

Cooperation and coercion

Jenny Audring
University of Amsterdam
j.audring@uva.nl

Geert Booij
Leiden University
G.E.Booij@hum.leidenuniv.nl

Abstract: Coercion is a much-discussed topic in the linguistic literature. This article expands the usual range of cases at the most subtle and the most extreme end: it demonstrates how coercion extends into semantic flexibility on the one hand and into idiomaticity on the other. After discussing a broad variety of coercion cases in syntax and morphology and briefly reviewing the equally diverse literature, we identify three mechanisms – selection, enrichment and override – that have alternatively been proposed to account for coercion effects. We then present an approach that combines all three mechanisms, arguing that they can be unified along a single axis: the degree of top-down influence of complex structures on lexical semantics.

Keywords: coercion, constructions, semantics, polysemy, idioms

Acknowledgements: We thank Ray Jackendoff and two anonymous reviewers for comments and advice. Jenny Audring is grateful to the Netherlands Organisation for Scientific Research (NWO) for a Veni grant, #275-70-036.

1 Introduction

Sometimes, words are used in surprising ways. Consider example (1) from Dutch:

- (1) a. *Een joggende boerka is nog geen terrorist*
‘A jogging burka is not yet a terrorist’
b. *Rara, een joggende djellaba*
‘Guess what, a jogging djellaba’
(*NRC* newspaper, 21 June 2014)

The process that allows for (1a) and b) to be felicitous sentences of Dutch is known as *coercion*. In coercion, the utterance context favors or enforces a particular reading of a word, here, a person reading for the two nouns denoting items of clothing. Since this reading lies outside the usual semantic range of *boerka* and *djellaba*, the coercion effect is clearly noticeable and can be exploited stylistically.

The person reading in (1) is the consequence of a semantic clash: *joggende* requires a human agent, a condition not satisfied by the inanimate subject nouns. This confirms the well-known

observation that coercion is a repair strategy or “compromise construal” (De Swart 1998; Michaelis 2004) – a bridge between a phrase and an incompatible word appearing in it.

While in (1) the head of the NP is coerced into a person reading to accommodate the participle, in other cases it is the verb that undergoes coercion. In a classic example (discussed, among others, in Verkuyl 1972; Talmy 1978; and Jackendoff 1991), a temporal adverbial changes the aspect of a verb from point-event to state by introducing iteration (2a). A similar effect occurs with *all night* in (2b) and with the result adverbial in (2c).

- (2) a. *The light flashed until dawn.*
b. *We played poker and she won all night.*
c. *He knocked on the door until his knuckles ached.*

Again, we see a semantic conflict – here, between point-event and time adverbial – and a form of resolution. Resolution can follow a wide variety of strategies. In many cases it involves established classes, such as the types of verbal aspect as in (2), or semantic/pragmatic strategies such as metonymy, as in (1). The observation of typical resolution pathways has led researchers to assume that coercion is effected by conventionalized operators or constructions (Jackendoff 1991, 1997, 2013; Fillmore and Kay 1993). One such operator with the meaning ‘activity commonly associated with N’ might be proposed for (3):

- (3) *I'm done with...*

- *the windows*
- *the letter*
- *the salt*
- *the taxes*
- *the sunflowers*
- *the route*
- *the wardrobe*

The semantic conflict in (3) arises from combining the expression *done with X*, which selects for an activity, with a noun denoting an entity. Repair is realized by inserting an implicit predicate, which by default is chosen to denote the activity commonly associated with the entity in question, e.g. cleaning the windows, reading or writing a letter, using the salt, paying taxes, drawing or painting sunflowers, planning a route, and tidying a wardrobe.¹ While the spirit of the solution is the same in all instances, the range of the implicit predicates is virtually infinite: any noun could in principle trigger a new semantic type.

¹ Complement coercions as in (3) have sparked a substantial literature, theoretical as well as psycholinguistic (e.g. Briscoe, Copestake and Boguraev 1990; Pustejovsky 1995; Jackendoff 1997; Lapata and Lascarides 2003; Lapata, Keller and Scheepers 2003; Pustejovsky and Jezek 2008; Kuperberg et al. 2010).

Another operator, which might be characterized as ‘model/ replica of N’ can be seen in example (4) from Jackendoff (1997: 65).

(4) *a wooden turtle*

In (4), the adjective *wooden* conflicts with the noun, which denotes an animate being. Resolution goes by way of coercing the meaning of the noun into ‘replica turtle’ (here probably construed as ‘toy turtle’). The example nicely illustrates that coercion runs on incompatibility; as Jackendoff points out, the ‘replica’ reading does not arise with objects for which being wooden is unremarkable, as in *a wooden spoon*.

In yet other cases, resolution is more specific and less easy to capture by a standard operator. Consider example (5), from our own observations.

(5) *Zo lukt Kerst!*
‘This way, Christmas will be a success!’

In this Dutch advertisement, the verb *lukken* ‘to work out right, to be a success’, which usually selects a challenging activity, is combined with a holiday event, subtly capitalizing on the fact that the management of such an event may indeed be felt to be a challenge.

In yet other instances, resolution in coercions is entirely fixed and does not vary with the semantics of the coerced element. This can be witnessed in constructional coercions such as the Dutch example in (6) below (also discussed in Cappelle 2014). The constructional idiom REFL DET X *schrikken* is used to express degree of alarm when a person is startled, similar to English ‘scared to death’. The quasi-resultative NP element in the construction can be instantiated by a (limited) number of article-noun combinations, a selection of which is given in (6). The effect is identical in all cases: the NP is coerced into an intensifier reading, such that all variants mean ‘I’m startled a lot’.

(6) *Ik schrik me...* ‘I’m scared to ... (lit. ‘I frighten myself ...’)’

- *een hoedje* ‘a hat (DIM)’
- *een ongeluk* ‘a mishap’
- *de tering* ‘the consumption/ tuberculosis’
- *een aap* ‘a monkey’
- *de tandjes* ‘the teeth (DIM)’

What is most interesting is the diversity of fillers for the intensifier slot. While nouns denoting sickness or misfortune are not unexpected in such contexts, hats, monkeys and teeth are definitely unusual. We will return to such cases in the discussion of *radical coercion* below.

The examples in this section show that coercion is a diverse and pervasive phenomenon. The aim of this article is to situate it in a larger context. We argue that, on the one end, coercions

constitute the tip of a metaphorical iceberg, whose body consists of contextual adjustments of word meaning. On the other end, we claim, coercion runs into idiomaticity, an extreme case of modulating lexical meaning in composition.

2 ‘Soft coercion’ – semantic flexibility

While examples such as (1) catch the eye of readers and linguists alike, the overwhelming majority of coercions is so subtle that they quite go unnoticed. Indeed, the phenomenon is so ubiquitous that the term might be reserved for the more drastic cases. However, it is worth considering how smoothly the classical instances of coercion run into the negotiations that are part and parcel of the construal of a word’s meaning in context. Consider, for instance, the words *lemon*, *egg* and *knocked* in the following sentences:

- (7) a. *I’d like some water with a bit of lemon.*
b. *You’ve got egg on your shirt.*
c. *He knocked on the door.*

The three words, strictly speaking, have alternative readings: the lemon in (7a) can be a slice of lemon or a quantity of lemon juice, the egg in (7b) can be raw or cooked and *knock* in (7c) can denote a one-time or a repeated activity. In the utterances (8) to (10) below, by contrast, the ambiguities are resolved.

- (8) a. *Cut the lemon in half.*
b. *Drizzle the lemon over the cake.*
- (9) a. *Put some egg into the potato salad.*
b. *Massage some egg into your hair and rinse.*
- (10) a. *He knocked on the door and waited.*
b. *He knocked on the door until his knuckles ached.*

Lemon clearly refers to a piece of fruit in (8a), but to juice in (8b); the egg in (9a) is cooked, but raw in (9b), and the event in (10) switches from one-off (10a) to iterative (10b). In the linguistic literature, (10b) is considered a case of coercion, while (8a) to (10a) are not. However, the six examples have something in common: the context of the utterance triggers a particular reading of a word. Hence, the more canonical cases of coercion can be seen as an extension of an everyday phenomenon. The difference lies in the amount of force exerted by the context. Alternations such as (8) – (10) are subtle, while the better-known cases of coercion involve more drastic changes. An example are type coercions, which will be discussed next.

3 Type coercion

Semantic coercion may involve type coercion, in the sense that a word is moved into another word class or subclass. Type coercions can be found with all the major word classes.

For verbs, aspectual coercions are common, as shown in (2) above. Similar examples are the sentences in (11), where *for months* introduces repetition or habituality to the event, while the adverb *suddenly* gives a state verb *know* an inchoative reading (De Swart 1998: 359).

- (11) a. *For months, the train arrived late.*
b. *Suddenly, I knew the answer.*

A different case of verbal coercion can be found in the use of the English prefix *un-*, which can change the semantic class of the base verbs. As Bauer et al. put it (2013: 374): “*un-* can take a stative, activity or other kind of verb and force it into a causative/inchoative verb that implies a reversible result.” Examples are the verbs *un-inhabit*, *un-grow*, *un-see*, *un-have* and *un-hit*. Social media provides further examples, from *unfollow* (on Twitter) to *unfriend* somebody or *unlike* (i.e. remove the “like” on) a post (on Facebook). Another telling example from our own observations is an instrument maker discussing the precision required in manufacturing a flute and remarking that “you cannot undrill a hole”.

For nouns, typical kinds of type coercion are those between count and mass noun and between proper name and common noun (see (12a) and (b), courtesy of Michaelis 2003), though many other variants are possible (see Pustejovsky 1991: 432 for a list of common types).²

- (12) a. *some pillow* (count > mass)
b. *a pudding* (mass > count)
c. *We’ve got three Pauls in the family.* (proper name > common noun)
d. *I’m practicing Brahms.* (proper name > common noun)³

For adjectives, coercion can result in shifts from a relational to a qualifying adjective (13).

- (13) a. *This building looks very American.*
b. *You’re renting your home? That’s really un-Dutch.*

Type coercion can also involve conversion, i.e. a change of word class. An interesting example comes from Dutch (Booij and Audring forthcoming). Dutch has V > N conversion, but its productivity is marginal. However, in the context of certain constructions, coercion-driven conversions are surprisingly productive. This is the case in the *aan de [V]_N gaan*-construction (literally meaning ‘go at the ...’). Internet search provides an impressive number of instances; a small selection is given in (14):

² We will give a different, more nuanced analysis of these examples in Section 6.3 below.

³ Examples such as (12d) are often discussed under the name of *reference transfer* (Nunberg 1979; Fauconnier 1985).

- (14) a. *Het gebeurt vaker dat ze ineens aan de vreet gaan*
 ‘It happens more often that they start eating all of a sudden’
 b. *Zelfs een dynamo kan aan de ratel gaan*
 ‘Even a dynamo can start rattling’
 c. *Gewoon buiten aan de ren gaan.*
 ‘Just get running outside’
 d. *Als het warm is wil hij af en toe een stukje aan de zwem gaan.*
 ‘When it is warm, he wants to go swimming a bit from time to time.’

In the above examples, the verb stem is used in a noun slot and thereby coerced into a class it does not usually belong in. The semantic effect is inchoative: the construction focuses on the start of the activity. None of the nominalizations in (14) exist outside the construction, at least not with the relevant meaning.

Concluding the rough overview of the formal consequences of coercion, (15) provides an example of incidental type coercion involving a change in word class from pronoun to noun.

- (15) *Wie dient, denkt niet alleen in ‘ik’.*
 ‘Who serves, does not only think in ‘I’.’
Wie dient, denkt niet alleen in ‘zij’.
 ‘Who serves, does not only think in ‘they’.’
Wie dient, denkt ook in ‘wij’.
 ‘Who serves, also thinks in ‘we’.’
 (*Trouw* newspaper, 14 January 2014, general army commander Peter Uhm)

In the first line of (15), the interpretation of *ik* is not that of a 1st person singular pronoun; instead it denotes ‘self-interest’. Similarly, *zij* ‘they’ in the second line is interpreted as ‘others’, and *wij* ‘we’ in the third as ‘common interest’. Hence, these words function as nouns semantically.⁴ In this case, we know for sure that this correlates with a change of word class: if the words *ik*, *zij*, *wij* still had the status of pronouns, they would have to appear in oblique form after a preposition, which would be *mij*, *hen* and *ons*, respectively.

4 Coercion in constructions

A number of the cases explored above involve constructions, i.e. conventionalized pairings of (complex) form and meaning. Coercion effects are of particular interest to Construction Grammar, in a similar fashion as they were interesting to formal semantics in earlier decades: they are prime examples of holistic meaning. In coercions, the utterance meaning is more than (or different from) the sum of the lexical meanings of the individual words. From a constructionist perspective, this is expected behavior for larger unitary structures: “coercion constitutes a major argument in favor of the existence of constructions as independent

⁴ Note that (15) does not constitute a case of use-mention: there is no reference to the (use of a) word; instead, the pronouns are given a new meaning.

form/meaning pairings, since it can be used as a heuristic means to discover the independent constructional semantics” (Lauwers and Willems 2011: 1220).⁵ At the same time, constructions are a particularly fruitful environment to look for coercion data, as “[a]ny construction that selects for a specific lexical class or phrasal daughter is a potential coercion trigger” (Michaelis 2011: 1383-1384).

An illustrative example of (type) coercion in constructions is the *(all) X-ed out* construction described by Jackendoff (2013 and elsewhere):

- (16) a. *If you're not all festivaled out this summer head for The Moors Festival*
b. *Just in case you're not all Biebered out already, here's the full studio version of "Mistletoe"* (referring to a Justin Bieber recording)
c. *By midnight:30 I was all Amsterdammied out.*
(examples from www.google.com, searched 19 November 2014)

This conventional pattern, which could be schematized as *(all) [[X]-ed]_v out* refers to a state induced by an activity, ‘exhausted from X-ing to excess’. When X is not a verb but a noun and thus lacking the activity reading, the effect is coercive: ‘exhausted from experiencing X to excess’ (Jackendoff 2013: 89, though without reference to coercion). The effect is as predictive as the construction is productive: almost any noun can be coerced into a tiring activity in this manner.

A very similar construction can be found in Dutch (example 17). Here, the noun *kleuter* ‘toddler’ is used as the root of a separable complex verb, resulting in the participle *uitgekleuterd* ‘toddlered out, done with raising toddlers’. This coinage is particularly interesting, as Dutch does not have the particle verb *uitkleuteren* (nor, for that matter, the base verb *kleuteren*, at least not with the relevant meaning), so the noun has been inserted directly into the participle schema.

- (17) *Mijn dochter is nu uitgekleuterd*
‘My daughter is done with raising toddlers now’

The semantic effect of the coercion is in tune with other *uit-X* participles, which mean ‘done with X’. (For details and a more extended discussion of construction-dependent morphology, see Booij and Audring 2007).

Another example is the use of nouns in adjective slots in French (Lauwers 2014: 206):

- (18) *des costumes très 'théâtre'*
‘very theatre-like costumes’

⁵ Holistic meaning is often referred to as “non-compositional”. However, this term does not seem appropriate if coercions are taken to involve a combination of lexical and constructional meaning, in which case the result would be compositional after all (see e.g. Michaelis 2003).

The construction is similar to its English equivalent, which enjoys a special productivity with years (19):

(19) *This is so 2013!*

In both English and French, the noun or number is forced into an adjectival reading, in particular that of a qualifying adjective meaning ‘typical of X’.

Interestingly, constructional coercion, including type coercion, is not limited to syntax. Booij and Audring (forthcoming) discuss coercion from the point of view of Construction Morphology, demonstrating how inflection and derivation can produce type changes. An example (from Grandi et al. 2011) is given in (20). In this Italian newspaper headline, the noun *bomba* ‘bomb’ is used with a superlative suffix usually reserved for adjectives. The semantic effect is that of intensification: ‘news like a bomb, breaking news’.

(20) *Notizia bombissima! Priest Holmes si ritira?*
‘Breaking news! Is Priest Holmes withdrawing?’

Leaving type coercions, but staying with constructional coercions, we find idiomatic expressions such as the Dutch example in (6) above, which constitute an extreme case of construction-determined meaning. Another remarkable case is the German idiom *jemandem auf* DET X *gehen* ‘to get on somebody’s nerves’. Next to *die Nerven* ‘the nerves’, a wide variety of items can be found in the DET X position; no overall semantic or formal pattern is discernible (though some words appear to be euphemisms for certain body parts, and neuter nouns are rare). A selection is given in (21):

(21) *Er geht mir auf...* ‘He’s getting on my... (lit. ‘He goes me on the...’)’

- *die Nerven* ‘the nerves’
- *den Sack* ‘the sack’
- *den Keks* ‘the cookie’
- *den Wecker* ‘the alarm clock’
- *die Eier* ‘the eggs’
- *die Ketten* ‘the chains’
- *den Docht* ‘the wick’
- *den Trichter* ‘the cone’
- *den Zeiger* ‘the pointer/ the clock hand’
- *den Senkel* ‘the shoelace’
- *das Schwein* ‘the pig’

The essential observation is that the lexical semantics of the nouns does not contribute to the utterance meaning. Instead, as in (6) above, the expression means exactly the same, whatever item is inserted. While the NP slot in the construction is partially open – new variants cannot

be added completely at random, but the broad range of filler items suggests a light degree of productivity – the expression is fully and non-compositionally idiomatic and any NP is coerced into the appropriate function.

5 Theoretical accounts

Considering the wide range of coercive modifications from contextual adjustment to embedding into idioms, it is not surprising that theoretical accounts are diverse and heterogeneous. The diversity is apparent in the metaphors used to describe the observed effects. Across the literature, three views are prevalent.

The first view discusses coercion as a cooperation between lexical and phrasal meaning, exploiting alternative readings of a lexical item.⁶ Such cooperation is sometimes called CO-COMPOSITION (Pustejovsky 1991, 1995). An illustrative example is the double functionality of words such as *bake* or *lunch* in (22). As argued in Pustejovsky (1995: 47), *bake* can either encode a change of state (22a) or a means of creation (22b). *Lunch*, in turn, can be an event (22c) or a kind of food (22d) (Pustejovsky 2011: 1403).

- (22) a. *John baked the potato*
b. *John baked the cake.*
c. *Mary left school after lunch.* (event)
d. *Mary brought lunch to school.* (food)

Such cases appear to involve SELECTION (Pustejovsky and Jezek 2008; Pustejovsky 2011): the context selects the appropriate meaning from within the semantic range of the word. While selection is often excluded from coercion proper, it is frequently discussed in the context of coercion and therefore clearly perceived as a closely related phenomenon. In fact, examples such as *the author will discuss her book*, which involves the selection of aspects of lexical semantics, i.e. the informational content associated with *book*, are considered coercions in Pustejovsky and Jezek (2008: 188).

A second view represents coercion as an operation involving the addition of unexpressed semantics to the utterance. This view is endorsed by Jackendoff (1991, 1997, 2013 and elsewhere), and phrased most helpfully in Culicover and Jackendoff (2005: 228). Coercion is said to mediate between a function and an incompatible argument the way an adapter mediates between an incompatible socket and plug. For example, the implicit predicate in (23), informally represented as [...], connects the verb *began*, which requires an action argument, with the object argument *the book*.

- (23) *Mary began [...] the book.*

⁶ A discussion of theoretical semantic issues, such as the difference between polysemy, ambiguity, and vagueness, is beyond the scope of this paper (but see e.g. Willems 2013 for a recent account in relation to coercion).

The relevant operation is taken to be ENRICHMENT: the compositional utterance meaning is enriched with the help of a semantic operator lacking overt form. The argument in favor of this approach is that the book in (23) is still an object in the final interpretation of the sentence – the reading event merely augments the semantic composition. Note how this analysis is confirmed by pronominalization: the anaphoric pronoun *it* in (24) refers to the book as an object.⁷

(24) *Mary began the book after it had been sitting on her shelf for years.*

The third view, which is the most widespread and found from the earliest to the most recent accounts (e.g. Partee and Roth 1985; De Swart 1998; prominently Pustejovsky 1991, 1995, 2011; Pustejovsky and Jezek 2008; Michaelis 2003, 2004 and 2011), characterizes coercion as an actual change of properties. In this literature, coercion is discussed in terms of a “type shift”, “transition”, “modulation”, “conversion” or “meaning shift”. Here, the relevant mechanism is captured in the term OVERRIDE. The contrast between enrichment and override can be illustrated with (23) above, for which Pustejovsky (2011: 1406) gives the traditional account as in (25):

(25) *Mary began [the book]_{event}.*

Rather than inserting a mediator between the verb and the misfitting argument, the argument is taken to be changed into a matching type. While this effect can be attributed to an operator as in Jackendoff’s account, the difference between the two approaches lies in the effect the operator is taken to have: adding to the lexical meaning vs. modifying it.

The latter kind of approach has enjoyed recent popularity in constructionist accounts of coercion, in particular the work by Michaelis (2003, 2004, 2011), who formalizes it as the *Override Principle* (Michaelis 2003: 9).

Override principle: If lexical and structural meanings conflict, the semantic specifications of the lexical element conform to those of the grammatical structure with which that lexical item is combined.

Informally put, the argument is that larger linguistic structures are a stronger force than the individual word and are therefore able to modify properties of the coerced item.

By contrasting the three types of account in this brief (and admittedly superficial) way, we do not intend to compare or argue in favor of one or the other approach. Instead, we suggest that together they form a useful typology for coercion phenomena, each accounting for different cases. The ‘spine’ of the typology is formed by the degree to which the original meaning of a coerced item is preserved in the final interpretation.

⁷ We thank an anonymous reviewer for reminding us of this fact.

In *coercion by selection*, the resulting meaning is a part of the semantic repertoire of the coerced word to begin with. From this perspective, coercion works largely ‘bottom-up’, with only a light role for the context selecting one interpretation from a range of alternative readings.

In *coercion by enrichment*, lexical semantics is preserved, but augmented in context. The “adapter plug” represents a stronger ‘top-down’ influence, adding meaning to the utterance.

In *coercion by override*, in turn, contextual ‘top-down’ force is strongest; it modifies, replaces or removes properties of the coerced item.

In the remainder of this article, we will revisit a number of the examples presented above in the light of this three-way typology.

6 Reconciling accounts

6.1 Coercion by selection

Selection is the lightest form of coercion; in fact, many researchers consider it to be outside the range of the term. However, we argue that contextual adjustment involving selection constitutes the invisible mass of the iceberg, the tip of which are the more noticeable cases of coercion. Consider again examples (8) and (9), repeated here as (26) and (27).

- (26) a. *Cut the lemon in half.*
b. *Drizzle the lemon over the cake.*
- (27) a. *Put some egg into the potato salad.*
b. *Massage some egg into your hair and rinse.*

While *lemon* has alternative readings as an item or a liquid and *egg* allows interpretation as a raw substance or prepared food, some of the possible readings are incompatible in (26) and (27). Thus, the liquid reading of *lemon* fails to match with *cut* in (26a), just as the item reading does not fit the semantic frame of *drizzle* in (26b). In (27), the effect is more subtle and depends on world knowledge; yet, a raw egg reading in (27a) and a boiled egg reading in (27b) would produce odd semantic effects. The context thus coerces the lexical meaning into appropriateness just as in the more familiar cases, only in a less noticeable manner.

Another argument for coercion-by-selection can be illustrated with the help of the contrast between (28a) and b) (inspired by Pustejovsky 1995: 47).

- (28) a. *drop/ discuss the book*
b. *want/ finish the book*

While (28b) is considered a classical example of coercion and (28a) is not, the effect is virtually the same: in both examples, the verb selects among the various semantic properties (“qualia”) of *book*. *Drop* and *want* select the ‘physical object’ quale, while *discuss* and *finish* refer to the ‘informational content’ quale. Treating the two cases as fundamentally different would be missing an interesting point.

The view that coercion is actually a widespread, common and unremarkable process, with only the borderline cases attracting attention (of speakers and linguistic researchers), is hinted at in several places in the literature (e.g. Pustejovsky 1995: 109; Jackendoff 1997: 62; Michaelis 2003; Harder 2010: 247; Suttle and Goldberg 2011: 1238). We support this view by including contextual adjustment in our account.

6.2 Coercion by enrichment

The mechanism of enrichment can account for a large variety of coercions. A classic case are aspectual coercions, discussed in many sources (e.g. Talmy 1978; Pustejovsky 1991; Jackendoff 1991, 1997 and 2005). We gave three examples in (2) above, repeated here as (29).

- (29) a. *The light flashed until dawn.*
b. *We played poker and she won all night.*
c. *He knocked on the door until his knuckles ached.*

While such cases are occasionally taken to be transitions from one aspectual class, say punctual, to another, say iterative, the two classes are actually not in opposition. In fact, for the coercion to work, the short duration of the event is necessary to trigger the iterative reading. The reason is, as Jackendoff (1997: 51) argues, that *until* or *all night* refer to an ongoing event and that flashing, winning and knocking have an inherent ending and hence cannot be construed as ongoing. The semantics of the utterance needs to be enriched by an operator, a construction or a function denoting iteration in order to create an activity that can be bounded by *until* or *all night*. Thus, the utterance ends up having a piece of semantics that has no phonetic form but restores its semantic felicity.

The same effect can be seen in (30a), where *arrive* requires stretching-by-repetition in order to be boundable by *for months*, while in (30b), *suddenly* homes in on the only point event in the state denoted by *know*: the beginning.

- (30) a. *For months, the train arrived late.*
b. *Suddenly, I knew the answer.*

In all instances, the coerced meaning is negotiated cooperatively, as a combination of expressed and unexpressed meaning, the core claim of the enrichment approach.

Note again that – as argued for (28) above – there is no sharp break between aspectual coercions and ambiguity resolution. Compare the sentences in (31).

- (31) a. *Chico drank the wine.*
b. *Chico drank the wine in an hour.*
c. *Chico drank the wine all night.*

(31a) is ambiguous as to whether Chico finished the wine or not (though there might be a bias towards completion). (31b) and c) are disambiguated by the adverbials: b) refers to a completed action, c) does not. Here, the elements that resolve this ambiguity are the same elements that create aspectual coercion as in (29) above.

Another example illustrating enrichment is (32), repeated from (3) above.

- (32) *I'm done with...*
- *the windows*
 - *the letter*
 - *the salt*
 - *the taxes*
 - *the sunflowers*
 - *the route*
 - *the wardrobe*

This kind of coercion – complement coercion – is another classic in the literature, usually discussed with the verbs *begin* or *finish*, as in *begin the book* or *finish the beer*. In all instances, the verb or construction requires an activity predicate as complement. If instead of a predicate we find a nominal referent, the coercion enriches the utterance by an implicit predicate to fit the semantics of the noun.

Finally, the creative word choice in (1)/(33) can be explained with recourse to enrichment.

- (33) a. *Een joggende boerka is nog geen terrorist*
‘A jogging burka is not yet a terrorist’
b. *Rara, een joggende djellaba*
‘Guess what, a jogging djellaba’
(*NRC* newspaper, 21 June 2014)

Since the semantics of the participle requires an animate agent, an ‘adapter’ is needed to ‘plug in’ an inanimate noun. Here, the inserted function is ‘person wearing X’, a subtype of the function ‘person contextually associated with X’, proposed by Jackendoff (1991, 1997, 2013) in order to account for reference transfers. Again, enrichment appears to be a better account than, say, override, because the semantics of *boerka* and *djellaba* are not lost in the coercion,

they are merely augmented. This is the core argument in favor of enrichment: the original semantics of the coerced lexical item is still present in the final interpretation.

6.3 Coercion by override

Depending on the exact understanding of the process, enrichment and override have a lot in common. In both cases, a construction or an operator is assumed to add a semantic or formal property to the utterance. The difference lies in the effect this has on the original lexical properties. In enrichment, they remain intact and are merely augmented or ‘wrapped’ with the new specification. In override, the original properties are replaced or removed. Still, there are cases where either analysis seems possible. Consider (34), repeated from (12) above.

(34) *We’ve got three Pauls in the family.* (proper name > common noun)

In (34), *Paul* is coerced from a proper name to a common noun, which licenses the use of the numeral and the plural ending. In this view, the example is a case of override: the category [proper name] is replaced by [common noun], a classical type coercion. However, we could also posit an implicit nominal referent meaning ‘persons named’, of which *Paul* is the argument. This referent would sit between *three* and *Pauls* and enrich the utterance in a way discussed in Section 6.2. Under this analysis, *Paul* is still a proper name and the countability is a property of the implicit referent.

Analyses in terms of enrichment are harder to maintain when the new property is incompatible with the old. (35) is a case in point.

(35) *some pillow* (count > mass)

The properties count and mass are mutually exclusive; hence, a change from count to mass suggests an override. However, as defended in Jackendoff 1991, it is possible to assume an operator or rule that changes the perspective on the item rather than its properties: the non-countability of *pillow* in (35) comes from ‘zooming in’ on the material until the boundaries of the item are “outside the current field of view” (Jackendoff 1991: 19). He stresses that “[t]his does not entail that the entity is absolutely unbounded in space or time; it is just that we can’t see the boundaries from the present vantage point”. Thus, the boundedness of the pillow in (35) is not overridden, but merely ignored for the purpose of the utterance.

However, arguments for enrichment are harder to make when the coercion involves a formal category change, as the conversion from noun to adjective in (36), repeated from (20). The formal proof of the conversion (and from a production perspective, its trigger) is the superlative suffix, which requires an adjectival base.

(36) *Notizia bombissima! Priest Holmes si ritira?*
‘Breaking news! Is Priest Holmes withdrawing?’

For type coercions involving category changes and concomitant morphological behavior, an analysis in terms of override seems the better choice.

However, there can also be semantic reasons that speak for override. Consider again (19), repeated as (37).

(37) *This is so 2013.*

Both on the form side and the semantic side, *2013* has acquired new properties. Formally, it functions as an adjective, since it combines with *so*. Semantically, something that is *so 2013* is not necessarily happening in 2013, in fact, it is most likely to be 2014 or later. Both facts could be accommodated in an enrichment analysis by saying that *so 2013* means ‘typical of 2013’. However, this is not actually true: the idiomatic meaning of the expression is ‘old-fashioned, dated’. No clear conceptualization of what is typical of 2013 is required. In fact, it may not even matter which year is inserted in the construction, as long as it is in the past. The idiomatic meaning is taken care of by the entire construction, at the expense of the lexical semantics of the inserted item. In this light, an analysis in terms of override makes the best sense.

A similar point can be made for (38), introduced as (13) above.

(38) a. *This building looks very American.*
b. *You’re renting your home? That’s really un-Dutch.*

The utterances contain a semantic shift: a *very American building* does not have to be American or in America, a person behaving in an *un-Dutch* way does not need to be Dutch. In fact, *un-Dutch* cannot be used to mean ‘not Dutch’; witness (39) – the appropriate alternative would be *non-Dutch*.

(39) ?”flabbergasted” is an un-Dutch word

In (37) and (38), we see intermediate cases between enrichment and override. On the one hand, the temporal reference to 2013 and the geographical reference of *American* and *Dutch* are ‘wrapped’ by a function roughly meaning ‘characteristic of’. On the other hand, the lexical meaning of the words gets jeopardized, and in (38) there is a type shift from relational to qualifying adjective, which appears to be a consequence of override.

The clearest cases of override, however, are idiomatic constructions that were introduced as RADICAL COERCIONS in (6) and (21) above. English provides a further example, the construction *V out*, meaning ‘go into an unusual mental state’ (Jackendoff 2002). There are various verbs that appear in this construction; Jackendoff lists the following:

(40) *X out*

X: *pass, black, conk, fink, crap, chicken, flake, zonk, zone, bliss, flip, space, phase, crump, veg, chill, knock, bum, fake, gross, weird, creep, burn, poop, tucker, freak, wig, stress, mellow*

While some of the lexical meanings may contribute to the expression, e.g. in *bliss out*, *creep out* or *veg out* (‘act like a vegetable’), in many cases the meaning is idiomatic and quite independent of the inserted items. Here, the constructional semantics is clearly overriding the meaning of the words. In fact, some of the words may not have any meaning to begin with, as far as they exist independently at all (*zonk? crump? tucker?*). Interestingly, the Dutch and German idioms in (6) and (21) also contain non-existing words. German has *auf den Senker gehen*, undoubtedly a variant of *auf den Senkel gehen*. While neither word makes any sense compositionally, *Senker* is a specialist term unlikely to be part of the active vocabulary of most German speakers. Dutch provides even more striking examples. In the expression REFL DET X *schrikken*, we find a variety of items that do not occur outside this and other idioms and that do not have an independent meaning.⁸ Examples are:

(41) *Ik schrik me* ‘I’m scared to ...’

- *de rambam*
- *de/het schompes/ schompus*
- *het lepalazerus/ leplazarus*
- *het apelazerus/ apelazerus*
- *het apezuur*
- *het habbiebabbie*

The use of such forms indicates that the NP is a mere filler, a meaningless, even if expressive, sound sequence (though it still has the syntactic structure of a well-formed NP, and some of the fillers may have internal morphological structure). The semantics of the expression is entirely constructional and idiomatic. To the extent that the filler items have meaning of their own, this meaning – in most cases – does not contribute to the utterance. Therefore, such idioms are the clearest examples of constructional meaning overriding lexical meaning. They also constitute the most radical instances of coercion: the lexical meaning is ‘coerced away’ by the constructional context.

7 Conclusions

In the above, we discuss a broad variety of coercion phenomena. Hereby, we extend the notion of coercion both at the lower and at the upper end. At the lower end, we include cases of contextual adjustment. Such instances are argued to be a matter of SELECTION of certain aspects of lexical meaning by the context. At the upper end, we discuss idiomatic constructions coercing inserted items so radically that their lexical semantics is overridden by

⁸ Note also the variable gender of some of the items, reflecting the embarrassment produced by a construction requiring a determiner for what is essentially a non-word.

the utterance meaning. Between SELECTION and OVERRIDE, we argue for a middle ground covered by cases of ENRICHMENT, in which the lexical and the phrasal semantics negotiate the utterance meaning cooperatively. While selection, enrichment and override are usually presented as separate and even contradictory mechanisms, we argue for a conciliatory approach in which the three form a continuum. The unifying factor is taken to be the degree of top-down influence of complex syntactic or morphological structures on lexical meaning. In this view, selection represents the mildest degree of influence, enrichment an intermediate level and override the strongest force. By presenting a typology that is compatible with a variety of formalisms, from Pustejovsky's Generative Lexicon to Jackendoff's Parallel Architecture and various flavors of Construction Grammar, we hope to contribute towards a discussion that has been sorely fragmented by theoretic differences.

References

- Bauer, Laurie, Rochelle Lieber & Ingo Plag 2013. *The Oxford Reference Guide to English morphology*. Oxford: Oxford University Press.
- Booij, Geert & Jenny Audring. 2007. Uitgezwaard en aangezwaard. Participiumconstructies in het Nederlands. *Nederlandse Taalkunde* 12, 52-62.
- Booij, Geert & Jenny Audring, forthcoming. Coercion and category change in Construction Morphology.
- Briscoe, Ted, Ann Copestake & Bran Boguraev. 1990. Enjoy the paper: Lexical semantics via lexicology. *Proceedings of the 13th international conference on computational linguistics*, Helsinki, Finland, 42-47.
- Cappelle, Bert. 2014. Conventional combinations in pockets of productivity: English resultatives and Dutch ditransitives expressing excess. In Ronny Boogaart, Timothy Coleman & Gijsbert Rutten (eds.), *Extending the scope of Construction Grammar*, 251-281. Amsterdam / Philadelphia: John Benjamins.
- Culicover, Peter & Ray Jackendoff. 2005. *Simpler syntax*. Oxford: Oxford University Press.
- De Swart, Henriëtte. 1998. Aspect shift and coercion. *Natural Language & Linguistic Theory* 16(2), 347-385.
- Fauconnier, Gilles. 1985. *Mental spaces: Aspects of meaning construction in natural language*. Cambridge: Cambridge University Press.
- Fillmore, Charles & Paul Kay. 1993. *Construction grammar coursebook*. Unpublished ms., Department of Linguistics, University of California, Berkeley.
- Grandi, Nicola, Malvina Nissim & Fabio Tamburini. 2011. Noun-clad adjectives. On the

- adjectival status of non-head constituents of Italian attributive compounds. *Lingue e Linguaggio* 10, 161-76.
- Harder, Peter. 2010. *Meaning in mind and society. A functional contribution to the social turn in cognitive sociolinguistics*. Berlin & New York: Walter de Gruyter.
- Jackendoff, Ray. 1991. Parts and boundaries. *Cognition* 41(1), 9-45.
- Jackendoff, Ray. 1997. *The architecture of the language faculty*. Cambridge, MA: MIT Press.
- Jackendoff, Ray. 2002. *Foundations of language: Brain, meaning, grammar, evolution*. Oxford: Oxford University Press.
- Jackendoff, Ray. 2013. Constructions in the Parallel Architecture. In Thomas Hoffman, & Graeme Trousdale (eds.), *The Oxford Handbook of Construction Grammar*, 70-92. Oxford: Oxford University Press.
- Kuperberg, Gina, Arim Choi, Neil Cohn, Martin Paczynski & Ray Jackendoff. 2010. Electrophysiological correlates of complement coercion. *Journal of Cognitive Neuroscience* 22(12), 2685–2701.
- Lapata, Mirella, Frank Keller & Christoph Scheepers, C. 2003. Intra-sentential context effects on the interpretation of logical metonymy. *Cognitive Science* 27, 649–668.
- Lapata, Mirella & Alex Lascarides. 2003. A probabilistic account of logical metonymy. *Computational Linguistics* 29, 263-317.
- Lauwers, Peter & Dominique Willems. 2011. Coercion: Definition and challenges, current approaches, and new trends. *Linguistics* 49 (6), 1219-1235.
- Lauwers, Peter. 2014. Between adjective and noun. Category/function mismatch, constructional overrides and coercion. In Rafaele Simone & Francesca Masini (eds.) *Word classes: Nature, typology and representations*, 203-226. Amsterdam/ Philadelphia: John Benjamins,.
- Michaelis, Laura A. 2003. Word meaning, sentence meaning and constructional meaning. In Hubert Cuyckens, René Dirven & John Taylor (eds.), *Cognitive perspectives on lexical semantics*, 163-210. Amsterdam: Mouton de Gruyter.
- Michaelis, Laura A. 2004. Type shifting in construction grammar: An integrated approach to aspectual coercion. *Cognitive Linguistics* 15-1, 1-67.
- Michaelis, Laura A. 2011. Stative by construction. *Linguistics* 49 (6), 1359-1399.

- Nunberg, Geoffrey. 1979. The non-uniqueness of semantic solutions: Polysemy. *Linguistics and Philosophy* 3, 143-148.
- Partee, Barbara & Mats Rooth. 1983. Generalized conjunction and type ambiguity. In Rainer Bäuerle, Christoph Schwarze & Arnim von Stechow(eds.) *Meaning, use and interpretation of language*, 361-383. Berlin: Walter de Gruyter.
- Pustejovsky, James. 1991. The generative lexicon. *Computational Linguistics* 17(4), 409-441.
- Pustejovsky, James. 1995. *The generative lexicon*. Cambridge, MA: MIT Press.
- Pustejovsky, James. 2011. Coercion in a general theory of argument selection. *Linguistics* 49 (6), 1401-1431.
- Pustejovsky, James & Elisabetta Jezek. 2008. Semantic coercion in language: Beyond distributional analysis. *Italian Journal of Linguistics* 20(1), 181-214.
- Suttle, Laura & Adele Goldberg. 2011 The partial productivity of constructions as induction. *Linguistics* 49 (6), 1237-1269.
- Talmy, Leonard. 1978. The Relation of grammar to cognition. In: *Toward a cognitive semantics, Vol. I: Concept structuring systems*. Cambridge, MA: MIT Press.
- Verkuyl, Henk. 1972. *On the compositional nature of the aspects*. Dordrecht: Reidel.
- Willems, Klaas. 2013. The linguistic sign at the lexicon-syntax interface: assumptions and implications of the generative lexicon theory. *Semiotica* 193, 233-287.