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Wort Plant Names in Contemporary English

Their Semantic Motivation and Morphological Structure

Abstract

The world of plants has exerted its fascination on researchers in linguistics for a long time. Botanic nomenclature was paramount in investigating categorization (e.g., Berlin, Breedlove, and Raven 1973), and in understanding the relationship between an individual and its environment. In the field of Anglo-Saxon studies, research into the lexicon of plants is of interest for at least two reasons. Firstly, plant names encode a wealth of information on the cultural system that has produced them by mirroring religious beliefs and dietary or medicinal practices. Secondly, this analysis provides insights into the psychological processes and linguistic strategies used to encode nature into language (e.g., Krischke 2013; 2009; Biggam 2003). In contemporary English, the names of ‘wort plants’ follow similar patterns to Old English plant names (Prosyannikova 2020). The lexeme wort is considered archaic by the OED, and it is listed as a suffix by Cambridge Dictionary. It derives from Old English wyrt, meaning plant, root. In contemporary English it is mainly found as the second element of compounds, such as lungwort, mugwort, but also in isolation as an independent morpheme. The present study aims at identifying and analyzing the occurrences of wort and wort-plants in contemporary English. Firstly, I will verify the occurrences of wort-plants in online corpora of English (COCA and BNC) and their frequency of usage. Secondly, I will provide a description of their morphological structure and semantic motivation. Following Blank (1997) and Krischke (2013), I will argue for a metonymic motivation of wort-plant names. Lastly, I will integrate the analysis of corpus data with a lexicographic analysis of their entries in the Oxford English Dictionary, to explore their referents in the two major varieties of English.

Keywords: *English linguistics, plant nomenclature, figurative language, onomastics, semantic motivation*

1. Introduction

The botanical world played a major role in the life of pre-industrialized societies, who relied on plants for virtually any need that arose in their daily lives: trees, herbs, and bushes were sources of food, medicine, textiles, and their trunks could even be turned into construction material (Hall 2003). Distinguishing between different plant forms was vital: some plants contain toxic substances that may lead to severe consequences if ingested, and in some cases even death. In this light, it is not surprising that the practice of classifying plant names dates back to the earliest form of writing. Thus, there are surviving herbariums from Ancient Greece (Theophrastus and Pedanius Dioscorides), and Ancient Rome (Pliny), while the first plant names documented in writing are to be found in Ancient Egyptian hieroglyphs (for an overview, see Pavord 2005).

During the Middle Ages and up until the 16th century, the Doctrine of Signatures was a common strategy for deciphering the possible applications of plants to cure diseases, and consequently for naming them (Pearce 2008). According to this theoretical system, the attributes of a plant (including its color, shape, taste, smell, etc.) were indicative of its possible application in healing practices. Thus, the shape of the sori¹ of *Asplenium scolopendrium*, for example, are reminiscent of a human spleen, leading to the belief that this plant could be effective in curing diseases that affected this organ. This cultural belief has highly influenced the writings of physicians throughout history, who in turn have prescribed herbal remedies based on this theory. Consequently, many plant names bear a reference to an organ of the human body, based on the set of beliefs that regulated their usage in cultural practices. These references may be envisaged in several of the surviving names of plants still in use in contemporary English.

Old English displays a remarkable number of plant names: according to rough estimates, out of 35,000 surviving Old English lexemes, almost 900 refer to plant forms (flowers, trees, shrubs, and herbs) (Krischke 2013, 21). The wealth of linguistic data and the problems of interpreting them inspired the Anglo-Saxon Plant-Name Survey (Biggam 2003; Bierbaumer and Klug 2009), which included researchers working in various disciplines (including archaeology, botany, linguistics, and textile studies). The main objective of the project was the identification of plant names in Old English texts and their physical referents, in order to reconstruct the botanical knowledge and usage of the Anglo-Saxon population in early Medieval England. The lexicon of Old English plant names offers insights into the naming practices of this speech community, as well as providing elements for the reconstruction of the psychological and cultural processes

¹ In botany, *sori* are the sexual organs of spore-bearing plants, typically ferns.

that led to the conventionalization of these names. Among the various linguistic strategies that were available to the speakers of Old English to establish the name of a plant, compounding was especially common. More precisely, the usage of the lexical item *wyrt* (“plant, herb, root”)² as a second element of compounds, paired with a specifying first element, allows for the inclusion of extra-linguistic, cultural elements in new plant names. Notably, this lexical item is still present in contemporary English, and it may still be found as the second element in the name of several plants in the form *wort* (Prosyannikova 2020).

The present paper aims at investigating the occurrences of the word *wort* in contemporary English, both as an independent morpheme and in compounds, e.g., *mugwort*, *awlwort*, *bladderwort*, to name but a few. In the following paragraphs, firstly I offer a brief review of relevant theoretical concepts that have structured my research. Secondly, I describe the methodology through which I retrieved the occurrences of the lexical item *wort* and of the plant names that display this element. Lastly, I illustrate the results of the classification based on the semantic motivation of plant names. The semantic relationship between the two morphemes in these complex names reveals a set of practices and beliefs based on the English-language cultural and biological environments. The analysis I propose is based on Krischke’s (2013) analysis, which in turn applies Blank’s (1997) model of the semiotic sign to the semantic description of these names. The onomastic strategies often display metaphorical and metonymic bases, thus encouraging a reconsideration of the role of figurative language in naming.

2. Theoretical background

The case of plant names is particularly relevant for cognitive linguistic scholarship because they encapsulate a society’s world knowledge in a seemingly transparent way. The cognitive semantic analysis of the components that create the compound allows for a reconstruction of the motivation underlying these names. The most common characteristics expressed in the name of plants are e.g., their aspect, their habitat, and their use. These pieces of information, referring to the real plant, are selected from the different features that a plant may display. Arguably, salience is the cognitive mechanism that drives their selection (Schmid 2020, 78; Günther et al. 2017; Schmid and Günther 2016).

According to Kastovsky (1992, 291), the lexicon of a language contains linguistic labels for portions of extralinguistic reality that a given culture finds worthy of naming. In this light, the

² Bosworth, Joseph. “wyrt.” *An Anglo-Saxon Dictionary Online*. Edited by Thomas Northcote Toller, Christ Sean, and Ondřej Tichy. Prague: Faculty of Arts, Charles University, 2014. <https://bosworthtoller.com/37016>. All websites last visited on 19/11/2021.

semantic knowledge incorporated in the vocabulary of a language reflects the cultural, intellectual, and emotional preoccupations of a speech community. Cognitive semantics maintains that the semantic material stored in lexical forms reflects a society's world knowledge (Geeraerts 2010, 223). This includes the array of cultural practices shared by the individual speaker and their community. Plant names may be considered natural kind terms, i.e., "categories or taxonomic classifications into which particular objects may be grouped on the basis of shared characteristics of some sort" (Koslicki 2008, 789). As such, they are not arbitrary (Koslicki 2008, 789), their etymologies largely depend on extra-linguistic factors (Durkin 2009, 266), and they instantiate cases of *denotation*, in that they denote any member belonging to a specific class of plants, rather than referring to a unique specimen (Lyons 1977; Krischke 2013, 40).

The collection of the different ways in which languages lexicalize concepts is referred to as lexical typology (Lehrer 1992a, 29), that is, the way in which semantic material is encapsulated into word forms. Compounding (i.e., the process of combining two word-bases to create a new, grammatically and semantically independent lexical item) is a lexicalization strategy consistently used by many languages across the globe as a means to 'recycle' old lexical material through word-formation patterns (Brdar 2017, 4). Bauer (1983, 30) distinguishes between four different types of compounds, following the traditional division originally proposed by Sanskrit grammarian Pānini (6th century BC). In endocentric compounds, the compound is a type of the syntactic head of the new word. For instance, an *armchair* is a type of *chair*. Conversely, in exocentric compounds, the semantic head is not represented by the syntactic head, thus frequently exposing the resulting compound to metaphorical and metonymic interpretations (Brdar 2017, 22). For instance, *highbrow* is used to refer to an intellectual, but *highbrow* is not a type of *brow*: rather, the whole compound is hyponym of 'person.' Thirdly, in appositional compounds both parts refer differently to the same referent, e.g., *maidservant* is a hyponym of both 'maid' and 'servant.' Lastly, in copulative compounds (occasionally referred to as *dvandva* compounds), the two lexemes that form the compound denote different entities, and are combined to create a third entity, which is a blend of the two. In this type of compound, it is not always clear which element is the syntactic head, and the compounds do not represent hyponyms of either element, e.g., *Alsace-Lorraine* is not a hyponym of either *Alsace* or *Lorraine*. Krischke (2013) presents a detailed survey of Old English plant names, of their morphological structure and their semantic motivation. In her analysis, she applies Blank's (1997; 2001) model of the semiotic sign. This model was developed to account for the semantic, diachronic evolution of lexical items. According to Blank, neither structural nor cognitive semantics are sufficient on

their own to account for the wealth of information that is conveyed by a linguistic sign (see also Lehrer 1992b). On one hand, the structuralist approach lacks the possibility of tying linguistic information to the language external dimension, in that it exclusively focuses on language-dependent mechanisms (Blank 1997; Krischke 2013, 142). On the other hand, the cognitive semantic approach provides useful information about the language-independent component of plant names, but it does not contribute any description of language-dependent aspects, such as *synonymy*, *hyponymy*, *antonymy* (Krischke 2013, 142). In order to overcome the deficiencies of both models, Blank (1997) proposes a blended model, in which the two approaches are combined (Fig. 1).

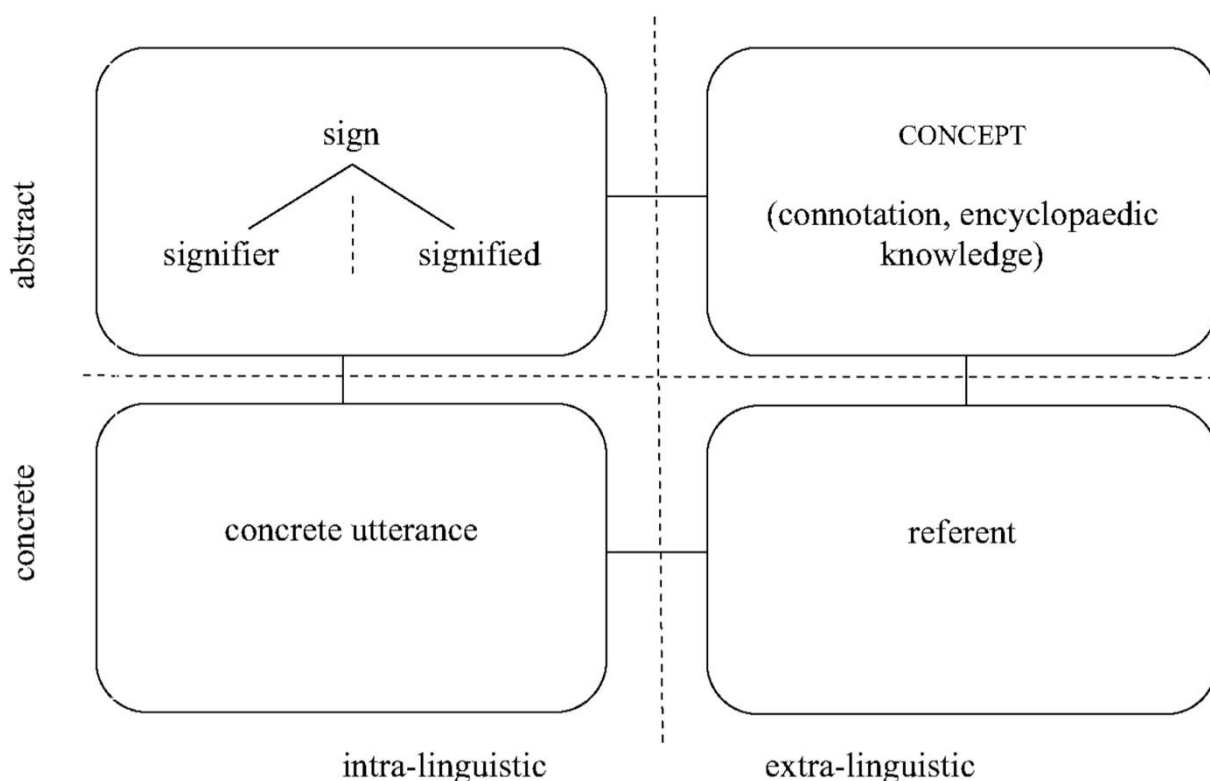


Fig. 1: Blank’s semiotic model of the linguistic sign (Krischke 2013, 143)

The intra-linguistic level of analysis takes into account both the sign (consisting of signifier and signified), and the concrete realizations of the lexical items under scrutiny. The extra-linguistic level of analysis involves the approaches developed within the discipline of cognitive linguistics more properly, and it includes *encyclopedic knowledge* and real-life referents. By way of example, consider the plant name *spleenwort*. On the level of abstract, intra-linguistic knowledge, the signifier corresponds to the phonological realization of the lexeme, which may be roughly transcribed as /'spli:nwɜ:t/, although other realizations in other varieties of English may be observed at the level of the concrete utterance (for instance, /spli:nwɜ:t/ in American

English). On the level of the signified, the lexeme *spleenwort* identifies various species of plants (as opposed to shrubs, or trees) in the genus *Asplenium*, a common genus of ferns in Europe. The relationship between this linguistic sign and real-life referents may vary considerably, considering that *spleenwort* refers to a genus (as opposed to a species) that includes plants with different characteristics. Furthermore, the referent of this lexeme may include damaged or withered specimens that do not correspond to the prototypical representation of the plant, but they would still be named *spleenwort*. This layer of analysis combines linguistic knowledge with external reality on the concrete level. On the abstract level, the concept that corresponds to the linguistic sign anchors the semantic content of the lexical item into encyclopedic knowledge, which in turn mirrors and is motivated by the cultural environment in which this name developed. In the case of *spleenwort*, the physical resemblance of the plant sori to a human spleen, coupled with the medical belief of the Doctrine of Signatures, led to the coinage of the compound. Lastly, the concept encoded by this lexical item may be connoted by personal feelings and meanings, i.e., what Ungerer and Schmid (2006, 2) call *experiential aspects* of meaning. Although relevant in language processing and conceptualization, these aspects cannot be investigated through corpora, and they do not necessarily influence the conventionalized linguistic meaning of the lexical item.

The semantic motivation underlying the name *spleenwort* may be grasped by applying Blank's model to the compound, thus analyzing its components, and integrating cultural and botanic knowledge. In this paper, I report the results of the application of Blank's model to the set of linguistic items that display the construction N/Adj + *wort* in contemporary English. Specifically, I will focus on the abstract, extra-linguistic level of analysis, in order to investigate the extra-linguistic motivation of plant names. Furthermore, I report the identifications of the names as retrieved from the Oxford English Dictionary (hence, OED), including some references to their etymology to provide a more accurate representation of the cultural knowledge they encode.

3. The figurative aspect of naming

The encyclopedic knowledge encapsulated in names is part of the Idealized Cognitive Model of the plant. The notion of ICM was first introduced in cognitive semantics by Lakoff (1987), and includes both encyclopedic knowledge and people's cultural beliefs about a particular domain. The selection of a salient aspect of a given ICM to refer to the entire domain has been regarded as a conceptual metonymic process by Radden and Kövecses (1999, 21), who define metonymy

as “a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same idealized cognitive model.”

Along these lines, Jäkel (1999) investigated a corpus of German family names and developed a taxonomy of metonymic motivations, thus demonstrating that metonymy may be a useful tool in the investigation of naming strategies. For instance, surnames such as *Klein* ‘short,’ *Schön* ‘pretty,’ *Braun* ‘brown,’ are interpreted as cases of the metonymic mapping SALIENT QUALITY FOR PERSON. The metonymic relationship between the two concepts is granted by their belonging to the same ICM. Similarly, the categories of semantic motivation emerging from *wort* names are related to their referent through metonymic relations: for instance, knowledge of the habitat of a plant may be selected to refer to the entire plant, thus suggesting that this was the most salient characteristic for a certain speech community (as opposed to, say, the shape of the leaves or color of the flowers).

Crucially, there is also another level of figurative elaboration displayed by the structure of these names. The salient aspect that is selected and expressed in the morphological structure of the name may be referred to metaphorically. In the case of *saw-wort* (*Serratula tinctoria*), the salient aspect selected through the name and referring to extra-linguistic reality are the leaves of the plant, which display a pinnate, jagged shape (Jefferson and Walker 2017). This characteristic of the leaf is linguistically encoded by the element *saw*, i.e., a common tool with a jagged blade. The relationship that occurs between these two elements is metaphorical, and it is based on visual experience (Kövecses 2020). Therefore, the ensuing analysis aims at establishing the cognitive basis of naming strategies of plants by unravelling their metonymical and metaphorical elaborations.

4. Lexicographic analysis of wort

The OED reports two different current entries for *wort*, both originating from OE *wyrt*, which followed two different albeit related semantic trajectories. The meanings of *wort n.1* are all marked as obsolete except for meaning 3: “any of various non-vascular, moss-like land plants of the divisions *Marchantiophyta* and *Anthocerotophyta* (the liverworts and hornworts)” (OED, *wort n.1*, 3). Its first meaning: “A plant used as a source of food or for medicinal purposes” (OED, *wort n.1*, 1a) is marked as archaic in isolation, but used “chiefly as the second element in the names of plants.” The same word may also refer to “any of the plants of the genus *Brassica* or the family Brassicaceae which are used as vegetable and salad plants, esp. a cabbage (*B. oleracea*)” (OED, *wort n.1*, 2), thus showing a diachronic process of specialization from general “plant” to a specific genus.

The entry *wort n.2* signals a case of homonymy in contemporary English. Its first meaning is glossed by the OED as “A sweet liquid produced by steeping ground malt or other grain in hot water, which is then fermented to produce beer and distilled malt liquors; unfermented beer” (OED *wort n.2*, 1). Although the diachronic development of the two words does not coincide, thus advocating separate listing in the dictionary, the semantic relationship between the two lexical items is most evident in the second meaning of *wort n.2*, currently marked as historical: “An unfermented infusion or decoction of ground malt used for medicinal purposes, esp. as a cure for scurvy” (OED, *wort n.2*, 2). The reference about the infusion of ground malt suggests a specialization of the meaning of Old English *wyrt* to refer specifically to beer production.

The array of different meanings associated with these word forms necessitates a thorough understanding and corpus-based analysis, so as to verify the surviving usages of the word *wort* in contemporary English. Furthermore, the usage of this item as the second element in compounds allows for a clear investigation of the semantic motivation of plant names by applying Blank’s model.

5. Methodology and results

5.1 Occurrences of *wort*

I searched for the occurrences of *wort* as a simplex term in two corpora of the English family: the Corpus of Contemporary American (COCA, Davies 2008) and the British National Corpus (BNC, Davies 2004). I chose these two corpora to include the two major national varieties of English in the discussion, and to map the different distributions of this lexeme in unspecialized corpora. This query yielded a total of 496 occurrences (451 in COCA and 45 in BNC), which I analyzed manually. The results of this analysis are reported in Table 1.

<i>Wort</i>	COCA (number of occurrences)	BNC (number of occurrences)
Beer	71	30
St. john’s	312	10
Herb	7	0
Other (German, proper names, misspellings)	61	5
Sum	451	45

Tab. 1: Occurrences of *wort* in COCA and BNC

Table 1 reports the results of the occurrences of the lexical item *wort*, which I classified according to their meaning. The label “Beer” refers to the meaning of *wort* as “unfermented infusion or decoction of ground malt” (OED, *wort n.2*). The label “St. john’s” refers to the usage of this lexical item as a premodifier for *wort*; while the label “Herb” refers to the use of *wort* as an unspecified synonym for plant. The label “Other” lists occurrences that do not refer to *wort* specifically. There is a striking difference in the number of occurrences in the two corpora, possibly as a consequence of their size.³ In COCA, the largest group of occurrences refers to Saint John’s *wort* (*Hypericum perforatum*), while the occurrences of this name in the BNC is surprisingly low. As an anonymous reviewer suggests, this may be related to the nature and balance of the sources of the two corpora. Most occurrences of St. John’s *wort* in COCA come from magazines (53%), followed by spoken language (16%), web and blogs (12%), newspapers (7%), TV (5%), academic publications (4%), and fiction (3%). The occurrences in the BNC instead are evenly distributed in the miscellaneous and the academic category (50% each). Indeed, the difference in frequency figures may be motivated by the differences in the design of the two corpora: in the BNC, magazines represent only 30% of the entire corpus, while books were preferred (60%). The remaining 10% fall in the miscellaneous category (published, unpublished, and written to be spoken).⁴ The COCA instead collects a wider variety of sources, including texts retrieved on the Internet (Web and Blog).

A considerable number of occurrences were categorized as “Other,” as they resulted from misspellings (*wort* in error for *wart*), or they referred to surnames, or to the German word *Wort* meaning ‘word.’ I did not consider these occurrences for further discussion. The category “Beer” contains the occurrences of *wort n.2*, exemplified in (1):

- (1) Place 2 gallons of chilled water into the primary fermenter and add the hot **wort** into it. (COCA 2012 WEB)

The usage of *wort* in reference to beer represents 20% of the total number of occurrences. These occurrences are uniform in their meaning, and mainly pertain to a specialized context.

The occurrences that instantiate examples of *wort n.1* are less frequent (1%), and are exemplified in (2) and (3):

³ COCA contains more than one billion words, while BNC contains 100 million words (Davies 2008).

⁴ BNC: design of the corpus, <http://www.natcorp.ox.ac.uk/docs/URG.xml?ID=BNCdes>.

- (2) Just follow me and stay close. **Wort** of worm and hair of cat. Show me the home of this Smurf. (COCA 2017 MOV)
- (3) Hermetic nights do I consecrate to magistry, to imperative questions. I munch **wort** leaves. (COCA 1991 FIC)

Both examples refer to fictional, fantasy contexts in which the word *wort* evokes a magical atmosphere (example 2 is from *The Smurfs*, while example 3 is from *Buffy: The Vampire Slayer*). The other occurrences coded in the category of Herbs are mainly questions or clarifications about the meaning of the word, as in (4):

- (4) Despite its strange name (“**wort**” is old English for plant), it has become a lifesaver for many women. (COCA 2000 MAG)

The references to St. John’s wort in COCA are very frequent, and they mainly appear in discussions about the curative properties and uses of the plant in contemporary medicine and pharmaceutical industry, which has made it popular in dedicated magazines and blogs. Overall, the occurrences of *wort* in the corpus show that its usage is limited in frequency, as suggested by the specific meanings of the two homonymous words.

5.2 List of names with -wort

The figures change considerably when considering *wort* as the second element in compounds. The variety of plant names displaying the morphology N/Adj + *wort* testifies to the high productivity of this pattern, although the individual occurrences of names are not always very frequent. Indeed, some of them occur only once in the corpora, and therefore represent cases of *hapax legomena*. The list of plant names following this pattern is even more numerous on Wikipedia (n=189⁵). Nonetheless, not all of these names are present in the corpora at hand, and therefore I decided to consider only the ones that are. I searched for these items through the wildcard **wort*, which yielded the results displayed in Tables 2-4. Table 2 compares the frequency of names present in both COCA and BNC, Tables 3 and 4 report only those names that are present in either COCA or BNC, respectively. I standardized the spellings of some names that presented alternative forms (e.g., *milkwort* or *milk-wort*; *St. John’s wort* or *St. John’s-wort*, *St-Johns-wort*, etc.).

⁵ https://en.wikipedia.org/wiki/List_of_wort_plants.

	COCA	BNC	Sum
<i>ragwort</i>	25	28	53
<i>mugwort</i>	35	5	40
<i>spleenwort</i>	19	1	20
<i>bladderwort</i>	17	2	19
<i>sandwort</i>	16	1	17
<i>lungwort</i>	14	3	17
<i>liverwort</i>	6	10	16
<i>lousewort</i>	11	4	15
<i>milkwort</i>	10	3	13
<i>quillwort</i>	11	1	12
<i>soapwort</i>	8	4	12
<i>butterwort</i>	6	4	10
<i>figwort</i>	6	3	9
<i>saltwort</i>	6	1	7
<i>pennywort</i>	4	3	7
<i>hornwort</i>	4	2	6
<i>woundwort</i>	2	3	5
<i>pearlwort</i>	3	1	4
<i>ribwort</i>	2	2	4
<i>starwort</i>	2	1	3
<i>glasswort</i>	1	2	3
<i>gipsywort</i>	1	1	2
<i>peterswort</i>	1	1	2
<i>waterwort</i>	1	1	2

Tab. 2: Plant names with *wort* in both COCA and BNC

Table 2 reports the plant names which occur in both COCA and BNC, listed according to their combined frequency. The most frequent plant name in English is *ragwort* (n= 53), followed by

mugwort (n= 40), *spleenwort* (n= 20), *bladderwort* (n= 19), *sandwort* and *lungwort* (n= 17). Tables 3 and 4 report the other names retrieved in either COCA or BNC, respectively.

COCA	Frequency
<i>st. john's wort</i>	87
<i>motherwort</i>	55
<i>spiderwort</i>	21
<i>leadwort</i>	5
<i>barrenwort</i>	3
<i>bloodwort</i>	3
<i>toothwort</i>	3
<i>banewort</i>	2
<i>bellwort</i>	2
<i>colewort</i>	2
<i>nailwort</i>	2
<i>honestwort</i>	1
<i>miterwort</i>	1
<i>pilewort</i>	1
<i>pillwort</i>	1
<i>stonewort</i>	1

Tab. 3: Plant names with *wort* in COCA

Table 3 illustrates the list of plant names retrieved in COCA. The most frequent item is *St. John's wort* (n= 87), followed by *motherwort* (n= 55) and *spiderwort* (n= 21). The other names display lower frequencies, and some of them only appear once in the whole corpus. This is particularly evident in Table 4, which shows the frequency of plant names in BNC.

BNC (15)	Frequency
<i>fedewort</i>	17
<i>stitchwort</i>	8

<i>moonwort</i>	3
<i>felwort/ fellwort</i>	3
<i>(water-) dropwort</i>	2
<i>awlwort</i>	1
<i>bruisewort</i>	1
<i>grasswort</i>	1
<i>moneywort</i>	1
<i>mudwort</i>	1
<i>pipewort</i>	1
<i>saw-wort</i>	1
<i>sneezewort</i>	1
<i>yellow-wort</i>	1

Tab. 4: Plant names with *wort* in BNC

The most frequent plant names exclusively found in BNC are *edenwort* (n= 17), *stitchwort* (n= 8), and *moonwort* (n= 3). The noun *edenwort* is only found in a novel, *The Wimbledon Poisoner* by Nigel Williams (1990), and although it is not a conventional name, it follows the common naming strategy of N + *wort*, thus suggesting that this pattern may still be productive, even if retrieved only from creative contexts.

Overall, the lexical item *wort* is not frequent in isolation, albeit still used for a particular effect. This confirms its status as *archaic* in contemporary English, as suggested by the OED. It is more frequently found as the second element of compounds that function as plant names, thus qualifying them as endocentric compounds. The frequency of individual items following this structure varies, but the recent, creative addition of *edenwort* suggests that this pattern may still be productive in English.

6. Semantic motivation of wort names

In the second phase of the research, I classified the compounds according to their semantic motivation, based on the extra-linguistic knowledge encoded by the first element of the compound. The first step towards the description of the extra-linguistic knowledge is the identification of the referent of the plant name. This process, however, may be problematic, and it must be handled with extreme care, especially when dealing with folk names. While scientific

classifications aim at providing a unique identifier for each plant, folk taxonomies are based on the physical observations and cultural needs of specific communities (Biggam 2007). This process results in different names for the same plant in distinct communities, or the opposite: the same name may refer to different plants in various communities. In this paper, I relied on a variety of sources to identify the referents of the different names retrieved through the corpora. Firstly, I checked the definitions in the OED, which very often offers information about etymology and semantic motivation of the names. In some cases, the OED provides distinct identifications of the plant names for British and American English, which I include in the discussion of the name. When the semantic motivation was missing from the OED, I gathered it through scientific contributions (i.e., botanical research papers, handbooks, earlier contributions on plant onomastics). Finally, some of the names were only reported in conservation and Botanical Trusts websites. The source of each botanical information is provided in the text. Reliance on more than one source of information has allowed me to combine both scientific and folk understanding to reach a more accurate reconstruction of the encyclopedic knowledge encapsulated in the name.

The following categories of semantic motivation emerged from the analysis: *aspect*, *habitat*, *medicine*, *religious significance*, and *other uses*. These deliberately large categories contain the majority of plant names under scrutiny, although it was not possible to establish a clear-cut attribution to a particular category for some of the items whose etymology and motivation is not clear. Table 5 reports the compounds, arranged according to their motivations.

Motivation	Names
Aspect (n= 20)	<i>ragwort, saw-wort, spiderwort, quillwort, awlwort, hornwort, moneywort, pennywort, ribwort, moonwort, pearlwort, pillwort, miterwort, yellow-wort, bellwort, starwort, toothwort, milkwort, bladderwort, pipewort</i>
Habitat (n= 6)	<i>sandwort, saltwort, waterwort, stonewort, felwort, mudwort</i>
Medicine (n= 16)	<i>spleenwort, lungwort, liverwort, bloodwort, pilewort, figwort, honewort, woundwort, bruisewort, nailwort, lousewort, stitchwort, motherwort, barrenwort, sneezewort, (water) dropwort</i>
Religious significance (n= 2)	<i>St. John's wort, Peterswort</i>
Other uses (n= 5)	<i>mugwort, soapwort, glasswort, gypsywort, butterwort</i>
Other (n= 5)	<i>edenwort, leadwort, banewort, colewort, grasswort</i>

Tab. 5: Semantic motivation of *wort* names

The categories that motivate the highest number of names are Aspect (n= 20) and Medicine (n= 16), followed by Habitat (n= 6), Other Uses (n= 5), and Religious Significance (n= 2). The category Other contains lexical items that either do not show a clear motivation pattern, or whose motivation is peculiar to these names and does not fit in any of the other categories.

6.1 Aspect

The names motivated by the Aspect of the plant denote a salient characteristic of a single specimen which is used to describe the entire genus, thus reflecting a metonymic relationship PART FOR WHOLE between the morphology of the plant and its name. The parts of the plants that are most often selected to name them are leaves, flowers, and fruits, which are also the same parts that are more salient, and most commonly used in folk medicine and remedies.

The name *ragwort* originates in late Middle English (*raggewort*) with reference to the ragged form of the leaves of the plant and applies to “any of the numerous plants of the genera *Jacobeia* and *Senecio*” (OED, *ragwort*, n.1, 1a).⁶

Similarly, the serrated edges of the other plants’ leaves motivate the name *saw-wort*,⁷ (also spelled *sawwort*, or *sawort*, referring to the genera *Serratula* and *Saussurea*, and the species *Carduus arvensis*). The name *spiderwort* may refer to several plants. The OED reports as first meaning “one or other plant of the liliaceous genus *Anthericum*” (*spiderwort*, n.1, 1a), but it lists this meaning as *obsolete*. Other identifications listed by the OED include a variety of plants in the genus *Tradescantia* (OED *spiderwort*, n., 2-4), and in the US plants in the genus *Cleome* (OED, *spiderwort*, n., 5). Corpus data from the COCA show that 30% of the occurrences retrieved refer to different species in the genus *Tradescantia*, while the other occurrences do not offer clear identifications. The reference to spiders in the name of these plants is motivated by their bending leaves, which metaphorically resemble spiders’ legs (Gerard 1597).

The cylindrical shape of the leaves of *quillworts* (genus: *Isoetes*) instantiate a metaphorical relationship between the aspect of the plant and a quill, i.e., “the shaft of a feather” (OED *quill* n.1). Similarly, the *awlwort* (species *Subularia aquatica*) has long, pointed leaves reminiscent of an awl,⁸ while *hornwort* (species *Ceratophyllum demersum*) is a plant whose branched stem

⁶ Here and in the following references to the OED entry, I report the lexical item, its part of speech (n.) and the progressive numbering of homonymous entries in *italics*, while the last number and letter refers to the specific meaning within the entry. Thus, for instance, “*ragwort*, n.1, 1a” refers to meaning 1a in the first entry for the noun *mugwort* in the OED.

⁷ A *saw* is “a cutting tool consisting of a plate [...] of metal [...], one edge of which is formed into a continuous series of teeth.” (OED, *saw*, n.).

⁸ An *awl* is a “small tool, having a slender, cylindrical tapering, sharp-pointed blade, with which holes may be pierced.” (OED, *awl*, n.).

metaphorically resembles a horn. The English name is a calque from the Latin name, which derives from Greek *κερατόφυλλον* (horn-leaf, OED *hornwort*, *n.*).

The metaphorical resemblance of the shape of some leaves to coins motivates the names of *moneywort* (e.g., *Lysimachia nummularia*) and *pennywort*. The OED reports numerous referents for *pennywort*, each of which has small, round leaves: *Umbilicus rupestris* (also called *navelwort*, in reference to the appearance of its leaves), *Hydrocotyle vulgaris* (which can also be referred to as *penny-grass*), and *Obolaria virginica*, a small North American plant with round, opposite leaves (OED, *pennywort*, *n.*).⁹

The ribbed appearance of the leaves of plants in the genus *Plantago*, esp. *Plantago lanceolata* motivates the name *ribwort*, which has been attested since Middle English with various spellings, e.g.: *rybbewort*, *rybeworthe*, *ribbewort*, among others (OED *ribwort*, *n.*).

The name *moonwort* is a calque from the Latin name of the fern *Botrychium lunaria*, motivated by the pinnate fronds with crescent-shaped segments. The second identification reported by the OED is *Lunaria annua*, in reference to “the seed-pod of this flower, with its white, silvery disk, like a full moon” (Tennant 1900, 114), and it is currently marked as *English regional* and US in the OED (OED, *moonwort*, *n.*). In both cases the folk name includes salient elements in the aspect of the plant.

The round shape of its fruit motivates the name *pearlwort* (genus: *Sagina*), a botanical characteristic that is shared with plants in the genus *Colobanthus*, which may also be referred to as *pearlworts* (Biersma et al., 2020). The two genera belong to two closely related clades (Dillenberger and Kadereit 2014), but confusion between the two seldom occurs considering the circumaustral distribution of *Colobanthus* (Crow 1978), i.e., “around the high latitudes of the southern hemisphere” (Oxford reference, *circumastral distribution*¹⁰). Similarly, the globular shape of its sporocarps, i.e., “a fructification containing spores” (OED, *sporocarp*, *n.*), motivates the name of *pillwort* (species *Pilularia globulifera*, OED, *pillwort*, *n.*).

The plant name *miterwort* refers to different species native to North America and Asia. The first meaning in the OED refers to *Tiarella cordifolia*, which is glossed however as “*false miterwort*.” An explanation for the label “false” is offered by Peterson and McKenny (1968), who describe *Tiarella* as “similar to Miterwort but lacks the stem leaves and has a very different flower structure.” The second meaning reported by the OED is “a mitella, esp. *M. diphylla*.” Mitella is

⁹ The name of *Obolaria virginica* comes from the Greek *ὀβολός* (‘a small coin’), thus the folk name could be an adaptation from the scientific name, considering also the substantial difference in aspect between this species and the others described by the same name in British English.

¹⁰ <https://www.oxfordreference.com/view/10.1093/oi/authority>.

“a genus of perennial plants of the family Saxifragaceae, native to North America and north-east Asia and cultivated elsewhere, which have a basal rosette of leaves, racemes of small flowers, and fruits thought to resemble mitres” (OED, *mitella*, n., 2). Gray (1848) lists another name for *Mitella*: “bishop’s cap,” thus instantiating a semantic link based on the resemblance of the young fruit of *Mitella* to a bishop’s miter (Niering and Olmstead 1979). In its third meaning, the name *miterwort* may refer to “any of several tropical American herbaceous plants of the genera *Mitreola* and *Cynoctonum*,” but this meaning is labelled as *rare*.

The plant *yellow-wort* is one of the few compounds under examination that follows the structure Adj + *wort*, in reference to the color of the flowers, which is particularly distinctive (other names of the same plant include *yellow centaury*, *Blackstonia perfoliate*, OED, *yellow-wort*, n.).

The names *bellwort* and *starwort* are both motivated by the shape of the flowers, which are metaphorically associated with bells and stars. This characteristic also motivates the scientific names of their botanical families: *Campanulaceae* and *Asteraceae*, respectively. In American English, the name *bellwort* is associated to plants in the genus *Uvularia* native to North America (World Checklist of Selected Plant Families, Royal Botanic Gardens at Kew; Govaerts et al. 2021), which have bell-like flowers. The name *starwort* may also refer to plants with different taxonomic attributions. The OED reports as second meaning of *starwort* “any of various small aquatic or mud-dwelling plants of the cosmopolitan genus *Callitriche* (family Plantaginaceae)” (OED, *starwort*, n., 2). Finally, the fourth meaning in the OED is “any herbaceous plant of the cosmopolitan genus *Stellaria* (family Caryophyllaceae), having small stellate flowers.” It is relevant to notice that the third meaning of the name *starwort* refers to a species of moth (*Cucullia asteris*) whose larvae frequently feed on the plant *sea aster* (*Tripolium pannonicum*; OED, *starwort*, n.).

Despite denoting several different plants, the name *toothwort* is also motivated by shape: in the case of *Lathraea squamaria*, the root-stock of the plant, which has tooth-shaped scales, is the selected part; in the case of *Dentaria*, there are tooth-like projections on the root (OED, *toothwort*, n.). The same name may refer to *Plumbago europaea* and the Central American and West Indian *Plumbago scandens*, “whose pungent leaves and roots are used as a remedy for toothache” (OED, *toothwort*, n.). According to this interpretation, the semantic motivation of the name would fall under the Medicine category.

Similarly, the name *milkwort* may be considered as belonging either to the Aspect category, or to the Medicine category. In the OED, sense 1 is currently marked as *obsolete* and dates to c1300 (Hunt 1989), and perhaps it refers to the genus *Lactuca*, which produces white sap. The same motivation holds for the genus *Euphorbia* (OED, *milkwort*, n., 5, labeled as *British regional*).

Plants in the genus *Polygala* are also known as *milkworts*, in reference to their supposed usage to increase lactation in nursing mothers (OED, *milkwort*, *n.*, 2). Allen and Hatfield (2004, 173) however note that despite the usage of this plant was “particularly commended in the medieval herbals,” there is almost no surviving folk record that attests to this use.

The name *pipewort* is commonly used in reference to *Eriocaulon aquaticum* (OED, *pipewort*, *n.*), and it is motivated by the appearance of the leafless stems that resemble a pipe.

Lastly, *bladderwort* is a translation of its Latin name *Utricularia* (OED, *bladderwort*, *n.*). It is a genus of aquatic plants that grow bag-like structures filled with air to keep the plants afloat during the flowering season. The Latin *utriculus* is glossed as “wineskin, leather bottle, small bottle”¹¹ and it describes the distinct characteristics of plants in this genus.

6.2 Habitat

The category Habitat contains plant names motivated by the habitat in which the plant grows, thus instantiating a metonymic relationship between biological information about the plant (i.e., its growing area) and the plant itself.

The name *sandwort* refers to plants in the genus *Arenaria* that live in dry sandy localities (OED, *sandwort*, *n.*). The name *saltwort* refers metonymically to the sea, as it describes plants belonging to several genera (e.g., *Salsola*, *Glaux*, *Salicornia*) which live in maritime areas (OED, *saltwort*, *n.*).

The name *waterwort* may refer regionally to different species of ferns (*Adiantum capillus-veneris* or *Asplenium trichomanes*), or to “any small aquatic flowering plant of the genus *Elatine*” (OED, *waterwort*, *n.*). In both cases, it describes plants that prefer humid and marshy areas, thus including information about the habitat of the plant in its name.

Similarly, the name *mudwort* indicates “any of several dwarf annual creeping plants of the genus *Limosella*,” which typically live in “wet mud at the hedge of pools and streams” (OED, *mudwort*, *n.*).

The name *stonewort* refers to several different plants. Its first meaning, marked as *obsolete*, refers to the fern *Asplenium ceterach*. The same name is used for species of *Sison* and other umbelliferous plants, which commonly grow in hedgerows and prefer calcareous soils.¹² Finally,

¹¹ <https://www.online-latin-dictionary.com/latin-english-dictionary.php?parola=utriculus>.

¹² Online Atlas of the British and Irish Flora, <https://www.brc.ac.uk/plantatlas/plant/sison-amomum>.

the name *stonewort* may refer to plants in the genus *Chara*, a genus of algae whose stem is often covered with calcareous deposits, thus motivating its folk name (OED, *stonewort*, *n.*).

Finally, *felwort* (*Swertia perennis* or *Gentiana lutea*) may derive its name from OE *feldwyr̥t*, (*feld*: ‘field, open or cultivated land’) in reference to its habitat (OED, *felwort*, *n.*). Krischke (2013, 298) reports that the name may also be a “remotivated form of an unattested **felwyr̥t*,” in which *fel* would be a Latin element meaning ‘gall,’ in reference to the bitter taste of the plant, and its usage in drinks and liquors. This interpretation has been provided by other authors (e.g., Bierbaumer 1979), and it was first made by Cockayne (1865), who writes “the earliest name was *feld-hymele*, field hop, the plant being employed as a substitute for hops in embittering ale. Then as the appearance and leaves negatived this name, it was exchanged for *feldwyr̥t*” (Cockayne 1865, 383). In this case, the motivation of this name would not fall in the Habitat category, rather in Other Uses, i.e., dietary.

6.3 Medicine

The Medicine category contains names that are motivated by the curative properties of the plants, as recognized by popular and traditional medicine. Some of these names developed within the Doctrine of Signatures, therefore they represent cases of metaphorical relationships between parts of the plant and organs of the human body they were assumed to cure. The conceptual mechanism that licenses the inclusion of the human organ in the plant name is the conceptual metonymy EFFECT FOR CAUSE.

The name *spleenwort* identifies various ferns in the genus *Asplenium*, which are often distinguished at the species level with premodifiers (e.g., “green-ribbed spleenwort” is *Asplenium viride*). The name derives from the spleen-like shape of the sori of these plants (OED, *spleenwort*, *n.*). According to Allen and Hatfield (2004, 62) the use of *Asplenium trichomanes* in folk medicine to cure spleen ailments may derive from learned medicine and medieval herbals and should not be regarded as an age-old folk remedy. Although the name *spleenwort* may refer to *Cereus phyllanthus*, a species of cactus, in the US (OED, *spleenwort*, *n.*), corpus data from the COCA confirm the identification with ferns in the genus *Asplenium*.

The name *lungwort* refers to different species of plants in various genera. This name derives from OE *lungen-wyr̥t* (OED, *lungwort*, *n.*). The first meaning reported in the OED refers to *Hieracium morarium*, because of the shape of the leaves that resemble lungs (Dictionary of Old English Plant Names, OEPN,¹³ *lungen-wyr̥t*). The second meaning in the OED and OEPN refers

¹³ <http://oldenglish-plantnames.org>.

to *Helleborus niger*, because of its use against lung diseases of animals, as reported by Gerard (1597, 979). Both meanings are marked as *obsolete* by the OED. The third meaning in the OED refers to *Pulmonaria officinalis*, a plant in the Borraginaceae family, which has leaves with white spots and therefore was credited to cure respiratory ailments through the Doctrine of Signatures (OED, *lungwort*, n., 3a; Björkman 1902, 294; Allen and Hatfield 2004, 207). The name *lungwort* may also refer to plants “of the allied American genus *Mertensia*” (OED, *lungwort*, n., 3b), which displays lung-shaped leaves, like other species in the Borraginaceae family. The species *Verbascum Thapsus* is another referent of this name, marked as *obsolete* (OED, *lungwort*, n., 4), which according to Allen and Hatfield was “the favourite remedy for pulmonary tuberculosis in Ireland throughout recorded history and doubtless long before” (Allen and Hatfield 2004, 250). The species of lichen *Sticta pulmonaria* may also be referred to as *lungwort* or *lungs of oak* (OED, *lungwort*, n., 5; *lung*, n., 5), “due to its efficacy, real or supposed, in pulmonary affections” (Lindsay 1856, 183). The sixth meaning in the OED reported for this name is *Archangelica officinalis*, even if this identification is dubious (OED, *lungwort*, n., 6), and it is marked as *obsolete*. Finally, the same name may refer to *Lathrea squamaria*, which, according to Gerard (1597, 1388) was used by country women against ‘the cough.’

The name *liverwort* originally referred to *Marchantia polymorpha*, but then extended to any plant of the division Marchantiophyta (OED, *liverwort*, n.). According to Allen and Hatfield (2004, 39), this plant has enjoyed “an age-old reputation, propagated in herbals, as a remedy for liver complaints,” but there is only one folk record of that use. The second referent reported in the OED is *Agrimonia eupatoria*, but it is currently marked as *obsolete*. In American English, the noun *liverwort* refers to any of the various plants in the genus *Hepatica*, used in the treatment of liver disorders (OED, *liverwort*, n., 3). Finally, meaning 4 in the OED extends the reference to “any of the various plants resembling liverworts or used in the treatment of liver disorders” (OED, *liverwort*, n., 4).

The English name *dropwort* refers to plants with tuberous root-fibres. The first meaning listed by the OED is *Spiræa Filipendula* (OED, *dropwort*, n., 1), which may be extended to other species in the genus *Spiræa*. According to Coles (1657), its name may derive from its usage to cure strangury, i.e., “a disease of the urinary organs characterized by slow and painful emission of urine” (OED, *strangury*, n., 1). The drop-shaped growths on the plant’s roots may motivate its employment to cure this ailment, as suggested by the Doctrine of Signatures. The second identification reported by the OED is the genus *Ænanthe*, which is signaled by Britten and Holland (1887) as “a modern book-name.”

According to the OED, the name *bloodwort* refers to “any of various plants having red roots or foliage, or (esp. formerly) used medicinally to staunch bleeding” (OED, *bloodwort*, *n.*). These include *Capsella bursa-pastoris*, *Rumex sanguineus*, *Sanguisorba officinalis*, and *Sanguinaria canadensis* (in North America). Furthermore, Allen and Hatfield (2004, 194) report *Centaureum erythraea* as a referent for this name in Shropshire, as this plant was prized for ‘cleansing the blood,’ while *Geranium robertianum* has been used in areas of Ireland for staunching bleeding (Allen and Hatfield 2004, 176).

Two names in this category refer to the cure of hemorrhoids: *pilewort* and *figwort*. Both *piles* and *figs* are common names to refer to this type of condition, and both are calques from Latin. The late Middle English *pyle* is probably a borrowing from Latin *pilus* (a haemorrhoid, OED, *pile*, *n.*, 4). The plant name *pilewort* refers to the Lesser Celandine, i.e., *Ranunculus ficaria*, a widespread remedy for hemorrhoids throughout the British Isles (Allen and Hatfield 2004, 74). In the US, the same name is used to refer to any of several plants that were regarded as cure for this condition, especially plants in the genus *Scrophularia* (OED, *pilewort*, *n.*, 2). Plants in this genus are also called *figworts*, as suggested by Gerard (1597, 579): “There is another Fig wort called *Scrophularia indica*.” The OED reports as first referent for *figwort* the plant *Ranunculus ficaria*, which is also called *pilewort*, as testified by Dodoens (1578, 31): “The lesser [celandyne] is called [...] in English Pyleworte or Figworte.” The tubers of this plant resemble figs (Axtell, DiTommaso and Post 2010), hence its name and association with the cure of this ailment.

The plant name *honestwort* refers to “any of several umbelliferous plants,” especially of (or formerly of) the genus *Sison*: *Petroselinum segetum*, *Sison amomum*; either of two plants of the genus *Cryptotaenia*: *C. canadensis* of North America, and *C. japonica*, also known as *mitsubi*; and *Trinia glauca*, a low-growing plant of European limestone areas (OED, *honestwort*, *n.*). According to Allen and Hatfield (2004, 189), the name *honestwort* refers to *Petroselinum segetum*, whose leaves were pounded to cure hones, i.e., swellings in the cheek (OED, *hone*, *n.*3). Its first attestations date back to the 17th century.

Both the names of *woundwort* and *bruisewort* are motivated by the supposed property of the plants to cure wounds and bruises on the skin. The name *woundwort* refers to “various plants from their use in healing wounds,” i.e., several species of *Stachys*, the golden-rod (*Solidago virgaurea*), the kidney-vetch (*Anthyllis vulneraria*), the comfrey (*Symphytum officinale*), Saracen’s woundwort (*Senecio saracenicus*, now obsolete), Hercules’ all-heal (*Opopanax chironium*), Knight’s pondwort (*Stratiotes aloides*). It is a borrowing from Dutch *wondkruid* (OED, *woundwort*, *n.*). Allen and Hatfield (2004, 213) report various species of plants in the

genus *Stachys* (*sylvatica*, *palustris*, ×*ambigua*) as referents for *woundwort*, each with the property of staunching bleeding.

According to Krischke (2013, 259) the name *bruisewort* defines either *Symphytum officinale* or *Bellis perennis*, and the morphology of its name in Old English follows a V + *wort* morphology, from Old English *brysan*, “to bruise.”¹⁴ The OED reports also *Saponaria officinalis* as a referent for this name, although it is labelled as *rare*.

The selection of the part of the body cured by the plant, disregarding of the shape of the plant itself, is also present in the motivation of the noun *nailwort*, which designates several plants that were used to cure *whitlows*, i.e., an inflammatory swelling in a finger or thumb (OED *whitlow*, *n.*). The plants that may be referred to through this name include Wild violet (*Viola* species, obsolete), Whitlow grass (*Erophila verna*, obsolete), Rue-leaved saxifrage (*Saxifraga tridactylites*, obsolete), and in North America any plant in the genus *Paronychia* (OED, *nailwort*, *n.*).

The name *lousewort* is glossed by the OED as Stinking Hellebore (*Helleborus foetidus*), any plant of the genus *Pedicularis*, especially *Pedicularis palustris* (Allen and Hatfield 2004, 262), Yellow Rattle (*Rhinanthus Cristagalli*), or *Delphinium Staphisagria* (OED, *louse*, *n.*), in reference to the belief that these plants, when ingested by livestock, could cause lice infestations (Frezza et al. 2019).

The name *stitchwort* refers to the “property in helping Stitches and pains in the sides” (W. Coles 1657; OED *stitchwort*, *n.*) of *Stellaria holostea*, a usage which, according to Allen and Hatfield (2004, 92) has endured as recently as the 1930s.

The name *motherwort* originates in English (OED *motherwort*, *n.*) and refers to several plants that were used to treat uterine disorders and to ease childbirth, such as *Artemisia vulgaris* (obsolete), *Leonurus cardiaca*, belonging to the family Lamiaceae, and other plants of this genus. According to Allen and Hatfield (2004, 215), this plant may have become a stand-in for *Artemisia vulgaris* due to their similarity in appearance.

The name *barrenwort* refers to plants in the genus *Epimedium*, especially *Epimedium alpinum* (OED, *barrenwort*, *n.*). Gerard (1597) suggests that it was used as a contraceptive, thus instantiating an EFFECT FOR CAUSE metonymy. Similarly, the plant name *sneezewort* (*Achillea ptarmica*), whose dried leaves were used as a sternutatory (OED, *sneezewort*, *n.*). However, according to Allen and Hatfield (2004, 300), no folk records of the use of this plant have been

¹⁴ Bosworth, Joseph. “brýsan.” *An Anglo-Saxon Dictionary Online*. Edited by Thomas Northcote Toller, Christ Sean, and Ondřej Tichý. Prague: Faculty of Arts, Charles University, 2014. <https://bosworthtoller.com/5325>.

discovered. Other identifications for this name include the white hellebore (*Veratrum album*), and *Helenium autumnale*, also known as *American sneezewort*.

6.4 Religious Significance

The category Religious Significance contains only two names, both referring to plants in the genus *Hypericum*. *Saint John's wort* is the common name of *Hypericum perforatum*. It flowers in June and is traditionally harvested on the feast of Saint John the Baptist (24 June), which roughly coincides with the pagan feast of Midsummer. In popular medicine and folklore, this plant has a paramount importance in curing several physical and psychological diseases. Recent scientific research has confirmed its properties in treating burns, injuries, and mild depression (Dell'Aica, Spiridione and Caniato 2007). According to the OED, the name *St. Peter's wort* may refer to several plants belonging to different genera, but it is especially common in reference to *Hypericum tetrapterum*, which “is said to flower about the feast of Saint Peter (29 June)” (OED, *St. Peter*, *n.*). The reference to two saints in the names of these plants testifies to their importance in the belief system of rural cultures, which relied on herbal remedies to improve their life conditions.

6.5 Other uses

The last semantic category emerging from this analysis contains plant names that reflect a practical use of these plants, other than a medicinal use, thus instantiating cases of conceptual metonymies PRODUCT FOR PRODUCER.

The name *mugwort* derives from OE *mucgwyrt*, lit. ‘midge-wort,’ and it refers to *Artemisia vulgaris*, a plant that is said to attract midges and small insects, and therefore it was used as a means of disposing of them (OED, *mugwort*, *n.*). It is one of the most important magical and medicinal plants in Medieval England. Its pharmaceutical properties have been long known in many cultures, and recently it has also been considered to have effective medicinal properties against the virus SARS-CoV-2 (Ekiert et al. 2020; Haq et al. 2020). In its second meaning, the name *mugwort* refers to *Parthenium hysterophorus*, “native to subtropical and tropical North America and the Caribbean” and also known as the “wild wormwood.” The plants *Artemisia vulgaris* and *Parthenium hysterophorus* share similar physical characteristics, hence the attribution of the same name to different species in different continents. Finally, the OED reports a third meaning, marked as *rare*: *crosswort* (*Cruciata laevipes*), (OED, *mugwort*, *n.*), for which, however, I was unable to find a semantic motivation.

The name *soapwort* refers to plants in the genus *Saponaria*, which were used in the production of soap. According to the OED, the name may derive from Dutch *zeepkruid* or German *seifenkraut* (OED, *soapwort*, *n.*), but the plant had been known since Anglo-Saxon times under the name *leopo-wyrt* (OEPN dictionary). *Soapwort* has a chemical agent that produces foam when exposed to water (Krischke 2013, 350). In the US, this plant name may refer to *Vaccaria vulgaris*, and the OED also reports a third meaning: “any of the plant of the order Sapindaceae” (OED, *soapwort*, *n.*).

Similarly, the ashes of the plant *glasswort* were used in the manufacture of glass due to the chemical compounds that it contains (OED, *glasswort*, *n.*). This name refers to plants in the genus *Salicornia* (especially *S. herbacea*), and to *Salsola kali*.

The name *gypsywort* is reported in the OED as a sub-entry under Gypsy (OED, *Gypsy*, *n. and adj.*), and it does not provide any indication on the specific origin of the plant name. It refers to plants in the genus *Lycopus*, especially *Lycopus europaeus*. Its medicinal properties and uses are well-known in literature (Al-Snafi 2019). The 16th century herbarium by Rembert Dodoens describes this plant as “the Egyptians herbe, bycause of the Rogues and runnegates which call themselves Egyptians, do colour themselves blacke with this herbe” (Dodoens 1578, 257). This suggests a connection between the name and the dyeing properties of the herb, particularly used by certain populations, and confirmed by De Koning et al. (2008, 130).

Lastly, the name *butterwort* refers to any of the plants in the genus *Pinguicula*, an insectivorous plant native to Northern Europe. This name is an English formation, and the OED reports as its probable origin “the greasy or glistening appearance of its leaves” (OED, *butterwort*, *n.*). Crucially, Norwegian *Tjukkmjolk* (a traditional sour milk from the mountain region of Røros) is produced by adding a leaf of *tettegras*, the local name of *Pinguicula vulgaris*, to raw milk, which helps the fermentation of dairy products (Amilien, Torjusen and Vittersø 2005). The fermenting properties of this herb have been confirmed by scientific investigations led by Porcellato, Tranvåg and Narvhus (2016) thus suggesting that the name *butterwort* may be motivated by its usage in the production of dairy products even in English. Furthermore, Allen and Hatfield (2004, 263; 354) report that *Pinguicula vulgaris* produces a butter-like juice which was used for chapped udders in cattle, as well as for human afflictions.

6.6 Other

The category Other does not reflect a unique semantic category, rather it encompasses several names that do not display a clear or unequivocal motivation. These include the name *edenwort*, which appears only in fiction, and therefore exceeds the scope of the discussion.

The name *leadwort* does not offer unambiguous motivations. The Latin name of this genus is *Plumbago* (from Latin *plumbum*, ‘lead’), and its first attestation in the OED refers to Bailey’s *Universal etymological English dictionary* (1727), suggesting an erudite translation from Latin into English.

In its general meaning, the name *banewort* does not refer to any particular plant, but it is marked by the OED as a dialectal word to refer to “any poisonous plant” (OED, *banewort*, *n.*), on the basis of the first element of the compound, which is glossed as ‘murderer.’ In its specific meanings however, *banewort* may refer to the Lesser Spearwort (*Ranunculus flammula*), reputed to poison sheep, or to the Deadly Nightshade (*Atropa belladonna*), a common poisonous plant (OED, *banewort*, *n.*).

The names *colewort* and *grasswort* display a different morphological structure than the other names: they are appositional compounds, in which the compound terms are hyponyms of their two elements, for example, *colewort* is a hyponym of both *cole* and *wort*. A *cole* and a *wort* are both types of plants, and so is *grass*. The first name, *colewort*, originally referred to any plant in the genus *Brassica* (which includes the common cabbage, OED, *colewort*, *n.*). The name *grasswort* is not present in the OED, but it is listed as referring to *Lilaeopsis chinensis* in the New York Natural Heritage Program (2001).

7. Conclusions

Cognitive linguistics is concerned with the relationship between language, culture, and cognition (Sweetser 2004, 24). The scientific study of plant names offers a valuable opportunity to disentangling these components. This complex and intricate relationship is particularly evident in the identification of the specific, botanical referent associated to plant names.

The present paper has concentrated exclusively on the lexical item *wort* in both major national varieties of contemporary English, by gathering occurrences of plant names in corpora (COCA and BNC). The lexicographic analysis proposed in this paper shows how the same common name is often attributed to different species. The plants described by the same name may sometimes be similar to one another (for instance, the array of referents of *motherwort*), or radically different, especially if the same name is motivated by the use of the plant (e.g., *bloodwort*). In some cases, the differences in identification may be regional within the UK, or they may be spread on a wider scale (for instance, between British English and American English).

The semantic motivation of the plant names displaying the structure N + *wort* suggests deeply entrenched onomastic strategies in the partitioning of the natural world. These are commonly based on the observation of plant characteristics and on the cultural relationship that human

beings have had with species of plants, as suggested by the categories that emerge from the analysis. Crucially, the naming strategies observed consistently rely on figuration: the relationship that occurs between the concepts expressed in the elements of the compounds and external reality is often based on a metonymic selection of a salient aspect in the ICM of the plant. Furthermore, the linguistic encoding of these aspects often relies on a metaphorical relationship between the selected characteristic and a related concept on a basis of visual metaphors. This is particularly evident in the case of plant names motivated by the appearance of the plant. Thus, the cognitive semantic analysis proposed in this paper urges for a reconsideration of the role of figuration as a mundane and pervasive mechanism that structures our thoughts and partitioning of reality.

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