
V	to 212 somebody, to 302 somebody, to 602 somebody/something, to 5150 somebody
VI	to 14, to 10:10, to 420, to deep 6 something
VII	to top 8 a tournament, to top 32 a tournament, to top 50 a tournament, to top 64 a tournament
VIII	to Call of Duty 4, to Grand Theft Auto 4, to iOS7, to Channel 9
IX	to *69 somebody, to 911
X	to high 5 somebody, to +1 something, to 4x4, to 69, to 64, to 1080 something, to rule 34 something, to 49, to 86 somebody, to 123, to 2

**Table 1** The 10 groups of denumeral verbs identified in the *EnTenTen15 corpus*

The first group includes *to 0 something*, *to 0 something out* and *to 000000 a mobile*, all verbs that have something to do with zero.

(5) But as this instruction (or the original instruction, if line #5 is **0ed**) is executed before the code handler, it seems a bit limited.

(6) If Rockstar wanted to remove it, they could very well have **0ed** Hot Coffee **out**.

(7) It's questionable what for you want to use such a **000000ed** phone anyway.

In particular, in line with the definition provided by the *Oxford Learner's Dictionary*,<sup>4</sup> *to 0 something* means 'to turn an instrument, control, etc. to zero'<sup>5</sup>, as in the case of sentence (5), where it is the value of a line of code ('line #5') that may be set to zero. On the other hand, according to the *Merriam-Webster Dictionary*, the verb *to 0 something out* means 'to reduce the amount of (something) to zero' or 'to remove (something) completely'<sup>6</sup>, as in sentence (6), which says that if the videogame company Rockstar Games wanted to remove the hidden code of the minigame *Hot Coffee* from their videogame *Grand Theft Auto: San Andreas*, they could have<sup>7</sup>. The fact that they did not, means they wanted to let players play it. Finally, *to 000000*

<sup>4</sup> <https://www.oxfordlearnersdictionaries.com/>.

<sup>5</sup> [https://www.oxfordlearnersdictionaries.com/definition/english/zero\\_2](https://www.oxfordlearnersdictionaries.com/definition/english/zero_2).

<sup>6</sup> <https://www.merriam-webster.com/dictionary/zero%20out>.

<sup>7</sup> [https://en.wikipedia.org/wiki/Hot\\_Coffee\\_\(minigame\)](https://en.wikipedia.org/wiki/Hot_Coffee_(minigame)).



means 'resetting the IMEI (International Mobile Equipment Identity<sup>8</sup>) of a mobile phone to 000000', thus unregistering it from the network.

The verbs that make up the second group are *to 403*, *to 404*, *to 500* and *to 301 an URL*.

(8) 12 hours later, it's still **403ing**.

(9) If you have pages that are **404ing**, try redirecting them.

(10) Well, it's **500ing** now, I might have to eat my words here.

(11) Out of interest, what are the issues of **301ing** all non-existent URLs to the homepage?

All these verbs are related to the IT field and can only be understood with a basic knowledge of HTTP response status codes. Looking at the official page of the *World Wide Web Consortium*,<sup>9</sup> we discover that the afore-mentioned codes mean: access denied (error 403), page not found (error 404), inability to connect to a website due to internal server problems (error 500) and need for redirection to an alternative URL because the one we are searching for was moved permanently (301 error). Therefore, their corresponding verbs respectively mean: 'to display a 403 status code', 'to display a 404 status code', 'to display a 500 status code' and 'to display a 301 status code and redirect a non-existent URL to another website'.

In the third group, we can find *to 19.5 somebody*, *to 21 somebody*, *to 36 somebody*, *to 50 somebody*, *to 5/5* and *to 1 for 2 somebody*, all verbs used in the Role-Playing Games (RPGs)<sup>10</sup> community to express 'how many points are used' to inflict damage on an opponent (12) or to invest on the skills of a character (13).

(12) I didn't expect on him coming out of nowhere and **36ing** me in one turn.

(13) Easily worth **5/5ing** and focusing on pumping up your Mind save.

The fourth group includes *to 45 something*, *to 180 something*, *to 270*, *to 360* and *to 3/4*, all verbs in which the number refers to the width of an angle.

(14) First, he cut the baseboard to size and **45ed** the angles.

---

<sup>8</sup> <https://www.imei.info/>.

<sup>9</sup> <https://www.w3.org/>.

<sup>10</sup> [https://en.wikipedia.org/wiki/Role-playing\\_game](https://en.wikipedia.org/wiki/Role-playing_game).

(15) Rowell **270ed** on and off almost all of the rails and boxes throughout the competition.

(16) Still if you get Anderson **3/4ing**, the Knicks now have guards that can deal with that.

In sentence (14), it is the corners of a surfboard that must be ‘made at a 45° angle’, while the verbs *to 180 something*, *to 270* and *to 360* all refer to ‘making rotations of a certain angle’, such as those made by skateboarders jumping on an off rails and boxes (15). Finally, *to 3/4* is used in basketball to describe ‘making a three-quarter play’<sup>11</sup> in which the shoulders of the player are not completely turned towards the basket but form an angle of 120° with the latter (16).

The fifth group includes the verbs *to 212 somebody*, *to 302 somebody*, *to 602 somebody or something* and *to 5150 somebody*.

(17) I **was** soon **212ed** out of the service for having a behavioral disorder.

(18) That night I remember him texting me at work saying, “I’m going to kill myself”, so I did the logical thing that any nurse would do – I called the police and had him **302ed**.

(19) I **602ed** it and was told that the problem will be fixed but it hasn’t as of yet.

(20) The next month, young Latarian was back in the news – for beating up the same grandmother in Wal-Mart because she wouldn’t buy him chicken wings. He was subsequently **5150ed**.

In the above-mentioned examples, denumeral verbs refer to the application of laws or decrees which are usually to the detriment of the person referred to by the direct object. Note that, especially in the police force and penitentiary system, these numbers are to all effects used as nouns, as in the case of “I’m going to need assistance with a 5150 on 12th street” (*Urban Dictionary*). The verb *to 212 somebody* in (17) refers to ‘enacting the *212 Board Elimination Policy*’, a directive that regulates the discharge process from the American Army (*Muhammad Speaks*, 26 March 1971<sup>12</sup>), thus relieving a soldier from duty. On the other hand, *to 302 somebody* means ‘to enact section 302 of the *Mental Health Procedures Act* of 1976’, a law issued by the Supreme Court of the State of Pennsylvania and still in force in several American States, which regulates the forced hospitalization of psychotic patients. According to the act, anyone who is found to

---

**11** [https://cdn1.sportngin.com/attachments/document/0100/1682/Coaching\\_Basketball\\_-\\_Defense.pdf](https://cdn1.sportngin.com/attachments/document/0100/1682/Coaching_Basketball_-_Defense.pdf).

**12** <https://issuu.com/muhammadspeaks/docs/3-26-1971/11>.

be severely mentally disabled and in need of immediate treatment, may be made subject to involuntary emergency examination and treatment, as in example (18). The verb *to 602 somebody/something* (19), on the other hand, refers to ‘enacting the 602 appeal process of the penitentiary system of the State of California’, an option available to those inmates who decide to use form 602 and report a problem (*California Code of Regulations*, Title 15, section 3084). Finally, *to 5150 somebody* means ‘to enact section 5150 of Article 1 of the *California Welfare and Institutions Code*’, which establishes a 72-hour detention for anyone who appears “gravely disabled by their mental illness” to allow a psychiatric evaluation of the subject (20).

Group six includes verbs tied to measures of depth, height and time, namely *to 14*, *to 10:10*, *to deep 6 something* and *to 420*.

(21) Last month, Alex and his friend took us on a family adventure to practice winter **14ing**.

(22) A big thank you to everyone [...] for top **10:10ing** prize Flemmich Webb.

(23) There are the threads that get axed, 404ed or **deep 6ed**.

(24) We are going to meet at 4:20 on 4/20 for **420ing** in Marin County at the Bolinas Ridge.

*To 14* means ‘to climb a 14er’ – that is to say, a mountain of at least 14,000 feet<sup>13</sup> – an activity especially widespread in Colorado according to *Urban Dictionary* (21). On the other hand, *to 10:10* simply means ‘to be born on October 10<sup>th</sup>’ (22).<sup>14</sup> According to the *Oxford English Dictionary*,<sup>15</sup> *to deep 6 something* means ‘to submerge it in water; also figurative, to reject, abandon, conceal’ (23) and originates from the minimum depth at which one is allowed to celebrate a funeral at sea, namely 6 fathoms (about 11 metres). Finally, as for *to 420* (US, informal ‘the action of smoking marijuana’ *Oxford English Dictionary*), its etymology dates back to the early ‘70s, when a group of high school students from San Rafael, California, began to use it to refer to 4.20 p.m., the time at which they regularly met to try to locate an unattended plot of cannabis plants. Subsequently, as pointed out on *Urban Dictionary* by Brandy,<sup>16</sup> whose 2003 definition is supported by 34,448 likes, “its use spread among members of an entire generation” (24).

---

**13** <https://www.urbandictionary.com/define.php?term=14er>.

**14** <https://www.imdb.com/list/ls009438612/>.

**15** <https://www.oed.com/>.

**16** <https://www.urbandictionary.com/define.php?term=420>.

In the seventh group, we find four verbs which differ from those of the previous groupings in as much as they not only contain numbers, but also additional lexical material, which contributes to their meaning.<sup>17</sup> These verbs are *to top 8 a tournament*, *to top 32 a tournament*, *to top 50 a tournament* and *to top 64 a tournament*. They are mainly used in Trading Card Games<sup>18</sup> tournaments, such as Final Fantasy or Magic and mean ‘to become part of the top 8, top 32, top 50, top 64’ of a Pro Tour (PT). In the case of the top 8, this is equivalent to reaching the quarterfinals of any elimination tournament, where you compete against the top 8 players in the rankings (25). The same goes for the other verbs, which however refer to the previous phases of the tournament.

(25) Patrick has **Top 8ed** 4 PTs over his career and is the first **to Top 8** in 3 different decades.

The eighth group includes the verbs *to Call of Duty 4*, *to Grand Theft Auto 4*, *to iOS7* and *to Channel 9*. Also in this case, the verbs include lexical material preceding the numbers, which once again contributes to the overall verb semantics. The first two verbs refer ‘to playing the fourth edition of the videogames *Grand Theft Auto* and *Call of Duty*’ (26), *to iOS7* (27) means ‘using the seventh release of the iOS operating system’, while *to Channel 9* means ‘watching the homonymous television channel’ (28).

(26) There’s been a lot of **Grand Theft Auto 4ing** and **Call of Duty 4ing** going on lately.

(27) Happy **iOS7ing**!

(28) Plenty of time is being spent **Channel 9ing**.

The ninth group includes the two verbs *to \*69 somebody* and *to 911*, both referring to telephone operations that can be performed in the States by ‘dialing the respective numbers’. As explained by *Urban Dictionary*<sup>19</sup>, \*69 is the service that allows you to call back the last number that called you (29), while 911 is the toll-free number for any kind of emergency (30).

---

**17** In regard to this type of verbs, which include additional lexical material besides the number, one reviewer wondered whether they can indeed be analysed as denumeral. While we recognize this is a pertinent question, for our current purposes, we have decided to include them in our preliminary study and leave this consideration open for further investigations.

**18** [https://en.wikipedia.org/wiki/Collectible\\_card\\_game](https://en.wikipedia.org/wiki/Collectible_card_game).

**19** [https://www.urbandictionary.com/define.php?term=\\*69](https://www.urbandictionary.com/define.php?term=*69).

(29) I told him off, and **star69ed** him (we don't have caller ID).

(30) Guys, when can we expect the official thread, you know, the one without all the **911ing**?

Finally, the tenth grouping groups together the remaining verbs, which do not have much in common in terms of semantics, namely: *to high 5 somebody*, *to +1 something*, *to 4x4*, *to 69*, *to 64*, *to 1080 something*, *to rule 34 something*, *to 49*, *to 86 somebody*, *to 123* and *to 2*.

(31) With all the laughing, yelling and **high 5ing** [...]

(32) It's not G+, so I **can't +1** this, but here I am, **+ 1ing** this anyway.

(33) The next day our itinerary consisted of **4x4ing** through the desert and riding camels.

(34) I love **69ing** with my man.

(35) There will be Guitar Heroing and [...] **64ing** and Wiing and XBoxing.

(36) We shot two deer on DoC lands (that haven't been **1080ed** recently).

(37) People **rule 34ing** all of your characters in every possible situation, including space.

(38) They sing these songs after the powwow. They are **49ing**.

(39) This guy was forever getting **86ed** out of everywhere we went.

(40) She said that he was ABCing and **123ing** after watching the videos.

(41) This monthly bulletin on all things Web 2.0 listens in to consumption as consumers themselves see and tell it online when '**2ing**'.

Despite being denumeral, the first four verbs are commonly used in everyday colloquial English: the verb in (31) refers to the act of 'giving somebody a high five', the one in (32) to the act of 'assigning a +1 to somebody's social media in sign of appreciation', the verb *to 4x4* in (33) refers to 'driving a four by four car', while *to 69* in (34) means 'to practice the 69<sup>th</sup> position of the Kamasutra'. On the other hand, *to 64* – as revealed by the hashtag #64ing on X – means 'drinking a Miller 64', a light American beer with just 64 calories<sup>20</sup> (35). *To*

---

**20** <https://www.millerextralight.com>.

*1080 something* (36) refers to a disinfection practice, which involves ‘using sodium fluoroacetate, a powerful pesticide colloquially called 1080’ (*Urban Dictionary*, definition by Sir. B December 12, 2022<sup>21</sup>). *To rule 34 something* (37) refers to the *100 Rules of the Internet*, a set of rules created by the *4chan Image Board* forum community with humorous intent and also available on *Urban Dictionary*<sup>22</sup>. Rule 34 establishes that – regardless of the type of content we are looking for on the web – “there is porn of it. No exceptions”. From this perspective, therefore, ‘enacting rule 34’ is equivalent to ‘transforming whatever we are talking about into pornographic content’. For what concerns the verb *to 49* in example (38), the *Encyclopaedia Britannica*<sup>23</sup> comes to our aid with an article on the ‘Forty-nine dance’<sup>24</sup> in its Native American Culture section. Among the verbs of debated etymology, we also find *to 86 somebody* (North American, informal ‘to throw out, get rid of or refuse service to’ *Merriam Webster*)<sup>25</sup> (39). *Urban Dictionary* offers two alternative etymologies:

Chumley’s, a famous and OLD New York speakeasy, is located at 86 Bedford St. During Prohibition, an entrance through an interior adjoining courtyard was used, as it provided privacy and discretion for customers. As was (and is) a New York tradition, the cops were on the payroll of the bar and would give a ring to the bar that they were coming for a raid. The bartender would then give the command “86 everybody!”, which meant that everyone should hightail it out the 86 Bedford entrance because the cops were coming in through the courtyard door.

Baz, 17 February 2005

---

21 <https://www.urbandictionary.com/define.php?term=1080&page=2>.

22 <https://www.urbandictionary.com/define.php?term=Rule%2034>.

23 <https://www.britannica.com>.

24 Many have linked the name forty-nine dance to the traveling festivals, or carnivals, of the American Southwest in the early 1900s. Such festivals typically included a ‘49 dance hall’, a ‘49 camp’, or a similarly named ‘49’ event that was intended to evoke the spirit of the California Gold Rush of 1849. According to one origin story, a group of Native American youths wanted to enter a sideshow – billed as either *Days of Forty-nine* or *Girls of Forty-nine* – at the Caddo County Fair in Anadarko, Oklahoma (the centre of the Kiowa and Comanche populations since the mid-19th century). When they were unable to come up with the price of admission, one young man reportedly said, “Let’s have our own forty-nine”, and so the dance acquired its name. Another version of the name’s etymology dates its use to 1924, when the movie *In the Days of 49* was particularly popular in the Anadarko area. A separate origin story presents the name ‘forty-nine dance’ as a commemorative reference to a group of 50 warriors who went to battle with only 49 returning or, conversely, with only one returning and 49 killed.

25 <https://www.merriam-webster.com/wordplay/eighty-six-meaning-origin>.

The phrase ‘80 miles out and 6 feet under’ was reserved for someone who had to dig their own grave 80 miles from civilization and then get shot execution-style. All terms for 86’d originated from this, be it alcohol or eliminating.

Carlos Diaz, 5 October 2007

Finally, we have *to 123* and *to 2*, two verbs that can be considered an integral part of the stable lexicon of the diastratic variety of spoken English used with children. *To 123* means ‘to count, to utter the 123’, as in example (40), while *to 2* derives from the expression ‘number 2’ and means ‘to have a bowel movement’ (41).

In the following section, we will attempt an analysis of these verb classes using Qualia roles.

#### 4 Qualia-Oriented Analysis

For what concerns the meanings of the verbs of the first group, we believe that *to 0 something* and *to 000000 a mobile* can be traced back to the exploitation of the Agentive Qualia of the underlying zero-related nouns, because in both cases existing values are ‘set’ to 0 (5.a) and 000000 (7.a), i.e., the values ‘0’ and ‘000000’ are created. The Qualia values are expressed between square brackets in the different paraphrases following the afore-mentioned examples. In the case of *to 0 out*, the meaning is better paraphrased in a less Qualia-adhering way (6.a).

(5) But as this instruction (or the original instruction, if line #5 is **0ed**) is executed before the code handler, it seems a bit limited.

(5.a) But as this instruction (or the original instruction, if line #5 is [set to] **0**) is executed before the code handler, it seems a bit limited.

(7) It’s questionable what for you want to use such a **000000ed** phone anyway.

(7.a) It’s questionable what for you want to use a phone [whose IMEI has been set to] **000000** anyway.

(6) If Rockstar wanted to remove it, they could very well have **0ed** Hot Coffee **out**.

(6.a) If Rockstar wanted to remove it, they could very well [removed] Hot Coffee.

The same goes for the verbs of the second group (*to 403*, *to 404*, *to 500* and *to 301*), whose meanings we believe can be traced back to the exploitation of the Agentive Qualia of the underlying nouns expressing HTTP status codes. Indeed, an HTTP status code comes

about and therefore exists (for the user) the moment it is ‘being displayed’ on a web page, regardless of the message it conveys.

(8) 12 hours later, it’s still **403ing**.

(8.a) 12 hours later, it’s still [displaying] a **403**.

(9) If you have pages that are **404ing**, try redirecting them.

(9.a) If you have pages that are [displaying] a **404**, try redirecting them.

(10) Well, it’s **500ing** now, I might have to eat my words here.

(10.a) Well, it’s [displaying] a **500** now, I might have to eat my words here.

(11) Out of interest, what are the issues of **301ing** all non-existent URLs to the homepage?

(11.a) Out of interest, what are the issues of [displaying] a **301** [and redirect] all non-existent URLs to the homepage?

As shown in (8.a), (9.a) and (10.a), the paraphrases including the Agentive Qualia value ‘displaying’ are able to properly convey the meanings of the first three verbs of the group, while the paraphrase (11.a) needs additional information since the verb *to 301* is transitive and needs a URL as its direct object.

All the verbs belonging to the third group (*to 19.5 somebody*, *to 21 somebody*, *to 36 somebody*, *to 50 somebody*, *to 5/5*) except one (*to 1 for 2 somebody*) can be paraphrased exploiting the Telic Qualia value ‘to use’ of their underlying nouns denoting the number of points players use in the context of the game: ‘a 19.5’, ‘a 36’, ‘a 21’, ‘a 50’.

(12) I didn’t expect him coming out of nowhere and **36ing** me in one turn.

(12.a) I didn’t expect him coming out of nowhere and [using] a **36** [against] me in one turn.

(13) Easily worth **5/5ing** and focusing on pumping up your Mind save.

(13.a) Easily worth [using] **5/5** [points] and focusing on pumping up your Mind save.

The only exception is *to 1 for 2 somebody*, which means ‘to trade two cards for one’ with someone we are playing with. The multi-word expression ‘1 for 2’ underlying the verb can be seen as a trading card move and since moves are ‘made’, we believe its Agentive Qualia value is ‘to make’.



(42) Basically, you are **1 for 2ing** yourself.

(42.a) Basically, you are [making] a **1 for 2** [on] yourself.

In the fourth group, all verb meanings can be paraphrased using verbs that refer to the creation of angles or rotations, such as ‘make’ or ‘change by’. We believe these are Agentive Qualia values given that an angle or a rotation come into being when they are ‘made’.

(14) First, he cut the baseboard to size and **45ed** the angles.

(14.a) First, he cut the baseboard to size and [made] **45°** angles.

(15) Rowell **270ed** on and off almost all of the rails and boxes throughout the competition.

(15.a) Rowell [made] a **270** on and off almost all of the rails and boxes throughout the competition.

(16) Still if you get Anderson **3/4ing**, the Knicks now have guards that can deal with that.

(16.a) Still if you get Anderson [making] a **3/4**, the Knicks now have guards that can deal with that.

(43) This time the orientation in the tent **was 180ed** from the usual

(43.a) This time the orientation in the tent was [changed by] **180°** from the usual.

On the other hand, all the verbs of the fifth group (i.e., *to 212 somebody*, *to 302 somebody*, *to 602 something* and *to 5150 somebody*) rely on the exploitation of the Telic Quale of the different policies and laws these figures refer to. If we agree that the purpose of a law, section or policy is ‘to be enacted’, then the paraphrases of these verbs will read as follows:

(17) I was soon **212ed** out of the service for having a behavioral disorder.

(17.a) They soon [enacted] a **212** [and discharged me] out of the service for having a behavioral disorder.

(18) That night I remember him texting me at work saying, “I’m going to kill myself”, so I did the logical thing that any nurse would do – I called the police and had him **302ed**.

(18.a) [...] – I called the police and had [them enact] a **302** [on him].

(19) I **602ed** it and was told that the problem will be fixed but it hasn't as of yet.

(19.a) I [enacted] a **602** [on] it and was told that the problem will be fixed but it hasn't as of yet.

(20) The next month, young Latarian was back in the news – for beating up the same grandmother in Wal-Mart because she wouldn't buy him chicken wings. He was subsequently **5150ed**.

(20.a) [...] A **5150** was subsequently [enacted against] him.

The verbs in group six do not fit the same pattern as the previous groups. Only the verb *to 14* does seem to allow for the exploitation of 'to climb', which can be seen as the Natural Telic value (cf. Pustejovsky and Jezek 2012, 32-4) of a *14er*, 'a mountain of at least 14,000 feet'.

(21) Last month, Alex and his friend took us on a family adventure to practice winter **14ing**.

(21.a) Last month, Alex and his friend took us on a family adventure to [climb] a **14er**.

(24) We are going to meet at 4:20 on 4/20 for **420ing** in Marin County at the Bolinas Ridge.

(24.a) We are going to meet at 4:20 on 4/20 for [doing what we usually do at] **4:20** in Marin County at the Bolinas Ridge.

(24.b) We are going to meet at 4:20 on 4/20 for [smoking pot] in Marin County at the Bolinas Ridge

As for *to deep 6 something*, *to 10:10* and *to 420*, we believe the idiomaticity of these verbs prevents the direct exploitation of the Qualia structure of their underlying base numbers. For instance, even assuming that the information between square brackets in (24.a) ('doing what we usually do at') may be included in the Qualia structure of a time expression like 4:20 p.m., the specific activity associated to said time – in this case 'smoking pot' – would still be missing from the structure.<sup>26</sup>

On the other hand, the verbs of the seventh group (*to top 8 a tournament*, *to top 32 a tournament*, *to top 50 a tournament*, *to top 64*

---

**26** That being said, it is well-known that idiomatic meanings constitute a bottleneck for semantic theories, and we believe this not to subtract anything from the interpretative potential of our framework.

*a tournament*) all exploit the Constitutive Qualia values of the group entities they refer to, as we can see in the paraphrasis in (25.a).

(25) Patrick has **Top 8ed** 4 PTs over his career and is the first **to Top 8** in 3 different decades.

(25.a) Patrick has [become part of the] **Top 8** of 4 PTs over his career and is the first to [become part of a] **Top 8** in 3 different decades.

Moving on to the verbs of the eighth group (*to Call of Duty 4*, *to Grand Theft Auto 4*, *to iOS7* and *to Channel 9*), these offer very clear-cut cases of exploitation of the Telic Qualia values of the video games, operative systems and tv channels they refer to, since these are all man-made products with a clear goal: 'being played, used or watched'.

(26) There's been a lot of **Grand Theft Auto 4ing** and **Call of Duty 4ing** going on lately.

(26.a) There's been a lot of [playing] **Grand Theft Auto 4** and **Call of Duty 4** lately.

(27) Happy **iOS7ing**!

(27.a) Happy [using] **iOS7**!

(28) Plenty of time is being spent **Channel 9ing**.

(28.a) Plenty of time is being spent [watching] **Channel 9**.

The same goes for the two verbs in the ninth group (*to \*69 somebody* and *to 911*), which both refer to telephone numbers, whose aim – and therefore Telic Qualia value – is 'to be dialed'.

(29) I told him off and **star69ed** him (we don't have caller ID).

(29.a) I told him off and [dialed] **star69** [on] him (we don't have caller ID).

(30) Guys, when can we expect the official thread, you know, the one without all the **911ing**?

(30.a) Guys, when can we expect the official thread, you know, the one without all the [dialing] **911**?

Finally, for what concerns the verbs of the tenth group, no common analysis applies since the group is miscellaneous. Certain verb meanings can be explained using the exploitation of the Telic Qualia role of their underlying nouns, as in the case of *to 4x4*, *to 64*, *to rule 34 something*, and *to 1080 something*. Indeed, the aim of a vehicle is

clearly ‘to be driven’ as in (33.a), that of a beer is ‘to be drunk’ as in (35.a), that of a pesticide is ‘to be used’ as in (36.a), and that of a rule is ‘to be applied’ as in (37.a).

(33) The next day our itinerary consisted of **4x4ing** through the desert and riding camels.

(33.a) The next day our itinerary consisted of [driving] a **4x4** through the desert and riding camels.

(35) There will be Guitar Heroing and **64ing** and Wiing and XBoxing.

(35.a) There will be Guitar Heroing and [drinking] **64s** and Wiing and XBoxing.

(36) We shot two deer on DoC lands (that haven’t been **1080ed** recently).

(36.a) We shot two deer on DoC lands ([on which] **1080** [hasn’t been used] recently).

(37) People **rule 34ing** all of your characters in every possible situation, including space.

(37.a) People [applying] **rule 34** to all of your characters in every possible situation, including space.

Also the meaning of the verb *to 2*, which refers to the act of expelling feces from one’s body, can be explained using the exploitation of the Natural Telic of ‘a number 2’, namely that of ‘being expelled’.

(41) This monthly bulletin on all things Web 2.0 listens in to consumption as consumers themselves see and tell it online when ‘**2ing**’.

(41.a) This monthly bulletin on all things Web 2.0 listens in to consumption as consumers themselves see and tell it online when [expelling] a [number] ‘**2**’.

Another subgroup of this miscellaneous grouping clearly exploits the Agentive Qualia values of their linked noun entities, namely the subgroup made up of *to high 5 somebody*, *to +1 something*, *to 69*, *to 49* and *to 123*. Indeed, a high 5 (as a form of greeting) takes place when it is ‘given’, as in (31.a); the same goes for a +1 (as a sign of support on social media platforms), as in (32.a); a 69 only happens when two people ‘perform’ that specific Kamasutra position, as in (34.a); a 49 dance happens only if a group of people ‘performs’ it, as in (38.a); and children are 123ing only when they start ‘uttering’ that specific sequence of numbers, as in (40.a).

(31) With all the laughing, yelling and **high 5ing** [...]

- (31.a) With all the laughing, yelling and [giving of] **high 5s** [...]
- (32) It's not G+, so I **can't +1** this, but here I am, **+ 1ing** this anyway.
- (32.a) It's not G+, so I can't [give] **a +1** to this, but here I am, [giving] **a + 1** to this anyway.
- (34) I love **69ing** with my man.
- (34.a) I love [performing] **a 69** with my man.
- (38) They sing these songs after the powwow. They are **49ing**.
- (38.a) They sing these songs after the powwow. They are [performing] **a 49**.
- (40) She said that he was ABCing and **123ing** after watching the videos.
- (40.a) She said that he was ABCing and [uttering] the **123** after watching the videos.

We leave out the expression *to 86 somebody* for the same reasons as *to zero out*, *to deep 6 something*, *to 10:10* and *to 420*.

## 5 Conclusions

In this work, we have attempted to dive into the semantics of a peculiar category of English denominal verbs, i.e., 'denumeral verbs' – verbs resulting from the conversion of numbers into verbs, as in the case of *to 991* 'to call the police dialing 911' or *to 4x4* 'to drive a 4x4 vehicle'.

After providing an overview of the different interpretations of conversion in denominal verbs, the focus was brought on the contribution of base noun semantics to denominal verb semantics. In line with Fabrizio (2013), our analysis embraces Generative Lexicon Theory (Pustejovsky 1991) and Qualia structure, i.e., a system of four relations able to define a lexical item by virtue of the fact it encodes information about the essence, composition, purpose and origin of its referent.

In order to analyse denumeral verbs using our reference framework, an *ad hoc* query was built to retrieve corpus examples from the *EnTenTen15* corpus. Overall, 296 instances were identified, manually scrutinized and traced back to a total of 47 denumeral verb lemmas, which were then divided into ten working categories. A section of the paper was devoted to explaining the meaning of the identified lemmas, since most of them belong to the specific lexicon of restricted communities of use. After an initial assessment, the verbs from groups seven and eight were identified as not strictly denumeral

due to the prominence of the semantics of the lexical material they include. Nonetheless, considering the preliminary nature of the study and the absence of previous research on this topic, they were not excluded from the Qualia-oriented analysis.

Overall, we were able to identify 21 verbs exploiting the Telic quale of their underlying noun, 17 verbs exploiting the Agentive quale, 4 verbs exploiting the Constitutive quale and 5 verbs whose idiomatic meaning inhibits the direct access to the Qualia structure of their underlying base numbers. We believe this finding to be of interest since it suggests a hierarchy of exploitability when it comes to the different facets of information encoded in the base. It would seem that, at least for what concerns the denumeral verbs in our sample, it is more common – and possibly more useful for communicative purposes – to extract information concerning the goal and origin of an entity rather than its internal composition and ontological nature.

## Abbreviations

EnTenTen15, English Web Corpus 2015  
GLT, Generative Lexicon Theory  
HTTP, HyperText Transfer Protocol  
IMEI, International Mobile Equipment Identity  
PT, Pro Tour  
RPG, Role Playing Game

## Appendix

Number	Verb	Example	Hits
0	to 0	But as this instruction (or the original instruction, if line #5 is <b>0ed</b> ) is executed before the code handler, it seems a bit limited.	6
	to 0 out	If Rockstar wanted to remove it, they could very well have <b>0ed</b> Hot Coffee <b>out</b> .	2
	to 000000	It's questionable what for you want to use such a <b>000000ed</b> phone anyway.	1
1	to +1	It's not G+, so I <b>can't +1</b> this, but here I am, <b>+1ing</b> this anyway.	24
1 for 2	to 1 for 2	Basically, you are <b>1 for 2ing</b> yourself.	1
2	to 2	This monthly bulletin on all things Web 2.0 listens in to consumption as consumers themselves see and tell it online when ' <b>2ing</b> '.	1
4	to 4 x 4	The next day our itinerary consisted of <b>4x4ing</b> through the desert and riding camels.	2
	to Call of Duty 4	There's been a lot of Grand Theft Auto 4ing and <b>Call of Duty 4ing</b> going on lately.	1
	to Grand Theft Auto 4	There's been a lot of <b>Grand Theft Auto 4ing</b> and Call of Duty 4ing going on lately.	1
3/4	to 3/4	Still if you get Anderson fronting or <b>3/4ing</b> , the Knicks now have guards that can deal with that.	1
5	to high 5	With all the laughing, yelling and <b>high 5ing</b> [...]	14
	to 5/5	Easily worth <b>5/5ing</b> and focusing on pumping up your Mind save.	1
6	to deep 6	There is the threads that get axed, 404ed or <b>deep 6ed</b> .	1
7	to iOS7	Happy <b>iOS7ing</b> !	2

8	to top 8	Patrick has <b>Top 8ed</b> 4 PTs over his career and is the first <b>to Top 8</b> in 3 different decades.	26
9	to Channel 9	Plenty of time is being spent <b>Channel 9ing</b> .	1
10:10	to top 10:10	A big thank you to everyone [...] for top <b>10:10ing</b> prize Flemmich Webb	1
14	to 14	Last month, Alex and his friend took us on a family adventure to practice winter <b>14ing</b> .	2
19.5	to 19.5	Are you <b>19.5ing</b> the Denali?	1
21	to 21	I was running Kemba for a while but I decided that <b>21ing</b> someone is just better.	1
32	to top 32	Hanging out with new and old friends, Grinding into worlds, and <b>Top 32ing</b> my first ever Worlds.	1
34	to rule 34	People <b>rule 34ing</b> all of your characters in every possible situation, including space.	2
36	to 36	I didn't expect on him coming out of nowhere and <b>36ing</b> me in one turn.	1
45	to 45	First, he cut the baseboard to size and <b>45ed</b> the angles.	3
49	to 49	They sing these songs after the powwow. They <b>are 49ing</b> .	1
50	to top 50	When you stop <b>top 50ing</b> them, you might have to go back to the PTQ grind.	1
	to 50	[...] <b>having not 50ed</b> any Villains.	1
64	to top 64	[...] people who have <b>top 64ed</b> GPs.	1
	to 64	There will be Guitar Heroing and [...] <b>64ing</b> and Wiing and XBoxing.	1
69	to 69	I love <b>69ing</b> with my man.	117
	to *69	I told him off, and <b>star69ed</b> him (we don't have caller ID).	3
86	to 86	This guy was forever getting <b>86ed</b> out of everywhere we went.	24
180	to 180	This time the orientation in the tent was <b>180ed</b> from the usual.	4
212	to 212	I <b>was</b> soon <b>212ed</b> out of the service for having a behavioral disorder.	1
270	to 270	Rowell <b>270ed</b> on and off almost all of the rails and boxes throughout the competition.	1
301	to 301	Out of interest, what are the issues of <b>301ing</b> all non-existent URLs to the homepage?	3



302	to 302	That night I remember him texting me at work saying, “I’m going to kill myself”, so I did the logical thing that any nurse would do – I called the police and had him <b>302ed</b> .	3
360	to 360	Vehicles stuck in medians after <b>360ing</b> .	1
403	to 403	12 hours later, it’s still <b>403ing</b> .	1
404	to 404	If you have pages that are <b>404ing</b> , try redirecting them.	24
420	to 420	We are going to meet at 4:20 on 4/20 for <b>420ing</b> in Marin County.	1
500	to 500	Well, it’s <b>500ing</b> now, I might have to eat my words here.	1
602	to 602	I <b>602ed</b> it and was told that the problem will be fixed but it hasn’t as of yet.	6
911	to 911	Guys, when can we expect the official thread, you know, the one without all the <b>911ing</b> ?	1
1080	to 1080	We shot two deer on DoC lands (that haven’t been <b>1080ed</b> recently) and that is about as organic as you get!	1
5150	to 5150	The next month, young Latarian was back in the news – for beating up the same grandmother in Wal-Mart because she wouldn’t buy him chicken wings. He was subsequently <b>5150ed</b> .	1
123	to 123	She said that he was ABCing and <b>123ing</b> after watching the videos.	1
Total			296

## Bibliography

- Aronoff, M. (1980). "Contextuals". *Language*, 56, 744-758. <https://doi.org/10.2307/413486>
- Beard, R. (1995). *Lexeme-Morpheme Base Morphology. A General Theory of Inflection and Word Formation*. Albany, NY: Suny Press. <https://sunypress.edu/Books/L/Lexeme-Morpheme-Base-Morphology>
- Clark, E.V.; Clark, H.H. (1979). "When Nouns Surface as Verbs". *Language*, 5(4), 767-811. <https://doi.org/10.2307/412745>
- Don, J. (1993). *Morphological Conversion* [PhD Dissertation]. Utrecht: Utrecht University.
- Don, J. (2005). "On Conversion, Relisting and Zero-Derivation". *SKASE Journal for Theoretical Linguistics*, 2(2), 2-16. <http://www.skase.sk/>
- Fabrizio, C. (2013). "The Meaning of a Noun Converted into a Verb. A Semantic Exploration on Italian". *Rivista di Linguistica*, 25(2), 175-219. [https://www.italian-journal-linguistics.com/app/uploads/2021/05/1\\_Fabrizio.pdf](https://www.italian-journal-linguistics.com/app/uploads/2021/05/1_Fabrizio.pdf)
- Fauconnier, G.; Turner, M. (2002). *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.
- Fillmore, C.J. (1992). "Frame Semantics". The Linguistic Society of Korea (eds), *Linguistics in the Morning Calm*, 111-37.
- Goldberg, A. (1995). *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Gottfurcht, C.A. (2008). *Denominal Verb Formation in English* [PhD dissertation]. Evanston, IL: Northwestern University.
- Grice, H.P. (1975). "Logic and Conversation". Cole, P.; Morgan, J.L. (eds), *Syntax and semantics, III: Speech Acts*. New York: Academic Press, 41-58.
- Jakubíček, M. et al. (2013). "The TenTen Corpus Family". Hardie, A.; Lov, R. (eds), *Proceedings of the 7th International Corpus Linguistics Conference* (Lancaster, 23-26 July 2013). Lancaster: UCREL, 125-7. <https://ucrel.lancs.ac.uk/cl2013/doc/CL2013-ABSTRACT-BOOK.pdf>
- Ježek, E.; Ramat, P. (2009). "On Parts-of-Speech Transcategorization". *Folia Linguistica*, 43(2), 391-416. <https://doi.org/10.1515/flin.2009.011>
- Joh, Y. (2001). "A Semantic Analysis of Denominal Verbs in English". *English Language and Linguistics*, 12, 215-35.
- Kelly, M.H. (1998). "Rule and Idiosyncratically Derived Denominal Verbs: Effects on Language Production and Comprehension". *Memory and Cognition*, 25, 369-81. <https://doi.org/10.3758/bf03201147>
- Kilgarriff, A. et al. (2014). "The Sketch Engine: Ten Years on". *Lexicography*, 1(1), 7-36. <https://doi.org/10.1007/s40607-014-0009-9>
- Lieber, R. (1980). *On the Organization of the Lexicon* [PhD dissertation]. Cambridge, MA: Massachusetts Institute of Technology. [Published by Indiana University Linguistics Club, 1981 and Garland Press, 1990].
- Lieber, R. (1992). *Deconstructing Morphology: Word Formation in Syntactic Theory*. Chicago: University of Chicago Press.
- Lieber, R. (2004). *Morphology and Lexical Semantics*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CB09780511486296>
- Lieber, R. (2005). "Word Formation Processes in English". Štekauer, A.; Lieber, R. (eds), *Handbook of Word-Formation*. Dordrecht: Springer, 375-427. [https://doi.org/10.1007/1-4020-3596-9\\_16](https://doi.org/10.1007/1-4020-3596-9_16)
- Marchand, H. (1960). *The Categories and Types of Present-day English Word-Formation. A synchronic-diachronic approach*. Wiesbaden: Otto Harrassowitz.

- Michaelis, L.A.; Hsiao, A. (2021). "Verbing and Linguistic Innovation". *Frontiers in Communication*, 6(604763). <https://doi.org/10.3389/fcomm.2021.604763>
- Pustejovsky, J. (1995). *The Generative Lexicon*. Cambridge, MA: The MIT press. <https://doi.org/10.7551/mitpress/3225.001.0001>
- Pustejovsky, J.; Ježek, E. (2008). "Semantic Coercion in Language: Beyond Distributional Analysis". *Rivista Italiana di Linguistica*, 20(1), 123-38.
- Pustejovsky, J.; Ježek, E. (2012). "Introducing Qualia Structure". *A Guide to Generative Lexicon Theory*. Oxford: Oxford University Press, 3-45. <https://gl-tutorials.org/wp-content/uploads/2015/12/GL-QualiaStructure.pdf>
- Rimell, L.D. (2012). *Nominal Roots as Event Predicates in English Denominal Conversion Verbs* [PhD Dissertation]. New York: New York University.
- Suozzi, A.; Cardinaletti, A. (2024). "Word- or Root-derived? A Semantic Test for Instrumental Denominal Verbs in Italian". Brunetti, L.; Chitoran, I.; Mardale, A. (eds), *Special Issue of Isogloss. Open Journal of Romance Linguistics*, 10(7), 1-24. <https://doi.org/10.5565/rev/isogloss.412>
- Valera, S. (2006). "Conversion". Brown, K. (ed). *Encyclopedia of Language and Linguistics*. 2nd ed., vol. 3. Boston: Elsevier, 172-5. <https://doi.org/10.1016/b0-08-044854-2/00112-7>

