METAPHOR AND METONYMY IN ACTION AND INTERACTION IN MEDICAL ENGLISH

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МЕТАФОРАТА И МЕТОНИМИЯТА В ДЕЙСТВИЕ И ВЗАИМОДЕЙСТВИЕ В МЕДИЦИНСКИЯ АНГЛИЙСКИ

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Abstract:*In the present article, we offer a diachronic classification of the understanding of the role of metaphor in Medicine. We identify three periods, the first one of them being based on denial, Restrictive View, the second one – on affirmation, Descriptive View, and the last one – on manipulation, Proscriptive View. We also explain the surge of interest in metonymy from a cognitive linguistics perspective, and contrast the present perception of metonymy as intertwined with metaphor to the now classical idea of metonymy as a phenomenon that is separate and divergent from metaphor. We endorse the latest understanding of the interplay between metaphor and metonymy in Medical English as a difficult one to be dismantled: it is hard to clearly delimitate the realm of each one of the pair.Thus while it is clear that metaphor and metonymy act in scientific discourse, it is not equally clear what internal limits must be set to their interaction. We suggest that, by the time an objective and clear way of differentiating between the two is agreed upon, the greatest efforts should be directed at elucidating hidden metaphor and metonymy in Medical English.*

Key words: *metaphor, metonymy, Medical English*

Резюме: *В статията се предлага диахронна класификация на разбирането за ролята на метафората в медицината. Разграничаваме три периода: първият е базиран на отричане, Рестриктивно разбиране; вторият – на приемане, Дескриптивен; последният - на манипулативност, Проскриптивен. Също така анализираме засилването на изследователския интерес към метонимията през призмата на когнитивната лингвистика, като контрастираме сегашното възприемане на метонимията като неразривно свързана с метафората с вече класическата идея за метонимията като феномен, отделен и различаващ се от метафората. Присъединяваме се към актуалната постановка, че взаимодействието между метафората и метонимията в медицинския английски е трудно разграничимо: точни граници между двете не могат лесно да бъдат очертани. Следователно докато действието на метафората и метонимията в научния дискурс е безспорно, не така стои въпросът с вътрешните граници на тяхното взаимодействие. Нашите усилия са насочени към осветяване на скритите метафори и метонимии в медицинския английски.*

Ключови думи: *метафора, метонимия, медицински английски*

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Living Metaphor

Aristotle did not kill scientific metaphor, but he did ostracize metaphor from science for many centuries. He understood metaphor as opposing definition, and since definition expresses "the essence of the thing" (Topics 153a: 15), clearly metaphors cannot play part in science, which is concerned with the proper naming of things. Science cannot harbor metaphor due to metaphor's *indefinite* nature: metaphor does not correctly define a thing, rather "it gives a thing a name that belongs to something else" (Poetics XX 1457b: 7-9).

The period of exile of metaphor from science lasted much longer than the single decade typically assigned to ostracized citizens of Ancient Athens; it is only in the last

century that metaphor has returned to its scientific homeland. It has been a dramatic comeback indeed. The works of Lakoff and Johnson have redefined our understanding of metaphor *per se*: not only is it impossible to exclude metaphor from any discourse, it is actually an integral part of reason itself. Reason is "largely metaphorical and imaginative" (Lakoff, Johnson 1999: 15).

Language is impossible without metaphor. This holds true for scientific discourse as well. When we look at the field of Medicine, we come quickly to the realization that the very essence of its language, its terminological *backbone*, is very much dependent on metaphor. In medical terminology, metaphor is a "nomination technique" (Amudzhieva 2021: 66). The roots of metaphors can often be traced to Ancient Greek and Latin: for ex. *herpes* comes from the Greek verb ἕρπω - *crawl* hence the term reflects the progressive, *crawling*, spread of the blisters (Amudzhieva 2021: 69).

Thus it becomes clear that even Aristotle himself could not effectively banish metaphor from medicine. He was successful in banning the *acceptance* of metaphor in science, without getting metaphor to abandon science. *De facto*, metaphor has always been present in Medicine, even if, *de jure* (or *de vogue philosophique*, if we shy away from considering Aristotle's words as law), it was not supposed to be.

The Life and Struggles of Medical Metaphor

Thus with Aristotle begins the longest period of the understanding of the role of metaphor in Medicine – the one of the reign of what we suggest to be called the ***Restrictive View***. This initial understanding is marked by ***denial***: metaphor is seen as having its proper place in poetry, drama, and fiction.

The advent of cognitive linguistics brings about a new way of viewing metaphor. Its realm is no longer restricted to artistic expression: metaphor is paramount; it permeates all language, including scientific discourse. Therefore, we locate the shift in the understanding of metaphor from the *Restrictive* to the ***Descriptive View*** in the 1970s. The new interpretation of the role of metaphor in science is grounded in ***affirmation***: metaphor is accepted as belonging to science. Since the language of medicine cannot without metaphor, linguists focus their energy on describing the numerous instances of metaphor in science, and on categorizing them. "The close association of medicine with metaphor" (Vaisrub 1977: 3) can be interpreted in terms of fields of medical metaphors such as war, myth, fiction, dream, nature, machine, crime, etc.

We believe that we are currently witnessing yet another major change in the understanding of medicine's metaphors. Ever since Semino critically examined the usage of metaphor in medicine and claimed that we ought not only to be aware of this usage, but ought to control it, we have entered the stage of the ***Proscriptive View***. Elena Semino endorses the understanding that "the use of cancer as a metaphor is generally best avoided" (Potts, Semino 2019: 94). Semino reaches the conclusion that *bad* metaphors must be foregone and only appropriate metaphors that are the product of "a well-informed and context-sensitive approach to metaphor selection" (Semino 2021: 2) must be employed. She insists that since "metaphors are crucial tools for communication and thinking", they can be especially useful in the field of Medicine and Medicine-related sciences such as public health (Semino 2021: 1). The idea that we must encourage the use of certain metaphors while discouraging that of other metaphors brings into play the kind of power relations that Foucault is famous for exposing. Thus, the present view is, not necessarily in pejorative sense, one of ***manipulation***.

It could be seen as ironic that the 1970s mark both the commencement of the *Descriptive View* and the promulgation of the power-relations ideas (*Discipline and Punish* was published in 1975, and only a year later - the first volume of *History of Sexuality*). Actually, Foucault's intertwining of power and knowledge -- knowledge is power – serves as a logical bridge to the *Proscriptive View*.

To fully appreciate the three views on metaphor in Medicine, we need to be reminded of Kant's idea of triadic categories which Hegel later developed into the triadic structure of thesis, antithesis, and synthesis. This triadic structure corresponds to the *Restrictive View* of *denial*, followed by its antithesis, the denial of denial being *affirmation*, i.e. the *Descriptive View*. To understand the emergence of the *Proscriptive View* of *manipulation* as the synthesis, we can go further back to Spinoza's triad of knowledge: "the desire to know things by the third kind of knowledge cannot arise from the first, but from the second kind of knowledge" (Spinoza 1677: 261). In other words, by negating denial (of the presence of metaphor in Medicine), we affirm (its presence); and by affirming, we claim to know (of its presence), and this knowledge puts us into position of power, i.e. of being able to manipulate (this presence).

To elucidate further the key role of the 1970s in the understanding of the role of metaphor in Medicine, we will point out that the seeds for Semino's criticism of medical metaphor were planted by Susan Sontag in the very same decade. Today, Sontag enjoys the reputation of a relentless critic of the use of medical metaphors: her iconic work of 1978, *Illness as Metaphor*, goes as far as urging the exclusion of metaphor from the discourse on illness. Since "it is hardly possible to take up one's residence in the kingdom of the ill unprejudiced by the lurid metaphors with which it has been landscaped", she vows to work "towards an elucidation of those metaphors, and a liberation from them" (Sontag 1978: 1).

Metonymy on the Rise

For decades, metaphor used to be the one basking in the spotlight of cognitive linguists' interest, while metonymy had been assigned the part of the not-so-pretty cousin, and had been illuminated but slightly. However, metonymy has lately been invited to share the spotlight, "To date, linguists have paid less attention in general to metonymy than to metaphor. A shift in interest has only recently become noticeable, beginning at the end of the 1990s" (Brdar 2009: 260).

It could be noted that the initial interest in metonymy was based on it as an entity divergent from metaphor. The traditional Cognitive Linguistics claim is that while its fundamental concept, metaphor, is a mapping across two conceptual domains, metonymy is a mapping confined to a single domain. Metaphor is "a *cross-domain mapping in the conceptual system*" (Lakoff 1993: 2). Metonymy is a "conceptual projection whereby one experiential domain (the target) is partially understood in terms of another experiential domain (the source) included *in the same common experiential domain*" (Barcelona 2003: 4). Thus cognitive linguists primary interest in metaphor finds a secondary outlet in metonymy, and hence all efforts have for a long time been concentrated on juxtaposing metonymy to the pivotal phenomenon, metaphor.

It is only lately that metonymy has induced a new interest in itself: this time as an entity not only as different from, yet existing alongside, metaphor, but as an entity that is not independent from metaphor. There is a marked strife towards a conceptual unity of metaphor and metonymy – as is Goossens' idea of metaphtonymy, or as in a "continuum ranging from literalness via metonymy to metaphor" (Radden 2002: 410).

Probably the most successful attempt at classifying the interaction between metaphor and metonymy is the one of Ruiz de Mendoza who suggests several patterns of interaction: metonymic expansion of a metaphoric source, metonymic expansion of a metaphoric target, metonymic expansion of the correspondences of the target domain of a metaphor, metonymic expansion of one of the correspondences of the source domain, metonymic reduction of a metaphoric source, and metonymic reduction of the correspondences of the target domain of a metaphor (Ruiz de Mendoza, Galera Masegosa 2012: 158-161). We endorse this modern understanding of metaphor and metonymy as being in constant interplay, and it is precisely the interaction between metaphor and metonymy in medical discourse that serves as a focal point for our current interest.

Dead or Resurrected

At the heart of the specialized language of Medicine lies terminology. Medical terms are replete with instances of metaphor and metonymy, and it is often close to impossible to determine where one ends and the other one begins, especially in terms with Greek and Latin etymology (Amudzhieva 2021: 76). Of course, it is in language *per se* that "we can now talk of a "notoriously difficult" distinction between metaphor and metonymy" (Radden 2002: 408), yet we believe that in medical discourse, it is a particularly difficult distinction to make. This is due to a great extend, namely, to the Greek and Latin term etymology, which often makes metaphors and metonymy go unperceived by the vast majority of its users, doctors and patients alike, very few among whom are Classical scholars.

Ever since Lakoff proclaimed the demise of the term *dead metaphor* as a "holdover from a traditional folk theory of language" (Lakoff 1987: 143), this expression has turned into a forbidden fruit to linguists. Some do try to reappropriate it while critiquing Lakoff for the bad reputation he has given it (Pawelec 2006), yet we believe that in the context that Lakoff views metaphor, i.e. in it being typical not of language, but of thought, it is not possible for a metaphor to be *dead* – that would signify the absence of reason itself. "The metaphor is not just a matter of language, but of thought and reason. The language is secondary" (Lakoff 1993: 6). It is, however, perfectly permissible for an *instance* to be dead, i.e. the particular linguistic expression of a reasoned metaphor to be no longer comprehensible as such. What we call *instance* is known in Cognitive Linguistics as *metaphorical expression* while *metaphor* stands for *conceptual mapping* (Lakoff 1993: 6-7). The first is a concrete expression in language of the latter, which is general and conceptualized.

In this sense, we are justified of speaking of *dead* metaphors and metonymy alike, i.e. of *instances* of metaphors and metonymy that are not easily detected by modern users of a language. However, we will refrain from resurrecting the term *dead*, namely because of Lakoff's popular criticism that has stained the expression *dead* metaphor. Instead, we welcome the term *hidden*, which – aside from the lack of negative connotation in the field of cognitive linguistics – also speaks directly to the opacity, the absence of clarity, that is typical of hidden metaphors and metonymy.

An example of such "real candidates for "hidden" metonymy" can be found in the usage of *Coxitis* (Kreuzthaler, Schulz 2012: 466). The term denotes an inflammation of the hip joint (Collins 2022) and is an instance of using the whole to refer to a part of it. This must have been one of the holonyms found by the authors since the term is derived from Latin *coxa* meaning *thigh* (Kreuzthaler, Schulz 2012: 466). *Dermatitis*

exfoliativa, based on the Lain *folium* – leaf (Amudzhieva 2021: 70), or *exfoliative dermatitis* is an instance of a somewhat *hidden* metaphor since the connection between this particular type of skin irritation with the loss of foliage (*ex-foliate*) is not an obvious one.

It is important to maintain the differentiation between metaphor in general (i.e. conceptual metaphor) and its particular realization (i.e. a certain expression of metaphor in language), and offer a similar one for metonymy. Metonymy in general is confined to only a handful of overarching types or *archetypes* such as *part for whole* (meronym or partonym) and *whole for part* (holonym): it, by virtue of being confined to a single domain, "exploits a very limited range of relationships" (Brdar 2019: 56). Among these archetypes, known as *common metonymic patters*, we also find *container-for-contents, producer-for-product, place-for-event, place-for-product, place-for-inhabitants, organization-for-members, object used-for-user* (Shutova et al 2013: 2). Conceptual metonymy or archetypes find their expression in language as in "an extra *pair of hands*" (instance of *part-for-whole*), "He drank his *glass*" (instance of *container-for contents*), etc. (Shutova et al 2013: 2).

In medical discourse, certain typical cases of metonymy have been pointed out: *name of body part- for-a medical condition* (conceptual metonymy) as in *frozen shoulder (*metonymic instance*), disease-for-patient* as in *a Crohn* (Brdar 2019: 58), *item of uniform-for-person wearing the uniform* (Harrison 2015: 134) as in *white coat* (Brdar 2019: 57).

We will thus speak of *conceptual metonymy* or *metonymy proper (common metonymic patters, archetypes)* as opposed to its particular linguistic realization. Analogically to the *metaphor-instance* pair, *conceptual metonymy* operates at the level of reason while a *metonymic instance* is its realization in language. The contrast between metaphor and metonymy in reason vs. in language must not be overlooked because it is in the linguistic realization alone, that we can find *hidden* (*dead*) metaphor and metonymy.

Let there be light

We endorse the latest understanding of the interplay between metaphor and metonymy in Medical English as a difficult one to be dismantled: it is hard to clearly delimitate the realm of each one of the pair. In medical discourse, and in particular, in the terminology employed, "metaphor and metonymy unite in a common imagery field", hence "it is difficult and even impossible to differentiate between metaphor and metonymy" (Amudzhieva 2019: 39). It is important to note that linguists often hold diverging opinions towards certain complex cases of the metaphor-metonymy continuum and can enter into debates regarding the proper place of such a case on the continuum. Some excellent examples of such uncertainty are the expressions *He is in low spirits* and *She is feeling up*. On one hand, these are perfect examples of the now classical orientational metaphors *happy is up, sad is down* (Lakoff, Johnson 1980: 15). On the other hand, there are "folk theories of sadness, happiness", hence "we have a single domain, or frame… where an element of the frame is used for the whole frame; that is, we have to do with metonymies" (Kovecses 2013: 78). Even Lakoff and Johnson, who see the two as "different *kinds* of processes", admit a great degree of overlapping: "metonymy serves some of the same purposes that metaphor does, and in somewhat the same way" (Lakoff, Johnson 1980: 36). We are adamant that such doubts cannot be resolved without new, improved definitions of metaphor and metonymy: definitions that

would allow for a clear-cut differentiation between the two. In the meantime, we would suggest that researchers' attention be drawn to the particular instances of metaphor and metonymy (the linguistic realizations of conceptual metaphor and conceptual metonymy) so that all *hidden* metaphor and metonymy be elucidated in the spirit of the Freudian call for awareness "Where id was ego shall be".

It is certainly not the case that metaphor and metonymy have not been examined: on the contrary, the period of Descriptive View has already shed a lot of light on metaphor, and, albeit to a lesser extent, on metonymy in science. However, this has not been sufficient, especially in view of the two key reasons why hidden metaphor and metonymy must be brought back to light (and life).

To begin with, there are no native speakers of Medical English, thus we must all learn it -- especially its terminology -- at a later stage in life, and we cannot be expected to know beforehand that *Mermaid's syndrome* does not correspond to Ariel's longing for her prince. The metonymic and metaphoric nature of allowing the whole to stand for a part (the creature for its fused legs) and mapping from the domain of birth defects (convoluted legs) to the one of mythological fauna (a fish-like tail) ought to be grasped if we are to truly comprehend the new term.

In addition, metaphor and metonymy are important players in scientific discovery. They can change reality, "changes in our conceptual system do change what is real for us and affect how we perceive the world and act upon those perceptions" (Lakoff, Johnson 1980: 145-146); new metaphors and metonymy in Medical English can alter our perception of the way an organism functions, gets sick and then recovers. The famous saying "science advances metaphorically" must be understood in light of the need for a "radical shift in the scientist's mode of thought" (Francois Jakob cit. by Vaisrub 1977: 123-124): this is precisely the kind of conceptual change that Lakoff and Johnson envision. Thus elucidating hidden metaphor and metonymy in Medical English can bring about new conceptual and linguistically embodied metaphor and metonymy: new language and new thought, which might ultimately result in advances in Medicine.

Conclusion

We have demonstrated how metaphor and metonymy have reclaimed the recognition due to their rightful place in science. At the same time, we have admitted that while it is clear that metaphor and metonymy *act* in scientific discourse, it is not equally clear what internal limits must be set to their *interaction*. We suggest that, by the time an objective and clear way of differentiating between the two is agreed upon, the greatest efforts should be directed at elucidating *hidden* metaphor and metonymy in Medical English. This will be advantageous to not only new participants in medical discourse, but to scientific discovery as well.

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