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ON THE ORIGIN OF THE POLISH WORD *FARMACJA*

The aim of this paper is to discuss the origin of the Polish word *farmacja* and establish its deep-rooted etymology. The author provides an outline of the history of the word in Polish and presents its direct source, i.e. the Latin word *pharmacia*, describes the word family in Latin and indicates that the Greek etymon *φάρμακεία* provided the basis of the Latin form. The analysis of the word family, to which the Greek word belongs, showed a close relationship with semantic fields such as making poison and practising magic. The key expression turned out to be the Greek form *φάρμακον*, the origin of which remains unclear. Many hypotheses have been proposed, none of which, unfortunately, is satisfactory.

Keywords: *etymology, loanwords, borrowings, meaning*

1. Introduction

The aim of this article is to explore the history and etymology of the word *farmacja* in Polish. This topic is not new, as it has been the focus (at least partially) of a number of earlier studies (cf. Tadajczyk 2000, 2002). Nowadays the word functions as a general term¹. Its basic definition is as follows: ‘the science and art concerned with the preparation and standardization of drugs’. As such, it has numerous counterparts in foreign languages (cf. Engl. *pharmacy*, Fr. *pharmacie*, Germ. *Pharmazie*, Russ. *фармация*). It is obvious that both the Polish term and its foreign equivalents originate from the same primal etymon

¹ Based on the division into general and specific terms proposed by Waniakowa (2003: 15, 18), the literature on this subject also includes a number of other analyses. General terms name general concepts, and specific terms name specific concepts that cover only some of the objects of a given general class. In this case, the general term is *farmacja*, while the specific terms are, for example, *farmacja szpitalna* and *farmacja stosowana*.

(see below), although their direct language sources could be different. Research on the origin of words is usually limited to the following issues only: determining whether a given word is native (inherited) or a borrowing, and identifying its direct source, i.e. the word from which it is derived. However, it is possible to go further, namely to try and locate the oldest, most primal source of the investigated lexeme and describe the path that leads from the contemporary word to this basic form². This path appears particularly interesting in the case of loanwords. Then we deal not only with a vast area where words travel through history, but also with the interpenetration of different cultures, which is reflected in the semantics of the studied lexemes.

Reaching back to the oldest roots of modern words, which are borrowings, is therefore an opportunity to trace the semantic development of subsequent links in the chain of forms and meanings, starting with the oldest, most primary form that can be established. As a consequence, such an analysis makes it possible to determine the original meaning from which – through various semantic transformations – a modern expression derives its meaning. The aim of these reflections is to show the origin of the term *farmacja* precisely in this way. The starting point is the Polish contemporary form, and the analysis covers forms increasingly more ancient in origin, back to the earliest primary source that can be distinguished. This approach provides a platform not only for discovering the oldest possible roots of a particular word, but also for determining the scale and nature of semantic transformations.

2. The word *farmacja* in Polish

The Polish term *farmacja* is an internationalism (see above). The first attestation of this word in Polish is the form *farmacyja* from 1595 (*SP XVI*³ s. v.) meaning ‘sorcery with poisoned foods’. This is a generalized form presented by the authors of *SP XVI*, because the actual record that appears in the source is as follows: *phármátia* (acc. sg.). As can be seen, here this form is characterized, on the one hand, by its Latin spelling, and on the other by its adaptation to Polish inflection, as evidenced by the feminine accusative ending *-q*. The word has no continuity of attestations in the historical dictionaries of the

² Bogdan Walczak (1997: 269–280) wrote an article about the “depth” of etymology. The author discussed various approaches to presenting the etymology of foreign words. One of these is to show only the direct source of the borrowing. Another one involves presenting only the basic foreign source from which it is derived, without presenting forms in intermediary languages. The most comprehensive and profound approach entails an analysis of all words – ranging from a borrowed word in the recipient’s language and successive forms in the chain of loanwords, right through to the basic form, which is the source of all subsequent forms.

³ All the abbreviated dictionary titles are expanded in full in References.

Polish language. It does not appear either in *TPLG* or in *LSJP*, which means it is absent from the 17th century up to the beginning of the 19th century. We may wonder about the reasons for this state of affairs. The word probably did not yet exist as a common term, most likely because it lacked a medicinal meaning at the time⁴. There is also the possibility that it was only used in narrow social groups and did not appear in the sources used by the above-mentioned dictionaries.

It is attested much later, namely in *SWil* (1861) and *SW* (1900). Both dictionaries claim that it originates directly from Greek⁵. They note that it means: 1) ‘the science of making drugs’ (*SWil*, *SW*) and 2) ‘field of study’ (*SW*). The word is then listed in the *DSJP* (mid-20th century), where it is defined as ‘drug science, involving the preparation, processing, control, storage and distribution of all kinds of medicaments’. According to this dictionary, the term *farmacja* comes from Latin *pharmacia*, which was a loanword from Greek *φαρμακεία*. Nowadays, the term *farmacja* has five particular meanings: 1) ‘industry involved in manufacturing and distribution of drugs’, 2) ‘drug science’, 3) ‘a field of study at a university devoted to pharmacy as a science’, 4) ‘an administratively separated unit of a university where knowledge about drugs is taught’, 5) ‘a school or university subject devoted to teaching pharmacy as a science’ (*WSJP* s. v. *farmacja*).

As noted in *TSWO* (s. v. *farmacja*), the Polish word comes from Medieval Latin *pharmacia*, ultimately a loanword from Greek *φαρμακεία*. This is confirmed in *SŁŚ* (s. v. *pharmacia*, *farmacia*), where we read that the word *pharmacia* has two senses: 1) ‘use of drugs’, 2) ‘medicine’, and comes from Gr. *φαρμακεία*. Bańkowski (in *ESJP*, s. v. *farmacja*) claims that the word *farmacja* was first attested in Polish as late as 1861. As shown above, this is an evident mistake. Moreover, Bańkowski wrongly suggests that *farmacja* originates from German *Pharmazie* and/or French *pharmacie*, which both supposedly come from Greek.

When discussing the 16th-century form *farmacyja*, we should refer to the work of Moszyńska (1975), who analyzes numerous ancient Greek and Latin borrowings in Polish. Although, unfortunately, she does not discuss the form *farmacyja* itself, it is analogous to many other feminine nouns borrowed from Latin which in Polish have the ending *-cia/-cja/-cyjã*, such as *provincia* (from Lat. *prōvincia* ‘conquered territory’). They all originate from Latin nouns ending in *-cia* and have been adapted to the Polish morphological system

⁴ The word, the meaning of which was associated with the preparation of medicines, was *aptekarsztwo*, attested since 1567 (*SP XVI* s. v.).

⁵ The authors of these dictionaries probably did not know that the word had already been attested in the 16th century in a form that proves its origin from Medieval Latin. Moreover, they may have described the origin of the word without paying attention to the form in the intermediate language(s).

exactly in the same way as Latin feminine nouns ending in *-tia* (cf. Moszyńska 1975: 26–27).

Over the course of its history, the Polish word *farmacja* has completely changed its meaning: from originally ‘sorcery with poisoned foods’ to modern ‘drug science, involving the preparation, processing, control, storage and distribution of all kinds of medicaments’, thus evolving into a precise and strictly scientific term. It is worth noting that the foreign equivalents of Polish *farmacja* also have Latin rather than direct Greek origin, e.g. English *pharmacy* via Old French or Anglo-Norman *farmacie* (*AND* and *OED* s. v.)⁶, which was a continuation of Latin *pharmacia* (*TLFI* s. v.). Also German *Pharmazie* (*EWD* s. v.) and Russian *фармация*⁷ originated from Medieval Latin *pharmacia*.

3. The word *pharmacia* in Latin

Medieval Latin *pharmacia* continues the same Classical Latin form⁸. It constitutes the basis of quite a large word family in Latin, which includes nouns and adjectives, such as *pharmaceuticus* ‘concerning medicaments’, *pharmaceutria* ‘fairy, sorceress’, *pharmacopōla* ‘drug seller; charlatan’ and *pharmacum* 1) ‘poison’, 2) ‘medicine’⁹. The meanings of these words are rooted in three principal notions: sorcery, poison and medicine. We may wonder what these concepts have in common. It seems that they are linked, above all, by mystery and magic.

The preparation of poisons and magic was by its very nature mysterious and unfathomable. The oldest healing practices were shrouded in mystery and close in function to magic (Roeske 1991: 13–14). The production of poisons and healing agents involved similar enigmatic, impenetrable practices. Hence, medicine and poison were kindred spirits. For a drug to become a poison, one simply had to change the proportions of the components of a concoction or increase the amount of one of the substances it contained. And, *vice versa*,

⁶ More precisely, the order of borrowing in this case was as follows: Gr. *φάρμακεία* – Lat. *pharmacia* – Old French and/or Anglo-Norman *farmacie* – (Middle) English *farmacie*. According to the *AND* (s. v. *farmacie*) the form *farmacie* is first attested c. 1300 in the sense of ‘a purgative’. According to the *TLFI* (s. v. *pharmacie*) OFr. *farmacie* is first attested in 1314 (the same sense). The *MED* (s. v. *farmacie*) has the first quotation from Chaucer’s *Canterbury Tales* (c. 1385) and the only sense found in late medieval English was “A medicine that rids the body of an excess of any of the ‘humors’ except blood; also, treatment, or the theory of treatment, with such medicines; a purgative”. I am very grateful to the Reviewer for the above valuable additions.

⁷ Russian etymological dictionaries do not mention the origin of this word. Only the *ESSRJ* presents the etymology of the word *фармацевт* which comes from MLat. *pharmaceuticus*.

⁸ It should be noted that the medieval Latin form is the same as in post-classical Latin when the form *pharmacia* was first certified (*SLP*).

⁹ Latin examples from the *SLP*.

a small dose of poison may have healing properties. It is worth noting that the aura of arcane ritual involved in the preparation of both poisons and medicines is also evident in the Polish uses of the word *farmacyja* discussed above.

The etymology of the Latin word *pharmacia* is so obvious that it does not appear in the *LEW*, *DELL* or *EDL*, viz. Latin *pharmacia* comes from Greek φαρμακεία, in the same way as, e.g. Lat. *malacia* ‘silence (at sea)’ is a loanword of Greek μαλάκεια ‘silence (at sea)’. Greek words ending in -κεία, when adapted to Latin, regularly acquired the ending -cia. The Greek origin of the entire Latin word family of the form *pharmacia* is also noted by *SŁP*.

4. The word φαρμακεία in Greek

According to *SGP* Greek φαρμακεία is in fact an Ionian word. It has multiple senses and at least two synonyms: φαρμακεία Ion. = φαρμάκευσις = φαρμακία Ion. 1) ‘the use of medications’, 2) ‘the use of drugs, witchcraft’, 3) ‘poisoning’, 4) ‘sorcery’, 5) ‘remedy’. All its meanings refer to drugs, poisons or sorcery. Moreover, it is a member of a large word family. The *SGP*, *ChDELG* (s. v. φάρμακον) and *EDG* (s. v. φάρμακον) list many words that are related to it, as shown below. Although the extensive polysemy and synonymy of the words make it impossible to classify them according to their meanings, I have decided to group the vocabulary into pertinent parts of speech.

a) nouns

φαρμακεύς = φαρμακευτής = φάρμακος = φαρμακτήρ = φαρμάκτης 1) ‘who prepares φ., poisoner’, 2) ‘enchanter, magician, sorcerer’;

φαρμακεύτρια ‘fairy, sorceress, enchantress’;

φαρμάκιον ‘healing or harmful medicine; mild drug’;

φαρμακίς = φαρμάκεια 1) ‘enchantress’, 2) ‘witch, poisoner (fem.)’;

φαρμακίων = φαρμακοπώλης (Att.) ‘pharmacist, chemist, medicine seller’;

φαρμακόεις subst. ‘magician, sorcerer’;

φάρμακον 1) ‘healing or harmful medicine, medicament, drug’, 2) ‘a remedy to prevent something’, 3) ‘a magic, secret agent’, 4) ‘poisonous potion, poison, poisonous herb’, 5) ‘magic potion, enchanted drink, love drink’, 6) ‘sorcery, spell, witchcraft’, 7) ‘raw material for physical or chemical processing’, 8) ‘lipstick, paint, dye’;

φαρμακοποιία ‘preparation of drugs, pharmaceuticals’;

φαρμακοποσία 1) ‘taking medicines’, 2) ‘drinking poison’;

φαρμακοτρίβης ‘rubbing, preparing drugs, paints’;

φαρμακώδης subst. ‘poison’

φαρμακών ‘dye-house, dye works’;

φάρμαξις 1) ‘cure, treatment’, 2) ‘hardening (of metals)’;

b) adjectives

πολυφάρμακος 'having many φ., skilled in many φ.';
 φαρμακευτικός = φαρμακτήριος 'concerning drugs';
 φαρμακίς adi. 'venomous (fem.)';
 φαρμακίτης 1) 'concerning witchcraft, magical, wizarding', 2) 'containing φ., concerning φ.', 3) 'spiced (wine)';
 φαρμακίτης 'concerning drugs, treating with drugs';
 φαρμακόεις adi. 'poisoned';
 φαρμακοποιός 'making medicine';
 φαρμακτός 'poisoned';
 φαρμακώδης adi. 1) 'curative, healing', 2) 'poisonous', 3) 'rich in φ., rich in medicinal herbs';

c) verbs

φαρμακάω 1) 'I am intoxicated by poison, poisonous drink', 2) 'I require, I need medicine';
 φαρμακεύω 1) 'I take medicines', 2) 'I season (the dish)', 3) 'I use magic', 4) 'I drug someone, I administer a powerful drug', 5) pass. 'I am treated, I take medication';
 φαρμακόομαι 'I am poisoned, bewitched';
 φαρμακοποτέω 'I am taking the medicine';
 φαρμακοπωλέω 'I sell medicines, pharmaceutical supplies';
 φαρμακόω 'I ensure effective treatment';
 φαρμάπτω 1) 'I use a pharmacy, pharmaceutical remedy', 2) 'I treat, bring relief by administering medicine', 3) 'I poison; I poison with venom'; 4) 'I enchant, I bewitch with a magic potion', 5) 'I prepare using pharmaceutical means', 6) 'I add something (to a dish)', 7) 'I season (the dish)', 8) 'I dye, I put lipstick on', 9) 'I harden (the metal)'.

All these nouns, adjectives and verbs include many synonyms, which often differ only in terms of labelling (positive or negative) or emotional tinge. Besides, many of them developed several senses.

As is also evident, the meanings of these words are concentrated in a few main semantic fields, namely: poisons (usually in the form of potions) and their preparation (from poisonous plants and venom), medicines, their preparation and use, and magic. The first area also includes terms for poisoners. The second comprises the names of people who prepare drugs, i.e. pharmacists. The third semantic field encompasses practitioners of witchcraft, such as sorcerers and witches. All three areas appear to share a sense of mystery and even secret rites and recipes. People who make poisonous, magical or healing potions possess secret knowledge that they wish to guard. Perhaps the same people are capable of making both poisons and drugs. Perhaps these people – because of their secret

practices and ceremonies - were regarded as sorcerers or considered themselves to be sorcerers (or at least they wanted to be perceived as such).

Other meanings arose from the subsequent semantic transition of the word towards more practical (and less mysterious) areas of life, such as the preparation and use of paints or the tempering of metals. The vastness of the word family certainly proves its antiquity. Over the course of time, successive derivatives and new meanings were formed on the basis of this word. The etymological dictionaries of the Greek language clearly indicate that the basic word (or at least one of the first, basic words) in the family may have been the lexeme *φάρμακον*, the polysemy of which is exceptionally extensive (see above). Hence the conclusion that the Greek word *φαρμακεία* that we are interested in (alongside its numerous synonyms shown above) also originates from *φάρμακον*. Thus, it can be concluded that the Polish term *farmacja* via Medieval Latin *pharmacia* and Greek *φαρμακεία* is also ultimately derived from Greek *φάρμακον*.

5. Etymology of Gr. *φάρμακον*

Greek *φάρμακον* is a very ancient word, already recorded in the *Iliad* (c. 8th cent. B.C.), cf. *BDELG* (s. v.). Beekes (in *EDG* s. v.) claims that its original meaning cannot be established with certainty. He believes that the word is clearly Pre-Greek¹⁰. Its origin is an intriguing question. There are only two possibilities at play here: either it is an inherited form, or it is an old borrowing. Etymologists have failed so far to provide an unequivocal solution to this problem. Several theories have been proposed, none of which are entirely satisfactory. Some researchers, e.g. Frisk (in *GEW* s. v.)¹¹, Aura Jorro (in *DM* s. v. *pa-ma-ko*) and Beekes (in *EDG* s. v.) juxtapose Greek *φάρμακον* and Mycenaean *pa-ma-ko*, suggesting in this way that the Greek form comes from the Mycenaean dialect¹² but Chantraine (in *ChDELG* s. v. *φάρμακον*) believes that such an approach is pointless: „Il n’y a rien à tirer de l’hapax myc. *pamako* dont le contexte n’éclaire pas le sens”. Certain etymologists separate the form **φαρμ(α)-* which can be linked with PIE **bher-* (this opinion is quoted by *GEW* s. v. *φάρμακον*)¹³. Some

¹⁰ He refers to Furnée (1972: 220) who compares the form *φάρμακα* with some other words (used by Homer) and shows the variations *α // ο* and *μ // β*, well-known from Pre-Greek.

¹¹ However, in Frisk’s dictionary there is a question mark next to the Mycenaean form.

¹² It is – as it is well known – the oldest certified stage of the Greek language (16th – 11th cent. B.C.).

¹³ But compare *IEW* (s. v. 3. *bher-*), where the Greek root *φαρ-* as in *φάρος* ‘plough’ and *φάρυγξ* ‘throat’ is supposed to be derived from PIE **bher-* ‘to cut, pierce, scrape’. However, further on in the entry we read: “Mit einer Grundbed. ‘kerben’ lit. *bürtai* Pl. ‘Los, Zauber’ = lett. *burts* ‘Zeichen des Zaubers, Buchstabe’, lit. *bürti* ‘zaubern’, lett. *buft* ‘zaubern’, *buftains* ‘mit Kerbschnitzerei versehen’; gr. *φάρμακον* ‘Heilmittel, Zaubermittel’ (wohl nichtidg.) hat nichts

linguists connect the form φαρμα- with Lithuanian *buriiù, burti* ‘bewitch’ (this view is quoted by *BDELG* s. v. φάρμακον), but it is not known whether its original meaning is ‘witchcraft’. Others consider φάρμακον as a haplogological form from *φαρμα-μακον¹⁴ (this is the hypothesis quoted by Frisk in *GEW*). Some other suggestions have been put forward (most of them discussed by Frisk), but none of them are convincing enough.

It is worth emphasizing that the foreign origin of φάρμακον was already postulated by Chantraine (1933: 384) and Schwyzler (1939: 497). Chantraine repeats this later in his dictionary (*ChDELG* s. v. φάρμακον): „φάρμακον est isolé en grec, au point qu’on a pensé à un terme emprunté, comme le sont vraisemblablement les noms de plantes [...]”. Pokorny (in *IEW* s. v. 3. *bher-*) also supports the thesis of the non-Indo-European origin of the Greek φάρμακον (see footnote 13).

This is a very interesting opinion and some researchers take it seriously. For example, Roeske (1991: 15–16) suggests that φάρμακον may have been derived from the nickname *ph-arm-aki* given to the Egyptian god Thoth¹⁵. The latter was worshiped primarily as the moon god, inventor of the calendar and writing, and guardian of the scribes, but it must also be remembered that he was considered the physician of the gods¹⁶. He was also considered the founder of chemistry and was portrayed as a boat pilot probing the river with a stick. His nickname *ph-arm-aki* meant ‘the one who guards’ (Kamiński, Wesolowski 2010: 25). This form seems to be quite close to the Greek φάρμακον. Such an origin of the Greek word would be a tempting hypothesis. However, the alleged nickname of the Egyptian god Thoth in the form *ph-arm-aki* does not actually exist. Tadjczyk (2000: 568) shows that the hieroglyphic inscription in the drawing of Thoth¹⁷ should be read as *iret maket* (and not *ph-arm-aki*)¹⁸. The inscription means ‘making protection’ and is a religious formula. Indeed, when we analyze the characters of this inscription from top to bottom¹⁹, we come to the conclusion that it can be transliterated as *ir-t-m-(e)-k-t*²⁰. Like Frisk (in *GEW*), Aura Jorro

damit zu tun”. Hence, it is clear that Julius Pokorny does not associate Gr. φάρμακον with PIE **bher-*.

¹⁴ The second part would come from the verb μάσσω ‘I knead’.

¹⁵ This view appears in many studies on the history of pharmacy.

¹⁶ According to Egyptian mythology, Thoth healed Set and Horus from their wounds.

¹⁷ The author includes in his article a drawing of the god Thoth (with an inscription). This drawing is also found in many studies on the history of pharmacy.

¹⁸ In this statement, the author refers to the outstanding egyptologist, Professor Jadwiga Lipińska.

¹⁹ Egyptian hieroglyphic inscriptions found on columns are the oldest. We should read them from top to bottom.

²⁰ Egyptian hieroglyphs almost exclusively denote consonants. It is not known what all Egyptian words sounded like. Egyptologists conventionally add vowels to be able to pronounce what they

(in *DM*) and Beekes (in *EDG*), and contrary to what Chantraine (1933) and Schwyzer (1939) claim, Tadajczyk (2000: 568) juxtaposes Gr. φάρμακον with Myc. *pa-ma-ko*²¹. If *pa-ma-ko* is indeed a Mycenaean version of the Greek φάρμακον, its origin dates back to the 16th century B.C. In his opinion, the word is connected with Lithuanian *būrti* ‘work magic, practice sorcery’²² and PIE **bher-* ‘to cut, pierce, scrape’. But Smoczyński (*SEJL* s. v. *būrti*) claims that Lith. *būrti* does not have a clear etymology and doubts if it can be linked with PIE **bher-*²³ and concludes that Greek φάρμακον was not derived from PIE **bher-*, either. It is also worth noting that Gr. φάρμακον does not appear in the context of Lith. *būrti* and *būrtas* ‘lot, superstition, (pl.) sorcery’ in *EDBIL* (s. v.). Neither does it appear in any context in the *LIV*, which may indicate a non-Indo-European origin. Thus the origin of Gr. φάρμακον remains an open question.

6. Conclusions

The conclusions that emerge from the above analyses concern several aspects related to the history and origin of the Polish word *farmacja* derived via Medieval Latin *pharmacia* from Greek φάρμακον and φαρμακεία. Nowadays, this lexeme is neutral with regard to its labelling and emotional content. It is an internationalism, and as a consequence can be found widely distributed throughout the world and has the same or very similar meaning everywhere. In contemporary Polish, the entire word and the conceptual family are primarily associated with the world of science. And yet, its semantic origins differ markedly from all the features that characterize it today. Namely, the conceptual sphere from which *farmacja* is derived refers not only to drugs, but also in a negative sense to poisons, prepared according to carefully guarded recipes shrouded in mystery. In addition, this sphere includes witchcraft and magic as well as arcane practices and rituals. The semantic shifts were undoubtedly connected with the archaic senses of the word. Thousands of years separate the today’s term from its etymon. In ancient times, when the linguistic foundation of the modern term first took shape, healing and magic were closely connected, and the few people who knew how to make mysterious potions were considered sorcerers. Moreover, most likely the same people prepared not only healing drugs, but also poisons. It is also important to add that the conditions in which

read. Characters can be transliterated using a list of Egyptian hieroglyphs which is available at: https://en.wikipedia.org/wiki/List_of_Egyptian_hieroglyphs (access: 8 april 2021).

²¹ He reiterates this view in another article (see Tadajczyk 2002: 49).

²² It is worth noting that Lith. *būrti* and Gr. φάρμακον had already linked by Reinhold Trautmann (*BSW* 40).

²³ He reiterates this opinion in *LED* (s. v. *būrti*): “no established etymology”.

medicines and poisons were produced changed only slowly over time. The affinity between the two fields persisted for many centuries, certainly throughout the Middle Ages and beyond, despite the progress made in medical science. After all, it often happened that a court physician would, when necessary, make poison.

Finally, it is worth emphasizing that the modern term *farmacja* is a loanword, and a “multi-step” borrowing at that, because its linguistic basis refers to at least two languages. Regrettably, the origin of its ultimate archaic Greek etymon φάρμακον remains unexplained, as none of the solutions proposed so far is satisfactory.

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