TOWARDS THE COMPLEX BASE OF THE PROTOTYPE OF THE LEXICAL CATEGORY *VERBS OF EATING* IN ENGLISH AND IN POLISH[1]

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The main goal of this paper consists in reconstructing a portion of the **base**[2] (see below) of the **prototype** (see below) of the lexical category *verbs of eating* in English and in Polish. As the account of the prototype base provides insight into the internal organization of the category in English as well as in Polish, the subsidiary goal of the paper is to arrive at a simplified description of the semantic structure of the category in both languages.

The point of departure for the following analysis is the **natural categorization theory** as formulated by Rosch (e.g. 1977). This psychological theory asserts that the internal organization of the categories within the human mind is prototypical by nature, i.e. categories have central (prototypical) as well as marginal members, the latter not always rigidly conforming to the former. As the semantic structure of a language mirrors the conceptual structure of its speakers, linguistic categories exhibit a prototype-based semantic structure as well (cf. Langacker 1987:5, and Lakoff 1987:56). In this respect, the category *verbs of eating*, both in English and in Polish, is no exception: it comprises a prototypical center as well as non-central members. The verbs *eat* and *jeść*, due to their high cognitive salience, appear to function as the prototypes of the category *verbs of eating* in English and in Polish, respectively. These verbs, assigned the most commonly used labels and about the shortest primary lexemes of all the category members, are learnt by children in early stages of the language acquisition process and, as a result, appear in the

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[1] A cognitive analysis of the internal structure of the lexical category *verbs of eating* in English and in Polish was originally presented by the author in his M.A. thesis (Szawerna 1994). This paper focuses specifically on the importance of the cognitive base of the category prototype to the characterization of the category *verbs of eating* as a whole.

[2] Boldface type is used for technical terms.

lexicon before other category members do[3]. With continuous usage, internal semantic structure of the verbs *eat* and *jeść* becomes well-entrenched and subsequently it comes to be invoked for the purpose of characterizing other manifestations of the eating process, since "a high degree of entrenchment is the major determinant of prototypicality" (Langacker 1987:380).

Vast majority of linguistic categories are sets with no clearly delimited boundaries (cf., for example, Lakoff 1987:12). Since membership in such a **fuzzy set**[4] category is a matter of degree, it is difficult to establish the exact number of the category members. The only criterion for determining membership in a fuzzy-set category seems to be a relatively high degree of semantic conformity that marginal members of the category exhibit with respect to the prototype. A detailed description of the semantic pole of the category prototype must therefore precede any attempt at analyzing the internal structure of the category, if category membership is to be determined. In case of the fuzzy-set category *verbs of eating*, only those verbs will be considered members of this category whose predicates are characterizable with respect to the complex base of the category prototype, either as simple **elaborations** or as **extensions** (see below) of the prototype.

The ensuing cross-linguistic analysis of the base of the prototype of the category *verbs of eating* is conducted in accordance with Langacker's (1987, 1991) descriptive framework which has become known as **cognitive grammar**. For the sake of clarity, the basic tenets of this framework are presently summed up.

In cognitive grammar, a **lexical item** is a bipolar symbolic unit pairing a semantic representation and a phonological representation; a **predicate** is defined as the semantic pole of a minimal lexical item (a morpheme). **Semantic space** is resolved into an indefinite number of **cognitive domains**, and each predicate is characterized relative to one or more of these domains (collectively referred to as the **matrix** of the predicate). Domains may be **basic** or **abstract**, and basic domains are viewed as cognitively more fundamental and irreducible. They include time, space, sensory domains, and emotive domains. Abstract domains are built up from more fundamental ones and are ultimately grounded in basic domains. An abstract domain is any cohesive knowledge structure, a chunk of the speaker's knowledge of the world which serves to characterize a predicate. cognitive grammar assumes that linguistic entities are built on experiential knowledge and express it, in that each predicate is characterized as a particular facet of a given domain.

A predicate has figure-ground organization, consisting in a **profile** standing against the base of which it is a part and relative to which it is identified. Given a domain relative to which a concept is identified, the base is that subpart of the domain which is most relevant to the characterization of the predicate. A given predicate may have a profile and a **complex base**, consisting of an indefinite number of bases in its matrix, which will include, for example, shape specification,

[3] The aforementioned properties of the verbs *eat* and *jeść* are typical of **basic-level** category members. Apparently, the basic-level characteristics a category member exhibits correlate with its prototypicality. For a more detailed discussion of the basic level see, for example, Lakoff (1987:46).

[4] The term 'fuzzy set' originates from Zadeh (1965).

typical function, typical scenes or scripts of which the profile is a part. The structuring of a concept for purposes of linguistic expression (the way a facet of a domain is singled out, the way it is organized into profile and base) will be referred to as **coding**. Predicates characterized relative to the same or similar scenes can differ with respect to how much is profiled and how much is in the base.

Predicates are of two types: **things** and **relations**. Things are defined as having a profile that is construed as a region in some domain. Relations are predicates in which two or more objects are profiled; thus a relation has a profile consisting of a configuration or series of configurations of objects. Within the broad class of relations, a further distinction is made between those that have positive temporal profile (i.e. **processes**), and those that do not and are thus construed as **atemporal relations** even when time is a salient dimension.

We have seen that predicates have figure-ground organization, foregrounding a profile against a base. In a relation, the profile itself also has figure-ground organization. One object – a **trajector** – is conceptually foregrounded so that its change through time (or its location) is specified with respect to an object or objects which serve as **landmarks**[5].

The complex bases of the verbs *eat* and *jeść* (i.e. category prototypes) as used in sentences (1a)-(1b) necessarily include the basic domain of time in their matrices since verbs, according to Langacker (1987:244), designate processes. To be more specific, it is the semantic pole of every symbolic expression of the type verb which actually designates a process. Processual predicates have a positive temporal profile, i.e. their evolution through time is viewed in sequential fashion. Moreover, both [EAT] and [JEŚĆ] are predicates coding **perfective** processes (cf. Langacker 1987:254-258), profiling a relation as changing through time.[6]

(1) a. Jacek je teraz bułkę z maslem.
b. Jack is now eating his dessert.

Inclusion of the abstract domain of space in the complex bases of the predicates [EAT] and [JEŚĆ] is determined by the structuring of a typical eating scenario. The process of eating in its maximally reduced form involves a relation between two objects located in three-dimensional space: a living human body and a piece of food.[7] In the course of eating, the food enters the body, becomes masticated and eventually swallowed. The body, playing the part of the active element of the

[5] The trajector/landmark distinction is fundamental to all relational predications. The grammatical relations **subject** and **object** are characterized prototypically in terms of the role archetypes **agent** and **patient** and schematically in terms of the basic cognitive ability of figure/ground organization exemplified by the trajector/landmark asymmetry (cf. Langacker 1987:231).

[6] Predicates are conventionally enclosed in square brackets throughout the analysis to indicate their unitary character.

[7] Oriented character of the spatial domain figuring in the complex bases of the category prototypes makes it an abstract domain, albeit one grounded in the basic domain of space, which is unspecified for orientation.

predicate base, assumes the status of a trajector. In turn, the food, being acted upon, receives the status of a landmark. The landmark, through time, progresses from an [OUT]-relation to an [IN]-relation with respect to the trajector. To put it differently, the landmark gradually disappears from the trajector's neigbourhood only to be disintegrated and subsequently assimilated by the trajector itself.

Apart from time and space, a number of other domains figure in the complex bases of the predicates [EAT] and [JEŚĆ]. The actual cross-linguistic data indicate the inclusion of particular domains in the semantic structure of the prototypes of the category *verbs of eating* in English and in Polish. It should come as no surprise that both in English and in Polish the natural category *verbs of eating*, one that has no clearly delimited boundaries, comprises a group of verbs that are only secondarily members of this category. The predicates of verbs like *have, stuff, bolt down, polish off, demolish, shovel in, cram in, wyczyścić, napychać się, ładować,* or *pakować* typically designate processes by no means related to eating. However, it is the occurence of these verbs in contexts exemplified by sentences (2a)-(2i) that provides most valuable insight into the nature of the process coded by the predicates [EAT] or [JEŚĆ].

(2) a. If you're hungry, have a sandwich.
b. Having stuffed himself with burgers, Terry found it impossible to eat dessert.
c. He bolted down/shoveled in/crammed in two hamburgers.
d. At dinner he polished off six huge brownies and then asked for some more.
e. The kids demolished the cake in a few minutes.
f. Dorota codziennie napychała się słodyczami.
g. Ładował/pakował w siebie ogrome ilości żarcia.
h. Jacek, z wrodzonym sobie zapałem, zmiótł pełen talerz pierogów.
i. Głodny jak wilk, wyczyścił miskę do dna.

The bases of the aforementioned verbal predicates highlight the abstract domains making up the matrix of both [EAT] and [JEŚĆ]. The use of the verb *have* in (2a) indicates the importance of the so-called **personal sphere** to the characterization of the bases of [EAT] and [JEŚĆ].[8] The personal sphere is an abstract domain comprising the persons, objects, locations, and facts sufficiently closely associated with an individual that any changes in them are likely to affect the individual as well. To put it differently, the individual depends on the objects located within his/her personal sphere to a large extent. The significance of the personal sphere cannot be overemphasized: the trajector of both [EAT] and [JEŚĆ] must be in total control of the landmark, which conditions its proper functioning, in order for the process profiled by the predicates to unfold. The physical proximity of the landmark with respect to the trajector not only conditions the fulfillment of the process but also determines the change of state in these two crucial elements

[8] The term 'personal sphere' is borrowed from Wierzbicka (1988).

of the predicate base.

The use of the English verbs *stuff, bolt (down), shovel (in)*, and *cram (in)* in (2b)-(2c) as well as the Polish verbs *napychać (się), ładować*, and *pakować* in (2f)-(2g) highlights another abstract domain featured in the matrix of [EAT] and [JEŚĆ], namely the [OUT]-[IN] relationship holding between a container and the thing contained. This type of spatio-temporal relationship prevails in everyday human experience and its cognitive salience facilitates metaphorical understanding of a variety of abstract concepts that are not immediately accessible to the human cognitive system, concepts like 'mind' and 'thought' (cf. Lakoff and Johnson 1980). Apart from accounting for the gist of the process, the presence of the [OUT]-[IN] domain in the bases of [EAT] and [JEŚĆ] indicates the container-like nature of the trajector (a schematic human body) and an object-like character of the landmark (a schematic piece of food).

The English verbs *polish (off)* and *demolish*, appearing respectively in sentences (2d)-(2e), as well as the Polish verbs *zmieść* and *wyczyścić* in sentences (2h)-(2i) bring into focus another domain figuring prominently in the bases of the predicates [EAT] and [JEŚĆ]: the abstract domain of disintegration. This domain is well grounded in the human experience of the physical world in which objects of everyday use either wear away all by themselves or are intentionally destroyed. For the process of eating to be completed, the landmark, which stands conceptually for a schematic chunk of food, must undergo a radical change. After the landmark has been taken in by the trajector, which schematically represents a human body, it is subsequently masticated and eventually assimilated by the trajector. As a result, the landmark ceases to exist and naturally disappears from the trajector's personal sphere.

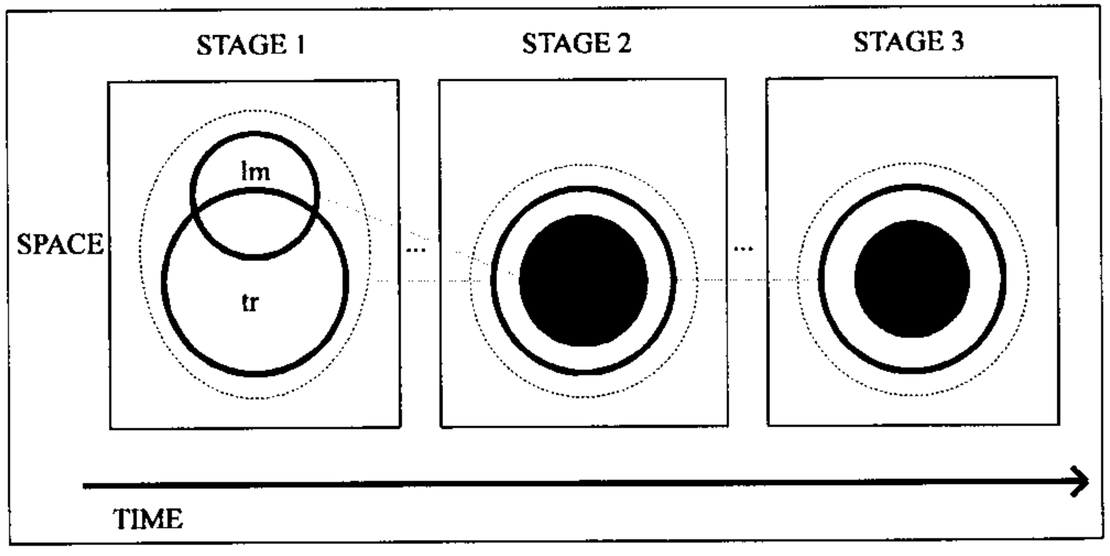

Fig. 1

The diagram presented above (Fig. 1) constitutes a simplified (i.e. two-dimensional) representation of the base of the predicates [EAT] and [JEŚĆ]. For the

sake of simplicity, the continuous process of eating has been hereby reduced to a three-stage event in which the landmark ('lm'), located within the trajector's personal sphere (marked with dashed line), becomes initially (STAGE 1) engulfed by the trajector 'tr') in order to undergo mastication (STAGE 2) and, finally, assimilation by the latter, which results in the landmark's total disintegration (STAGE 3). The profiled elements of the base (marked with heavy lines in the diagram) mirror a situation when the predicates [EAT] and [JEŚĆ] are used to describe the entire process of eating from start to finish, as in sentences (1a)-(1b).

What makes the category *verbs of eating* in English and in Polish a uniform one is the conformity of each particular predicate included in this category to the base represented schematically above (Fig. 1). However, the predicates, although characterizable relative to the same base, can differ as to which "onstage elements are illuminated by spotlights of focal prominence" (Langacker 1993:2). In other words, they can differ with respect to how much is profiled and how much remains in the base.

The internal semantic structure of the following English and Polish verbs of eating conforms precisely to the base and profile of the category prototype represented in Fig. 1: *banquet*, *breakfast*, *consume*, *devour*, *dine*, *feast*, *gobble*, *gorge*, *gormandize*, *guzzle*, *have*, *lunch*, *picnic*, *raven*, *regale*, *savour*, *scoff*, *snack*, *sup*, and *wolf*, as well as *bankietować*, *biesiadować*, *delektować (się)*, *konsumować*, *najadać (się)*, *objadać (się)*, *obiadować*, *obżerać (się)*, *pałaszować*, *podjadać*, *posilać (się)*, *pożerać*, *pożywiać (się)*, *przejadać (się)*, *przetrącić*, *raczyć (się)*, *spożywać*, *śniadać*, *ucztować*, *wieczerzać*, *wyjadać*, *wyżerać*, *zajadać*, *zmiatać*, and *żreć*. Although the predicate structure of the verbs listed above matches the structure of the category prototypes, the predicates may nevertheless be much more complex than the prototypes themselves. They may, for instance, be further characterizable with respect to domains which are irrelevant for the description of the category prototypes.

Another group of English and Polish lexical items belonging to the category *verbs of eating* seriously differs from the group discussed so far. Predicates of these verbs, although characterizable relative to the prototype base, explicitly profile only one of the subprocesses (marked as the three stages in Fig.1) making up the process of eating profiled by the predicates [EAT] and [JEŚĆ] (see Fig. 1) and leave the remaining subprocesses dormant. The choice of a particular subprocess (stage) that is picked out is significant here in the sense that it determines the particular aspect of the entire process of eating which requires highlighting for purposes of linguistic expression. In other words, this metonymic mechanism functions here as a referential device which enables the speaker to focus on a selected feature of the eating process without the necessity of using elliptical devices.[9]

Predicates of verbs like *bolt*, *cram (in)*, *shovel (in)*, *stuff*, *swallow*, *tuck (in)* and *ładować*, *opychać się*, or *połykać* highlight STAGE 1 of the eating process which consists in the trajector's engulfment of the landmark (cf. examples (2b)-(2c) and (2f)-(2g)). On the other hand, predicates of the following English and Polish

[9] The term 'metonymy' is understood in the sense of Lakoff and Johnson (1980).

verbs of eating make STAGE 2 of the eating process prominent, i.e. the subprocess of mastication. The use of verbs like *chew*, *crunch*, *gnaw*, *nibble*, and *chrupać*, *ogryzać*, *pogryzać*, *przegryzać*, *przekąsić*, *zagryzać*, *zakąsić*, or *żuć* as verbs of eating, as in sentences (3a)-(3d), signals that the focus is on the change of state the landmark undergoes. Finally, predicates of the verbs *demolish*, *polish (off)* as well as *wyczyścić* and *zmieść*, when used as verbs of eating, highlight STAGE 3: the third subprocess inherent in the eating process, i.e. the subprocess of disintegration (cf. examples (2d)-(2e) and (2h)-(2i)).

(3) a. As usual, he's munching on his biscuits.
b. As he wasn't hungry, he only nibbled the pie.
c. Oglądając film, Jan schrupał paczkę solonych orzeszków.
d. Popijał mleko zagryzając bułką.

The applicability of the base of the prototype of the category *verbs of eating* to the analysis of numerous English and Polish conventional expressions, such as those exemplified by sentences (4a)-(4i), must be revealed in order to make the account of the base presented above complete.

(4) a. The sea swallowed up the ship.
b. Fire consumed the forest.
c. The flood devoured the land.
d. Rust has eaten the fender.
e. An old car eats oil.
f. Morze połknęło statek.
g. Ogień pożarł dużą połać lasu.
h. Telewizor pożera prąd.
i. Auto żre benzynę.

As pointed out above, verbs of eating typically code the [OUT]-[IN] relationship holding between a container-like animate trajector and an object-like edible landmark. The verbs of eating in sentences (4a)-(4i) apparently violate this requirement, firstly because their trajectors are inanimate and cannot function as containers (except in (4e), (4h) and (4i)) and secondly because their landmarks, apart from their total inedibility, lack the status of clearly delimited objects (examples (4b), (4c), (4e), (4g), (4h) and (4i)). However, trajectors like [SEA], [FIRE], [FLOOD], or [RUST] as well as landmarks like [FOREST], [LAND], [OIL], or [ELECTRIC CURRENT] can achieve the conceptual status of concrete objects via ontological metaphors which are basically ways of viewing a wide variety of events, activities, ideas, emotions, etc. as entities or substances of various kinds (cf. Lakoff and Johnson 1980).

Lakoff and Johnson (1980:57) state that the concept of container, due to its direct grounding in physical and cultural experience, very often becomes a vehicle for understanding concepts like water which are less sharply delineated within the human cognitive system. The metaphorical construal of [SEA] as a container sanc-

tions the use of the verbs *swallow* and *połknąć* in sentences (4a) and (4f)[10]. Moreover, the cognitive prominence of the container schema overrides the requirement for the trajectors of these verbs to be animate and the landmarks to be edible.

In sentences (4b)-(4e) and (4g)-(4i), the trajectors profiled by the particular verbs of eating either are in fact containers and require no metaphorical construal (cf. trajectors [AN OLD CAR], [TELEWIZOR], and [AUTO] in examples (4e), (4h), and (4i), respectively) or it is hardly possible to conceptualize them as such (cf. trajectors [FIRE], [THE FLOOD], [RUST], and [OGIEŃ] in examples (4b)-(4d) and (4g), respectively). What seems to sanction the use of the verbs *consume*, *devour*, *eat*, *pożreć*, and *żreć* in all those cases is the prominence acquired by the domain of disintegration and/or by the personal sphere in their semantic structure, which in turn results from the actual trajector elaboration.

The focus on disintegration in the processual profile is induced by the obvious: fires destroy forests, corrosion ruins metal objects, older cars tend to use up far more fuel than brand new ones, etc. The focus on the personal sphere, in turn, results from the vital role that petrol and electric current respectively play in the functioning of cars and home appliances: no ordinary vehicle or TV set can for one minute work without its source of energy (examples (4e), (4h), and (4i)). What makes the sentences discussed here metaphorical in nature is the lack of animate characteristics on the part of the trajectors as well as the inedibility of landmarks profiled by the particular verbs of eating. It has become apparent though that this requirement can be easily overriden when additional specification is provided for certain profiled elements of a processual base, e.g. trajectors or landmarks.

The internal structure of the category *verbs of eating* in English and in Polish is further displayed in the form of a **schematic network** (Fig. 2). The network comprises a finite set of nodes and each of the nodes groups the predicates profiling the elements of the complex base of [EAT] and [JEŚĆ] in the same way. Two types of relationship are involved in the description: elaboration and extension (cf. Langacker 1987:370). Elaboration (or specification) is defined as the relation between the schema and its instantiations (where there exists a full semantic compatibility between the schema and its instantiations, although the latter may exhibit a higher degree of specificity with respect to the former), whereas extension is defined as the relation between prototypical and peripheral values (where there exists some kind of semantic inconsistency between the compared items).

[10] It is not implied here that the domain of disintegration is irrelevant in sentences (4a) and (4f). This domain, however, is not as important as the container schema in playing the role of the factor sanctioning the use of verbs *swallow* and *połknąć* in those examples.

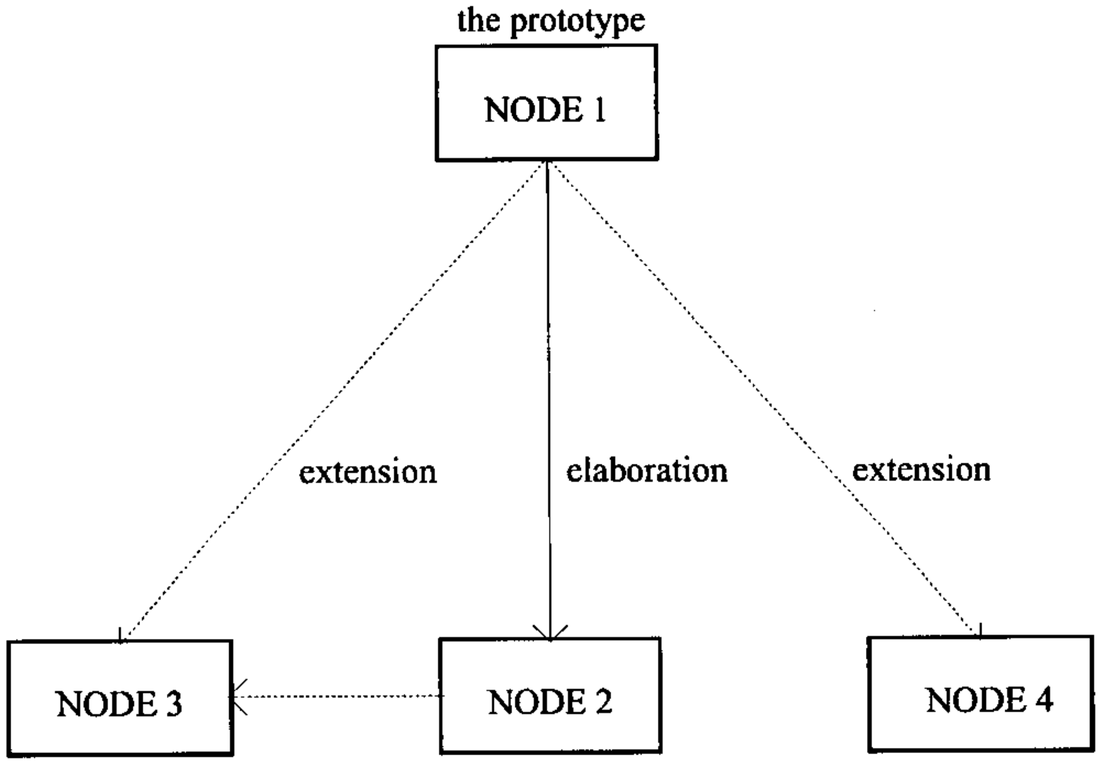

Fig. 2

NODE 1, which comprises the prototype of the category *verbs of eating* in English and in Polish, is the central member of the category and serves as a reference-point for the characterization of other verbs of eating. NODE 2, which is an elaboration of the prototype, comprises the verbs of eating whose predicates match the profile of the category prototype in one-to-one fashion. NODE 3 accounts for all the metaphorical uses of the verbs of eating, extended from the prototype, whereas NODE 4 accounts for all the metonymic uses of the verbs of eating, extended from the prototype as well.

Additional dashed line linking NODE 2 with NODE 3 suggests an alternative possibility of extending the metaphorical values of certain verbs of eating indirectly from the category prototype through the prototype elaborations (NODE 2) rather than straight from the prototype (NODE 1). In the sense of the network-internal relationships the difference between the two alternative ways of extending figurative uses from their literal counterparts is hardly noticeable since, due to the elaborative character of NODE 2, NODE 3 is eventually linked up to the prototype. However, it seems reasonable to assume that the metaphorical values are acquired by language users only after the literal values have been established as units[11]. As

[11] A child may acquire a conventional expression like *Auto żre benzynę* as a unit before he gets to learn the verb *żreć* as an established unit. Being told that *żreć* in the aforementioned conventional expression is roughly equivalent to *jeść*, he will naturally categorize the meaning of the former verb with respect to the latter.

it needs not be the case, both alternatives, which are not mutually exclusive, are accomodated in Fig. 2.

The analysis presented in this paper focuses specifically on the factors that unite the category *verbs of eating* in English and in Polish as a whole, as the aim of the analysis was to reconstruct the base of the category prototype, the source of actual prototype instantiations and extensions. It is difficult to disagree with Lindner who says that "a vast array of distinct processes are categorized as *eat* for purposes of linguistic expression, categorized on the basis of their sameness" (Lindner 1983:95). As this analysis shows, some of these processes provide insight into the nature of the eating process itself, thus revealing the internal organization of the base of the category prototype. In turn, the organization of the base accounts for numerous conventional uses of English as well as Polish verbs of eating extended from the base of the category prototype.

However, the base of the category prototype described here ought to be viewed as an oversimplified model devoid in its matrix of the domains that occasion semantic variety within the category. It goes without saying that in both languages the members of the category *verbs of eating* differ from one another in many ways. They are different with respect to their axiological value, frequency of occurence, and a number of sociolinguistic parameters. Apart from this, a number of English and Polish verbs of eating are much more complex than the prototypical instances of the category in the sense that their semantic structure makes reference to a number of domains absent from the base of [EAT] and [JEŚĆ][12]. Since any attempt at a detailed semantic description of the category *verbs of eating* must take all the relevant parameters into consideration, the analysis presented here cannot be considered exhaustive. However, a full-blown account of the internal structure of the category *verbs of eating* in English and in Polish was not the aim of this analysis. Such an ambitious enterprise remains far beyond the scope of a paper whose length is limited.

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[12] Predicates like [BREAKFAST], [LUNCH], or [DINE], for example, obviously profile in their structure relevant portions of the abstract domains of daily and weekly routine.

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