
Between *designer drugs* and *afterburners*: A Lexicographic-Semantic Study of Equivalence

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Abstract: The lexicons of natural languages are not isomorphic. Reasons for the anisomorphism can be sought on three interrelated planes: language structure, extralinguistic reality, and conceptualisation. Simply put, the relevant differences may reside in the language, the world, the mind, or any combination of these. As a result, what goes under the name of *lexicographic equivalence* is a rather heterogeneous category. Growing awareness of this fact has resulted over the years in the creation of several tentative typologies of equivalence, one of which is presented below, together with a brief discussion of some strategies for dealing with imperfect equivalence.

The remaining part of the article comprises a detailed analysis of a single problem encountered while preparing a new edition of a bilingual dictionary for Polish learners of English. The task at hand involved choosing a viable counterpart for a (Polish) semantic neologism from among a few (English) equivalence candidates. In the discussion, reference is made both to the metalexigraphic categories introduced earlier and to such concepts developed by lexical (especially cognitive) semantics which may prove helpful in capturing the meaning differences between the source-language item and its competing target-language renditions.

This micro-scale dissection of a single specimen demonstrates that we are still some way from being able to classify, let alone deal with, all the instances of imperfect interlingual correspondence that come our way. Persisting in the efforts to advance our understanding of the complex issues covered by the blanket term *lexicographic equivalence* thus seems crucial for improving the treatment of meaning in bilingual dictionaries.

Keywords: EQUIVALENCE, LEXICOGRAPHY, BILINGUAL DICTIONARY, MEANING, LEXICON, CORPUS, ENCODING, CONCEPTUALISATION, COGNITIVE SEMANTICS, CONCEPTUAL METAPHOR, DENOTATION, CONNOTATION, FIXED PHRASE, FREE COMBINATION, TRANSLATION, CULTURE

Opsomming: Tussen *designer drugs (ontwerpersdwelms)* en *afterburners (naverbranders)*: 'n leksikografies-semantiese studie van ekwivalensie. Die leksikons van natuurlike tale is nie isomorf nie. Redes vir die gebrek aan isomorfie kom op drie onderling verwante vlakke voor: taalstruktuur, die buitetalige realiteit, en konseptualisasie. Anders gestel kan die tersaaklike verskille in die taal, die wêreld, die verstand, of enige kombinasie hiervan aangetref word. Gevolglik is dit wat as *leksikografiese ekwivalensie* bekend staan 'n nogal heterogene kategorie. 'n Groeiende bewuswording van hierdie feit het oor die jare daartoe gelei dat verskeie tentatiewe tipologieë van ekwivalensie geskep is, waarvan een hieronder aangebied word, saam

met 'n kort bespreking van sommige strategieë om onvolledige ekwivalensie te hanteer.

Die oorblywende deel van die artikel bevat 'n uitvoerige ontleding van 'n enkele probleem wat teëgekem is toe 'n nuwe uitgawe van 'n tweetalige woordeboek vir Poolse aanleerders van Engels saamgestel is. Die betrokke taak het behels dat 'n lewensvatbare teenhanger vir 'n (Poolse) semantiese neologisme uit 'n paar ekwivalente (Engelse) alternatiewe gekies word. In die bespreking word verwys na sowel die metaleksikografiese kategorieë wat vroeër geopper is, as na konsepte in die leksikale (veral die kognitiewe) semantiek wat sou kon help om die betekenisverskil tussen die brontaalitem en sy kompeterende doeltaalvertalings vas te vang.

Hierdie ontleding van 'n enkele voorbeeld op mikroskaal demonstreer dat ons nog ver daarvan is om al die gevalle van onvolledige intertalige ooreenstemming wat ons teëkom te kan klassifiseer, wat nog te sê van te hanteer. Om vol te hou met ons pogings om die komplekse vraagstukke te verstaan wat deur die oorkoepelende term *leksikografiese ekwivalensie* gedek word, is dit dus uiters belangrik om die hantering van betekenis in tweetalige woordeboeke te verbeter.

Sleutelwoorde: EKWIVALENSIE, LEKSIKOGRAFIE, TWEETALIGE WOORDEBOEK, BETEKENIS, LEKSIKON, KORPUS, ENKODERING, KONSEPTUALISERING, KOGNITIEWE SEMANTIEK, KONSEPTUELE METAFLOOR, DENOTASIE, KONNOTASIE, VASTE FRASE, VRYE KOMBINASIE, VERTALING, KULTUUR

1. General considerations

1.1 Why is there no perfect interlingual equivalence?

The naïve view of natural languages, which assumes that, for every language pair, any given lexical item found in one language can be matched semantically with its counterpart in the other, is fundamentally flawed. Philosophers and linguists, not to mention bilingual lexicographers, have repeatedly pointed out that there is, in fact, no such perfect interlingual correspondence. Reasons for this can be located on three interrelated planes: language structure itself, the extralinguistic world, and the human mind.

Cases of the first kind, which Zgusta (1971) sees as springing from a "difference in the inventory of non-designative items", are easily exemplified by situations in which a grammatical category present in one of the languages (e.g. English articles, Zulu ideophones) is absent from the other. Those of the second kind (Zgusta's "difference in denotata"; Gouws's (1996) "referential gap") prototypically include geographically restricted features of the natural environment, as well as culture-specific customs, institutions and dishes. Less prototypically, they may also involve creatures and phenomena whose ontological status depends on the (religious and/or folk) beliefs characteristic of a particular linguistic community.¹ Finally, cases of the third kind, i.e. those originating in conceptualisation (Zgusta's "difference in designata"; Gouws's (1996) "linguistic gap"), are a consequence of the fact that, rather than merely reflecting the world, language imposes structure upon it — in other words, the categorisation of extralinguistic reality is language-dependent. Countless examples have been

cited in the literature of individual concepts which are not lexicalised in particular languages: there is, for instance, no word for 'puppy' in Afrikaans (Gouws 2002: 200). Consider also the varying level of detail with which family relationships can be categorised linguistically: in some languages, special words exist for the maternal and paternal grandfather/grandmother/uncle or for various kinds of in-laws, despite the relationships themselves being, biologically speaking, the same for all humans.

This third, most complex category of mismatches, dependent on differences in conceptualisation, covers a multitude of non-obvious cases. Thus, language B may lack a lexical item of the same level of generality as language A — as in Keley-i, which has a number of words sharing the general meaning 'to alter or destroy the structure of something by pressure', but no word for the shared meaning itself:

- let-ik* 'to crush between fingernails, e.g. lice'
 - pedit* 'to crush with fingers or foot, e.g. insects'
 - kupikup* 'to crush with hands, e.g. paper'
 - gudu* 'to crush anything dried into bits or powder form with fingers, e.g. leaves, tobacco leaves'
 - bugay* 'to crush into smaller pieces or powder with hands, feet or other instrument, e.g. soil, lump of salt'
 - ubud* 'to crush any form of seed into powder with an instrument, e.g. coffee bean'
 - teptep* 'to crush something with a stone or heavy object, e.g. betelnut'
 - gemik* 'to crush shell, e.g. egg'
 - ledih* 'to crush pepper or fruit to produce juice, with an instrument'
 - pitpit* 'to crush a can totally, with feet or an instrument'
 - pitul* 'to crush a can or plastic container partially, with feet or an instrument'
- (after Hohulin 1986: 44f.)

In this Philippine language there is, thus, no hyperonym designating the whole class of actions, i.e. no word corresponding to the English *crush*, with the help of which the verbs have been glossed.

Less obviously still, the names of certain emotions, mental states, or social institutions, routinely given as interlingual equivalents, may be associated with concepts which are far from identical. Consider, for instance, the concept of marriage in different cultures — including aspects such as the admissible number of spouses, how easy it is to enter into or dissolve a marital union, etc. — or the concept of anger in most European languages (where traces of the ancient theory of the four humours can still be detected)² as opposed to 'the same' concept in Japanese,³ Chinese,⁴ Zulu,⁵ or the language spoken on the Micronesian atoll of Ifaluk⁶.

That the structure of a particular language, especially its lexicon, depends on conceptualisation has been stressed very strongly by contemporary seman-

ticists, particularly those of the cognitive persuasion; however, the idea itself is hardly new. Over three hundred years ago, Locke (1689/90) postulated that all knowledge consists of ideas which, in turn, begin in experience, that is, in sensations (directed outside, to the world) and reflections (directed inside, to the mind). Immediately after experience has played its part, the mind starts working of its own accord, reshaping the simple, experience-driven ideas into complex ones and making the latter conform to the needs of communication. It is only by means of language — which Locke conceives of primarily as a stock of words — that an individual can make his thoughts known to others. Words, which are signs of ideas, do not denote individual things, but classes of things. These classes, rather than being a feature of the world around us, are created by the mind. Human creativity is manifested in the names of substances (objects in nature), relationships (e.g. in mathematics) and, most of all, so-called mixed modes (e.g. moral notions like 'justice'). The fact that there exist different languages is due mainly to such complex ideas, which tend to be culture-specific. Moreover, complex ideas are often so vague and unstable that they do not allow for a unanimously accepted definition — at least not out of context.⁷

1.2 Varieties of lexicographic equivalence

Given that Locke's scenario, or something very much like it, pertains to every individual language, the identification of interlingual equivalents can hardly be a straightforward task. And that is, by no means, the whole problem. As noted by many (recently, e.g., Hallsteinsdóttir and Farø 2010), it makes little sense to talk about 'equivalence in general'; rather, what counts as equivalence will depend on a particular research perspective (e.g. lexicological, translational, lexicographic or didactic).

Even adopting an exclusively lexicological vantage point, as was done in the preceding section, it seems pretty obvious that one cannot expect a bilingual dictionary to offer perfect interlingual equivalents. What bilingual lexicographers have been doing for centuries is providing equivalents which, while not perfect, go some way towards meeting the dictionary user's expectations. Equivalence is thus a gradable phenomenon. Furthermore, different types thereof need to be distinguished if we want to understand what goes on in the pages of bilingual dictionaries. Working on such dictionaries for a number of years and studying the relevant metalexicographic literature (particularly the writings of Ladislav Zgusta) has led me to believe that what is called equivalence in lexicography comes in four different, though partly overlapping, varieties:

- (i) cognitive (semantic, systemic, prototypical, conceptual, decontextualised, notional)
- (ii) translational (insertable, contextual, substitutable, textual)
- (iii) explanatory (descriptive)
- (iv) functional (situational, discourse, dynamic, pragmatic, communicative).⁸

1.2.1 Cognitive equivalence

A cognitive equivalent is situated at the level of the language system. Being fairly general, it is appropriate as a translation of the source-language (SL) item in many, though not all, contexts. When not insertable in a particular context, it should ideally elicit in users an appropriate translational equivalent. This is possible thanks to the cognitive equivalent's explanatory potential, i.e. its ability to faithfully represent the meaning of the SL item. For all these reasons, the cognitive equivalent, wherever available, is the lexicographer's first choice. Not only that: cognitive equivalents tend to be reassuringly identical, no matter which bilingual dictionary for a given language pair one happens to consult. Thus, for instance, German *sterben* will normally be supplied with the English equivalent *die*, English *head* with French *tête*, and Spanish *pesado* with English *heavy* (in their primary senses, of course). Furthermore, the equivalents will often exhibit symmetry (*sterben* = *die* in a German-English dictionary; *die* = *sterben* in an English-German one, and so on).

1.2.2 Translational equivalence

A translational equivalent is situated at the level of the text, that is, it produces a good translation when substituted for the SL item in a particular context or contexts. It is what the bilingual lexicographer settles for when a cognitive equivalent is not available. Due to the (in principle unlimited) number of contexts in which a given SL lemma may occur, the number of its possible translational equivalents can sometimes be quite high. Dictionary entries reflect this, often featuring more than one equivalent per sense. Translational equivalents are especially useful in dictionaries, or parts thereof, aimed at foreign language production. Below are some examples.

- (1) Nguni *ubuntu* — E. *human-heartedness* (DSA, after Gouws 1996)
- (2) E. *awe* — Polish *respekt, trwoga, podziw* (Polish does not have a lexicalised concept corresponding to the English one; each of the three equivalents provided — respectively, 'respect', 'fear', and 'admiration' — covers part of the SL meaning.)
- (3) Russian *intelligent* — E. *intellectual* (The equivalent will work as a translation in many contexts, but, according to Farina (1996: 4), it fails to reflect the richness of the Russian concept.)

1.2.3 Explanatory equivalence

In contrast to the previous two types, an explanatory equivalent is a free combination, not an established lexical unit of the target language. It is a TL paraphrase of the SL item, situated somewhere between a TL equivalent and a

TL definition. Thanks to its explanatory power, it should help the dictionary user come up with a translational equivalent appropriate on a particular occasion (that is, perform a function similar to that of a non-insertable cognitive equivalent). Lexicographers resort to explanatory equivalents only in the absence of a 'proper' (i.e. cognitive or, at least, translational) equivalent. The solution tends to be employed when dealing with culture-specific items and is found more often in older dictionaries than in contemporary, corpus-based ones, which in similar circumstances turn to functional equivalence. Giving an explanatory equivalent is justifiable primarily in dictionaries, or parts thereof, aimed at foreign language reception. The following examples illustrate these points.

- (4) Venda *mbongo* — E. *food prepared from freshly harvested maize* (Madiba and Nkomo 2010: 319)⁹
- (5) Nguni *ubuntu* — E. *quality embodying all the traditional virtues and values of isintu*; the word *isintu* refers to African characteristics, style, values and traditions (DSA, after Gouws 1996)
- (6) Russian *intelligent* — E. *member of the intelligentsia* (This explanatory equivalent "implies a certain politeness of behavior and delicacy that are not necessary to qualify as an intellectual" (Farina 1996: 4). Thus, although not as readily insertable in context, it conveys the SL meaning better than the translational equivalent *intellectual*.)

The three equivalence types discussed so far are closely related. Zgusta (1987: 238) saw the ideal dictionary equivalent as combining insertability with high explanatory potential. A cognitive equivalent does precisely that (though its insertability is contextually restricted). A translational and an explanatory equivalent can be seen as complementary, each one performing half of the cognitive equivalent's job.

1.2.4 Functional equivalence

The last variety of equivalence is the most distinctive of the four. Functional equivalence holds between portions of text larger than individual lexical items. Crucially, the TL portion contains either a TL word of a different grammatical category than the SL lemma or a TL expression with no element whatsoever corresponding directly to the SL lemma. Unlike in translatology, where functional equivalence has always enjoyed a privileged status, in lexicography it was, until recently, relatively marginal. This is now changing rapidly. In an era when respectable dictionaries are more often than not corpus-based, lexicographers are free to exploit the rich stores of data (i.e. contextual occurrences) at their disposal for the purpose of tailoring such syntagmatic stretches containing the SL lemma which can be comfortably translated into the target language

without requiring a lexical equivalent for the SL lemma itself. As an example, consider the following entry from De Schryver's innovative Zulu-English school dictionary which demonstrates how Zulu ideophones can be rendered contextually into English:

- (7) **mpo ideophone 1** ► (of being erect) ♦ Wavuka wama mpo uGovu wathi: ... • Govu woke up, stood straight up, and said: ... **2** ► (of extreme action) ♦ Sekubanda, mpo, eNingizimu. • It is now cold, extremely cold, in the South. ♦ Kuthe ilanga selithe, mpo, ibandla lihlezi phansi nje emthunzini. • When it is extremely hot, the group of men simply sits on the ground in the shade. **3** ► (of being full) ♦ Ligcwaliseni isaka lithi mpo. • Fill up the bag to the brim.
(after De Schryver 2009: 40)

Note that no attempt was made here to offer decontextualised equivalents: the sense discriminators are followed directly by examples of usage and their English translations; equivalence obtains primarily between the sentences as wholes, and only to a limited extent between the Zulu ideophone *mpo* and whatever English phrase corresponds to it in the translation.

1.3 Dealing with imperfect equivalence in a bilingual dictionary

All those cases where a lexicographer cannot come up with a cognitive equivalent of the SL item are jointly referred to here as instances of imperfect equivalence. There are two major groups of strategies for dealing with such cases. The first, obvious one involves employing equivalence types other than the cognitive — that is, other than the default. The bilingual lexicographer can thus provide:

- (i) two or more cumulative partial equivalents (a variety of translational equivalence, as in the *awe* example in 1.2.2)
- (ii) a paraphrase (i.e. an explanatory equivalent, as in the *intelligent* example in 1.2.2 and 1.2.3)¹⁰
- (iii) an extension of the syntagmatic scope of the lemma and its TL translation (which amounts to achieving functional equivalence, as in the *mpo* example in 1.2.4).

If none of the above appears feasible, one can try:

- (iv) giving a cultural counterpart¹¹ (e.g. the name of an educational institution, government body, etc., which plays a roughly similar role in the TL speech community)
- (v) giving a partial (translational) equivalent plus a gloss (in parentheses) or an explanatory note (following the entry proper)

- (vi) proposing an innovation (via sanctioning a lexical or semantic borrowing from the source into the target language).¹²

Having examined different varieties of lexicographic equivalence and isolated some useful strategies for coping with troublesome instances, we are now equipped for the discussion of a concrete case of imperfect equivalence which the concepts introduced above should help us handle.

2. Case study

2.1 The problem

One issue following from the absence of perfect interlingual equivalence is the subordinate question of how to choose between several imperfect equivalent candidates — the main problem of encoding into a foreign language. This will be the focus of the rest of the article.

The case related below is an actual dilemma faced by the lexicographic team preparing the second edition of LSW, a bilingual dictionary for Polish learners of English (of junior high and high school age). The main feature which distinguishes LSW from its competitors on the Polish market is that it is the first (and so far the only) truly encoding dictionary available. This means, among other things, that all the equivalents have been carefully chosen, the main requirement being that they must be insertable in the translations of the example sentences supplied (that is, they must work as translational equivalents).¹³

In the autumn of 2010, when the new edition of LSW was being compiled, a discussion raged in the Polish media about the dangers of so-called *dopalacze* — legally available substitutes of illegal drugs, sold in special shops, ostensibly as collector's items. Widespread use of the drugs had led to a series of teenage deaths, which caused a public outcry and eventually prompted the authorities to introduce a ban on selling them. Of course, the problem has not thereby disappeared, as one can still buy *dopalacze* via the internet or bring them in from abroad.

Given that LSW is directed at young people, it was deemed necessary to include the entry for *dopalacze* in its Polish-English part.¹⁴ This provoked a number of questions. No obvious equivalent sprang to mind (i.e. one that would qualify as cognitive in view of the classification in 1.2), but there were a few candidates for translational equivalents that the lexicographers could choose from. What follows is a reconstruction of the reasoning which informed the choices made in the end.

First, let us see what can be established about the meaning of the Polish word. Upon typing in *dopalacz* (the singular form of *dopalacze*) in the Polish version of Wikipedia, one is instructed to select one of the following senses:

- (1) a device used in jet planes which increases engine thrust
- (2) a device used in cars which reduces exhaust toxicity
- (3) (in plural) a popular name for certain intoxicants, often containing benzilpiperazine.

Note the grammatical difference, the last sense being formally distinguished by its use in the plural.¹⁵ The third definition differs from the remaining ones in yet another respect: it talks about the name, not the referent, thus creating some distance between the two.¹⁶ This implies that the name is somehow less natural or less literal, or simply less established, in that third sense. In the Wikipedia entry for *dopalacze* (plural), some more details are provided: it is a popular name for different types of products containing psychoactive substances which are not included in the list of legally prohibited drugs; the use of these products is meant to produce an intoxicant effect as close as possible to that of illegal substances.

It should be clear from the above that the drug sense is derived from the jet-plane sense of *dopalacz* by means of metaphorical extension: a drug, specifically a so-called upper, acts on the human psyche in a way analogical to the effects of a thrust augments in a jet plane. Accordingly, in cognitive linguistic terms, *dopalacze* can be seen as a figurative expression instantiating the conceptual metaphor THE HUMAN BODY IS A MACHINE, with its constituent submetaphors: THE BRAIN IS AN ENGINE; ENHANCED BRAIN PERFORMANCE IS INCREASED ENGINE THRUST; DRUGS ARE THRUST AUGMENTERS.¹⁷

2.2 Equivalent candidates: Evidence from texts, dictionaries, and corpora

2.2.1 Designer drugs

The *dopalacze* article in Polish Wikipedia mentions the term *designer drugs*, stating authoritatively that this is the name under which the substances are known in English. It thus makes sense to examine this equivalent candidate first.

When one googles (or yahoos) the phrase, one is told that a *designer drug* is 'a drug with properties and effects similar to a known hallucinogen or narcotic but having a slightly altered chemical structure, especially such a drug created in order to evade restrictions against illegal substances' (<http://www.answers.com/topic/designer-drug>; <http://education.yahoo.com/reference/dictionary/entry/designer%20drug>); or, 'a drug produced by a minor modification in the chemical structure of an existing drug, resulting in a new substance with similar pharmacologic effects, especially one created to achieve the same effect as a controlled or illegal drug' (<http://dictionary.reference.com/browse/designer+drug>).

So far, so good. If other dictionaries agreed with AHD (from which these definitions appear to have been taken), we would need to look no further. Unfortunately, English dictionaries are not unanimous. In MEDAL, a *designer drug* is defined as 'an illegal drug produced artificially from chemicals: *designer drugs like ecstasy*'; in LDOCE, as 'an illegal drug that has an exciting or relaxing effect, and is taken for pleasure'; in OALD, as 'a drug produced artificially, usually one that is illegal: *a tablet of the designer drug Ecstasy*'; in CALD, as 'any of various strong drugs that has been changed to give it a similar effect to an illegal drug such as cocaine'; in CED, as 'any of various narcotic or hallucinogenic substances manufactured illegally from a range of chemicals'; finally, in OED, as 'a drug synthesized to mimic a legally restricted or prohibited drug without itself being subject to such restriction'.

Two things are worrying here. For a start, *ecstasy*, which features in the OALD and MEDAL examples of use, would never be thought of as a *dopalacze* in Polish. This points to a difference in meaning between *designer drugs* and the Polish term: *dopalacze* are substances whose chemical composition is deliberately kept secret, there is an air of mystery about them — these things are part of the concept. Secondly, there is no agreement among the English definitions regarding the legal status of the drugs: of the seven dictionaries quoted, only AHD, CALD, and OED claim that designer drugs are legal.¹⁸ In a way, the confusion matches the Polish situation: the selling of *dopalacze* has been banned, but this does not seem to have led to a change in the collective consciousness. *Dopalacze* are still perceived as something less serious and less dangerous than straightforward *narkotyki* 'drugs' (the two names are often contrastively juxtaposed), both in terms of health risks and possible criminal consequences.

Designer drugs having thus failed to meet the requirements for a perfect equivalent, the search must continue.

2.2.2 Afterburners

Describing the media hysteria surrounding *dopalacze*, a blog post from the Economist uses three English terms: *designer drugs*, *legal highs*, and *afterburners*. The introductory paragraph goes as follows:

For a week now Poles have been in the throes of collective delirium over so-called **legal highs**. Known colloquially in Poland as "**afterburners**", these **designer drugs** began cropping up five years ago, offering party thrills and cognitive enhancement. Crafty vendors have skirted drugs laws by labeling their wares as "collectibles" or "plant food", "unsuitable for human consumption". Meanwhile, clever chemists on their payroll continually tweak the substances' chemical composition so whenever one compound is outlawed, a modified, legal cousin takes its place. (http://www.economist.com/blogs/easternapproaches/2010/10/legal_highs_poland)

Strictly speaking, contrary to what the passage says, it is not true that the sub-

stances in question are "known colloquially" as *dopalacze*: the name is, in fact, the only Polish name in use (although it is true that the word is occasionally preceded by *tzw.* 'so-called', testifying to its relative novelty). Throughout the rest of the text, the author uses *afterburners* interchangeably with *legal highs*.

Is there any independent evidence for *afterburners* being employed in this sense? Not if one consults the English Wikipedia or the OED. The relevant entry from Wikipedia gives a definition which corresponds to sense 1 of *dopalacz* in the Polish definition given in 2.1 above:

An **afterburner** (or **reheat**) is an additional component added to some jet engines, primarily those on military supersonic aircraft. Its purpose is to provide a temporary increase in thrust, both for supersonic flight and for takeoff (as the high wing loading typical of supersonic aircraft designs means that take-off speed is very high).

OED distinguishes two senses, corresponding to senses 1 and 2 of *dopalacz*:

1. An auxiliary burner fitted to the exhaust-pipe of a turbo-jet engine to increase its thrust.
2. An auxiliary burner in a flue, exhaust pipe, etc., designed to burn any remaining combustible waste gases.

No corpus occurrences have been found documenting the drug sense, either. All the instances of *afterburner(s)* that have been identified in corpora (BNC — 7; ukWaC — 214; enTenTen — 466) are either to do with plane or car engines, or they are metaphorical (typically in texts about running or other sport-related activities), often appearing as product names (title of a record album; title of a poetry volume; something to do with back lighting in Game Boy; a game you play in an arcade; software to make a program run faster). Nowhere are the effects of drugs referred to or even hinted at, although the metaphorical potential (of an energy boost or of enhancing performance) is both clearly present and often exploited, as in the following examples:¹⁹

ukWaC:

Afterburner is an add-on utility for Director which compresses animations for more efficient distribution via the WWW.

The impala normally travels in graceful arching bounds, but when this particular impala discovered that the race cat was on his track, he stretched out full length horizontally and shifted into **afterburner**.

Most energy is burned by metabolism; increasing the resting metabolic rate can have a dramatic effect. One of the best ways to do this is by exercising. Exercise burns energy. It also continues to burn extra energy by raising the RMR from 1 up to 24 hours after exercising. This is a bit like having an **afterburner**. To get

prolonged after burn you need to exercise for a longer period at a relatively moderate intensity. 30 minutes is perfect. However, sprinting to catch that bus in a morning does not generate metabolic after burn.

On entry the flavour is cool, fizzy, citrus — lemon and honey, then the taste of soft gooseberry and pear in syrup evolve as it glides across the palette with cereal and toasted muffins in the slipstream. There is no evidence of the power at this stage because the viscosity is almost like glycerine, however as it engages the taste receptors at the back of the tongue it really hits the booster button and an amazing heat floods deep into the chest. It's brilliantly fresh and fizzy with an extremely pleasant **afterburner** effect and leaves an aftertaste that is superb, not long, but unforgettable — believe me. In 1695 the spirit would have been drunk straight from the still and would certainly have been perilous indeed.

enTenTen:

Henderson was the Class 4 A Louisiana state high school champion in both the 100 meters (10.3) and 400 meters, then clocked the second-fastest 60-yard dash ever (6.7) at LSU. Last season, his **afterburners** enabled him to average 23.2 yards per reception, best in the National Football League.

Barber under-performed in two of her best events, the Long Jump and Javelin on Sunday, but set off at such a lick in the final event, the 800 metres that it looked as if she might yet steal the title. But with 200 to go, Klüft switched on the **afterburners**, and even ran a personal best, 2.08.89, to take the gold with 6 887 points, to Barber's 6 824.

Adams turned on the **afterburners** for the final 100 metres, creeping up to the first place spot.

After assuming the lead, Robinson puts on the **afterburners** to roll into the finish line at Loma Luz Clinic, completing the fifty-seven miles in two hours, thirty-three minutes.

If you invest too much on infrastructure then you draw more on the already already scarce people and resources in an economy that has the **afterburners** turned on.

One father referred to his son as "all **afterburner** and no rudder."

Let's just say that my Palm IIIc carries numerous bits'n'pieces around, but the most frequently used seem to be **AfterBurner** (overclocking software to make it run faster), Eudora (a very nice Email program), Wordsmith (for those unavoidable fits of creative writing), iSilo and Plucker (for reading compressed repositories of HTML), APCalc (because the standard PalmOS calculator is a load of rubbish), and Sim City (the killer app for the colour Palm Pilots).

In sum, it appears that the Economist blogger used *afterburners* idiosyncratically and creatively — in other words, he/she innovated.

2.2.3 Legal highs/Legal intoxicants

After typing *legal highs* in the search box of Wikipedia, one is redirected to *legal intoxicants*. Under the latter, a variety of things are mentioned: stimulants (e.g. caffeine), hallucinogens/psychoactive (e.g. nutmeg, but also synthetic cannabinoids, including the drug *Spice*), deliriant (e.g. certain antihistamines), depressants (e.g. alcohol), inhalants (e.g. laughing gas), and opioids (e.g. codeine). The noun phrase *legal intoxicants* thus appears to designate a much broader category of substances than *dopalacze*.

OED does not have an entry for *legal intoxicants*. Nor do any of the English corpora consulted (BNC, ukWaC, enTenTen, COCA, BASE, BAWE). This necessarily leads to the conclusion that *legal intoxicants* is not a fixed phrase, but a free combination.

By contrast, the phrase *legal high(s)*, though also absent from OED, can be found in corpora (e.g., BNC — 5; ukWaC — 24; enTenTen — 19; COCA — 1),²⁰ where it occasionally appears between quotation marks. The examples below (with their original spelling retained) clearly show that the term *legal highs* corresponds denotatively to *dopalacze*:

BNC:

Cannabis dealers, on the other hand, make far less money and can end up in prison. In order to save law-abiding FACE readers from a possible prison sentence, I decided to investigate some of the **legal highs** that are available.

After explaining the nature of my quest, they told me about their own favourite **legal high**. Potter's Herbal Cigarettes are a smoking preparation made from stramonium. My new companions break up the cigarettes, and make tea with the herb. They claimed that drinking the tea gave them an intense, trip-like experience.

ukWaC:

Draconian penalties for cannabis possession may encourage young people to experiment with "**legal highs**" in the mistaken belief that what is not banned must be relatively safe.

Last year's ban on 'magic mushrooms' by the Government left a gap in the market for '**legal highs**'.

But any biochemist will tell you that it is most unlikely that any group of natural products is to be found only in a single species, and that many other drug-containing plant materials are now freely on sale — either as "**legal highs**" or as plants and seeds.

And as for the **legal highs**, for something that supposedly are shit how come they have stoped a big pill muncher like me taking xtc after 4 years of regular weekend abuse?!

Its effects are more hallucinatory than other **legal highs** — though high doses of the raw plant are usually needed to achieve these effects.

The best **legal high** ive tried yet are the smilies now they are one to definately try if you havent already! id say they are closest to e ive tried.

ABC News reports that 9% of US 8th graders are regularly inhaling ordinary — and potentially deadly — household products as a cheap and **legal high**, according to 2001 federal drug statistics.

enTenTen:

Ace understands that there's no need for weed when your house is a veritable cornucopia of cheap, **legal highs**.

When you have a hideous irrational drug policy that arbitrarily puts the two most dangerous drugs in the "legal" category while most others are in the "illegal" column ... is it really surprising that bored youths will turn to such truly risky "**legal highs**" as choking or inhaling solvents?

This includes displaying, selling, or detailing the use of drug paraphernalia, as well as tips on **legal highs**, such as glue sniffing, the misuse of prescription drugs, or the abuse of other legal substances.

Legal Highs on the Rise Sep 29, 2006 (New Scientist) Recreational drugs that keep you on the right side of the law have never been more popular, but does that mean they're safe?

Chugging cough medicine for an instant high certainly isn't a new practice for teens, who have raided the medicine cabinet for a quick, cheap, and **legal high** for decades.

It is marketed as a "**legal high**" or a substitute for MDMA (Ecstasy) and is sold in solid and liquid forms.

I worked with methodone (heroin replacement) patients, and they more or less split into 2 groups, those who really wanted to get clean, and those who just wanted to go to a nice dark flat and spent time off thier tits without bothering anyone, including the scum dealing H. Of the later category, I'd rather they got a **legal high** and left everyone well alone than being in need of a fix and climbing through my window to pay for it.

It is a semi-synthetic **legal high** that is made from a specialty blend of powerful herbs, aphrodisiacs & chemical compounds that are strong but at the same time very safe to take, with no side effects.

2.3 Analysis: Lexicographic equivalence types and semantic categories

What are we to make of all this in terms of the equivalence types presented above (1.2) and the strategies for dealing with difficult cases (1.3)? What can semantic

theory contribute to the understanding of the relationships between the Polish word and the four English equivalent candidates? Let us look at the latter again, this time with a view to establishing the lexicographic potential of each one.

2.3.1 Designer drugs

The phraseme *designer drugs* can doubtless function as a translational equivalent of *dopalacze* in some contexts. It might be tempting to argue that it is, in fact, more than that, i.e. a fully-fledged cognitive equivalent, seeing as its definition mentions many of the same characteristics (*differentiae*). But the denotational meaning is not, in fact, quite the same as that of *dopalacze*. As we saw in 2.2.1, there are differences in the extensional range of the two terms (the designer drug ecstasy would not be called a *dopalacz* in Polish), as well as some controversy regarding the legal status of the denotata. Moreover, one intuitively feels that the interlingual correspondence is not perfect, which is probably why the Economist blogger did not use *designer drugs* as the only equivalent, but took advantage of other translational strategies as well.

What can hide behind the intuition that there is something not quite right with the Polish-English pairing? For a start, the compositional (literal) meaning of *designer drugs* is different from the motivation behind *dopalacze*: the English term concentrates on how the substances are created, while the Polish one highlights their effects. Further, no conceptual metaphor motivates the English term. Instead, a substance which acts like a drug is explicitly called a drug, and the name is further modified by a noun specifying the drug's method of creation. In addition to that, the Polish word (in the drug sense) has a touch of informality about it, possibly due to the crudeness of the underlying metaphor, resulting from the conceptual distance between its source and target domains: conceptualising the human body in terms of an engine-driven machine involves a significant trivialisation of the complex processes of our mental and emotional functioning.

The connotations are different, too: unlike the Polish word, which has obvious technical associations, the English phrase alludes to expensive, fashion-conscious lifestyle, by analogy with, e.g., *designer jeans* or *designer label*. This creates a clash between the SL and TL items, since the use of *dopalacze* is by no means restricted to fashionable circles, nor are the drugs so described particularly expensive. Quite the opposite, as a matter of fact: *dopalacze* are universally perceived as a cheap substitute for the real thing. All this suggests that the explanatory power of *designer drugs* as an equivalent of *dopalacze* is relatively low. By contrast, as has already been stated, its insertability potential is considerable: in many contexts it will fit just fine.

It might be worth mentioning here that various authors — linguists as well as translation theorists — have proposed various component factors necessary for talking about the equivalence of two lexical units in two languages. The common elements are always denotational and connotational meaning;

other factors may vary. Two proposals will be looked at below which seem representative of the bulk of the literature on the topic.

Talking about equivalence in phraseology, Günther (1990: 505) says we need to consider: 1) denotation; 2) type of lexical unit; word class and phraseme class; 3) collocability and valency; 4) connotation; 5) constitution of formatives, compositional structure, motivation or imagery, the euphonic means used. Taking this as the basis for comparison, the pair *dopalacze* — *designer drugs* can be seen to fulfil the first and the third criterion. Not the second, because *dopalacze* is a simplex and *designer drugs* a phraseme, and not the last two, because both the connotations and the imagery used are different.

Discussing equivalence in translation studies, Koller (1995: 197-198) recognises denotative, connotative, text-normative, pragmatic, and formal equivalence (involving, respectively, extralinguistic content, connotations, text and language norms, the receiver, and certain formal-aesthetic features of the SL text). Analysed in accordance with his criteria, the pair *dopalacze* — *designer drugs* would exhibit a high degree of denotative equivalence and partial equivalence in all the remaining dimensions, with the lowest degree of correspondence on the connotative plane.

2.3.2 Afterburners

Using *afterburners* as a dictionary equivalent of *dopalacze* would be a case of lexicographic innovation, more precisely, of sanctioning a semantic borrowing. The term is closest to the Polish original in terms of motivation (the same metaphor), as well as formally (a transparent derivative of the verb *to burn*, exact equivalent of Polish *palić*, from which *dopalacz* is derived). It would thus appear to be an ideal equivalent, save for one crucial fact: we lack sufficient evidence for it. The Economist blogger was only able to use it because he/she had first defined it. Otherwise, the readers would have been at a loss as to how to interpret the word. Thus, despite its high lexicographic potential, *afterburners* must be judged the weakest of our candidates, as it is unlikely to be interpreted correctly by an English-speaking person when encountered as a stand-alone, decontextualised equivalent of *dopalacze*.

Had the direction of our equivalence search been the reverse of what it was (i.e. from English to Polish, rather than from Polish to English), the grounds for sanctioning the innovation would naturally have been much stronger. But, given that English has borrowed virtually nothing from Polish so far (save for a handful of culinary terms), introducing *afterburners* as an equivalent in a Polish-English dictionary would hardly have been a judicious move.

2.3.3 Legal highs/Legal intoxicants

Our next candidate, *legal highs*, appears to be an excellent translational equivalent in most contexts. What may be debatable is whether it is already an estab-

lished lexical unit of English. Not only is it not recorded by OED, but in some of the corpus examples quoted (e.g. *cheap and legal highs*) it is still clearly a free combination, while in others its tentative status is signalled by scare quotes. However, the bulk of the corpus evidence suggests that, if not yet a fully-fledged phraseme, it is already well on the way to becoming one, thus fulfilling Zgusta's conditions for a translational equivalent. Equally importantly, *legal highs* agrees with the source-language item in register.

On the down side, it cannot be considered a perfect equivalent any more (though it could at the time the LSW entry was being written), because of the legality aspect, which is explicitly lexicalised in the English phrase. There is another difference in meaning as well: *highs* denotes uppers only, not uppers as well as downers (not to mention other conceivable effects drugs may have). Arguably, this is not a very significant difference, since prototypical intoxicants (and the substances called *dopalacze*) reportedly act as stimulants, at least for the first few hours after being consumed.²¹

As for the motivation behind *legal highs*, it is partly metaphorical and partly metonymic. At the most general level, the relevant conceptual metaphor is GOOD IS UP. This is manifest in the diachronically related adjectival senses:²² "emotionally exalted; elated, merry, hilarious"; then, by specialisation, "excited with drink, intoxicated"; and, analogically, "under the influence of, stimulated by, a drug or drugs". Those adjectival senses, describing the sensations a person experiences (as in *to be high*), gave rise to nominal senses denoting the sensations themselves. Thus, the last adjectival sense mentioned above produced the noun *high* defined as a "euphoric state induced by the taking of a drug or drugs". From that, the novel sense (not yet recorded by OED) must have developed metonymically: the name for the state came to stand for the drug that induces it (EFFECT FOR CAUSE metonymy). All in all, the motivation is only similar to that of *dopalacze* insofar as in both cases we are dealing with figurative expressions.

Our last candidate, *legal intoxicants*, is a free combination, not an established lexical unit of English, and thus at best qualifies as an explanatory equivalent. Since we need an equivalent for the productive (encoding) part of the dictionary, explaining the meaning of the SL item is low on our list of priorities. Moreover, the meaning of the TL phrase is more general than that of the SL word: the substances referred to as *dopalacze* are merely one type of intoxicant (recall the Wikipedia entry discussed in 2.2.3), which makes *legal intoxicants* a superordinate term. On top of all that, there is a clear register mismatch, *legal intoxicants* being more formal.

2.3.4 Implications

Summing up, when translating a Polish text featuring *dopalacze*, or when writing an original English text discussing the phenomenon, any of the four equivalent candidates might do the job. The choice would depend on which property needed stressing: the legal status of the substances, the way they are created, or the effect they are meant to produce when consumed. However,

when deciding upon the best equivalent to be placed in a bilingual Polish-English dictionary, other factors acquire prominence. Considering those factors takes us back to where we started from, i.e. to the various types of reasons behind the lack of perfect interlingual equivalence. Strictly speaking, what we are dealing with here does not fall under any of the three scenarios identified at the beginning of the paper. The imperfect equivalence is not language-structure-based, because *dopalacze* is a noun, and English has nouns. It is not world-based, because the referent (the substances in question) does exist in both cultural settings. It is not mind-based, because both speech communities possess the relevant concepts. Upon inspection, however, it turns out to be closest to that last case, albeit in a rather non-obvious way.

First, in both cultural milieus the concepts are somewhat fluid, with the substances' legal status being a matter of controversy — recall the lack of agreement between various English dictionaries concerning the legality of *designer drugs*, and the fact that in Poland the substances were delegalised in 2010, although the situation may well change again. Secondly, the concepts as such are broadly similar, but not identical: as is evident from their linguistic manifestations, they highlight (make explicit) different aspects of the designated phenomenon. From the preceding discussion, we can see how the actual (figurative) meanings of the Polish and English items are derived, in a fairly transparent manner, from their literal meanings; what differs are the literal meanings themselves. And it is precisely those differences, still available to the native speaker's consciousness — thanks, in no small measure, to the compositionality of *designer drugs*, *legal highs*, and *legal intoxicants* — which are the reason why one or the other English equivalent fits best in a particular context.

It will have become clear by now which of our candidates were judged the most promising as lexicographic equivalents to be placed in LSW. In the end, we opted for a combination of *legal highs* and *designer drugs*, preceding the equivalents by the sense discriminator *narkotyki* (in order to make it clear that that was the intended meaning rather than either of the two technical senses, whose English equivalents our target users can live without).

3. Conclusion

It goes without saying that few lexicographers can afford the luxury of devoting such a great deal of time to the search for a single equivalent. Moreover, when reconstructing the way we proceeded in this particular instance, I have no doubt refined the argument, filling in some details which were only intuitively grasped at the time — as one does when telling a story. This in itself is quite significant. It shows that the metalexigraphic and linguistic tools discussed in the preceding pages can definitely help us understand the choices made *after* we had made them. It is much less certain, however, to what extent they were also helpful in making those choices in the first place — which, after all, was the main rationale behind developing the said tools.

For the moment then, despite the considerably enriched methodological apparatus at the (linguistically sophisticated) lexicographer's disposal, we are still some way from being able to neatly classify, let alone deal with, everything that comes our way in the day-to-day business of bilingual dictionary making. The lexicon of a language — especially when examined from the point of view of the lexicon of another language, with which it is to be matched pairwise, item by item — proves too complex and elusive to fit comfortably into the pigeonholes metalexicographers have painstakingly constructed for it. Still, I see no principled reason why we should not get there one day.

Notes

1. See, for instance, the discussion of Zulu *tokoloshe* and similar cases in Swanepoel (2005).
2. See Geeraerts and Grondelaers (1995) for a detailed discussion.
3. According to Kövecses (2000: 162), although Japanese shares with English the underlying conceptual metaphor ANGER IS A HOT FLUID IN A CONTAINER, "in addition to the body as a whole, the stomach/bowels area (called *hara* in Japanese) is seen as the principal container for the hot fluid that corresponds to anger".
4. According to Yu (1995: 59), Chinese tends to utilise more body parts in its metaphors of anger and other emotional states. This allegedly has its roots in the theories of *yin-yang* and of the five elements of Chinese medicine. The Chinese counterpart of anger (*nu*) is based on the culturally significant notion of *qi* — energy that is conceptualized as a gas or fluid flowing through the body. When an excess thereof is produced, anger is felt (Kövecses 2000: 163).
5. According to Taylor and Mbense (1998: 192), "Zulus characterise anger, not only in terms of the impairment of rational faculties, but also in terms of nausea, illness, perspiration, and hyperactivity. (...) a number of Zulu expressions highlight the ferociousness of anger, and the devastation it may cause; while these aspects are certainly not absent from the English conceptualisation, they appear to be perspectivised more frequently, and more forcefully, in Zulu than in English".
6. According to Lutz (1987: 292), the inhabitants of Ifaluk "define, explain, and understand emotions primarily by reference to the events and situations in which they occur. This aspect of their ethnotheory of emotion contrasts with our own emphasis on the internal and private, rather than the social, nature of emotion". For instance, "the pragmatic information encoded in the term *song* (justifiable anger) includes the notion that judgements about whether a particular act constitutes a rule violation are more aptly made by people of higher social status, including the chiefs and older individuals" (Lutz 1987: 297).
7. For an accessible summary of Locke's views on the origin of ideas, see Harris and Taylor (1997: Chapter 10) or Hüllen (2004: 164ff.).
8. The terms in parentheses are the most common alternatives found in the relevant metalexicographic sources; a list of the latter can be found in Adamska-Salaciak (2010).
9. Actually, Madiba and Nkomo (2010: 319) treat this as an instance of explanation in the target language, not an explanatory equivalent. They do not supply any examples which might suggest what they take an explanatory equivalent to be or how it is supposed to differ from their "explanation in the target language".

10. This seems to correspond to Gouws and Prinsloo's (2010) surrogate equivalent.
11. This is sometimes called a 'cultural equivalent', but note that the correspondence here is mainly referential: it is not, or at least not primarily, the lexical items that can be treated as each other's approximate cultural equivalents, but the real-world institutions which those items denote.
12. This last strategy, no doubt the most controversial of those mentioned, is discussed in detail in Adamska-Salaciak (2006: 133-145).
13. Naturally, if they happen to be cognitive equivalents at the same time, so much the better.
14. The first edition of LSW was published in 2004, when *dopalacze* was not yet a household word. To the best of my knowledge, the underlying problem did not exist, either.
15. Singular use is possible, but much less frequent.
16. Following Hanks (1987), the term *displacement* could be used to refer to this definitional strategy.
17. For an introduction to Conceptual Metaphor Theory, see Lakoff and Johnson (1980, 1999).
18. It should, perhaps, be added that the noun phrase *designer drugs* is also attested in corpora in another sense, that of (as yet non-existent) drugs produced by new technologies and expected to combat diseases against which today's drugs are powerless. In this sense, it is often modified by the adjectives *utopian* or *futuristic* and occurs in the vicinity of *genetic engineering*, *gene therapies*, and similar.
19. All the English examples quoted in this paper have been obtained using the Sketch Engine corpus query system.
20. These are exclusively instances in the relevant sense. Cases such as, e.g., *legal high priests*, *hold the legal high ground*, or *legal high fliers*, have been discarded.
21. The author cannot vouch for the accuracy of this information (gathered from different discussion fora).
22. All the definitions in this paragraph come from OED.

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- AHD = *The American Heritage Dictionary of the English Language*. Boston: Houghton Mifflin Company.
- CALD = *Cambridge Advanced Learner's Dictionary* online (<http://dictionary.cambridge.org/>)
- CED = *Collins English Dictionary* online (<http://www.collinslanguage.com/>)
- DSA = Branford, J. and W. Branford (Eds.). 1991. *Dictionary of South African English*. Fourth edition. Cape Town: Oxford University Press.
- LDOCE = *Longman Dictionary of Contemporary English* (<http://www.ldoceonline.com/>)
- LSW = Fisiak, J., A. Adamska-Salaciak, M. Idzikowski, E. Jagła, M. Jankowski and R. Lew. 2011. *LONGMAN Słownik Współczesny Angielsko-Polski, Polsko-Angielski*. Second edition. Harlow: Pearson Education Limited.
- MEDAL = *Macmillan English Dictionary for Advanced Learners* online (<http://www.macmillandictionary.com/>)

OALD = *Oxford Advanced Learner's Dictionary* online (<http://www.oxfordadvancedlearnersdictionary.com/>)

OED = *Oxford English Dictionary* online (www.oed.com/)

Corpora

BASE (British Academic Spoken English Corpus; 1,252,256 tokens)

BAWE (British Academic Written English Corpus; 8,336,262)

BNC (British National Corpus; 112,181,015 tokens)

COCA (Corpus of Contemporary American English; ca. 425,000,000 tokens)

enTenTen (English Web Corpus; 3,268,798,627 tokens)

ukWaC (British English Web Corpus; 1,565,274,190 tokens)

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