

Smell in Polish: Lexical Semantics and Cultural Values*

Katarzyna Dziwirek

Abstract: Verbs of perception have been typically classified into three semantic groups. Gisborne (2010) calls the three categories agentive (*listen* class), experiencer (*hear* class), and percept (*sound* class). Examples pertaining to the sense of smell in English use the same lexical item (*smell*), while in Polish, the three senses of smell are expressed with different verbs: *wąchać* (agentive), *czuć zapach* (experiencer), and *pachnieć* (percept). In metaphorical extensions of the verbs of sensory perception these verbs often stand for mental states, as meaning shifts typically involve the transfer from concrete to abstract domains. I show that the metaphorical extensions of *pachnieć* and percept *to smell* are quite different. Not only does *pachnieć* not suggest bad character or dislikeable characteristics, it actually conveys the opposite, as in the expression *coś komuś pachnie* ‘something is attractive to someone’ or when used without a modifier. These differences stem from the positive meaning of *pachnieć* and the negative meaning of *to smell*. Since the percept verbs of smell seem to be intrinsically positively or negatively valued, they do not lend themselves to universal Mind-as-Body extensions. I also consider some of the dramatic frequency contrasts between Polish and English smell constructions and show they can have their root in different cultural scripts underlying modes of speaking (*pachnieć jak* vs. *smell like*), framing of experiences (*czuć zapach* vs. experiencer *to smell*), polysemy, and different constructional capabilities (*wąchać* vs. *to sniff*).

1. Introduction

In this paper I consider expressions of smell focusing in particular on the metaphorical extensions of the Polish and English verbs of smell. I argue that the types of extensions available are not universal but depend on the lexical meaning of the smell verbs. I examine frequency discrepancies of seemingly analogous Polish and English smell constructions and provide explanations rooted in underlying cultural values, polysemy, and constructional ranges. I also provide a syntactic analysis of a particularly puzzling smell construction in Polish.

* I wish to express my gratitude to Hana Filip and two anonymous *JSL* reviewers who provided many useful suggestions and references.

Verbs of perception (vision, hearing, taste, touch, smell) have been typically classified into three semantic groups. Gisborne (2010) calls the three categories agentive (*listen* class), experiencer (*hear* class), and percept (*sound* class). Viberg (1984) uses the terms activity, experience, and copulative. Lipińska-Grzegorek (1977) calls them active, cognitive, and descriptive. Kopytko (1986) introduces yet a different terminology and offers a feature-based account of their meanings: intentional verbs (*listen*) are [-result, +intent, +active, -state], resultative verbs (*hear*) are [+result, -intent, -active, -state], and existential verbs (*sound*) are [+result, -intent, -active, +state]. The three types are illustrated below with examples from Gisborne (2010: 4–5), whose terminology I adopt.

(1) Agentive:

I listened to the tenor.

I looked at the painting.

(2) Experiencer:

I heard the aria.

I saw the painter's signature.

(3) Percept:

The high C sounded flat.

The painting looked damaged.

In English there are three distinct verbs of hearing (*listen*, *hear*, *sound*) and two verbs of vision (*look*, *see*) corresponding to the three meanings. Parallel examples pertaining to the sense of smell below use the same lexical item (*smell*) in all three classes.¹

(4) Agentive:

He (stopped and) smelled the roses.

(5) Experiencer:

Rees thought he smelled the sea's faint salty tang in the air.

¹ Almost all English examples come from Corpus of Contemporary American English (COCA) or the British National Corpus (BNC). All Polish examples come from the Polish National Corpus (NKJP = Narodowy Korpus Języka Polskiego). In this paper I use the balanced NKJP subcorpus of 300 million words. COCA has 450 million words and the BNC has 100 million.

(6) Percept:

The cabin smelled strongly of cabbage and sour wild cranberries.

In contrast, in Polish, the three senses of smell are expressed with different verbs:

(7) Agentive:

Powąchał róże.
smelled_{3M} roses_{ACC}
'He smelled the roses.'

(8) Experiencer:

Poczuł zapach wilgotnego leśnego powietrza.
sensed_{3M} smell_{ACC} damp_{GEN} forest_{GEN} air_{GEN}
'He sensed the smell of damp forest air.'

(9) Percept:

Jego mundur pachniał ziemią.
his uniform_{NOM} smelled_{3M} earth_{INST}
'His uniform smelled of earth.'

Unlike Polish and similar to English, the lexical realization of the three aspects of the sense of smell is quite limited in many languages from different language families. This phenomenon has been discussed by multiple researchers including Viberg (1984), Plümacher and Holz (2007), Classen, Howes, and Synnot (1994), and Classen (1993), who propose various evolutionary, neurological, cultural, and linguistic explanations. This paucity of smell expressions is by no means true of all languages. Classen, Howes, and Synnot (1994: 109–13) give several examples of languages with complex smell vocabularies, e.g., Kapsiki of Cameroon and Desana of Colombia, while Wnuk and Majid (2014) discuss the intricate odor terms of Maniq spoken in Thailand.

2. Metaphorical Extensions of Verbs of Smell

Much has been written about the metaphorical extensions of the verbs of sensory perception. It has been shown in language after language that these bodily experiences often stand for mental states, as meaning shifts typically involve the transfer from concrete to abstract domains and not vice versa (Lakoff and Johnson 1980; Traugott 1982; Sweetser 1991; Johnson 1987). Sweetser (1991: 21) comments: "Deep and pervasive metaphorical connections link our

vocabulary of physical perception and our vocabulary of intellect and knowledge." She invokes the Mind-as-Body Metaphor and argues that we perceive our internal states (emotional, cognitive, mental) in terms of external bodily experience and never the other way around. Her thorough investigation of sense-perception verbs in English and Indo-European leads her to the following broad conclusions regarding metaphorical extensions of sense verbs: Vision → Knowledge (e.g., *I see* in the sense of *I understand*); Hearing → Heed → Obey; Taste → Likes/Dislikes; Touch → Feelings; Smell → Dislikeable feelings.

Concerning the sense-of-smell metaphors, Sweetser comments: "The sense of smell has few abstract or mental connotations, although bad smell is used in English to indicate bad character or dislikeable mental characteristics (*he is a stinker* or *that idea stinks*, while the active verb of *smell* may indicate detection of such characteristics (*I smell something fishy about this deal*)" (Sweetser 1991: 37). While she is careful to talk about the metaphorical extensions only in regard to English, Sweetser does discuss Indo-European roots and the overall tone of the chapter is universalistic. "The vocabulary of physical perception thus shows systematic metaphorical connections with the vocabulary of internal self and internal sensations. These connections are not random correspondences, but highly motivated links between parallel or analogous areas of physical and internal sensation" (Sweetser 1991: 45).

Ibarretxe-Antuñano (1997) also interprets Sweetser's claim as generalized. "One of Sweetser's main claims is that these metaphorical mappings between different conceptual domains are not specific to one language but cross-linguistic" (Ibarretxe-Antuñano 1997: 30). She also challenges Sweetser's statements with regard to the metaphors based on smell verbs. Using data from Basque and Spanish, she demonstrates that verbs of smell can have additional metaphorical extensions such as *to guess*, *to suspect*, *to trail*, and *to investigate* and comments: "it can be concluded that Sweetser's claim that the verbs of smell are connected to only two types of perceptual development is not correct. Not only is the metaphorical scope of these verbs larger [...], but also some of these extensions of meaning remain physical like 'to trail something'" (Ibarretxe-Antuñano 1997: 34).

Other authors also question the universality of metaphoric extensions of perception verbs. Storch (2013) writes that Luwo, spoken in South Sudan, "synchronically derives 'smell' from 'know', and correlates cognition, vision, and searching in other constructions" (Storch 2013: 67). Evans and Wilkins (2000) studied perception verbs in 60 Australian languages. They point out that "the extension of verbs from perceptual to cognitive meanings is quite different from the Indo-European based patterns studied by Sweetser. In Australian languages it is hearing, not vision, that regularly extends into the cognitive domain, going beyond the expected extension of 'hear' to 'understand', and on to 'know', 'think', 'remember', and other cognitive verbs" (Evans and

Wilkins 2000: 549). They also point out that in Australian languages “‘smell’ occasionally extends to ‘taste’” (Evans and Wilkins 2000: 559).

In what follows I show that not only are the metaphorical extensions of smell verbs more numerous than Sweetser suggests, but also that they are very closely tied to the lexical meanings of specific verbs in individual languages and are thus difficult to generalize cross-linguistically.

3. Percept: to Emit a Scent—*pachnieć/smell*²

3.1. X *pachnie*/ X *smells*

Pachnieć occurs in NKJP 7,076 times.³ It is found in several syntactic constructions. The simplest one consists of a subject (the source of the scent) and the verb *pachnieć* in an agreeing form.

- (10) a. Jajecznica pachnie, kawa pachnie.
 scrambled-eggs_{NOM} smell_{3SG} coffee_{NOM} smell_{3SG}
 ‘There is a smell of scrambled eggs and coffee.’
- b. Znad pieca pachniał piernik.
 from above stove_{GEN} smelled_{3M} ginger-cake_{NOM}
 ‘From above the stove there came a smell of ginger-cake.’

As previously noted by Pisarkowa (1972), Lipińska-Grzegorek (1977), and Viberg (1984), the sentences in (10) suggest that the smell involved is pleasant. The Polish *pachnieć* is defined either as neutral, e.g., *wydzielać woń, zapach* ‘to emit a smell, a scent’ (Boryś 2005: 406) or positive *wydzielać woń, zapach* (*zwykle przyjemny*), *być pełnym przyjemnego zapachu* ‘to emit a smell, a scent (usually pleasant), to be filled with a pleasant smell’ (*Słownik Języka Polskiego* 1979: 577). This is not the case with English *smell*, which is defined in the relevant sense by the *Merriam-Webster Collegiate Dictionary* (1991) as “5. to give off or have an odor or scent; 6. to have a particular odor or scent; 7. to give out an offensive odor; stink.” *Smell* is not an antonym of *stink* in English, but *pachnieć* is an antonym of *śmierdzić* ‘stink’ in Polish.

In order to render the sentences in (10) in English the verb *pachnieć* has to be translated as ‘smell nice/pleasant’, or one has to use impersonal constructions such as: ‘One can/could smell X’ or ‘There is/was a smell of X in the air.’ Structurally analogous sentences in English have the connotation of a bad smell:

² The Polish infinitive *pachnieć* is a 19th-century creation, replacing the older *pachnąć* (Bańkowski 2000: 481; Boryś 2005: 406).

³ Search terms *pachni** 3,830 and *pachną** 3,246.

- (11) a. This room smells.
 b. This food smells.
 c. Your feet smell.
 d. She smells.

Krifka (2010: 4), citing Horn (1984), notes that this negative meaning of *smell* might have developed due to politeness: “Bad smells are often associated with taboos, hence speakers try to avoid talking about them in many situations. They avoid the word *stink* that directly refers to bad smells, and use the originally neutral word *smell* for this case.”

Lipińska-Grzegorek (1977: 82) comments: “It is also possible that the English verb *smell* and the Polish verb *pachnieć* are used without any complement, but then the meaning of these verbs is different in English and Polish. *Smell* used without an adjective following it carries the meaning of negative evaluation. [...] In Polish, when *pachnieć* is used without an adverb following it, the meaning of this verb incorporates the meaning of positive evaluation of smell.”

Polish appears to be unusual in this respect. Viberg (1984: 154–55) writes: “For *smell*, I examined what happens if you use the verb in an absolute construction [i.e., without any modifier—K. D.] in most of the languages of the sample. And it turned out that a bad smell was implied. The only clear counterexample to this is found in Polish.”⁴

Thus, even though *to smell* and *pachnieć* can combine with positive and negative modifiers, neither language has a completely neutral percept verb of smell. The meaning of *pachnieć* includes a positive evaluation (hence its strong antonymic relationship with *śmierdzieć*); the meaning of *smell*, a negative one. Therefore, any claim about percept verbs of smell extending to target domains of negative or dislikeable feelings cannot be universal.

The meaning of the somewhat old-fashioned construction in which *pachnieć* is accompanied by a human referent in the dative case (as well as a nominative source of the smell) further underscores the basic positive sense of *pachnieć*. Those sentences mean that someone feels like (doing) X, is attracted to X. This would not be possible if the meaning of *pachnieć* was inherently negative. There is no comparable construction in English with *smell*; perhaps the closest equivalent would be “something called to/drew someone.”

- (12) a. Wstąpił do wojska. Pachniała mu wojaczka,
 entered_{3M} to army_{GEN} smelled_{3F} him_{DAT} fighting_{NOM}

⁴ Viberg’s sample included 53 languages from 14 different language families. According to Bojan Belić (p.c.), BCS *mirisati* is also positively valued.

szabelka i wrony konik.
 sword_{NOM} and black_{NOM} horse_{NOM}

'He joined the army. He was attracted to fighting, the sword, and a black horse.'

- (12) b. Pachniała mu myśl powrotu do kraju,
 smelled_{3F} him_{DAT} idea_{NOM} return_{GEN} to country_{GEN}
 przeniesienia nad Wisłę domowego ogniska,
 moving_{NOM} to Wisła_{ACC} home_{GEN} fire_{GEN}
 podjęcia jakiejś tam szerszej pracy.
 assuming_{GEN} some_{GEN} there bigger_{GEN} job_{GEN}

'He liked the thought of returning to Poland, moving his hearth to the banks of the Vistula, starting a bigger job there.'

3.2. *Pachnieć* + Adv/*Smell* + Adj

A remarkable fact about expression of smell in English and Polish (as well as many other languages; see Dubois 2007, Holz 2007, Zucco 2007, Krifka 2010, Wnuk and Majid 2013) is that there are very few modifiers that describe smells uniquely. All the other senses have descriptive adjectives—sight (size, color, etc.), hearing (loudness, shrillness, etc.), touch (smoothness, etc.), taste (sweetness, bitterness, etc.)—but there are just a few unique adjectives which designate smells (English *putrid*, *fetid*, *malodorous*, *fragrant*, *redolent*, *pungent*). Instead, smells are typically named either according to source or a property of some object (*smell of/like* X) or the so-called hedonistic scale: pleasant vs. unpleasant or good vs. bad.⁵ The adverbs used with *pachnieć* in Polish reflect the latter:

- (13) a. Avon jogurtowy balsam do ciała z
 Avon yogurt_{NOM} lotion_{NOM} for body_{GEN} with
 malinami — ładnie pachnie ale średnio nawilża.
 raspberries_{INST} pretty smell_{3SG} but medium moisturize_{3SG}
 'Avon yogurt body lotion with raspberries—smells nice, but moisturizes not so well.'
- b. Parówki brzydko pachniały.
 hot dogs_{NOM} ugly smelled_{3PL}
 'The hot dogs smelled bad.'

⁵ There are, however, more specialized descriptors of smell in specific disciplines, such as chemistry, perfumery, or wine making.

In English, the corresponding construction involves adjectives, not adverbs (for discussion of the contrast, see Dziwirek and Lewandowska-Tomaszczyk 2003), but is otherwise analogous. The main differences are in the semantic fields chosen to describe pleasant and unpleasant smells. Polish *pachnieć* occurs with adverbs meaning ugly/beautiful very frequently, while English *smell* does so rarely. The opposite is true of good/bad, which are common descriptors of *smell*, but not of *pachnieć* (*źle* 'badly' occurs with *pachnieć* only 5 times in NKJP, all metaphoric extensions). Another contrast concerns "gustatory" modifiers. In NKJP *pachnieć słodko* 'smell sweet' is found 4 times, *pachnieć gorzko* 'smell bitter' once, *pachnieć smacznie* 'smell delicious' once.⁶ The English verb *smell* occurs with *sweet* in COCA 79 times, and with *delicious* 50 times.

- (14) a. His skin smelled sweet and fresh like the clean clothes I dry on the clothesline.
 b. Stella's dinner smelled delicious.
 c. Those rolls smell scrumptious.
 d. The regiment's camp smelled foul.
 e. The house smelled clean.
 f. She smelled good, too, like the air after a low country rain.
 g. It smelled pretty bad, kind of like the dog pound.

The main metaphoric extension of *pachnieć* plus adverb is the expression *brzydko pachnieć* 'to smell bad' (lit. in an ugly manner). It is most often found with the subject *sprawa* 'the affair/the matter' or *coś* 'something' and suggests that there is something suspicious and not quite above-board about a situation. The expression *brzydko pachnieć* when used nonliterally to suggest questionable human behavior can be compared to the English metaphorical use of *smell* (not necessarily with the adjective *bad*) and *stink*.

- (15) a. Dlaczego mimo to sprawa brzydko pachnie?
 why despite that matter_{NOM} ugly smell_{3SG}
 Bo za dużo tu tajemniczości.
 because too much here secretiveness_{GEN}
 'Why then, despite that, does the matter smell? Because there are too many secrets here.'

⁶ Gustatory adjectives occur with the noun *zapach* much more frequently in NKJP: *słodki zapach* 'a sweet smell' (55), *gorzki zapach* 'a bitter smell' (15), *kwaśny zapach* 'a sour smell' (18).

- (15) b. Jej zdaniem nie ma nic złego w tym, że
 her opinion_{INST} not is nothing wrong_{GEN} in that that
 ktoś płaci za czas włożony w pisanie
 someone_{NOM} pay_{3SG} for time_{ACC} put into writing
 internetowego pamiętnika. Trudno jednak oprzeć się
 internet_{GEN} diary_{GEN} difficult yet resist_{INF} REFL
 wrażeniu, że coś tu brzydko pachnie.
 impression_{DAT} that something_{NOM} here ugly smell_{3SG}
 ‘She thinks that it is not bad if people are getting paid for writing
 an internet diary. Yet one cannot help but feel that something
 here smells (bad).’
- c. Lokatorzy doszli do wniosku, że zwrot
 residents_{NOM} came_{3PL} to conclusion_{GEN} that return_{NOM}
 ich kamienicy rzekomym właścicielom jakoś
 their building_{GEN} supposed_{DAT} owners_{DAT} somehow
 brzydko pachnie.
 ugly smell_{3SG}
 ‘The residents decided that the return of their building to the
 supposed owners somehow smells (bad).’

3.3. *Pachnieć jak/Smell like*

The next construction with *pachnieć* has an exact translational parallel in English: it elucidates the quality of the smell by using the comparative *jak* in Polish and *like* in English, comparing the smell to some other entity. Though the constructions are translationally equivalent, they are not functionally equivalent, as *smell like* is by far the preferred way of describing smells, particularly in American English.

The *pachnieć jak* construction occurs in the balanced version of NKJP 163 times.

- (16) a. Nic tak nie pachnie jak morze.
 nothing so not smell_{3SG} like sea_{NOM}
 ‘Nothing smells like the sea.’
- b. Jej włosy pachniały jak jakaś łąka.
 her hair_{NOM} smelled_{3PL} like somen_{NOM} meadow_{NOM}
 ‘Her hair smelled like a meadow.’
- c. Kawa lurowata, a bita śmietana pachniała
 coffee_{NOM} weak_{NOM} and whipped_{NOM} cream_{NOM} smelled_{3F}

jak ścierka do podłogi.
like rag_{NOM} for floor_{GEN}

'The coffee was weak, and the whipped cream smelled like a floor rag.'

- (16) d. Ten błyszczyk Tuti Fruti pachniał jak guma do
this lip gloss_{NOM} Tuti Fruti smelled_{3M} like gum_{NOM} for
żucia.
chewing_{GEN}

'The Tuti Fruti lip gloss smelled like chewing gum.'

The corresponding English construction *smell like* occurs in COCA 2,615 times.

- (17) a. He said they smell like flowers and smoke.
b. I hate that I smell like day-old sweat and Artie's cigarettes.
c. They smell like tortilla chips with spicy seasoning.
d. They're shaped like strawberries but smell like lavender.
e. I'm in a bus station that smells like urine.
f. I saw my daughter's car today and it smells like there's been a dead body in the damn car.
g. He smelled like grease paint and iodine and coconut shampoo.

The contrast between the Polish and American English numbers is significant. The balanced version of NKJP consists of 300 million words, compared to COCA's 450 million. *Pachnieć jak* occurs in NKJP only 164 times while *smell like* occurs in COCA 2,615 times. That is a rate of 0.54 per million words in NKJP versus 5.8 times per million words in COCA. The expression *smell like* is thus used over 10 times more frequently than *pachnieć jak*.

The contrast between COCA and the BNC is also significant. The BNC has a 100 million words, so all other things being equal, we might expect to find roughly a quarter of the number of the occurrences of *smell like*, or around 650. Yet the actual number in the BNC is 141 (rate of 1.4 per 1 million words).

The popularity of this construction in American English specifically can be traced to the fondness Americans exhibit for comparison of one concept to another. Expressions *It's like this...*, or *It's like...*, or *Y is the size of X football fields*, or *700 billion could pay for 2,000 McDonalds apple pies for every single American* are very common in American discourse. Furthermore, they are uniquely American. For example, the presentational (i.e., framing the following clause) *It's like this* occurs 254 times in COCA; some examples are given in (18) below.

In contrast, *It's like this* is not found in the BNC. *It is like this* occurs 4 times, mostly in non-presentational contexts (*Sometimes it is like this in Lebanon*).⁷

- (18) a. See, look, it's like this. If I'm wrong, then this is just another crazy story.
- b. Well, sir, it's like this: I've got this brother in western Nebraska...
- c. Okay, it's like this: When everything is unfamiliar and scary, your heart pounds.
- d. Well, Johnny, it's like this. I'm white trash.
- e. It's like this: I'm 29 years old and choose not to drink.
- f. It's like this. I fell in love with the place.
- g. Gina, it's like this. You know I love you, I love them kids.

Wierzbicka (2006) argues that the "Anglo" cultural values of nonexaggeration, accuracy, and respect for facts are responsible for the frequent prefacing of statements of opinion with clauses like *I think, I feel, I believe*, etc. in English. The presentational *It's like this* might stem from the same principle (I don't want to say that what I say is true), but it seems to have a different function as well. It serves to signal that what follows is a metaphor or restatement of a more complicated proposition in simpler terms. It reflects the American preference for simplifying complex ideas and "plain speaking," or what Kövecses (2000) calls "American straightforwardness." Its other function is to preface a personal disclosure. Americans show higher rates of self-disclosure than other cultures (Chen 1995), which is attributed to the individualistic nature of American society and the value it places on openness. Often, *It's like this* has a flavor of self-deprecation; like "aw-shucks," it implies that the speaker is modest, humble, self-effacing, etc. Both uses of *It's like this* indicate that the speaker is a little bit uncomfortable saying what comes next, either because it suggests the need to simplify, and thus doubt the interlocutor's intelligence, or because it might be too personal.

⁷ *It's like* is found 18,470 times in COCA (some examples below), zero times in the BNC. The non-contracted version *It is like* occurs in the BNC 336 times but most examples are non-presentational, e.g., *It is like a dream come true. What it is like to be battered.*

- (i) It's like asking if you could meet someone like Babe Paley now.
- (ii) For me, it's like I'm wearing art on my feet.
- (iii) It's like he has these blinders on, with this amazing focus.
- (iv) It's like he was born to do all of this.
- (v) It's like the milk at the back of the store.
- (vi) It's like a job interview blended with speed dating.

While similes (X is like Y) are also found in Polish (possibly in all languages), they are not nearly as frequent as they are in American English. Furthermore, the ubiquitous American comparisons of amounts (size, dollar figures, etc.) to concepts that are believed to be more easily understandable (football fields, McDonalds' apple pies) do not seem to occur as frequently in Polish or British English. For instance, the expression *the size of a football field* occurs in COCA 68 times and in BNC 1 time (*the size of a football pitch* is found 4 times). Thus the contrast in the frequencies of *pachnieć jak* and *smell like* follows from more general differences in the cultural scripts underlying modes of speaking.

3.4. *Pachnieć* + INST/*smell of*

By far the most common complement of *pachnieć* in Polish is a noun phrase in the instrumental case. This roughly translates into English as 'smell of', or 'have the fragrance of'. Janda (1993) suggests that this use of instrumental in Russian might be the "instrumental of sensation," possibly related to "attributive instrumental" and "instrumental of comparison" (e.g., *patrzeć wilkiem* 'to glower', 'to look like a wolf', lit. to look wolf_{INST}).⁸ It is not possible to give the exact number of instrumental complements of *pachnieć*, but they do seem to predominate in the NKJP.

- (19) a. Pstrzył się kolorowymi daliami, pachniał
 dotted_{3M} REFL colorful dahlias_{INST} smelled_{3M}
 nasturcjami ogródek babci.
 nasturtiums_{INST} garden_{NOM} grandma_{GEN}
 'Grandma's garden was dotted with colorful dahlias and smelled
 of nasturtiums.'
- b. Pachniała miętą i tatarakiem.
 smelled_{3F} mint_{INST} and calamus_{INST}
 'She smelled of mint and calamus.'
- c. W jej mieszkaniu pachniało kobietą: perfumami,
 in her apartment_{LOC} smelled_{3N} woman_{INST} perfume_{INST}

⁸ This use of instrumental might also be an instance of "instrumental of manner," as in *ukradkiem/chyłkiem* 'on the sly', *biegiem* 'running', *plecami* 'with back turned', *cichaczem/cichcem* 'quietly', *szybkim krokiem* 'fast', etc. Janda (1993) does not actually explain the use of instrumental case here.

ubraniami i nie wiem, czym jeszcze.
 clothes_{INST} and not know_{1SG} what_{INST} else

'Her apartment smelled of woman: perfume, clothes, and I do not know of what else.'

It is difficult to establish a semantic reason for the use of the instrumental case in this construction, and in fact I believe that the choice of case here has a morphosyntactic explanation. The explanation is framed in terms of Relational Grammar, but is easily translatable into other frameworks.⁹ I would like to propose that the verb *pachnieć* in Polish has the initial valence of Loc (2) (Mod). This seems intuitively correct, as these sentences do not contain any agents.¹⁰ Minimally, a sentence with *pachnieć* contains the verb and the Locative argument indicating what smells: the meadow, the apartment, the air, her hair, your feet, Mary, etc. Such sentences have the structure as in (20): 2 = direct object, 1 = subject. Since the Final 1 Law (Perlmutter and Postal 1983) requires that each grammatical utterance have a subject, the Locative entity advances to 1 and becomes the subject.¹¹

⁹ In Relational Grammar (Perlmutter 1980, 1983; Perlmutter and Postal 1983; Perlmutter and Rosen 1984) grammatical relations, represented as 1 (subject), 2 (direct object), 3 (indirect object), Obl (Oblique), P (Predicate), etc., are used to formulate generalizations about syntactic structure. Clauses are represented as Relational Networks which may contain several strata. Nominal advancements to different grammatical relations are governed by a set of laws including the Stratal Uniqueness Law, which assures that there are no two nominals bearing the same grammatical relation in a given stratum. If a nominal's grammatical relation is usurped by the advancement of another, it becomes a chomeur, the French term for 'unemployed'.

¹⁰ In the variant of the *pachnieć* + instrumental construction which includes a prepositional *od* 'from' phrase with a (most often) human participant, the human is conceived of not as an agent, but as the source of the smell. There is no comparable construction in English, other than the somewhat convoluted literal translation: "A smell of X emanated from Y."

(i) Pachniało od niej słońcem, wiatrem i trzodą.
 smelled_{3SG.n} from her sun_{INST} wind_{INST} and flock_{INST}

'She smelled of the sun, the wind, and the flock.'

¹¹ The Locative Advancement proceeds in the Loc-2-1 way because direct Oblique to 1 advancements are not allowed.

The comparable English construction *smell of* is found in COCA 1,674 times:

- (26) a. She sniffs the air: it does not smell of onions, it does not smell of anything.
 b. In the morning when my mother drove me to school, the car would smell of lake water.
 c. You can smell of alcohol without being drunk.
 d. He smelled of soap as if he'd just cleaned up.
 e. His breath smelled of grape soda, his lips stained slightly purple.
 f. Pasquetta, my neighbor on the bench, often smells of salami when she eats her mother's sandwiches.

The contrast in the frequencies of the two constructions *pachnieć* + inst./*smell of*, which appears to be more frequent in Polish, and *pachnieć jak/smell like*, which is by far more frequent in English, points to the relative preference of Polish speakers for concreteness and American English speakers for comparison and metaphor.

Both *pachnieć* + instrumental and *smell of* can be used metaphorically in the sense of 'suggest, imply, bring to mind'. However, there is a difference. Metaphorical uses of *smell of* are almost uniformly negative, as noted by Viberg (1984) and Sweetser (1991), among others. Of the sentences below, the only possibly positive example is (27b).

- (27) a. This smells of anti-Semitism to me.
 b. We are quick to fall for anything that so much as smells of divinity, even if the scent comes from a bottle.
 c. My sweat-soaked clothes smelled of fear.
 d. The streets smelled of blood and panic.
 e. The squad room smelled of all of it—the despair, the anger, the boredom.
 f. This really smells of an epic decadence.
 g. It smells of petty revenge.

The metaphorical uses of *pachnieć* + instrumental in NKJP do include negative concepts such as *provokacją* 'of provocation', *wielkim interesem* 'of big business', *partią* 'of the (communist) party', *drużyną pionierską* 'of the commu-

frightened of, etc.). Thus the morphological realization of 2-chomeurs in English is variable, but this is a problem that any analysis has to contend with.

nist youth brigade', *komunizmem* 'of communism', *przekupstwem* 'of corruption', *zdradą stanu* 'of treason', *buntem* 'of mutiny/rebellion', *sabotażem* 'of sabotage', *herezją* 'heresy', *kryminałem* 'of prison', *świństwem* 'of a dirty deed', *arogancją* 'of arrogance', *paniką* 'panic', etc. However, they also include many positive ones: *domem* 'of home', *bezpieczeństwem* 'of safety', *dzieciństwem* 'of childhood', *harcerską przygodą* 'of a scouting adventure', *porządkiem* 'of order', *czystością* 'of cleanliness', *czynem* 'of action', *nowością* 'of something new', *pracą na słońcu* 'of work in the sun', *Europą* 'of Europe', *Zachodem* 'of the West', *literaturą* 'of literature', etc. Just as *pachnieć* can combine with negative or positive adverbs, it can also combine with negative or positive instrumental nouns in the sense of 'imply, suggest'.

To summarize, the metaphorical extensions of the percept sense of *pachnieć* and *smell* are quite different. Not only does *pachnieć* not suggest bad character or dislikeable characteristics, it actually may convey the opposite, as in the expression *coś komuś pachnie* meaning 'something is attractive to someone', or when used without a modifier. In order to obtain the reading similar to the metaphoric extension of *smell* in Polish, one has to say explicitly *coś brzydko pachnie* 'something smells bad'. Though *pachnieć* and *smell* share the extension of 'imply', in English the suggestions are uniformly negative, while in Polish they are not so limited. These differences stem from the positive meaning of *pachnieć* and the negative meaning of *smell*. Since the percept verbs of smell may be differently valued in different languages, there can be no universal extensions of olfactory predicates. The frequency differences in the use of particular constructions follow from underlying cultural models.

3.5. Unpleasant Smells: *śmierdzieć*, *cuchnąć/stink*, *reek*

Negative percept verbs of smell occur in NKJP less frequently than the neutral-to-positive *pachnieć*. *Śmierdzieć* 'to stink' is found 1571 times (including the participle *śmierdzący* 'stinking' 1,120 times). Its most common collocates are *spaleniźna* 'burning/something burnt', *stęchlizna* 'mustiness', *grosz* 'pennies',¹³ *chlor* 'chlorine', *gnój* 'manure', *mocz* 'urine', and *zgnilizna* 'putridity/something rotten'. *Cuchnąć* 'to reek' occurs 1,455 times (the participle *cuchnący* 'fetid, putrid' is the most common form, occurring 934 times). These two verbs occur without complements (28a), with intensifying adverbs (28b), and with instrumental sources (28c–e).

- (28) a. Jak się tu przeprowadziliśmy, śmierdziało od
 when REFL here moved_{1PL} stank_{3N} from

¹³ In the fixed expression *nie śmierdzieć groszem* 'to be poor', lit. to not stink of pennies.

czasu do czasu.
time_{GEN} to time_{GEN}

'When we moved here (the place) stank from time to time.'

- (28) b. A koło nich śmierdziało okrutnie.
and near them_{GEN} stank_{3N} horribly

'Around them it smelled horrible.'

- c. Pytała, dlaczego ma wymioty i czy w pokoju
asked_{3F} why have_{3SG} vomit_{ACC} and if in room_{LOC}
nie śmierdzi benzyną.
not stink_{3SG} gasoline_{INST}

'She asked why he/she is nauseous and whether the room stinks of gasoline.'

- d. To wstrętny, brudny magazyn... śmierdzi stęchlizną.
it disgusting dirty warehouse_{NOM} stink_{3SG} mustiness_{INST}

'This is a disgusting, horrible warehouse; it smells of mustiness.'

- e. Śmierdział potem i krwią.
stank_{3M} sweat_{INST} and blood_{INST}

'He stank of sweat and blood.'

Stink, the verb, occurs in COCA 2,318 times. Its most common collocations are *breath*, *air*, *room* (as sources of smell) and *sweat*, *smoke*, *fish*, *shit*, *urine*, *cigarettes*, and *garbage* as the odors.

- (29) a. No matter how sweet you smell on the outside, on the inside you stink like a slaughterhouse or killing field.
b. Half of South Carolina appeared to be packed into a Hilton ballroom that began to stink noticeably of sweat and booze long before Newt showed up.
c. Her room stank of death and decay mingled with the odors of medicines and maybe alcohol.
d. The old man's breath stank of sardines and horseradish.
e. The air stank of cow manure.

Reek is found in COCA 787 times. Its original meaning 'to emit smoke' has now been subsumed by the more general 'to emit a bad smell'. It is now for all intents and purposes synonymous with *stink*: it occurs with virtually identical collocates.

- (30) a. The kitchen had begun to reek of rot and mold.
 b. Instead of emanating the pleasant scent of Heather's Chanel No. 5, the letter reeks of dirty diapers.
 c. The dormitories reek of urine and sweat.
 d. A man who reeks of whisky and sweat shoots back a barbed response, words slurred in disdain.

Since their meanings are 'emit an unpleasant smell', both *stink/reek* and *śmierdzić/cuchnąć* can be used metaphorically in the same way. That is, to suggest something bad, fishy, underhanded, etc.

- (31) a. Frankly, sir, his story stinks.
 b. It stinks to high heaven.
 c. Such a transaction stinks of illegal activity.
- (32) a. A to przecież na kilometr śmierdziało jakąś
 and this after all for kilometer_{ACC} stank_{3N} some_{INST}
 aferą.
 scandal_{INST}
 'This stank of scandal from a kilometer away.'
- b. Sam papier listowy śmierdział zdradą i
 very paper_{NOM} letter_{NOM} stank_{3M} betrayal_{INST} and
 kłamstwem.
 lie_{INST}
 'The very stationary stank of betrayal and lies.'
- c. Wszystko śmierdzi korupcją, zmierza ku
 everything_{NOM} stink_{3SG} corruption_{INST} head_{3SG} to
 klęsce.
 disaster_{DAT}
 'Everything stinks of corruption, is headed for disaster.'
- d. Interes z melasą cuchnął kryminałem.
 business_{NOM} with treacle_{INST} reeked_{3M} prison_{INST}
 'The business with treacle reeked of prison.'

They can also be used metaphorically in the sense of "be imbued with a (negative) feeling," fear in the Polish sentence below and despair in the English one:

- (33) a. Ich cienie są długie i czarne, cuchną
 their shadows_{NOM} are long and black reek_{3PL}
 brudem, zmęczeniem i strachem.
 dirt_{INST} tiredness_{INST} and fear_{INST}
 ‘Their shadows are long and black, they reek of dirt, exhaustion,
 and fear.’
- b. The room stank of whiskey, sweat, and despair.

4. Agentive: *wąchać/smell/sniff*

Wąchać is an agentive, transitive verb, which refers to a deliberate action of taking in a scent and translates into English as both *smell* and *sniff*. It occurs in NKJP 887 times, thus its frequency is much smaller than that of *pachnieć* (7,076). This is understandable, as the act of stopping to take in an aroma occurs more rarely than the state of something emitting a scent. We stop to smell natural smells such as flowers, perfume, or food, but rarely other things, with the exception of glue: *wąchać klej* is the most common collocation with 56 occurrences in NKJP.

- (34) a. Dziecko dotyka papier ścierny, a potem
 child_{NOM} touch_{3SG} paper_{ACC} abrasive_{ACC} and then
 futerko, wącha ocet, a potem perfumy.
 fur_{ACC} smell_{3SG} vinegar_{ACC} and then perfume_{ACC}
 ‘The child touches the sandpaper, then fur, smells vinegar and
 then perfume.’
- b. W miejscowej aptece wiedzą, kto kupuje
 in local_{LOC} pharmacy_{LOC} know_{3PL} who buy_{3SG}
 strzykawki, a kto wącha klej.
 syringes_{ACC} and who sniff_{3SG} glue_{ACC}
 ‘In the local pharmacy they know who buys syringes and who
 sniffs glue.’
- c. Kto lubi wąchać spaliny?
 who like_{3SG} smell_{INF} exhaust fumes_{ACC}
 ‘Who likes to smell exhaust fumes?’
- d. Kociak wącha kwiaty. Pachną mocno.
 kitten_{NOM} smell_{3SG} flowers_{ACC} smell_{3PL} strong
 ‘A kitten smells/sniffs flowers. They smell strong.’

Wąchać turns out to be a fairly literal verb, used primarily with olfactory emanations. I found one fixed expression, *wąchać kwiatki od dołu* 'be dead', lit. 'smell flowers from below', and one example of it being used metaphorically in the sense of 'have, be in the proximity of':

- (35) Wielu naszych wyższych oficerów, a nawet generałów
 many our_{GEN} higher_{GEN} officers_{GEN} and even generals_{GEN}
 nie wąchało nigdy maturalnego świadectwa.
 not smelled_{3N} never maturity_{GEN} certificate_{GEN}
 'Many of our₃ officers, even generals, never had (lit. smelled) a high-school diploma.'

There are no extensions similar to English "detection of dislikeable characteristics" (Sweetser 1991) or Spanish and Basque "trail, investigate" (Ibarretxe-Antuñano 1997), though the prefixed verb *wywąchać* does have the sense of 'smell out, find out'.¹⁴

The English *sniff* is much more frequent than *wąchać*; it is found in COCA 4,464 times (while *wąchać* both in the sense of 'smell' and 'sniff' occurs only 887 times). There are several reasons for this disparity between Polish and English frequencies, the main ones being *sniff*'s wider range of complements and polysemy. Like *wąchać*, *to sniff* means to deliberately take in a scent. Unlike *wąchać*, it can occur without an object or with the preposition *at*:

- (36) a. Coffee, though... He lifted the mug to his lips and sniffed. Mmm. Rich, robust, not acidic.
 b. A black-and-white T-shirt, a hoodie, and a pair of sweat socks. All sniffed at them.

To sniff is also a phrasal verb occurring with the particle *out*, meaning 'to discover, to find out', etc., both literally and metaphorically.

- (37) a. I once monitored a bear who sniffed out a hazelnut crop 40 miles away.

¹⁴ Both in literal (i) and metaphorical (ii) senses:

- (i) Dziadek miał taki węch, że potrafił nawet wywąchać pożywienie ukryte przed nim głęboko w tapczanie.
 'Grandpa had such a sense of smell, that he could sniff out food hidden from him deep in the bed.'
 (ii) Trzeba było mieć czujność i wywąchać glinę na końcu ulicy.
 'It was necessary to be alert so as to sniff out the cops at the end of the street.'

- (37) b. The German shepherd, 6, has sniffed out more than \$200,000 in drugs.
- c. And I nearly believed he could sniff out my future, as he'd sniffed out the past.
- d. Of course, we immediately sniffed out the semi-obscure artisans' craft center beneath the San Francisco Cathedral and scooped up gorgeous woven scarves.

To sniff has another meaning which *wąchać* does not share: 'to sniffle', that is, "to sniff slightly repeatedly because of a cold or an act of crying" (Merriam-Webster Collegiate Dictionary 1991). In Polish, this sense of *to sniff* is expressed not by *wąchać*, but by the locution *pociągać nosem*.

- (38) a. Grandma sniffed and patted my fingers.
- b. Annie sniffed and dabbed at her eyes.
- c. She sniffed back tears and smiled weakly.
- d. Regaining a degree of composure, she sniffed and swiped tears from her face.

In summary, the metaphorical extensions of the agentive verb of smell in Polish (*wąchać*) do not mirror those of the English agentive verb *to smell*.

5. Experiencer: (po)czuć zapach/to smell

The Polish expression that conveys the nonagentive, nondeliberate experience of smell (like *hear* or *see*) is (po)czuć zapach czegoś 'to sense a smell of', which occurs in NKJP 320 times. This might seem surprising, as one would expect that the involuntary experience of smell would be a more frequent occurrence than the act of sniffing or deliberately smelling something. I suspect that the explanation lies in the fact that Poles tend to present many situations as originating outside of themselves in a generally disculpatory manner (Wierzbicka 1999). Saying that one sensed a smell, though experiential, is still more agentive than presenting the situation from the point of view of the smell's source or location: *Zupa pachniała* 'The soup smelled (pleasant)' or *Mieszkanie pachniało zupą* 'The apartment smelled of soup' are the most natural ways in Polish to say that someone smelled soup. Both of these sentences involve a human experiencer (How can we know that something has a smell unless a person is there to experience it?), but in a nonovert way. Thus, Polish tends to express the sense of smell more frequently by highlighting the source rather than the experiencer.

- (39) a. Panny z corps de ballet poczuły zapach dymu,
 girls_{NOM} from corps de ballet sensed_{3PL} smell_{ACC} smoke_{GEN}
 gdy droga odwrotu była już odcięta.
 when way_{NOM} retreat_{GEN} was_{3F} already cut_{NOM}
 'Girls from the corps de ballet smelled (sensed the smell of) the
 smoke when the way back was cut off.'
- b. Czułem zapach potu, brudnych tenisówek.
 sensed_{1SG} smell_{ACC} sweat_{GEN} dirty_{GEN} shoes_{GEN}
 'I smelled (sensed the smell) of sweat, dirty tennis shoes.'
- c. Czułem zapach olejku różanego i – nie wiedzieć
 sensed_{1SG} smell_{ACC} oil_{GEN} rose_{GEN} and not known
 czemu – poziomek.
 why berries_{GEN}
 'I smelled (sensed the smell) of rose oil and, I don't know why,
 wild strawberries.'
- d. W trakcie wymiany pokrycia dachu garażu,
 in course_{LOC} exchange_{GEN} cover_{GEN} roof_{GEN} garage_{GEN}
 pracownicy wykonujący roboty poczuli zapach gazu.
 workers_{NOM} doing works_{ACC} sensed_{3PL} smell_{ACC} gas_{GEN}
 'During the reroofing of the garage the workers smelled (sensed
 the smell of) gas.'

The expression *czuć zapach* can have the metaphorical extension of 'to sense' (in a neutral, not necessarily positive or negative, way), as in (40):

- (40) Do dziś, gdy wącham piwonie, konwalie,
 till today when smell_{1SG} peonies_{ACC} lilies of the valley_{ACC}
 floksy, dalie – czuję zapach luterskich
 phlox_{ACC} dahlias_{ACC} sense_{1SG} smell_{ACC} Lutheran_{GEN}
 nieboszczyków.
 dead_{GEN}
 'Till this day, when I smell (sniff) peonies, lilies of the valley, phlox,
 and dahlias, I smell the Lutheran dead.'

The verb *czuć* 'to feel, to sense' can be used in other ways to convey the sense of smell. One is in the fixed expression *czuć pismo nosem* 'to suspect, to foresee, to smell a rat'. Its literal meaning is quite bizarre: 'to smell the writing with the nose', but according to the *Słownik Języka Polskiego* (1979) *pismo* here is a corruption of *piżmo* 'musk'. The other is the use of the infinitive *czuć* in the

impersonal construction which means ‘One can/could smell X’.¹⁵ The source of the smell in this construction can be in the accusative, as in (41a–b), or instrumental, as in (41c–d).

- (41) a. W całym domu czuć było swąd
 in whole_{LOC} house_{LOC} sense_{INF} was_{3n} stink_{ACC}
 nadpalonego parkietu.
 singed_{GEN} floor_{GEN}
 ‘The whole house smelled of the stink of singed wooden floor.’
 (‘One could sense the stink of singed wooden floor in the whole house.’)
- b. Czuć było od niego wódkę.
 sense_{INF} was_{3n} from him_{GEN} vodka_{ACC}
 ‘One could smell vodka on him.’
- c. Mieszkanie czuć było starością i brudem.
 apartment_{ACC} sense_{INF} was_{3n} old-age_{INST} and dirt_{INST}
 ‘The apartment smelled of old age and dirt.’
- d. W sieni czuć było, jak zawsze, gotowaną
 in vestibule_{LOC} sense_{INF} was_{3n} as always boiled_{INST}
 kapustą.
 cabbage_{INST}
 ‘The vestibule smelled, as always of boiled cabbage.’

8. Conclusions

In conclusion, it seems that few generalizations can be made about expressions of smell cross-linguistically. In European languages there seems to be a paucity of both verbs of smell and modifiers describing smells. In terms of metaphorical uses, the main conclusions are that the percept verbs of smell seem to be intrinsically positively or negatively valued and thus, unlike other perception verbs, do not lend themselves to universal Mind-as-Body extensions. Words meaning *stink* and their metaphorical extensions seem better candidates for universality: in English and Polish they can indicate wrongdo-

¹⁵ Polish has a few verbs which can be used in this manner. *Widać* and *słychać*, which mean roughly ‘can be seen/one can see’ and ‘can be heard/one can hear’, occur only in the infinitive form and are used without overt subjects or agents in any case. *Znać* ‘to show’, *czuć* ‘can be smelled’, and *stać* ‘to afford’ are also used in this way, but these verbs are polysemous and in their other meanings (‘know’, ‘feel’, and ‘stand’) are used in a regular inflected fashion.

ing or suspicious activities. Metaphorical extensions of active verbs of smell also do not match, as the only metaphorical use of *wąchać* in Polish means 'to be in the proximity of, to have', while in English *to smell* means to 'detect dislikeable characteristics'.

Finally, we have seen that the dramatic frequency contrasts between Polish and English smell constructions can have their root in different scripts underlying modes of speaking (*pachnieć jak* vs. *smell like*), framing of experiences (*czuć zapach* vs. experiencer *to smell*), polysemy (*wąchać* vs. *to sniff*), and different constructional capabilities (*wąchać* vs. *to sniff*).

References

- Bańkowski, Andrzej. (2000) *Etymologiczny słownik języka polskiego*. Warsaw: PWN.
- Boryś, Wiesław. (2005) *Słownik etymologiczny języka polskiego*. Cracow: Wydawnictwo Literackie.
- Chen, Guo-Ming. (1995) "Differences in self-disclosure patterns among Americans versus Chinese: A comparative study". *Journal of cross-cultural psychology* 26(1): 84–91.
- Classen, Constance. (1993) *Worlds of sense: Exploring the senses in history and across cultures*. London: Routledge.
- Classen, Constance, David Howes, and Anthony Synnott. (1994) *Aroma: The cultural history of smell*. London: Routledge.
- Dubois, Danièle. (2007) "From psychophysics to semiophysics: Categories as acts of meaning. A case study from olfaction and audition back to colors". Martina Plümacher and Peter Holtz, ed. *Speaking of odors and colors*. Amsterdam: John Benjamins, 167–84.
- Dziwirek, Katarzyna and Barbara Lewandowska-Tomaszczyk. (2003) "A class of adverb/adjective controlled infinitival constructions in Polish and English: A corpus-based study". *Research in language* 1: 117–42.
- Evans, Nicholas M. and David Wilkins. (2000). "In the mind's ear: The semantic extension of perception verbs in Australian languages". *Language* 76(3): 546–92.
- Gisborne, Nicholas. (2010) *The event structure of perception verbs*. Oxford: Oxford University Press.
- Grimshaw, Jane. (1987) "Psych verbs and the structure of argument structure". Unpublished ms., Brandeis University.
- Holtz, Peter. (2007) "Cognition, olfaction, and linguistic creativity: Linguistic synesthesia as poetic device in cologne advertising". Martina Plümacher and Peter Holtz, eds. *Speaking of odors and colors*. Amsterdam: John Benjamins, 185–202.

- Horn, Laurence R. (1984) "In defense of privative ambiguity". *Proceedings of the Tenth Annual Meeting of the Berkeley Linguistic Society*. Berkeley: Berkeley Linguistic Society, 141–56.
- Ibarretxe-Antuñano, Iraide. (1997) "Metaphorical mappings in the sense of smell". Raymond W. Gibbs and Gerard Stein, eds. *Metaphor in cognitive linguistics*. Amsterdam: John Benjamins, 29–46.
- Janda, Laura. (1993) *A geography of case semantics: The Czech dative and the Russian instrumental*. The Hague: Mouton de Gruyter.
- Johnson, Mark. (1987) *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.
- Lakoff, George and Mark Johnson. (1980) *Metaphors we live by*. Chicago: University of Chicago Press.
- Lipińska-Grzegorek, Maria. (1977) *Some problems of contrastive analysis: Sentences with nouns and verbs of sensual perception in English and Polish*. Urbana, IL: Linguistic Research, Inc.
- Kpytko, Roman. (1986) "Verbs of sensory cognition: A semantic analysis of a lexical field in the lexicon of ME". *Studia anglica posnaniensia* 19: 29–36.
- Kövecses, Zoltán. (2000) *American English*. Peterborough, ON: Broadview Press.
- Krifka, Manfred. (2010). "A note on the asymmetry in the hedonic implicatures of olfactory and gustatory terms". Susanne Fuchs, Phil Hoole, Christine Mooshammer, and Marzena Żygis, eds. *Between the regular and the particular in speech and language*. Frankfurt am Main: Peter Lang, 235–45.
- Merriam-Webster Collegiate Dictionary*. (1991) Springfield, MA: Merriam-Webster.
- Perlmutter, David M. (1980) "Relational grammar". Edith Moravcsik and Jessica Wirth, eds. *Current approaches to syntax*. New York: Academic Press. [Syntax and semantics, 13.]
- , ed. (1983) *Studies in relational grammar*. Vol. 1. Chicago: University of Chicago Press.
- Perlmutter, David M. and Paul M. Postal. (1983) "Some proposed laws of basic clause structure". David M. Perlmutter, ed. *Studies in relational grammar*. Vol. 1. Chicago: University of Chicago Press, 81–123.
- Perlmutter, David M. and Carol Rosen, eds. (1984) *Studies in relational grammar*. Vol. 2. Chicago: University of Chicago Press.
- Pisarkowa, Krystyna. (1972) "Szkic pola semantycznego zapachów w polszczyźnie". *Język polski* 52(5): 330–40.
- Plümacher, Martina and Peter Holtz. (2007) "Speaking of odors and colors". Martina Plümacher and Peter Holtz, eds. *Speaking of odors and colors*. Amsterdam: John Benjamins, 1–18.
- Słownik języka polskiego*. (1979) Warsaw: PWN.
- Storch, Anne. (2013) "Knowing, smelling, and telling tales in Luwo". Alexandra Y. Aikhenvald and Anne Storch, eds. *Perception and cognition in language and culture*. Leiden: Brill, 47–68.

- Sweetser, Eve. (1991) *From etymology to pragmatics*. Cambridge: Cambridge University Press.
- Traugott, Elizabeth Closs. (1982) "From propositional to textual and expressive meanings: Some semantic-pragmatic aspects of grammaticalization". Winfred P. Lehmann and Yakov Malkiel, eds. *Perspectives on historical linguistics*. Amsterdam: John Benjamins, 245–71.
- Viberg, Ake. (1984) "The verbs of perception: A typological study". Brian Butterworth, Bernard Comrie, and Östen Dahl, eds. *Explanations for language universals*. The Hague: Mouton, 123–62.
- Wierzbicka, Anna. (1999) *Emotions across languages and cultures: Diversity and universals*. Cambridge: Cambridge University Press.
- . (2006) *English: Meaning and culture*. Oxford: Oxford University Press.
- Wnuk, Ewelina and Asifa Majid. (2014) "Revisiting the limits of language: The odor lexicon of Maniq". *Cognition* 131: 125–38.
- Zucco, Geualdo M. (2007) "Odor memory: The unique nature of a memory system". Martina Plümacher and Peter Holtz, eds. *Speaking of odors and colors*. Amsterdam: John Benjamins, 155–66.

Department of Slavic Languages and Literature
University of Washington
Padelford A210
Box 354335
Seattle, WA 98195 USA
dziwirek@uw.edu

Received: March 2015
Revised: February 2016

