

LEGE ARTIS

Language yesterday, today, tomorrow

Vol. VIII. No 1 2023 (Special issue)

SENSORY METAPHOR IN ENGLISH SLANG PHYTONYMS

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Received: 26.12.2022 **Reviewed:** 20.01.2023 and 15.02.2023

Similarity index: 0%

Bibliographic description: Borys, D. (2023). Sensory metaphor in English slang phytonyms. In *Lege artis. Language yesterday, today, tomorrow. The journal of University of SS Cyril and Methodius in Trnava*. Trnava: University of SS Cyril and Methodius in Trnava, VIII (1), Special issue, p. 5-20. ISSN 2453-8035 DOI: <https://doi.org/10.34135/lartis.23.8.1.01>

Abstract: The present paper offers a cognitive perspective on sensory metaphor in English slang phytonyms, namely denominations of vegetables, fruits, and nuts. Resemblance-based metaphors relying on the mental imagery stemming from the five basic senses, namely vision, hearing, touch, taste, and smell are found to abound in slang. The linguocognitive evidence collected allows for designing a typology of visual metaphors depending on the mathematical and physical properties of the referents as well as for concluding that English slang is a highly physicalist, anthropocentrist, and somatocentrist construct.

Key words: phytonym, English slang, sensory metaphor, visual metaphor, auditory metaphor, somatosensory metaphor, gustatory metaphor, olfactory metaphor.

1. Introduction

Metaphor manifests itself as a fairly versatile strategy for conveying perceptual information (Winter 2019: 28). Sensory metaphors appeal to human senses, namely vision (visual metaphors), hearing (auditory metaphors), touch (somatosensory metaphors), taste (gustatory metaphors), and smell (olfactory metaphors). Since all sensory metaphors are based on imagery, they are, therefore, classifiable as **image metaphors**, i.e., metaphors that involve mapping conventional mental images onto other conventional mental images by virtue of their internal structure (Lakoff 1987: 219). An important prerequisite for an image metaphor to qualify as such is the availability of both a source image and a target image that the source image maps onto (ibid., 222). The nature of the images, however, varies, as they can be visual, auditory, somatosensory, gustatory, and olfactory.



The aim of the present paper is to outline a cognitive perspective on sensory metaphor in English slang phytonyms, i.e., plant names. While slang is widely regarded as a peripheral phenomenon that is complementary to standard language in all respects, it is not confined to any cultural, economic, ethical, political, social, etc. boundaries, thus providing fecund ground for cognitive research. Even if a particular word, phrase, concept, or symbol is rejected by language regulators or ethics commissioners and ends up being forcibly eliminated from the language core, it does not disappear from the collective experience altogether but persists in slang. It is equally not uncommon for a tabooed concept to develop multiple slang verbalizations in order to compensate for its forcible marginalization. Slang can also be rightfully claimed to express protest against the socially imposed behaviour patterns and pragmatic ethics, which is reinforced by "the now not uncommon double standards penetrating virtually all areas of our life" (Borys & Materynska 2020: 3). Whilst standard language is profoundly molded by language policy and language ideology, slang shapes itself and functions, rephrasing the Kantian concept of a thing-in-itself (Allais 2022: 72-73), as a lect-in-itself. Overall, slang reflects human consciousness (alongside its verbalization) "in the raw", at its most unadorned and unrestricted.

2. Theoretical framework

Nowadays, the phytonymic lexicon of any given language represents a complex bilingual hierarchy. According to Panasenko (2021), the core of the hierarchy is constituted by literary phytonyms, whereas its periphery ramifies into scientific phytonyms (provided in Latin) and common / folk phytonyms (provided in the national language). Scientific phytonyms are further divided into botanical and pharmacognostic ones (ibid.). These denominations apparently fall out of the scope of the present research, which revolves around English slang. Common / folk phytonyms also branch into sociolectal and regiolectal ones (ibid.). It is common phytonyms, or, more specifically, denominations of vegetables, fruits, and nuts used metaphorically in slang, that constitute the prime focus of my study.

English slang as a medium for the creation, conventionalization, and obsolescence of phytonymic metaphors has undergone a lengthy evolution: from the secret language of the underworld in the mid-18th c. (now known as *argot*, or *cant*), through the professional language of the informal register in the late 18th c. (at present often referred to as *jargon*), and into the highly colloquial language in the early 19th c. (Ayto & Simpson 2010). However, each subsequent understanding of slang did not supersede the previous one but rather complemented it. This has led to the current semantic paradoxicality of slang, which consists in a violation of a type-of relationship between the hyperonym (colloquial language) and its two hyponyms (*argot* / *cant* and *jargon*), since the three are

simultaneously embraced by one and the same umbrella term. The slang ambit evolution can be presented as a chronohierarchy proposed by Borys and Garmash: *1) cryptolect* → *2) (cryptolect +) professiolect* → *3) (cryptolect + professiolect +) lect* (2019: 53-54). Based on this broadest, lectal understanding, slang will be construed in the present paper as a substandard (in terms of its normativity), familiar / colloquial (in terms of its stylistic value), and informal (in terms of its register) lect (ibid.).

As slang has long been viewed as a secondary linguistic phenomenon, many of its aspects have been left out of the academic focus. It is for this reason that previous work on plant names in slang remains virtually a "terra nullius" for linguists. The scarce research into the issue includes English studies of botanical metaphors of diverse registers denoting human characteristics (Sommer 1988); American phytotoponymy incorporating slang items (Ягумова et al. 2016); dephytonymic slang phraseology (Якунина 2018); common names of medicinal plants including occasional instances of slang denominations (Panasenکو 2021); semantic transfer in the domain of foodstuffs featuring sporadic slang examples (Kowalczyk 2019). Structural and semantic research into plant names is equally found in Turkish slang studies (Ersoylu 2010; Yaylağan 2015). However, none of the works above offers a cognitive perspective on sensory metaphor in English slang phytonyms.

3. Database and methodology

The paper follows a case-study design, with an in-depth analysis of sensory metaphors deducible from English slang denominations of vegetables, fruits, and nuts.

The diverse types of sensory metaphors identified in this paper are based on a selection of slang lexicon from the most comprehensive (as of now) printed dictionary of English slang, "*The concise new Partridge dictionary of slang and unconventional English*" (CNPDSUE 2008). The database is comprised of 214 senses, i.e., single conventional uses of slang items, recognized as relevant to the metaphor identification procedure.

Proceeding from *Conceptual Metaphor Theory* (Lakoff & Johnson 1980), a metaphor can qualify as phytonymic if either one or both of its domains contain a plant name. Yet, the focus of the present study is limited to those sensory metaphors whose source domain features a phytonym, e.g., *to pick the cherry* – 'to drive through a red traffic light' (CNPDSUE 2008: 493) or *to squeeze a / the lemon* – 'to drive through a traffic light as it changes from yellow to red' (ibid., 615).

The methodology adopted in the present research includes four stages:

- 1) the selection of denominations of vegetables, fruits, and nuts used as separate words or as components of phrases from *"The concise new Partridge dictionary of slang and unconventional English"* through the continuous sampling procedure;
- 2) the application of definitional and componential analyses in order to single out those research items that imply perceived similarity / resemblance between two entities (by virtue of juxtaposing the final sense with the original one);
- 3) the categorization of the previously delimited slang phytonyms in accordance with the sensory systems involved in the perception process;
- 4) the identification of the referent's properties that are shared by the source domain and the target domain and constitute the ground for metaphorization.

4. Results and discussion

4.1 Visual metaphor

Visual metaphors prove to be greatly preponderant over all the other types of sensory metaphors in English slang. The motivation behind this imbalance is simple, since more information about the external world comes to us through our eyes than through any other sense organ (Wade & Tavis 2017: 186). Although the term "visual metaphor" is now often taken to mean visual metaphor in art (Serig 2006: 229), or, more specifically, in cinema (Ortiz 2011: 1569), whence its alternative labels "film-metaphor", "cinematic metaphor", or "filmic metaphor" (ibid.), the appropriate verbalization of the terminological continuum "visual – auditory – somatosensory – gustatory – olfactory" unequivocally implies the use of the phrase "visual metaphor" to refer to all projections based on visual imagery. In the present article, I will, therefore, exploit the term "visual metaphor" to refer to any conceptual projections relying on visual perception.

The internal structure of mental images in visual metaphors heavily relies on the human visual perception of diverse mathematical (geometrical) and physical (mechanical and optical) properties of entities, the most salient proving to be shape / form, colour, size, activity / inactivity, and location. Hence, all the phytonymic visual metaphors will be classified into **visual metaphors of shape / form, colour, size, activity / inactivity**, and / or **location**. Meanwhile, the source and target mental images may be based on the projection of either one property (in which case the underlying metaphor will be called **monadic**), two properties (**dyadic**), or three properties (**triadic**).

4.1.1 Monadic visual metaphor

The present research features four types of monadic visual metaphors: **monadic visual metaphors of shape / form, monadic visual metaphors of colour, monadic visual metaphors of activity /**

inactivity, and monadic visual metaphors of location.

The **monadic visual metaphors of shape / form** in slang tend to exploit simple two- and three-dimensional geometric shapes and forms respectively, namely:

1) the crescent, as in *banana* 'a parenthesis sign on a computer keyboard' or 'the convex curvature of the bottom of a surfboard' (CNPDSUE 2008: 31); *flying banana* 'a military transport helicopter, especially the Piasecki HRP' or 'an H-21 helicopter' (ibid., 262); *Newfie banana* 'the root of the cinnamon fern' (ibid., 455);

2) the microspheroid, as in *arsenut* 'a small, hardened lump of excrement that clings to the hair around the anus'(ibid., 17); *dingleberries* 'the splattered molten particles near a weld' (ibid., 201); *dingleberry* 'a military decoration'(ibid., 201);

3) the prolate spheroid, as in *double nuts* 'double zero' (ibid., 216); *pineapple* 'a hand grenade, especially a Type 59 grenade or MK-2 hand grenade' or 'in electric line work, a spool insulator' (ibid., 497); *mango head* 'an oval-shaped head' (ibid., 419);

4) the spheroid tapering at one end (forming a bulbiform or napiform object), as in *onion church* 'the Greek Orthodox church' (ibid., 473); *swede* 'the head' (ibid., 634);

5) the spheroid, as in *hen apple* 'an egg' (ibid., 330).

In one metaphor, the visual image depends on a combination of two-dimensional simple geometric shapes, i.e., two circles separated by a line segment, as in *grapes* 'a percent sign (%) on a computer keyboard' (ibid., 303).

With regard to the complex shapes / forms supplying visual imagery, the irregular forms found in the sensory metaphors stemming from *cauliflower* 'an ear that has been damaged and deformed by blows' (ibid., 124) and *yam foot* 'a foot that is broad and splayed out'(ibid., 711) highlight deformity. In both instances, the form boundaries are blurred only to reinforce the visually perceptible dysmorphism.

A cognitive perspective on the monadic visual metaphors of shape / form evinces the following trends. Firstly, simple and regular geometric shapes / forms are more likely to serve as the basis for mental images than complex and irregular geometric shapes / forms in English slang. This could be explained by the salience of regularity over irregularity in human cognition. Experientiality per se broadly relies on regularity, since any propositional knowledge, i.e., "knowledge-that", requires categorization. The latter, in turn, is unthinkable without organizing individual perceptual and experiential information into a theoretical framework and identifying the similarities between individual entities to make inferences about the groups they belong to. Secondly, all the geometric

shapes / forms contributing to the formation of the mental images under study share the characteristic of roundedness, which means that circularity is cognitively most salient among both two- and three-dimensional figures. Thirdly, a retreat from the regularity of shape / form is seen as an abnormality.

The **monadic visual metaphors of colour** in slang heavily rely on **monochromaticity**, i.e., utilization of one basic colour irrespective of its hues, intensity, luminance, or brightness:

1) red, as in *carrot-top* 'a red-headed person' (ibid., 120); *cherry* 'the flashing red light on top of a police car' or 'a blush; a red face' (ibid., 131); *to fly the bean flag* 'to be experiencing the bleed period of the menstrual cycle' (ibid., 262); *strawberry* 'a tablet of mescaline' (ibid., 625);

2) green, as in *bean patch* 'during the Korean war, an assembly area on the northern outskirts of Masan, a seaport about 40 miles west of Pusan' (ibid., 40); *cabbage* 'money' (ibid., 112);

3) yellow, as in *banana* 'a hospital patient suffering from jaundice' or 'in American casinos, a \$20 chip' (ibid., 31); *pineapple* 'a fifty dollar note' (ibid., 497);

4) blue, as in *blueberry* 'marijuana with blue-coloured buds and a fruity flavour' (ibid., 70);

5) orange, as in *mango* 'a fifty-dollar note' (ibid., 419).

The five colours identified above belong to the category of basic colours, which include black, blue, brown, green, grey, orange, pink, purple, red, white, and yellow (Thompson 2003: 208).

Two visual metaphors are based on **luminance** involving mental projections within the dark (purple onto black) as well as light (yellow onto white) spectra.

The mental projection within the **dark spectrum** is found in two slang items: *eggplant* (CNPDSUE 2008:233) and *moulonjohn / mulenyam* (ibid.,445), both denoting 'a black person'. The two words designate an aubergine in their original senses. The metaphorization involves the mental image of the dark purple or brownish purple colouring of an aubergine being projected onto the mental image of the dark human skin colour.

The mental projection within the **light spectrum** is identified in the item *banana boy* 'a young white man brought up in the Anglo-Saxon tradition of Natal, later KwaZulu-Natal' (ibid., 31). However, unlike in the previous example, the metaphorization does not boil down to a projection of the mental image of the yellow colouring of a banana onto the mental image of the white human skin colour. In this instance, the explicit light spectrum (embodied in the image of a Europid as the central referent) is, for greater contrast, equally juxtaposed with the implicit dark spectrum (embodied in the image of the location characterized by the predominantly dark-skinned population, thus producing the mental

image of Negroids), emphasizing the visual salience of occasional light colour on the preponderantly dark palette.

As few as one visual metaphor is based on **polychromaticity**, which, instead of foregrounding a combination of specific colours, provides access to the sense of multiplicity, as in *fruit salad* 'a display of military medals' or 'a pooled mix of different types of pills contributed by several people and then consumed randomly' or 'a person of mixed race' (ibid., 272). Since each military medal / pill tends either to be one-coloured or to have one predominant colour (in order to be distinguished from other military medals / pills), it can be assumed that each individual element tends to be mentally pre-labelled as one-coloured; therefore, a multitude of the elements becomes a prerequisite for their multicolouredness. This, in turn, implies that English slang speakers tend to cognitively attribute a single colour to each entity.

The **monadic image metaphors of activity / inactivity** in the present research will be based on the predicativity-based verb typology designed by Chafe, who delimited states, processes, actions, and action-processes (1970: 98-101). The cognitive "activity – inactivity" opposition may be linguistically construed as the semantic "state – nonstate" opposition, the nonstate component including processes, actions, and action-processes.

In all but one slang item, the phytonymic mental imagery reflects **action-processes**, the verb associating with both the Agent (implicitly represented by a human) and the Patient (explicitly represented by a vegetable, a fruit, or a nut). The metaphoric senses thus generated include:

1) expenditure of considerable efforts on succeeding in a planned action, based on the similarity of the procedure, as in *to bob for apples* 'to remove impacted faeces by hand' (CNPDSUE 2008: 73) (cf. attempting to get hold of floating objects with one's teeth and attempting to get hold of floating objects with one's hands); *to crack the nut* 'in gambling, to make enough money to meet the day's expenses' (ibid., 466) (cf. succeeding in a physically demanding task and succeeding in a mentally demanding task); *hard / tough nut (to crack)* 'someone who is difficult to deal with, especially one with a tendency to violence' (ibid., 661) (cf. attempting a physically demanding task and attempting a mentally demanding task);

2) voluntary or involuntary expulsion of partially or fully digested material, based on the colour similarity of the product, as in *to blow beets* 'to vomit' (ibid., 68) (cf. the red of the betanin component of beetroot and the bright or dark red of vomitus); *to squeeze the lemon* 'to urinate' (ibid., 615) (cf. the transparent yellow of lemon juice and the pale yellow or amber of urine); *to strain the potatoes* 'to urinate' (ibid., 624) (cf. the turbid yellow of potato juice and the pale yellow or amber of urine);

3) voluntary or involuntary divulcation of information, based on the procedure similarity, as in *to spill the beans*'to tell that which one is not supposed to tell' (ibid., 609) (cf. scattering multiple physical objects that will be hard to collect and spreading sensitive information that will be impossible to reconceal).

The one exception is based on the phytonymic mental imagery revealing a **process**, which expresses a change of condition or state and co-occurs with the Patient. The metaphoric sense generated is a **repeated process-based visual fallacy**, as in *beanie light* 'a flashing, rotating light on an emergency vehicle' (ibid., 40), where the rotating beams of light create a semblance of a revolving bean-shaped object, whence the vegetable-based visual metaphor. In reality, the optical illusion results from a curved mirror spinning around a stationary bulb.

Thus, the monadic visual metaphors of action-process and process are the only two types of activity / inactivity monadic visual metaphors identified in the present research. The preponderance of the monadic visual metaphors of action-process evinces the archetypical anthropocentricity of English slang (the Agent being implicitly represented by a human) as well as its users' inclination to changing the environment instead of adapting to it or harmonizing with it (the Patient being explicitly represented by a vegetable, a fruit, or a nut). The metaphorical senses obtained tend to highlight physicality, which incorporates physical endeavour (occasionally providing access to mental efforts too) and bodily functions. Interestingly, the monadic visual metaphors of activity / inactivity can be formally verbalized not only as verbs or verbal phrases expressing states, processes, actions, or action-processes but also as nouns or nominal phrases that are nonetheless convertible to verbs or verbal phrases expressing states, processes, actions, or action-processes. For instance, the mental image of a *hard nut to crack* implies multiple attempts to break it open. Similarly, the mental image of a *beanie light* evokes light revolving on a curved major axis.

The **monadic visual metaphor of location** in slang relies on exploiting the imagery of **peripheral locations**, as in *apple orchard* 'a location where police wait parked, certain that they will soon witness a driving infraction' (ibid., 14). The mental image of a man-enclosed area of land traditionally adjoining a residential building is projected onto that of a naturally enclosed area, usually in the countryside, chosen by law enforcers for tracking traffic violations.

4.1.2 Dyadic visual metaphor

The dyadic visual metaphors identified fall into five types: **dyadic visual metaphors of shape / form and size**, **dyadic visual metaphors of colour and shape / form**, **dyadic visual metaphors of colour**

and location, dyadic visual metaphors of colour and size, and dyadic visual metaphors of location and activity / inactivity.

The **dyadic visual metaphors of shape / form and size**, similarly to their monadic counterparts foregrounding shape / form, tend to exploit regular two- and three-dimensional geometric shapes and forms respectively, namely:

1) the cylinder, as in *bean* 'a capsule or tablet of Benzedrine (amphetamine sulphate), a central nervous system stimulant' (ibid., 40); *Camberwell carrot* 'an exceptionally long and fat marijuana cigarette' (ibid., 114); *peanut* 'a capsule of a barbiturate or other sedative' (ibid., 486);

2) the microspheroid, as in *bunch of grapes* 'a large mess of knots in a fishing line' (ibid., 103); *grapes* 'haemorrhoids' (ibid., 303); *pea* 'in Keno, a small ball with a number between one and 80 painted on it, drawn to establish winning numbers' or 'in pool, a small tally ball used as a scoring device' (ibid., 486);

3) the spheroid, as in *Irish apple* 'a potato' (ibid., 356); *melon* 'the head' (ibid., 426); *pumpkin belly* 'the abdomen of a pregnant woman' (ibid., 519);

4) the prolate spheroid, as in *gourd* 'the head' (ibid., 301); *squash* 'the skull' (ibid., 614);

5) the crescent, as in *bunch of bananas* 'in a car, an exhaust system with individual headers that intertwine' (ibid., 103).

6) the rosette, as in *cabbage* 'the vagina' (ibid., 112).

The dyadic visual metaphors belonging to this group also evince a rare phenomenon of **regular shape / form transfer**, with the image of a spheroid (*apple*) being mentally projected onto that of a cube (*cobblestone*) or rectangular cuboid (*brick*), as in *alley apple* 'a brick or cobblestone' (ibid., 8) and *ground apple* 'a brick' (ibid., 309). The motivation behind the shape / form transfer may be explained by the fact that both the spheroid and the cuboid (the cube and the rectangular cuboid being nothing but its specific instances) are three-dimensional solid objects characterized by conspicuous symmetry: cf. the circularity and equiaxiality of the spheroid vs the rectangularity and opposite face equality of the cuboid (along with the equilaterality of the cube).

As far as irregular shapes / forms are concerned, they tend to supply the visual imagery of **deformation in compliance with the pattern "regular shape → irregular shape"**, which is nevertheless not treated as an abnormality: *derrick apple / fruit* 'in oil drilling, a nut, bolt or piece of dried mud that falls off a derrick' (ibid., 194); *to grab the apple* 'to seize tightly on the saddle horn while riding a bucking animal' (ibid., 302); *road apple* 'a piece of horse manure' (ibid., 542). All the

mental images thus produced also heavily rely on roundedness in both the source domain (sphericity) and the target domain (lumpiness).

All in all, geometric simplicity and regularity prove to be more common than geometric complexity and irregularity in the dyadic visual metaphors of shape / form and size. In spite of the emergence of the two geometric forms unattested in the monadic image metaphors, namely the simple cylinder and the complex rosette, all the regular figures involved in the formation of the mental images constructed rely mainly on roundedness. Circularity proves to be equally common in the metaphors stemming from the projection of regular-shaped objects onto irregular-shaped ones. As opposed to shape / form, size does not provide any conclusive evidence for the cognitive mechanisms of visual imagery projection.

The **dyadic visual metaphors of colour and shape / form** foreground monochromaticity relying on basic colours, namely:

1) green, as in *beany* 'a green polyester baseball cap issued to US soldiers since 1962, known officially as the Army Utility Cap' (ibid., 41); *broccoli* 'marijuana' (ibid., 92); *lettuce* 'paper money' (ibid., 398); *zucchini* 'an extended fibreglass field hut' (ibid., 720);

2) red, as in *cherry* 'the hymen' (ibid., 131); *melon hut* 'a prefabricated red field hut' (ibid., 426);

3) white, as in *daikon legs* 'short, pale and fat legs' (ibid., 184);

4) yellow, as in *contra-rotating death banana* 'a Chinook helicopter' (ibid., 159).

The preponderant shapes / forms exploited by the dyadic visual metaphors belonging to this group are characterized by **roundedness** (the **hemispheroid** for *beany* and *melon hut*; the **prolate spheroid** for *zucchini* and **tapering at one end** for *daikon legs*; the **crescent** for *contra-rotating death banana*; the **microspheroid** for *cherry*; the **sphere cluster** for *broccoli*) and **flatness** (for *lettuce*). In compliance with the results obtained for the monadic image metaphors of shape / form, circularity possesses the highest level of cognitive salience. However, in addition to the geometric shapes / forms identified previously, the dyadic visual metaphors of colour and shape / form make use of flatness as a two-dimensional plane property, involving the projection of the mental image of dorso-ventral flatness of leaf vegetables onto that of the complanateness of paper money.

The **dyadic visual metaphors of colour and location** all refer to persons grouped according to their skin colour:

1) brown, as in *coconut* 'a Mexican-American who rejects his heritage and seeks to blend in with the white majority' or 'a black or Indian person who is considered to have exchanged heritage and

community values for acceptance by white society' or 'an Australian Aboriginal who has adopted the values of white society' or 'a Pacific Islander' (ibid., 152);

2) yellow, as in *banana* 'an Asian-American who rejects his Asian heritage and seeks to blend into the dominant white culture' or 'a Hong Kong Chinese of European or American parentage or aspirations' or 'a New Zealand-born Chinese person' or 'a person of mixed race, with both black and white ancestors' (ibid., 31);

3) red, as in *apple* 'a native American Indian who curries favour with the white establishment by embracing white cultural values' (ibid., 14).

The visual metaphors above possess two distinctive features. Firstly, each instance showcases two colour components: the explicit one and the implicit one. The explicit colour component (brown, yellow, and red) is visually identifiable in the outward appearance and correlates with the racial category the person belongs to: Negroid or mixed (← **brown**), Mongoloid (← **yellow**), and Native American (← **red**) respectively. The implicit colour component (**white**), on the contrary, is observable only behaviourally and points to the Europid attitude of non-Europids, giving rise to the racist colour metaphor AN INCONSISTENT PERSON OF COLOUR IS BROWN / YELLOW / RED ON THE OUTSIDE BUT WHITE ON THE INSIDE. Evaluatively, this comportment is adjudged by slang users to be negative, conveying the idea of a person betraying their innate (and, therefore, imposed as inviolable) race or ethnicity. Secondly, the perfidy thus attributed to the "Caucasicized" non-Caucasians is seen as locationally reflected in the discrepancy of their outer vs inner "colour", i.e., their race or ethnicity vs character.

The **dyadic visual metaphor of colour and size** is represented by the slang item *raspberry* 'a light grazing of the skin' or 'a sore or abscess on an intravenous drug user from repeated injections in the same spot' (CNPDSUE 2008: 530). Similarly to the previous results, both projections are based on monochromaticity exploiting one basic colour (**red**) coupled with the cognitive inconclusiveness of the size parameter.

The **dyadic visual metaphor of location and activity / inactivity (action-process)** is exemplified by the compound *apple-knocker* 'an outdoor toilet' (ibid., 14). The mental image of an outbuilding containing a toilet or seat fixed over a cesspit is created with the help of its location (in the garden, at a distance from the residential building) as well as surrounding objects (apple-trees used to be very common in British and American orchards, and when the trees shed their fruit, the latter would fall from their sprawling branches, hitting the outhouse roof and producing the distinctive thumping sound). As in the case of the monadic visual metaphor of location, *apple-knocker* is classifiable as a

peripheral place. The sonic component allows for identifying *apple-knocker* as **a combination of a dyadic visual metaphor of location and activity / inactivity with an auditory metaphor.**

4.1.3 Triadic visual metaphor

The only type of triadic visual metaphors attested is the **triadic visual metaphor of colour, size, and shape / form**, found in the slang items *nigger toe* 'a Brazil nut' (ibid., 457); *plum* 'in pool, the plum-coloured four-ball' (ibid., 503); *pumpkin seed* 'a yellow, oblong mescaline tablet' (ibid., 519); *strawberry* 'a bruise or scrape'(ibid., 625). Yet, none of the examples yields any novel cognitive conclusions. Firstly, all the mental images rely on **basic colours (yellow / brown, purple, yellow, and red respectively)**. However, one slang item, *nigger toe*, does not provide conclusive colour evidence, since the yellow kernel partially enclosed in the brown shell in the source domain is projected onto the pale (not necessarily yellow) toenail plate of a dark (not necessarily brown)-skinned Negroid in the target domain. The reason behind this is that the mental images juxtaposed in this example exploit **luminance (in the clash of the light and dark spectra)** coupled with dichromaticity (**the yellow / other pale colour against the brown / other dark background**). Secondly, size proves to be cognitively inconclusive in the mental images analyzed. Thirdly, the mental images projected in each case exploit the **rounded** and **regular** (in *plum* and *pumpkin seed*) or **irregular** (in *nigger toe* and *strawberry*) form.

4.2 Somatosensory vs auditory vs gustatory vs olfactory metaphor

Contrary to the high productivity and remarkable diversity of the visual metaphors analyzed in Section 4.1, the remaining four types of sensory metaphors, i.e., somatosensory, auditory, gustatory, and olfactory, have an extremely limited number of verbalizations in English slang, which range from four in the somatosensory metaphors to one in the auditory, gustatory, and olfactory metaphors.

Somatosensory metaphors generally appeal to one of the three broad systems of bodily perception: **interoception** (monitoring the physiological state of the body in order to maintain its internal homeostasis, including itches, thermal sensations, sensations of orgasm, heart-beat, thirst, indigestion, shortness of breath, and any form of pain), **the vestibular system** (ensuring a sense of balance as well as contributing to spatial perception and navigation), and **proprioception** (informing motor planning and guiding action with the help of the primary and secondary afferents of muscle spindles, cutaneous receptors tracking skin elasticity, and mechanoreceptors in the joints) (Ritchie & Carruthers 2015: 353-367). The only somatosensory metaphor identified in the slang items *squash* 'brain' (CNPDSUE 2008: 614), *no squash* 'irreparable brain damage' (ibid., 463), *rotten squash* 'brain damage' (ibid., 548), and *squash rot* 'the medical condition suffered by severe stroke victims' (ibid.,

614) is of haptic nature, i.e., based on the active exploration of surfaces and objects by a moving subject (Hawkins 2021: 56), which is a form of extended physical proprioception (Fleming 2019: 38). The mental image of a gourd is projected onto that of a human brain on the grounds of the fleshiness and squishiness of their texture alongside the haptically perceptible similarities in their form and weight.

Furthermore, according to Lederman and Klatzky, the diverse substance-related, structure-related, and functional properties of an object such as its function, hardness, motion, shape / form, temperature, texture, volume, and weight are haptically perceptible via one of the eight exploratory procedures: contour following, enclosure, function test, lateral motion, part motion test, pressure, static contact, and unsupported holding (1987: 345-347). With this theoretical framework in mind, the haptic metaphor above can be claimed to exploit such properties as (arranged in the order of their importance) texture, hardness, volume, shape / form, and weight with the help of the procedures of lateral motion, pressure, contour following, and unsupported holding.

Auditory metaphors appeal to the sense of hearing. The only phytonymic slang phrase employing auditory imagery is *to cut a melon* 'to fart' (CNPDSUE 2008: 181). The mental imagery depends on the auditory similarity of an abrupt swishing sound of a knife disintegrating the flesh of the fruit to the abrupt whooshing sound of flatulence produced by the anal embouchure.

Gustatory metaphors appeal to the sense of taste. The one slang item cognitively approachable through taste perception imagery is *Bubbleberry* 'in British Columbia, a hybrid variety of marijuana' (ibid., 95), which constitutes a combination of the marijuana strains *Bubble Gum* and *Blueberry*. In the former case, the gustatory mental image of the strawberry-banana-punch flavour of bubblegum is projected onto that of the fruity flavour of an indica-dominant hybrid marijuana strain based on their sweetness and aftertaste similarity. In the latter instance, the juxtaposition of the gustatory mental image of berries with that of an indica marijuana strain is also due to the perceptual sweetness and fruitiness they share.

Olfactory metaphors appeal to the sense of smell. The only example of this group of metaphors identified in the present study is *banana split* 'amyl nitrite' (ibid., 2008: 31). The olfactory mental image of a banana, which is produced by its highly volatile ester component isoamyl acetate, is projected onto that of a recreational drug colloquially known as poppers, based on the sweet and fruity odour of both substances.

5. Conclusions

The present study was designed to outline a cognitive perspective on sensory metaphor in English slang phytonyms. Sensory phytonymic metaphors are characterized by the overwhelming prevalence of visual perception over the other senses, stemming from the fact that humans obtain information about the surrounding world primarily through their eyes. For convenience of analysis, all the visual metaphors were divided into three groups: monadic (based on the projection of one property), dyadic (based on the projection of two properties), and triadic (based on the projection of three properties). Among these three, the dyadic visual metaphors prove to be most common, exploiting combinations of shape / form and size, colour and shape / form, colour and location, colour and size, and location and activity / inactivity. The less productive monadic visual metaphors foreground such characteristics as shape / form, colour, activity / inactivity, and location. Finally, only one type of triadic visual metaphors is identified in the present research, exploiting the combination of colour, size, and shape / form. The trends shared by the majority of the sensory phytonymic metaphors is the preponderance of circularity and regularity in terms of shape / form, basic colours and monochromaticity in terms of colour, periphery in terms of location as well as inconclusiveness of the size parameter.

The priority of vision over the other senses, as extensively exemplified by the image metaphor evidence analyzed, showcases the trend to primarily experience the physical aspect of the surrounding world, which requires minimum intellectual effort on behalf of the observer as its passive perceiver. Therefore, English slang proves to be a highly physicalist, anthropocentrist, and somatocentrist construct.

Abbreviations

CNPDSUE – The concise new Partridge dictionary of slang and unconventional English


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