

Joachim Grzega

Plants for Peeing and Other Therapeutic Goals: Notes on the Motivation of Plant-Names and the Use of Herbal Medicine

Abstract

24 plants that are officially labeled *officinalis* ‘widely pharmaceutically used’ and occur in 10 countries (Sweden, UK, Netherlands, France, Spain, Italy, Hungary, Poland, Germany, Austria) are analyzed for medicinally motivated plant-names in the standard or common variety of the major language in the selected countries, contrasting our period to the period before modern medicine, between 1600 and 1800. The study answers two questions: 1. Which plants have a widespread medicinally related name in which languages now and then? This naming strategy is, according to various lexicographic sources, not much entrenched in standard languages or widespread colloquial varieties (save “lungwort” for Pulmonaria, “snakewort” for Bistorta and “eyewort” for Euphrasia), although there may be more such lexemes in regional varieties (e.g. “pee-flower” for Taraxacum). More prominent are borrowing and naming after the shape of the plant. There are no prominent differences between the situation now and the historical situation. Today, such lexemes occur mainly in the UK, Germany and Austria. 2. Does the amount of such plant-names relate to the country’s popularity of alternative medicine? There is a statistically significant correlation between the percentage of people choosing complementary and alternative medical treatments and the amount of healing-motivated plant-names.

Sommaire

Dans cette étude [“Plantes pour faire pipi et d’autres objectifs thérapeutiques: Notes sur la motivation des noms de plantes et l’utilisation de la phytothérapie”], 24 plantes officiellement étiquetées *officinalis* ‘largement utilisées en pharmacie’ et présentes dans 10 pays (Suède, Angleterre, Pays-Bas, France, Espagne, Italie, Hongrie, Pologne, Allemagne, Autriche) sont analysées afin de déterminer si elles portent des noms médicinaux dans la variété standard ou commune de la langue principale des pays sélectionnés, en comparant notre période à la période précédant la médecine moderne, entre 1600 et 1800. L’étude répond à deux questions: 1. Quelles plantes ont un nom médicinal répandu dans quelles langues aujourd’hui et hier? Cette stratégie de dénomination n’est pas très répandue dans les langues standard ou les variétés familiaires (à l’exception de ‘herbe de poumon’ pour Pulmonaria, ‘erbe de serpent’ pour Bistorta et ‘herbe d’oeil’ pour Euphrasia), bien qu’il puisse y avoir davantage de lexèmes de ce type dans les variétés régionales (par exemple ‘fleur de pisser’ pour Taraxacum). Les stratégies les plus importantes sont, selon des diverses sources lexicographiques, l’emprunt et dénomination selon la forme de la plante. Il n’y a pas de différences notables entre la situation actuelle et la situation historique. Aujourd’hui, ces lexèmes se rencontrent principalement en Angleterre, en Allemagne et en Autriche. 2. La quantité de tels noms est-elle liée à la popularité de la médecine alternative dans un pays? Il existe une corrélation statistiquement significative entre le pourcentage de personnes choisissant des traitements médicaux complémentaires et alternatifs et la quantité de noms de plantes à vocation curative.

Zusammenfassung

Die Studie [“Pflanzen fürs Pinkeln und andere therapeutische Ziele: Anmerkungen zur Motivation von Pflanzennamen und der Anwendung von Pflanzenheilkunde”] untersucht 24 Pflanzen, die offiziell als *officinalis* ‘weithin pharmazeutisch verwendet’ bezeichnet werden und in 10 Ländern vorkommen (Schweden, Großbritannien, Niederlande, Frankreich, Spanien, Italien, Ungarn, Polen, Deutschland, Österreich), auf medizinisch motivierte Namen in der Standard- oder Umgangssprache der Hauptsprache in den ausgewählten Ländern, wobei unsere Zeit mit der Zeit vor der modernen Medizin, 1600 bis 1800, verglichen wird. Die Studie beantwortet zwei Fragen: 1. Welche Pflanzen haben heute und damals in welchen Sprachen einen weit verbreiteten medizinisch motivierten Namen? Diese Benennungsstrategie ist, gemäß diverser lexicographischer Quellen, in den Standard- und Umgangssprachen nicht sehr stark verankert (außer “Lungenkraut” für Pulmonaria, “Schlangenkraut” für Bistorta und “Augenkraut” für Euphrasia), obwohl es in den regionalen Varietäten mehr solcher Lexeme geben kann (z.B. “Pissblume” für Taraxacum). Auffälligere Benennungsstrategien sind die Entlehnung und nach der Form der Pflanze. Zwischen der heutigen und der historischen Situation gibt es keine nennenswerten Unterschiede. Heute kommen solche Lexeme vor allem in Großbritannien, Deutschland und Österreich vor. 2. Hängt die Anzahl der Heilpflanzennamen mit der Popularität der Alternativmedizin zusammen? Es besteht ein statistisch signifikanter Zusammenhang zwischen dem Prozentsatz der Menschen, die komplementär- und alternativmedizinische Behandlungen nutzen, und der Anzahl der heilend motivierten Pflanzennamen.

1. Introduction and Research Questions

While European (and North American) mainstream policies relied heavily on modern pharmacological industry in reaction to COVID (often aggressively negating empirical research on alternative approaches [cf., e.g., Mercola/Cummins 2021: 127-152]), there have been others who generally focus more on their experiences and/or beliefs related to herbalism. As a matter of fact, herbalism has always played a certain role in European medical history. The Latin version *De materia medica* of Dioscorides's book *Περὶ ὕλης ιατρικῆς*, originally written between 50 and 70 CE, is said to be the most widely read and translated book on medicinal herbs for more than 1,500 years (cf., e.g., Boas 1962: 47-50 Rooney 2009: 143, Hefferson 2012: 46, van Hoof 2001). And even when Carl Linnaeus, or Carl von Linné, set up his binomial botanic nomenclature from 1735 onward, he marked plants (and sometimes animals) with an established medicinal use with the epithet *officinalis* (or *officinale* with neuter nouns) (Linnaeus 1735). The medicinal use can also be the motivation for the name (cf., e.g., Dębowiak / Waniakowa 2019: 173f.). But how commonly is the medicinal use of plants also reflected in the names in the vernacular/modern languages? This article aims to shed light on this issue. More bluntly, it will address the following Eurolinguistic questions:

- Q1a: Which of the selected plants of medicinal importance have a widespread medicinally related name in which of the selected modern languages?
- Q1b: Are there differences in comparison to early modern times before the development of modern medicine?
- Q1c: Which countries have a predilection for medicinally related plant-names?
- Q2: Does the amount of medicinal common plant-names in the main language of each selected country relate to the popularity of traditional medicine in that country?

2. Methodology

2.1. Selection of Languages and Countries

A truly Eurolinguistic approach cannot rely on comparing just 2 or 3 randomly chosen languages or countries from Europe. The idea is rather to apply the same analyzing approach to a specific selection of languages from European countries where the north, west, east and south (and maybe a center) are related. However, the definitions of these geocultural zones have been flexible (cf. Grzega 2012: 12-14). We will deal with the following nine languages and ten countries where these languages have supraregional official status and are the mother-tongue for more than three fourths of the population:

- the north: Swedish (Sweden) and English (UK)
- the west: Dutch (Netherlands) and French (France)
- the south: Spanish/Castilian (Spain) and Italian (Italy)
- the east: Hungarian (Hungary) and Polish (Poland)
- the center: German (Germany and Austria)

2.2. Selection of Plants

For the selection of plants, we search for all plants with the nowadays officially accepted epithet *officinalis/officinale* and those Linnaeus gave the epithet *officinalis/officinale* and then extract only those that grow (at least in some regions, even if maybe only imported in the Middle Ages or Early Modern Times) in all of the selected countries, according to the botanic databank Plants of the

World Online [POWO] (URL01) and PlantNet (URL02). This way, we ultimately get the following set of twenty-four plants: 1. Anchusa officinalis (common bugloss), 2. Asparagus officinalis (asparagus), 3. Betonica officinalis / Stachys officinalis (betony), 4. Bistorta officinalis (bistort), 5. Borago officinalis (borage), 6. Calendula officinalis (marigold), 7. Cynoglossum officinale (houndstongue), 8. Euphrasia officinalis (eyebright), 9. Fumaria officinalis (fumitory), 10. Gratiola officinalis (hedge-hyssop), 11. Hyssopus officinalis (hyssop), 12. Levisticum officinale (lovage), 13. Lithospermum officinale (gromwell), 14. Melilotus officinalis (ribbed melilot), 15. Melissa officinalis (lemon balm), 16. Parietaria officinalis (pellitory-of-the-wall), 17. Pulmonaria officinalis (lungwort), 18. Sanguisorba officinalis (great burnet), 19. Saponaria officinalis (soapwort), 20. Sisymbrium officinale / Erysimum officinale (hedge mustard), 21. Symphytum officinale (comfrey), 22. Taraxacum officinale (dandelion), 23. Valeriana officinalis (valerian), 24. Veronica officinalis (heath speedwell). Pictures of these plants (with the numbers used here) are collected in the appendix.

2.3. Selection of Onomasiological Sources

There are three tremendous sources that offer us Eurolinguistic pictures of motives behind designations, which we can also refer to as iconyms (cf. Alinei 1995) or iconemes (cf. Grzega 2004 & 2007). The first source is the *Dictionary of Selected Synonyms in the Principal Indo-European Languages* by Carl Darling Buck (1949). As the title already says, the non-Indo-European languages of Europe are excluded. After the list of synonyms (consisting of widely common words from various diachronic stages), Buck adds commentaries, commonly ordered according to iconemes. In the entry for “flower”, for instance, we learn (Buck 1949: 526f.) that many words go back to the idea “blossom”, but that a few may be rooted in names for a specific flower. The only concrete plant discussed is the rose, for which Buck (1949: 527) notes the spread of the Latin word *rosa*. With respect to medicinal plants, there are no entries in Buck.

The second Eurolinguistic onomasiological source that should be consulted is Johannes Schröpfer’s (1979-[1994]) dictionary *Wörterbuch der Vergleichenden Bezeichnungslehre*. If possible, he gives the entry number in Buck’s dictionary immediately in the entry line. Like Buck, Schröpfer gives a list of synonyms consisting of widely used words from various diachronic stages. In sum, Schröpfer includes more languages than Buck, especially from Europe’s east, including two non-Indo-European languages: Hungarian and Turkish. Like Buck, each entry includes cultural remarks plus remarks on the iconemes found. Sadly, after nine issues the publication came to a standstill with Schröpfer’s death. Unfortunately, the intended section on plants had not yet been reached up to that issue.

The third source I would like to mention is the *Atlas Linguarum Europae* (ALE). The ALE is an idea by Antonius Weijnen. It embraces a total of 39 European countries, extending to the Urals—with more than 2,600 locations and the amount of 90 languages from the Indo-European, Altaic, Uralic, Caucasian language families plus the isolated Basque language and the Semitic language Maltese (cf., e.g., Viereck 2011). The publications work with onomasiological, semasiological and motivational maps as well as corresponding comments. The motivational maps are based both on etymological criteria and on the analysis of a concept’s names, which serves to unveil through modern designations mythologically motivated deep layers of individual lexemes or naming traditions. After the data collection in the 1970’s under Weijnen, nine fascicles were published between 1983 and 2015, under the direction of Mario Alinei, then Wolfgang Viereck and finally Nicolae Saramandu. The first book of commentaries came out in 1986 and the ninth in 2015 (cf. ALE, Alinei et al. 1986-2015). Other publications included even a Ph.D. dissertation (Eder 2004 on kinship terms). Among the items analyzed are a number of plant names. In his article on “flower”

Weijnen (1986) notes that apart from the iconeme “bloom” some terms seem based on names for “rose” (in Danish dialects and Finnish dialects) and for “violet” (in French dialects). Printed versions of the maps and commentaries of the ninth part are not available anywhere in my country. A PDF version of map 92 “pissenlit, dandelion” (ALE) and the accompanying article by Cugno/Nevaci (2015) was available online: The symbols in the map’s legend and the locations listed in the article for each motive do not always match with the map; nevertheless, the material gives many an interesting information. Moreover, already Viereck (2011: 18) in a survey article on the ALE describes a prominent medicinal iconeme for the dandelion, namely “piss-plant” or the variant “piss-in-bed-plant” in standard French as well as in German and Dutch dialects. For the rest of our plants ALE publications have no information. Whether there will be more on other plants is unclear, as unfortunately none of the people mentioned on the ALE website (URL03), last updated in 2022, have answered my e-mails; it seems that the ALE project seems to have come to a standstill.

Some linguistic atlases of specific languages are available in digitalized form, such as the AIS for Italian (and Rhaeto-Romance, Ladin, Friulan and Franco-Provençal), the ALF for French (and Provençal/Occitan) and the DWA for German. Further, linguists have at their command a number of remarkable diachronic dictionaries that comprehend naturally also historical and dialectal words of many plants. Online or computerized versions facilitate the search for certain coinages. Such digitalized dictionaries include: SAOB for Swedish, OED for English (multiple search options); GTB for Dutch (multiple search options); FEW for French (search for etymons or modern lexemes); LEI for Italian (multiple search options but only for etymons starting from A to Co); DW for German (multiple search options in the CD-ROM version). However, it is not always clear how widespread or entrenched a certain lexeme really was or is.

What we need would be multilingual (medicinal/herbal) dictionaries. With monolingual dictionaries, one can never be sure—at least without a picture or a very precise description—whether, for example, a lexical pattern “lion-tooth” refers to *Taraxacum officinale* or to *Leontodon* or whether a lexical pattern “ox-tooth” refers to *Bistorta officinalis* or *Borago officinalis*. As already mentioned, Dioscroides’s book was translated into different vernacular languages, but they were not all created at the same period. The 16th-century eight-language dictionary (e.g. in the version of Anon. 1573) covers, apart from Greek and Latin, Flemish, High German, English, French, Italian and Latin, but does unfortunately not include any of our plants. The dictionary by Pallas (1786–1789) includes 285 items in 200 languages, but unfortunately none of our concepts. However, the 1603 version of the polyglot dictionary by Hieronymus Megiser offers equivalents of Latin words in our languages except Swedish; although not all languages are given for every entry, it is a valuable source for many of our concepts. Furthermore, the 1627 version of the dictionary by Ambrosius Calepinus encompasses eleven languages, among them almost all of our languages except Swedish (Dutch being called *Belgian*), and does list most of our plants. In addition to these sources from the first half of the 17th century, we have two sources from the second half of the 18th century. There is Arthur Conrad Ernstring’s herbal book (1770) with lexical equivalents for many of our plants in all our languages (though Hungarian and Swedish forms are rarely given). Moreover, there is a Hungarian herbal dictionary by Józef Csapo (1792), which gives equivalents of medicinal plants in at least four of our selected languages, namely Hungarian, French, Italian, and German. It also lists the majority of our plants selected. While the dictionaries by Megiser, Calepinus and Ernstring include list of modern European language equivalents after Latin lemmas, Csapo has Hungarian lemmas. With these sources from the 17th and 18th century respectively we can then compare the widespread lexemes now to widespread lexemes before the development of modern medicine in the 19th century.

For the contemporary words, we do not have comprehensive classical dictionaries for all languages and since we cannot always insert definitions as a search word, but only lemmas, we will consult a mixture of online sources where we can search according to meanings (not only according to lemma): the Wikispecies website (which already lists common names for each plant) (URL04), the relevant language versions of the Wikipedia (URL05) as well as the relevant language versions of the sister project Wiktionary (URL06), the information in the multilingual lexicography website dict.cc (URL07), the validated lexical information on the website PlantNet (URL02) plus the information from Wiersewa and León (2013). We will only include lexemes with a transparent medicinal iconeme from a synchronic point of view that are unmarked or labeled colloquial more than once in the sources or with one further reference dictionary as a source, but we will exclude those items marked regional or dialectal; this means, for instance, that for *Taraxacum officinale* we do include standard French *pissenlit* ‘lit. piss-in-bed’, colloquial English *pee-a-bed* and *wet-a-bed*, and the colloquial Italian *piscial(l)etto* ‘lit. ‘piss-bed; bed-pisser’, but not the dialectal Swedish variant *pissros* ‘lit. piss-rose’, the Dutch dialect words *pissebloem* ‘lit. piss flower’ and *pissebed* ‘lit. piss-bed; bedpisser’, the Spanish *churracama* ‘lit. piss-bed; bed-pisser’, or the regionally restricted German items *Pissnelke* ‘lit. piss carnation’, *Bettnässer* ‘lit. bedwetter’ and *Bettpisser* ‘lit. bedpisser’.

Again, I would like to underline that all the selected onomasiological sources will reveal only widespread plant-names and not the whole range of synonyms that may have existed or exist. For these, there are many specific works, such as the one by Marzell (1943-1979) for German including informations on the forms of a given iconeme in many other European languages. This selection of just widespread designations is done on purpose to make periods and languages comparable, especially when it comes to comparisons with extralinguistic observations, as done presented in the next section.

2.4. Method to Compare Lexical Results with Use of Medical Treatments

With respect to the popularity of complementary and alternative medicine (CAM) in Europe, we will take the study by Kemppainen et al. (2018). In that study, respondents were asked about their use of various healthcare modalities during the previous twelve months. Respondents come from 21 countries, including our selected countries except Italy. The CAM items were acupuncture, acupressure, Chinese medicine, chiropractic, osteopathy, homeopathy, herbal treatment, hypnotherapy, massage therapy, reflexology and spiritual healing. The study gives the percentages of people who answered yes to the question whether they had CAM treatment within the twelve previous months. The separate figures for herbal treatment are not given, so we will have to depart from the assumption that people open for one CAM therapy are likely to be generally open for other CAM therapies as well. The figures of that study will here be contrasted with the frequency of medicinally-based plant-lexemes in a statistical correlation test, namely a Kendall tau test (cf., e.g., Daniel 1990: 365-377).

3. Results

3.1. Analysis 1

We will put those words that do not include an iconeme for a concrete disease, but only the general iconeme of ‘healing’ into brackets. Language and country abbreviations are used according to ISO 639. Spellings are given as in the original. Pictures of the plants are gathered in the appendix.

#	scientific name + E. common name	common and trivial names with medicinal implication 17th c. (Megiser 1603 [s.v.] / Calepinus 1627 [s.v.])	common and trivial names with medicinal implication 18th c. (Ernsting 1770 [s.v.] / Csapo 1792 [entry no.])	common and trivial names with medicinal implication 2023 (multiple sources)	comments on medicinal use and on iconemes
1	Anchusa officinalis (alkanet)	— [M/C]	— [E s.v. <i>Buglossum</i>]	—	e.g. calming, emetic — mostly iconeme “ox-tongue”
2	Asparagus officinalis (asparagus)	— [M/C]	— [E/Cs 368]	—	e.g. diuretic, laxative — mostly loans from Latin
3	Betonica officinalis / Stachys officinalis (betony)	— [M/C]	hu. <i>sepfü</i> ‘wound-wort’ [E/Cs 16]	(sv. <i>läkebetonica</i>) en. <i>woundwort</i> , (heall, allheal); de. <i>Zahnkraut</i> ‘tooth weed’, (<i>Heil-Ziest</i> ‘healing betony’)	e.g. for cuts and sores, against tooth ache and many other forms of pain — mostly Latin loans
4	Bistorta officinalis (bistort)	[not listed]	en. <i>Schnakeweide</i> ‘snake weed’; nl. <i>Natterwortel</i> ‘adder wort’ de. <i>Natterwurz</i> ‘adder wort’, <i>Ratterwurz</i> ‘rat/snake wort’ [maybe erroneously for <i>Natterwurz</i> ‘adder wort’, de. <i>Wurmwurz</i> ‘worm/snake wort’] [E/Cs 373]	sv. <i>stor ormrot</i> ‘big snake-root’; en.coll. <i>snakeroot</i> , snakeweed; nl. <i>adderwortel</i> ‘adder wort’ fr.coll. <i>serpentaire</i> ‘snake-thing’ de. <i>Schlangenknoterich</i> ‘snake knotweed’, <i>Schlangenwurz</i> ‘id.’; hu. <i>kígyógyökerű</i> <i>keserűfű</i> ‘snake root bitterwort’ pl. <i>rdest wężownik</i> ‘snake knotweed’	e.g. for wounds especially after bitten by snakes — often also called “ox-tongue”
5	Borago officinalis (borage)	— [C s.v. <i>Buglossum</i> , which is normally synonymous with Anchusa off., cf. above]	de. <i>Herzblümlein</i> ‘little heart flower’, <i>Herzensfreude</i> ‘heart joy’ [E/Cs 22]	—	e.g. for cardiovascular diseases, anti-depressive — mostly Latin loans
6	Calendula officinalis (pot marigold)	[not listed]	hu. <i>tűz-virág</i> ‘fire flower’ [E/Cs 394]	—	e.g. for soothing skin (anti-viral, anti-genotoxic, and anti-inflammatory) — quite mixed designations
7	Cynoglossum officinale (houndstongue)	— [M/C]	— [Cs 83]	—	e.g. against madness, with diuretic effects, for inflammatory diseases, especially of the urinary organs — languages normally use the (Graeco-)Latin model “dog-tongue”

#	scientific name + E. common name	common and trivial names with medicinal implication 17th c. (<u>Megiser</u> 1603 [s.v.] / <u>Calepinus</u> 1627 [s.v.])	common and trivial names with medicinal implication 18th c. (<u>Ernsting</u> 1770 [s.v.] / <u>Csapo</u> 1792 [entry no.])	common and trivial names with medicinal implication 2023 (multiple sources)	comments on medicinal use and on iconemes
8	Euphrasia officinalis (eyebright)	en. <i>eye bright</i> ; nl. <i>oogentrost</i> ; de. <i>Augentrost</i> [M/C]	sv. <i>oogintroest</i> ‘eyes consolation’; en. <i>eyebright</i> ; nl. <i>oogentroost</i> ‘eye consolation’; <i>klaroogfri</i> ‘clear eye free[er]’; de. <i>Augentrost</i> ‘eye consolation’, <i>Augenklar</i> ‘eye clear[er]’, <i>Augenkraut</i> ‘eye weed’; hu. <i>szemfű</i> ‘eyewort’, <i>szemvigaszfű</i> ‘eye consolation wort’, <i>szemvidítő-fű</i> ‘eye happy-maker’ [E/Cs 346]	sv. <i>ögontröst</i> ‘eye consolation’; en. <i>eyebright, eyewort</i> ; nl. <i>oogentroost</i> ‘eye consolation’; fr. <i>casse-lunette</i> ‘eyeglasses-breaker’; de. <i>Augentrost</i> ‘eye consolation’; hu. <i>szemvidító</i> ‘eye happy-maker’	e.g. with disorders of the eyes — second most frequent type is a (Graeco-)Latin loan
9	Fumaria officinalis (fumitory)	hu. <i>fodepeye</i> [in M; likely to be corrected as <i>földepeje</i> ‘earth bile [weed]’]	hu. <i>föd epelye</i> [in E; to be corrected as <i>földépeye</i> ‘earth bile [weed]’]; de. <i>Krätzheil</i> ‘scabies heal’ [E/Cs 106]	hu. (<i>földi</i>) <i>epefű</i> ‘(earth) bile weed’	e.g. for the eyes, skin blemishes, conjunctivitis, cleansing the bile and the kidneys (diuretic) — most languages copy the Latin iconeme “smoke”; in Ernsthing (1770), there is also de. <i>Melancholiekraut</i> ‘melancholy weed’, but an official usage against melancholy seems not attested
10	Gratiola officinalis (hedge-hyssop)	[not listed]	de. <i>Erdgalle</i> ‘earth bile’ (pointing at laxative/diuretic effects or wrong plant?) [E/Cs 67]	—	e.g. diuretic, laxative, for wounds — diverse designations, some including “grace (of God)” as the Latin model (due to medicinal effects?)
11	Hyssopus officinalis (hyssop)	— [M/C]	— [E/Cs 141]	—	e.g. anti-inflammatory, expectorant, against cough and sore throat — all Latin loans

#	scientific name + E. common name	common and trivial names with medicinal implication 17th c. (Megiser 1603 [s.v.] / Calepinus 1627 [s.v.])	common and trivial names with medicinal implication 18th c. (Ernsting 1770 [s.v.] / Csapo 1792 [entry no.])	common and trivial names with medicinal implication 2023 (multiple sources)	comments on medicinal use and on iconemes
12	Levisticum officinale (lovage)	— [C]	— [E/Cs 202]	—	e.g. with rheumatism, indigestion problems, having diuretic effects — mostly loans from Latin or French, with many folk-etymologies: nl.coll. <i>leverstok</i> is a folk-etymology, but now lit. ‘liver-stick’; however, no use for liver diseases is attested
13	Lithospermum officinale (gromwell)	[potentially metaphorical for weed against burn wounds: es. <i>myo de sol</i> ‘sun grain’ it. <i>miglio del sole</i> ‘sun grain’] [M/C]	— [E s.v. <i>Milium solis</i> /Cs 215]	—	e.g. anti-inflammatory, for healing burn wounds, with rheumatism and lithiasis, [in the English Wikipedia also categorized as a diuretic, but without an academic reference] — most languages copy the (Graeco-)Latin element “stone”
14	Melilotus officinalis (ribbed melilot)	— [M/C]	— [E/Cs 324]	—	e.g. painkilling with wounds, making blood thinner — either borrowed or iconeme “clover”
15	Melissa officinalis (lemon balm)	de. <i>hertzkraut</i> [listed in M s.v. <i>Melissophyllum</i> , in C s.v. <i>Meliphylon</i>]	de. <i>Herzkraut</i> ‘heart weed’, <i>Herztrost</i> ‘heart consolation’ [E/Cs 238f.]	—	e.g. with poor circulation of the blood — often iconeme “lemon”
16	Parietaria officinalis (pellitory-of-the-wall)	— [C]	— [E/Cs 98]	—	e.g. diuretic, anti-inflammatory, against contusions — the most frequent type imitates the Latin coinage with “wall(-climber)”

#	scientific name + E. common name	common and trivial names with medicinal implication 17th c. (Megiser 1603 [s.v.] / Calepinus 1627 [s.v.])	common and trivial names with medicinal implication 18th c. (Ernsting 1770 [s.v.] / Csapo 1792 [entry no.])	common and trivial names with medicinal implication 2023 (multiple sources)	comments on medicinal use and on iconemes
17	Pulmonaria officinalis (lungwort)	de. <i>Lungenkraut</i> ‘lung weed’; hu. <i>tidöfiu</i> ‘lung grass’ [M/C]	sv. <i>lungmossa</i> ‘lung moss’ nl. <i>longecruydt</i> ‘lung weed’; fr. <i>herbe aux pulmons</i> ; it. <i>pulmonaria</i> ; de. <i>Lungenkraut</i> ‘lungwort’ hu. <i>tüdöfű</i> ‘lungwort’ [E/Cs 392f.]	sv. <i>lungört</i> ‘lungwort’; en. <i>lungwort</i> ; nl. <i>longkruid</i> ; fr. <i>pulmonaire</i> ‘lung-thing’, <i>herbe au poumon</i> ‘weed for the lung’; de. <i>Lungenkraut</i> ‘lung weed’; es. <i>pulmonaria</i> ‘lung-thing’; it. <i>pulmonaria</i> ‘lung-thing’; hu. <i>tüdöfű</i> ‘lung grass’; pl. <i>plucnik</i> ‘lung-thing’	e.g. with ailments of the lungs and chest
18	Sanguisorba officinalis (great burnet)	de. <i>Großblutkraut</i> ‘large blood weed’ [M/C]	de. <i>Blutkraut</i> ‘blood weed’ [E s.v. Pimpinella / Cs 51]	(de. <i>Blutströpfchen</i> ‘blood droplet’ [due to the flower’s head, but may folk-etymologically also be refer to anti-hemorrhagic effects, especially in combination with the diminutive ending]; (en. <i>great burnet</i> [folk-etymologically reinterpretable as containing ‘burn’]); es. <i>sanguisorba</i> ‘blood-suck’; pl. <i>krwiściąg</i> ‘blood-levier’	e.g. antihemorrhagic — diverse iconemes; de. <i>Blutströpfchen</i> ‘blood droplet’ is historically due to the flower’s head like clearer sv. <i>blodtopp</i> ; hu. <i>vérfü</i> ‘blood wort’ unlikely to be interpreted for blood problems due to synonyms <i>őszi vérfü</i> ‘autumn blood wort’ and <i>vérharmatfü</i> ‘blood dew wort’
19	Saponaria officinalis (soapwort)	de. <i>Speichelwurz</i> ‘saliva wort’ [M/C]	de. <i>Speichelwurz</i> ‘saliva wort’ [E/Cs 333]	—	e.g. with multiple episodes of bronchitis — several countries copy the Latin iconeme “soap” or use another element to verbalize the plant’s use for cleaning
20	Sisymbrium officinale / Erysimum officinale (hedge mustard)	[potentially metaphorical hu. <i>kakukfw</i> (likely to be corrected as <i>kakukkfű</i> ‘cuckoo grass’) — or erroneous entry, as this word is today the name for Thymus] [M/C]	[not listed; E/Cs point at Nasturtium, but this is Nasturtium officinale]	fr. <i>herbe aux chantres</i> ‘weed for singers’; de.coll. <i>Sängerkraut</i> ‘singer weed’; es.coll. <i>herba de los cantores</i> ‘weed of singers’ it. <i>erba dei cantanti</i> ‘weed of singers’	e.g. with inflammation of vocal chords — diverse iconemes

#	scientific name + E. common name	common and trivial names with medicinal implication 17th c. (<u>Megiser</u> 1603 [s.v.] / <u>Calepinus</u> 1627 [s.v.])	common and trivial names with medicinal implication 18th c. (<u>Ernsting</u> 1770 [s.v.] / <u>Csapo</u> 1792 [entry no.])	common and trivial names with medicinal implication 2023 (multiple sources)	comments on medicinal use and on iconemes
21	Symphytum officinale (comfrey)	pl. <i>ziwokost</i> ‘bone-vitalizer, bone-nourisher’; de. <i>Beinwell</i> (nl. <i>Wartwortel</i> maybe a mistake for <i>wratwortel</i> ‘wart wort’, yet there is no specific record for treating warts); (de. <i>Schmerzwurtz</i> ‘lard-wort’, seems a spelling mistake for <i>Schmerzwurtz</i> ‘pain-wort’, on the other hand it is listed as such in both M and C, and there is modern nl. <i>smeerwortel</i> ‘lard-wort’); (es. <i>consuelda major</i> ‘great consolidater’); (it. <i>consolida (maggiori)</i> ‘(great) consolidater’); [M s.v. <i>Symphytum</i> , C s.v. <i>Symphyton petraeon</i>]	pl. <i>zywokofis</i> [erroneously for <i>ziwokost</i> ‘bone-vitalizer’] hu. <i>nadály-fü</i> ‘bloodsucker wort’, hu. <i>forrasztófű</i> ‘boiling making wort’; (fr. <i>grande consolide</i> ‘great consolidator’); (es. <i>suelda major</i> ‘great consolidator’); (it. <i>consolida maggiore</i> ‘great consolidater’) (de. <i>Schmeerwurz</i> [see left column]) [E s.v. <i>Consolida maior</i> /Cs 260f.]	en.coll. <i>boneset</i> , <i>knitbone</i> , <i>bruisewort</i> ; de.coll. <i>Beinwurz</i> ‘bone/leg wort’, (<i>Schadheilwurzel</i> ‘damage healing wort’), (<i>Wundallheil</i> ‘wound all healer’); (es. <i>consuelda</i> ‘consolidater’); (it. <i>consolida</i> ‘consolidater’); pl. <i>zywokost</i> ‘bone-vitalizer, bone-nourisher’	e.g. with bruises, wounds, joint pain, fractures — diverse iconemes
22	Taraxacum officinale (dandelion)	[not listed]	nl. <i>pissenbeede</i> ‘piss-bed’, <i>pissenbloem</i> ‘piss flower’; fr. <i>pissen liet</i> ‘piss-in-bed’; it. <i>pisso in letto</i> ‘piss-in-bed’, <i>piscia a letto</i> ‘id.’; de. <i>Seichblumen</i> ‘piss flowers’ [E/Cs 278]	en.coll. <i>piss-a-bed</i> ; it.coll. <i>piscia(l)letto</i> ‘piss-in-bed’; fr. <i>pissenlit</i> ‘piss-in-bed’	e.g. with kidney diseases (diuretic), eye diseases — many words with the iconeme ‘urinate’ occur in dialect words, some are “lion’s tooth”, otherwise diverse iconemes
23	Valeriana officinalis (valerian)	[not listed]	de. <i>Augenwurzel</i> ‘eyewort’ (hu. <i>therjék fü</i> ‘turning wort’) [E/Cs 213]	(sv. <i>läkvänderot</i> ‘heal-turning-root’); (en.coll. <i>all-heal</i>)	e.g. with sleep disorders and anxiety — in en.coll., nl.dial., de.dial., fr.coll., es.dial. and hu. “cat weed” for the stimulating effect on cats, otherwise mostly Latin loans

#	scientific name + E. common name	common and trivial names with medicinal implication 17th c. (Megiser 1603 [s.v.] / Calepinus 1627 [s.v.])	common and trivial names with medicinal implication 18th c. (Ernsting 1770 [s.v.] / Csapo 1792 [entry no.])	common and trivial names with medicinal implication 2023 (multiple sources)	comments on medicinal use and on iconemes
24	Veronica officinalis (heath speedwell)	[not listed]	de. <i>Wundkraut</i> ‘wound weed’ [E/Cs 399]	(sv.coll. <i>läkeveronika</i> ‘healing veronica’); (en. <i>speedwell</i>); de. <i>Wundheilkraut</i> ‘wound healing weed’, (<i>Allerweltsheil</i> ‘all world’s healer’) (es.dial. <i>malarranca</i> ‘evil-eradicator’)	e.g. with sinus and ear infections, rheumatism and ingestion problems — mostly Latin loans

Fig. 1: Plant-names with medicinal iconemes

In general, we see that for about a third out of the 24 plants there is nowhere and never a medicinally motivated name widespread enough to be included in a multilingual dictionary (numbers 1, 2, 7, 11, 12, 14, 16; maybe also numbers 10 and 13, depending on the lexicographic correctness and iconemic interpretation). So all in all, medical iconemes do not seem overall frequent among geographically wider terms for plants of medicinal use. By far more frequent are loans from Latin (or a country’s neighboring language)—which Boretzky (1987) did not include in his list of universal main motives for plant designations (perception/senses, origin, time of blossom/grwoth, use [e.g. medicinal use]). Also very frequent are words related to the shape often expressed metaphorically (“ox-tongue” for Anchusa and Bistorta, “dog-tongue” for Cynoglossum and “lion-tooth” for Taraxacum, “stone-plant” for Lithospermum, “clover-like plant” for Melilotus). Related to the shape are the place where the plant grows (“wall-plant” for Parietaria) and the color (“blood-top” for Sanguisorba and “smoke-like leaves” for Fumaria). The function or effect outside the medicinal sphere can play a role, too (“cat weed” for Valeriana and “soap plant” for Saponaria).

Most disease-related names can be found in Austria, Germany and the UK. The lungwort is the only plant where all of our languages today have generally common words containing an element ‘lung’, thus simply reflecting the Latin model construction *pulmonaria* ‘lung-thing’. However, this is not an automatism as can be seen in the Latin *sanguisorba*, literally ‘blood-absorber’, which is mirrored only in Spanish and Polish. Bistortia and Euphrasia have medicinally motivated names in more than half of the languages and countries. Fig. 2, Fig. 3 and Fig. 4 show the intensity of modern nationally common disease-related names and, more comprehensively, healing-related names in general (i.e. not only the names related to specific diseases), both with and without folk-etymological interpretations.

country	disease-related names w/o folk-etymologies	disease-related names w/ folk-etymologies	healing-related names w/o folk-etymologies	healing-related names w/ folk-etymologies
SE	3	3	6	6
UK	6	7	8	9
NL	3	3	3	3
FR	5	5	5	5
ES	3	3	5	5
IT	3	3	4	4
HU	4	4	4	4
PL	4	4	4	4
AT	7	8	7	8
DE	7	8	7	8

Fig. 2: Presence of widespread modern medicinally motivated names

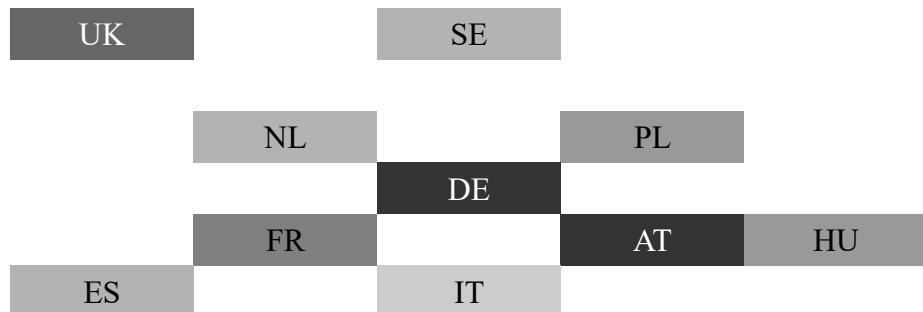


Fig. 3: Presence of widespread modern disease-related names

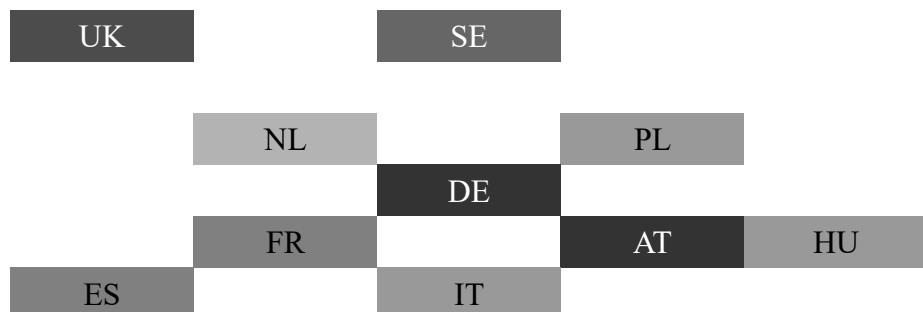


Fig. 4: Presence of widespread modern healing-related names

Plants with the same effects do not necessarily get the same telling names. For instance, in our selection there are several plants with (occasional use of) diuretic effects, but only *Taraxacum officinale* gets widespread designations embracing the iconeme “diuretic”, while there is none for *Asparagus officinalis*, *Cynoglossum officinale*, *Fumaria officinalis*, *Gratiola officinalis*, *Levisticum officinale*, *Lithospermum officinale*, *Parietaria officinalis*. However, if we use the online versions of historical dictionaries we find several more words based on this iconeme: for *Fumaria* de. *Blasenerdrauch* ‘bladder earth smoke’ (DW), fr. *pisse-sang* ‘blood-pisser’ (FEW s.v. *pissiare*); for *Lithospermum* on France’s ground the Provençal form *verbo de pissagno* (FEW s.v. *pissiare*); for

Taraxacum also nl. *pisbloem* and *pissebed* (GTB), fr. *pissard* ‘pisser’ (FEW s.v. *pissiare*), and de. *Seicher* ‘pisser’ and *Seichblume* ‘piss-flower’ (DW) and some Swedes may even link the French loan sv. *pisenlit* to sv. *pissa* (SAOB). Cugno/Nevaci (2015: 36 & 66f.) mention, apart from the French standard name, the following dialectal types for Taraxacum: es. *meacamás* ‘bed-pisser’ and *churracamás* ‘dto.’ [data gathered from prior dictionaries*], it. *piscialletto* ‘bed-pisser’, de. *bettseichen* ‘bed-pisser’, *seichblum* ‘piss flower’, *miegenblume* ‘dto.’, en. *pissabed(s)*, nl. *pissebedde*, *beddepisser*, *zeikbloem* ‘piss flower’ and *pisbloem* ‘dto.’, Swed. *pissros* ‘piss rose’, as well as Breton. Marzell’s (1943-1979) dictionary of German plant-names is structured according to iconemes and also gives parallel forms in other European languages, which makes the book a treasure for Eurolinguists, too. Taraxacum officinale encompasses 55 columns (Marzell 1943-1979: s.v. Taraxacum officinale): the section on the iconeme “diuretic” covers three columns, which reveal the many forms in dialects of German and also other European languages; moreover, of all domestic plants Marzell presents taraxacum officinale as the plant with the greatest number of folk-names. Marzell also lists lexemes motivated by diuretic effects for some (but not all!) of the other plants mentioned: de.dial. *Nierenputzer* ‘kidney cleaner’ (s.v. Asparagus officinale); de.dial. *Purgierkraut* ‘cleaning weed’, nl.dial. *purgeerkruid* ‘idem’, it.dial. *erba purga* ‘idem’ (s.v. Gratiola officinale); de.15th-c. *Scheißkraut* ‘shit weed’, it.dial. *erba caighèa* ‘idem’, fr.dial. *herbe à urine* ‘urine weed’ (s.v. Parietaria officinale).

3.2. Analysis 2

The following table (Fig. 5) gives the percentages of people who affirmed that they used complementary and alternative medicine (CAM) during the previous twelve months according to the study by Kemppainen et al. (2018). Then various from our lexical analysis are given: in the third column the number of names related to a concrete disease or symptom excluding the two folk-etymological names; in the fourth column the number of names related to a concrete disease or symptom including the folk-etymological names; in the fifth column the number of names related to specific symptoms or healing in general, excluding the folk-etymological names; in the sixth column the number of names related to specific symptoms or healing in general, including the folk-etymological names. A Kendall tau (τ) test is then proceeded (URL08) to see whether the probability value (p) of a random distribution of figures is under 0.05. If it is, then there is a statistically significant correlation.

* My thanks for specifying information to Pilar García Mouton (Consejo Superior de Investigaciones Científicas) and Isabel Molina (Alcalá)

country	% of CAM users	disease-related names w/o folk-etymologies	disease-related names w/ folk-etymologies	healing-related names w/o folk-etymologies	healing-related names w/ folk-etymologies
SE	31.5	3	3	6	6
UK	20.6	6	7	8	9
NL	14.1	3	3	3	3
FR	31.2	5	5	5	5
ES	17.2	3	3	5	5
HU	9.5	4	4	4	4
PL	12.9	4	4	4	4
AT	35.5	7	8	7	8
DE	39.5	7	8	7	8
τ		0.39	0.39	0.61	0.61
p		0.1965	0.1965	0.0340	0.0340

Fig. 5: Correlations between percentage CAM users and number medicinally motivated names I

As we can see in the last line of the statistical table (Fig. 5), with general healing lexemes there are clear statistically significant correlations. Fig. 6 visualizes the last column of Fig. 6 in a chart which also shows an exponential trend line.

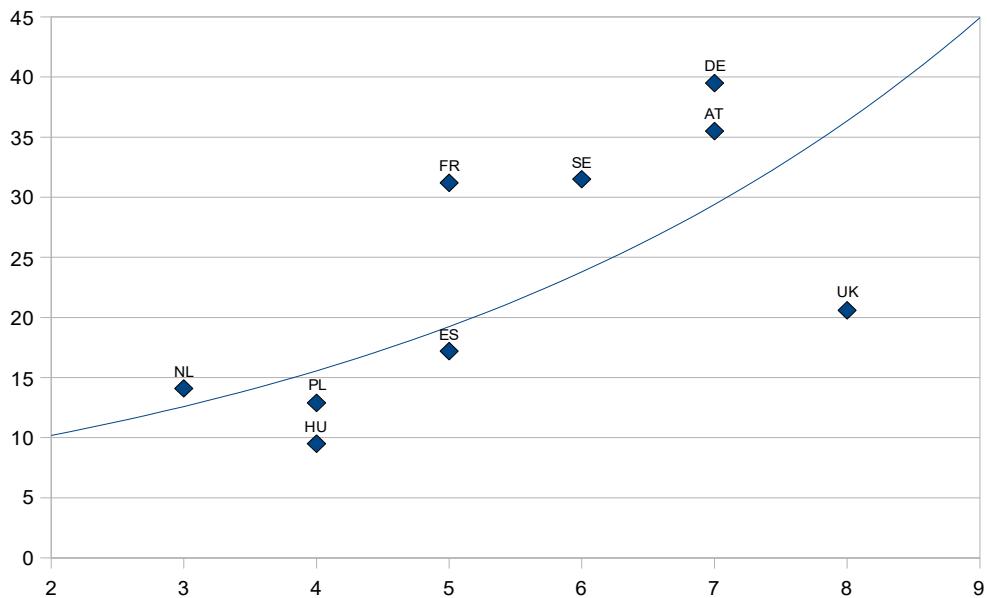


Fig. 6: Correlations between percentage CAM users and number healing-motivated names

Of course, correlation does not mean causation. We cannot say whether the names trigger more use of CAM methods or whether a traditional predilection for CAM therapies led a better entrenchment of medicinally-motivated plant-names. And of course, the inclusion of 24 plants only is limited. So the result should basically be seen as an encouragement for enlarging research in this direction.

4. Conclusion

Our research questions can be answered as follows:

- Q1a: Which of the selected plants of medicinal importance have a widespread medicinally related name in which of the selected modern languages? — The strategy of naming plants after the medicinal use is not tremendously entrenched in standard languages or their widespread colloquial varieties. Pulmonaria has medicinally motivated names in all the languages and countries selected, bistorta and euphrasia in the majority of languages and countries. All in all, names for medicinally used plants related more to immediately visibly things (shape or animals attracted by the plant)
- Q1b: Are there differences in comparison to early modern times before the development of modern medicine? — There are no prominent differences between the situation now and the historical situation as it is presented through multilingual dictionaries that list widespread words and were published before 1600 and 1800. Some lexemes get lost, some lexemes get added in the common language. Pulmonaria and Euphrasia have always been “lungwort” and “eyewort” in several languages over time.
- Q1c: Which countries have a predilection for medicinally related plant-names? — Predominantly, the UK, Germany and Austria.
- Q2: Does the amount of medicinal common plant-names in the main language of each selected country relate to the popularity of traditional medicine in that country? — A Kendall tau test has shown that there is indeed a statistically significant correlation between the percentage of people having chosen complementary and alternative medical treatments and the number of plant-names somehow related to healing.

To be blunt, the significance threshold was only achieved for plants that included all sorts of healing iconemes (not only disease-related ones) and our figures related to treatment comprehend all sort of complementary and alternative medicine. But this, as already said, may motivate to delve more thoroughly into the relation of medicinal words and actions.

Joachim Grzega
Sprach- und Literaturwissenschaftliche Fakultät
Universität Eichstätt-Ingolstadt
Ostenstr. 28a
DE-85072 Eichstätt
joachim.grzega@ku.de

References

- AIS = Jaberg, Karl / Jud, Jakob (1928-1940), *Sprach- und Sachatlas Italiens und der Südschweiz*, Zofingen: Ringier.
 Digitalized version NavigAIS by Graziano G. Tisato. <<https://navigais.pd.istc.cnr.it/>>.
- ALE = Alinei, Mario et al. (1983-2015), *Atlas linguarum Europae*, Assen: Van Gorcum / Roma: Istituto Poligrafico e Zecca di Stato. Ninth bundle: <<https://lingv.ro/2021/08/16/ale-maps-i-9/>>
- ALF = Gilliéron, Jules / Edmont, Edmond (1902-1920), *Atlas linguistique de la France*, Paris: Champion.
 <<https://digilib.uibk.ac.at/urn:nbn:at:at-ubi:2-4568>>.
- Alinei, Mario (1995), “Theoretical Aspects of Lexical Motivation”, *Svenska Landsmål och Svenskt Folkliv* 118.321: 1-10.
- Alinei, Mario et al. (eds.) (1986-2015), *Atlas linguarum Europae (ALE) – Commentaires*, Assen et al.: Van Gorcum et al.

- Anon. (1573), *Le dictionnaire des huict langages : c'est à sçavoir grec, latin, flamen, françois, espagnol, italien, anglois, & aleman: fort utile & necessaire pour tous studieux & amateurs des lettres. Nouvellement revueu & corrigé*, Lyon: Michel Jouve.
- Boas, Marie (1962), *The Scientific Renaissance 1450–1630*, New York: Harper & Brothers.
- Boretzky, Norbert (1987), “Lexikalische Natürlichkeit: Benennungsmotive in Pflanzennamen”, in: Boretzky, Norbert / Enninger, Werner / Stoltz, Thomas (eds.), *Beiträge zum 3. Essener Kolloquium über Sprachwandel und seine bestimmenden Faktoren*, 53-76, Bochum: Brockmeyer.
- Buck, Carl D. (1949), *A Dictionary of Selected Synonyms in the Principal Indo-European Languages: A Contribution to the History of Ideas*, Chicago: Chicago University Press.
- Calepinus, Ambrosius (1627), *Dictionarium undecim linguarum*, Basilea: Sebastian Henric Petri.
- Csapó, Jósef (1792), *Uj füves és virágos magyar kert, melyben mindenik fünek és virágnak néve, neme, ábrázatja, természete és ezekhez képest külöombséle hasznai*, Posony/Pest: Füskuti Landerer Mihaly.
- Cugno, Federica / Nevaci, Manuela (2015), “Pissenlit (QI: 081), carte de motivations”, in: Saramandu, Nicolae et al. (eds.), *Atlas Linguarum Europae (ALE): Volume 1, neuvième fascicule, Commentaires*, 27-80, Bucarest: Editura din Bucureşti.
- Daniel, Wayne W. (1990), *Applied Nonparametric Statistics*, 2nd ed., Boston: PWS-Kent.
- Dębowiak, Przemysław / Waniakowa, Jadwiga (2019), “What Do Lexicographers Need to Know about Plant Names? Semantic Motivation of Plant Names as a Part of their Etymology”, in: Villalva, Alina / Geoffrey, William (eds.), *The Landscape of Lexicography*, 173-200, Lisboa-Aveiro: Centro de Linguística da Universidade de Lisboa, Centro de Línguas, Literaturas e Culturas da Universidade de Aveiro.
- DW = Grimm, Jacob / Grimm, Wilhelm (1854-1960), *Deutsches Wörterbuch*, Leipzig: Hirzel. CD-ROM.
- DWA = Mitzka, Walther / Schmitt, Ludwig Erich (1951-1980), *Deutscher Wortatlas*, Gießen: Schmitz. <<https://apps.dsa.info/dwa/>>.
- Eder, Birgit (2004), *Ausgewählte Verwandtschaftsbezeichnungen in den Sprachen Europas – untersucht anhand der Datensammlungen des Atlas Linguarum Europae*, Frankfurt (Main): Peter Lang.
- Ernsting, Arthur Conrad (1770), *Nucleus Totius Medicinae Quinque Partitus*, vol. 2, 2nd, rev. ed., Lemgo: Meyersche Buchhandlung.
- FEW = Wartburg, Walther von et al. 1922–2002. *Französisches Etymologisches Wörterbuch*. Bern: Francke / Nancy: INaLF. <<https://apps.atlf.fr/lecteurFEW/index.php/site/index>>.
- Grzega, Joachim (2004), *Bezeichnungswandel – Wie, Warum, Wozu? Ein Beitrag zur englischen und allgemeinen Sprachwissenschaft*, Heidelberg: Winter.
- Grzega, Joachim (2007), “Summary, Supplement and Index for Grzega, Bezeichnungswandel, 2004”, *Onomasiology Online* 8: 18-196. <<http://www.onomasiology.com>>.
- Grzega, Joachim (2012), “Developing Europragmatics -- Food for a Eurolinguistic Stepchild”, *Journal for EuroLinguistix* 9: 11-50. <<http://www.eurolinguistix.com>>.
- GTB = Geïntegreerde Taalbank, ed. Instituut voor de Nederlandse Taal, Leiden: Instituut voor de Nederlandse Taal. <<https://gtb.ivdnt.org/search>>.
- Hefferson, Kathleen (2012), *Let Thy Food Be Thy Medicine*, Oxford: Oxford University Press.
- Kempainen, Laura M., Teemu T. Kempainen, Jutta A. Reippainen, Suvit Salmenniemi & Pia H. Vuolanto (2018), “Use of complementary and alternative medicine in Europe: Health-related and sociodemographic determinants”, *Scandinavian Journal of Public Health* 46: 448-455.
- Kops, Jan et al. (1800-1934), *Flora batava*, Amsterdam: J.C. Sepp & zoon et al.
- LEI = Pfister, Max (1979-), *Lessico Etimologico Italiano*, Wiesbaden: Reichert. <<https://lei-digitale.it>>.
- Linnaeus, Carl (1735), *Systema naturæ, sive regna tria naturæ systematicæ proposita per classes, ordines, genera, & species*. Leiden: Haag.
- Marzell, Heinrich (1943-1979), *Wörterbuch der deutschen Pflanzennamen*, 5 vols., Stuttgart & Wiesbaden: Hirzel & Steiner.
- Megiser, Hieronymus (1603), *Thesaurus polyglottus vel dictionarium multilingue*, Frankfurt (Main): [Brathering].
- Mercola, Joseph / Cummins, Ronnie (2021), *The Truth About COVID-19*, White River Junction: Chelsea Green.
- OED = Murray, James A. H. et al. (1989), *The Oxford English Dictionary*, 20 vols., 2. ed., Oxford: Clarendon. *The Oxford English Dictionary Online*. 2000–. 3rd ed. online. Oxford: Oxford Univerty Press. <<https://www.oed.com>>.
- Pallas, Peter Simon (1786-1789), *Linguarum totius orbis vocabularia comparativa*, 2 vols., St. Petersburg: Schnoor.
- Rooney, Anne (2009), *The Story of Medicine*, London: Arcturus Publishing.
- SAOB = *Ordbok över svenska språket*. 1893–. Lund: Svenska Akademien. <www.saob.se>.
- Schröpfer, Johannes (1979-[1994]), *Wörterbuch der Vergleichenden Bezeichnungslehre*, Heidelberg: Winter.
- Thomé, Otto Wilhelm (1886-1934), *Flora von Deutschland, Österreich und der Schweiz, in Wort und Bild, für Schule und Haus*, Gera-Untermhaus: Eugen Köhler.
- Theissen, Ulrich (2006), “*Acorus calamus L.* – ‘nicht nur für den Magen’: Zu den Namen der Kalmuswurzel und ihrer Motivation in den europäischen, besonders den slawischen Sprachen”, *Moderne Sprachen* 50/1: 43-60.
- van Hoof, Henri (2001), “Notes pour une histoire de la traduction pharmaceutique”, *Meta* 64.1: 154-175.

- Viereck, Wolfgang (2011), “The Atlas Linguarum Europae as an Instrument for Eurolinguistic Research”, *Journal for EuroLinguistix* 8: 1-33. <<http://www.eurolinguitix.com>>.
- Weijnen, Antonius (1986), “Fleur: Carte onomasiologique”, in: Alinei, Mario (1986), *Atlas linguarum Europae (ALE) — Commentaires*, vol. 1, fasc. 2, 45-58, Assen etc.: Van Gorcum.
- Wiersema, John H. / León, Blanca (2013), *World Economic Plants: A Standard Reference*, 2nd ed., Boca Raton: CRC Press.

Websites

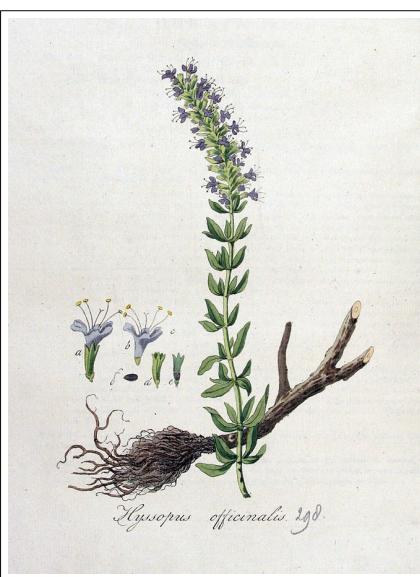
- URL01 = <http://www.plantsoftheworldonline.org/>
- URL02 = <https://identify.plantnet.org/>
- URL03 = <https://lingv.ro/atlas-linguarum-europae/>
- URL04 = <https://species.wikimedia.org/>
- URL05 = <https://www.wikipedia.org/>
- URL06 = <https://www.wiktionary.org/>
- URL07 = <https://www.dict.cc/>
- URL08 = http://www.wessa.net/rwasp_kendall.wasp
- URL09 = <https://commons.wikimedia.org/wiki/Main>

Appendix





10



11



12



13



14



15



16



17



18



19



20



21



22



23



24

Images 6, 12, 15 and 22 are from Thomé (1886-1934), the rest from Kops (1800-1934). All image files were downloaded from Wikimedia Commons (URL09).

Numbers according to the list in Section 2.2 and Fig. 1.

*first version received 15 September 2023
revised version received 27 December 2023*