SEMANTIC COHERENCE IN ENGLISH ACCUSATIVE-WITH-BARE-INFINITIVE CONSTRUCTIONS

by
Kim Ebensgaard Jensen

Drawing on usage-based cognitively oriented construction grammar, this paper investigates the patterns of coattraction of items that appear in the two VP positions (the VP in the matrix clause, and the VP in the infinitive subordinate clause) in the English accusative-with-bare-infinitive construction. The main methodological framework is that of covarying collexeme analysis, which, through statistical corpus analysis, allows for the analyst to address the semantics of a construction. Using this method on data from the *BNC*, the ultimate purpose of the paper is to address the underlying semantic relations of English accusatives-with-bare-infinitives through the relations of semantic coherence between the two VPs.

1. Introduction

There are two basic accusatives-with-infinitives in English: the accusative-with-bare-infinitive (1) and the accusative-with-to-infinitive (2):

(1) They made him see a psychiatrist.
(2) They persuaded him to see a psychiatrist.
(examples based on Bache & Davidsen-Nielsen (1997: 253-154))

Since a comparative study of the two would be outside the scope of the present paper, we will focus on the accusative-with-bare-infinitive (AwBI).

Not exactly a phenomenon that has gone unnoticed, the English accusative-with-infinitive is one of those facts of language that seem to shatter any illusion we might have about the neatness of grammatical structure. Featuring a transitive verb in a matrix clause (V^{matrix}) and a subordinate clause with an infinitive verb (V^{inf}), whose subject is in the accusative (NP^{acc}), accusatives-with-infinitives may be described as syntactically schizophrenic (e.g. Jespersen 1909: 188-190).

The locus of this schizophrenia is NP^{acc}, which both behaves like a direct object of the transitive V^{matrix}, and, at the same time, also takes up the typical subject position in the infinitive subclause. In terms of sentence semantics, the referent of the NP^{acc} is what can be described, using Bache & Davidsen-Nielsen's (1997: 196-197) general participant roles, as a DOER in the event expressed by V^{inf} and simultaneously a DONE-TO participant in the event expressed by V^{matrix}.

Taking the cognitive-functional perspective of construction grammar (Goldberg 1995, Croft 2001), our purpose is to identify the underlying semantic relations of the AwBI and analyze whether these are reflected in patterns of language use. Our main premise is that the AwBI is a construction as defined in construction grammar (i.e. a pairing of form and meaning), and thus a meaningful linguistic unit in its own right. More specifically, it is a cross-event relating construction. A cross-event relation is a semantic relation set up between two events, or propositions, via specific syntactic structures (Talmy 2000: 345). The two clauses of the AwBI express their own propositions, and the entire constructional schema sets up the relation between them. How do we identify such underlying relations? Part of the answer lies in two important principles:

- Semantic compatibility: "words can (or are likely to) occur with a given construction if (or to the degree that) their meanings are compatible" (Stefanowitsch & Gries 2005: 4).
- Semantic coherence: "since a word in any slot of a construction must be compatible with the semantics provided by the construction for that slot, there should be an overall coherence among all slots" (Stefanowitsch & Gries 2005: 11).

We can assume that the AwBI appears with lexical items in the V^{matrix}- and V^{inf}-positions which are semantically compatible with the construction and, more importantly, which display semantic coherence with each other, reflecting the underlying cross-event relation. Observing the frequencies of occurrence of lexemes in the two V-positions in situations of actual language use should give the analyst insights into the underlying semantic relations of the AwBI. With this as our main premise, we seek to empirically investigate whether there is semantic coherence between V^{matrix}- and V^{inf}-lexemes and whether such coherence reflects underlying conceptual-semantic relations. Our study is based on corpus data, the main method of analysis being covarying collexeme analysis, which allows the analyst to measure covariance, or relations of coattraction, among lexemes in two positions in a construction (Stefanowitsch & Gries 2005). Covarying collexeme analysis is particularly useful in the investigation of intra-constructional semantic relations, in that covariance, per the semantic coherence principle, often reflects constructional semantics.

The paper is structured as follows. Section 2 provides a basic introduction to the essential principles of our theoretical framework – namely, a construction grammar which is oriented towards usage-based language-modeling. This is followed (in Section 3) by a description of the quantitative method of covarying collexeme analysis (Stefanowitsch & Gries 2005), which is our primary method. Section 4 offers an evaluation and discussion of the results of our analysis. It should be mentioned that, due to scope and length limitations, there is no literature review proper. However, the reader is invited to consult Zeitlin (1908: 42-109), Jespersen (1909: 188-190), Palmer (1974: 75), Quirk et al. (1985: §16), Greenbaum & Quirk (1990: 313, 351-351), Bache & Davidsen-Nielsen (1997: 253-254), Rivas (2000), and van Gelderen (2010: 149-168) for various treatments of the construction, its form and semantics.

2. Constructions

The main theoretical framework of the present study is usage-based construction grammar, which is part of a family of syntactic theories referred to collectively as 'construction grammar' (e.g. Goldberg 1995, Croft 2001). Usage-based construction grammar inherits from construction grammar the tenet that grammar is conceptualized as a complex set of constructional networks, organized in radially taxonomic prototype categories (Lakoff 1987).

A construction is a symbolic pairing of linguistic form and conventionalized meaning, the latter covering semantics, discourse pragmatics, and other communicative resources (Croft 2001: 18-19). The meaning of a construction is associated with the construction independently of lexemes that instantiate positions within instances of use. Constructions may be simple, consisting of one unit, or complex, consisting of two or more units. Thus, both morphemes and lexemes are constructions on par with idioms and regular syntactic configurations; in other words, any conventionalized pairing of form and meaning is ultimately considered a construction. This is manifested in the adoption of a lexicon-syntax continuum in most variants of construction grammar (Goldberg 1995: 7).

Croft (2005: 274) provides the definition that is adopted in the present article, describing a construction as "an entrenched routine ... that is generally used in the speech community ... and involves a pairing of form and meaning". This rather discourse-oriented definition, in which entrenchment is a factor in conventionalization, reflects a turn within construction grammar, and cognitive linguistics in general, towards usage-based language modeling (Kemmer & Barlow 2000). Central to usage-based linguistics is the idea that the language system is inductively and experientially acquired on the basis of recurring patterns of language use. This process is one of schematization in which linguistic structures are derived from similar usage-events (Kemmer & Barlow 2000: ix; Tomasello 2003: 99).

Thus, frequency is important in that the frequency of occurrence of a structure determines the manner and degree of its entrenchment in the speech community.

Applied to construction grammar, usage-based language modeling results in constructional networks that are inductively established, allowing for specific constructions and subconstructions based on recurring linguistic and non-linguistic association patterns, association patterns being "the systematic ways in which linguistic features are used in association with other linguistic and non-linguistic features" (Biber et al. 1998: 5). This way, usage-based construction grammar emphasizes theoretical and descriptive delicacy and embraces redundancy in terms of storage of information in constructional taxonomy networks. Usage-based constructional networks typically include item-class-specific constructions, in which schematic slots evolve around specific lexical classes, and item-specific constructions, evolving around just single lexical items (Croft 2003: 57-58; Tomasello 2003: 139). Moreover, constructions that are formally similar, or even identical, may be treated as different subconstructions, or even different constructions, if they have different communicative functions.

3. Method

Taking a usage-based perspective, we are interested in investigating the underlying semantic relations between V^{matrix} and V^{inf} to see whether or not the [V^{matrix} NP^{acc} V^{inf}]-configuration covers more constructions, or subconstructions. In order to do this, we must study the semantic relations between V^{matrix} and V^{inf} in naturally occurring instances of the formal schema. More specifically, we have to study the lexical association patterns between verbs in the V^{matrix}-position and verbs in the V^{inf}-position. One way to go about this empirically and relatively objectively is to make use of one, or more, of the many techniques associated with corpus linguistics (a framework which also in other scientific respects has a number of attractive features; see Kirk 1996: 253-254).

Using Davies' (2013) interface, I retrieved all 2661 instances of the AwBI in the newspaper section of the *British National Corpus* (*BNC*) and categorized them into the following eight types, confirming Greenbaum & Quirk's (1990: 351-352) observations regarding selectional restriction of items in the V^{matrix} position:

Table 1: [V^{matrix} NP^{acc} V^{inf}]-types in the corpus

Types	Tokens	Types	Tokens
[*have* NP^{acc} V^{inf}]	8	[*let* NP^{acc} V^{inf}]	776
[*feel* NP^{acc} V^{inf}]	7	[*make* NP^{acc} V^{inf}]	718
[*hear* NP^{acc} V^{inf}]	86	[*see* NP^{acc} V^{inf}]	438
[*help* NP^{acc} V^{inf}]	582	[*watch* NP^{acc} V^{inf}]	46

The occurrences were subjected to a covarying collexeme analysis (Stefanowitsch & Gries 2005), which is a type of collostructional analysis (Stefanowitsch & Gries 2003) and calculates the coattraction patterns of lexemes in two positions in a construction. The main premise of all collostructional analysis is captured by the principles of semantic compatibility (Stefanowitsch & Gries 2005: 4) and semantic coherence (Stefanowitsch & Gries 2005: 11). Collostructional analysis thus allows us to, by identifying semantic patterns among attracted lexemes, hypothesize about the conventionalized content of the constructions in question.

Covarying collexeme analysis involves four input frequencies:

- the first lexeme in one position in the construction
- all other lexemes in the same position

- the second lexeme in the other position in the construction
- all other lexemes in the other position in the construction

These are run through a Fisher-Yates Exact Test (or a similar statistical test), yielding a collostruction strength, a numeric value which indicates the strength of coattraction of the two lexemes. Each covariant pair of lexemes is then ranked in terms of collostruction strength. Aided by Gries (2007), I next subjected all co-occurring V^{matrix}- and V^{inf}-lexemes to a further covarying collexeme analysis, using log-likelihood, which allows for a more fine-grained ranking than does the Fisher-Yates Exact Test.

4. Investigating the usage patterns

As expected, the underlying cross-event relations differ in accordance with the lexeme occurring in the V^{matrix} slot, such that certain V^{matrix}-V^{inf} relations seem to be associated with specific lexemes in the V^{matrix} slot. Below is one example of each of the types listed in Table 1:

(3) After years of having gentlemen call us 'duck' and 'darling', surely we can call one of them 'cuddly' without being offensive. (A30 329)
(4) Order large glass of dry sherry and feel its warmth penetrate toes, making up for rather painful new shoes. (A8B 56)
(5) Yet I've never heard him cry out in pain before. (CH3 6567)
(6) The stylist helped the 29-year-old make a symbolic break from her troubled past by cutting her blonde locks into a short, 'slick, groomed style'. (CBF 3573)
(7) Jose Carreras, who carried on to give four encores, before the audience would let him go. (K1U 3389)
(8) Survivors quietly described how families were destroyed, women

abused, men castrated; how the Gestapo made them play their gypsy violins even while they performed their atrocities. (A2G 157)

(9) Viewers saw him explode with fury at militiamen who tried to stand in the way of aid convoys, and shake with emotion at the tragic plight of victims of ethnic cleansing. (HJ4 8478)

(10) The 44-year-old star watched little Christina battle for life after an operation for a hole in her heart. (K4D 221)

It is quite clear from the above examples that the types in Table 1 do not express identical underlying cross-event relations between V^{matrix} and the V^{inf}. For instance, (4)-(5) and (9)-(10) set up relations of PERCEPTION such that V^{inf} expresses an EVENT which is PERCEIVED by the EXPERIENCER associated with the V^{matrix}-lexeme. This cross-event relation is largely derived from the semantics of the V^{matrix}-lexemes, all of which fall under Levin's (1993: 185) category of verbs of perception. In contrast, (6)-(8) set up force-dynamic cross-event relations between the two items. In (6) a force-dynamic relation is at play which can ultimately be boiled down to Johnson's (1987: 47) ENABLEMENT image schema, while (7) sets up a relation of REMOVAL OF CONSTRAINT (Johnson 1987: 46-47), and (8) expresses a relation of COMPULSION (Johnson 1987: 45).

As to force dynamics, Johnson (1987) has set up three image schemas generalizing over basic force-dynamic relations; the three may be described as follows:

- ENABLEMENT: a force-input enables an entity to enter into a dynamic situation.
- REMOVAL OF CONSTRAINT: a force-input removes an entity that has blocked another entity from entering into a dynamic situation.
- COMPULSION: a force-input causes an entity to enter into a dynamic situation.

While all instances of [*make* NP^{acc} V^{inf}] and [*help* NP^{acc} V^{inf}] invariably express COMPULSION and ENABLEMENT respectively in the corpus, [*let* NP^{acc} V^{inf}] expresses both REMOVAL OF CONSTRAINT and ENABLEMENT. The following example illustrates ENABLEMENT at play:

(11) Mascis himself hides behind a curtain of hair, uttering barely a word to the audience all evening, letting his guitar do all the squealing and screeching, but always with a suggestion of melody. (K57 1479)

A construction such as [*have* NP^{acc} V^{inf}], encountered above in (3), is different from the case in (11) in that it merely expresses the interlocutor's experience of being called 'duck' and 'darling'; in the following example (12), however, [*have* NP^{acc} V^{inf}] seems to set up a force-dynamic relation:

(12) It is scandalous that some sports clubs in the region are happy to have women make the tea and coffee and provide home baking, yet they won't allow them to be full members. (K5M 10860)

This is what Quirk et al. (1985: 1205) call the 'coercive' meaning of *have*, which may essentially be considered a specification of the COMPULSION image schema.

Based on these observations, we may set up a usage-based constructional network covering various types of AwBI constructions, in which [$V_{PERCEPTION}$ NP^{acc} V^{inf}] forms an item-class-based construction whose function is to express a cross-event relation of perception, while [$V_{FORCE\text{-}DYNAMICS}$ NP^{acc} V^{inf}] is an item-class-based network which subsumes three item-based constructions – namely, [*help* NP^{acc} V^{inf}], [*let* NP^{acc} V^{inf}], and [*make* NP^{acc} V^{inf}] expressing ENABLEMENT, REMOVAL OF CONSTRAINT, and COMPULSION respectively (keeping in mind that [*let* NP^{acc} V^{inf}] may further subsume a subconstruction expressing ENABLEMENT). Finally, [*have* NP^{acc} V^{inf}] is likely to also constitute a constructional network, but, given the small number of instances retrieved from the corpus, and the lack of functional consistency in the observed instances, the results are inconclusive with regard to this particular item-specific AwBI-construction.

A qualitative analysis like the one sketched here allows us to identify a set of underlying semantic relations and, on the basis of this, suggest a network of item-class-specific and item-specific AwBI subconstructions. The next step is to, via covarying collexeme analysis, investigate whether these relations are statistically reflected in actual usage-patterns. The covarying collexeme analysis generated 926 covariant pairs, ranked in terms of collostruction strength. Table 2 presents the 30 strongest covariant pairs:

Table 2: Top 30 covariant pairs

Rank	V^{matrix}	V^{inf}	Coll.strength	Rank	V^{matrix}	V^{inf}	Coll.strength
1	Make	look	189.240187902454	16	let	hope	34.6848570950812
2	make	feel	160.641382285997	17	make	laugh	33.6417963437385
3	let	know	160.173290844017	18	help	recover	33.6034018156117
4	hear	say	124.380485361977	19	help	overcome	33.0276249960361
5	let	be	80.838460990661	20	make	pay	30.3766094215569
6	help	find	66.502195880249	21	hear	shout	27.6398639713471
7	let	go	58.6457335672552	22	see	soar	25.353379675378
8	make	realise	58.2774936504241	23	make	meet	24.1976020398112
9	make	seem	55.473601969072	24	see	rise	23.2890305577321
10	make	think	50.0874047585948	25	hear	cry	20.6951661056128
11	let	have	47.7761079390275	26	hear	talk	20.6951661056128
12	help	cope	45.9048533915632	27	see	fall	20.6240699814546
13	make	want	39.5304928562309	28	see	play	20.4500018006823
14	make	work	38.7416192891574	29	help	win	20.3982910878075
15	make	wonder	36.8806418702614	30	make	happen	20.2869614464584

While not all V^{matrix}-lexemes are represented in the top 30, I would argue that the included pairs indicate patterns that support the underlying semantic relations suggested above.

This is probably clearest with the $V_{PERCEPTION}$-constructions, represented in the top 30 by *hear* and *see*. As to *hear*, at fourth place, and with a quite considerable collostruction strength, it is strongly coattracted with *say* in the AwBI context. *Hear* also appears with *shout*, *cry* and *talk* – all in the top 30. All three V^{inf}-lexemes conventionally serve to express VERBAL COMMUNICATION and NON-VERBAL EXPRESSION (Levin 1993: 202-212, 219-220), both of which are types of SOUND EMISSION; *hear* forms pairs with several other verbs of communication and non-verbal expression, as well as with verbs of sound emission (Levin 1993: 243-244) outside the top 30. SOUND EMISSION scenarios are obviously highly compatible with the semantics of *hear*, by entering into an AUDITIVE PERCEPTION-relation.

As for *see*, we find four covariant pairs with *see* as V^{matrix} in the top 30 – namely, *see-soar*, *see-rise*, *see-fall*, and *see-play* – all of which involve verbs of motion (Levin 1993: 262-272). Outside the top 30, *see* forms covariant pairs with verbs such as *crash*, *increase*, *finish*, *become*, *hit*, *kick*, *plunge* and *plummet*, which similarly express dynamic scenarios. In terms of human perception, our primary means of perceiving dynamic situations that involve motion or change of state is through our visual sense. Thus, many of the statistically significant covariant pairs with *see* as the V^{matrix} definitely reflect a VISUAL PERCEPTION-relation. Although not in the top 30, *watch*-pairs follow a similar pattern with, for instance, *watch-race* ranking at 38, *watch-blow* ranking at 83, and *watch-beat* ranking at 159. There are no *feel*-pairs in the top 30, but, ranking at 60, 61, and 62 respectively, *feel* pairs up with items such as *creep*, *penetrate* and *press*, which may indeed in certain contexts serve as verbs of contact (Levin 1993: 155), indicating an underlying TACTILE PERCEPTION-relation.

Not a verb of perception, *help* significantly pairs up in the top 30 with *find*, *cope*, *recover*, *overcome* and *win*, all of which can be classified as achievement verbs; outside the top 30, it forms covariant pairs with other verbs that express various types of ACHIEVEMENTS such as *improve*, *solve*, *understand*, *settle*, *gain*, *design*, and *complete*, among others. I would argue that this coattraction pattern reflects the ENABLEMENT-relation mentioned above, as it makes sense, logically (and probably also experientally in the perspective of social interaction), that humans would typically endeavor to enable others to achieve their goals.

Let and *make*, which in the AwBI-configuration express REMOVAL OF CONSTRAINT and COMPULSION respectively, seem less consistent in terms of covariance. In the top 30, *let* forms pairs with mental verbs like *know* and *hope*, stative verbs like *be* and possessive *have*, and with dynamic verbs like *go*. Similarly, *make* pairs up in the top 30 with mental verbs like *realize*, *think*, *want* and *wonder*, stative verbs like *seem* and intransitive *look*, dynamic verbs like *work*, *laugh*, *happen*, *pay*, and *meet*, and with a sensory verb such as *feel*. This randomness, as it were, may at first sight be interpreted as indicating a lack of semantic coherence in AwBIs with *let* and *make* as V^{matrix}. However, it is more likely that it reflects the REMOVAL OF CONSTRAINT- and COMPULSION-relations in the sense that these two force dynamic relations are less restrictive in terms of cross-event relations than are the relations of PERCEPTION associated with *see*, *watch*, *hear*, and *feel* as V^{matrix}. And, while it makes sense that the primary type of event entering into a relation of ENABLEMENT would be an ACHIEVEMENT, virtually any state or event can be brought about through COMPULSION or through REMOVAL OF A CONSTRAINT. Hence, I would argue that the diversity in the covariant *let*- and *make*-pairs in the top 30 actually reflects these two underlying force-dynamic semantic relations.

5. Conclusion

The English AwBI-construction, along with its counterparts in other languages, is obviously a very interesting and very complex phenomenon, which has already received much attention in various linguistic disciplines and paradigms, and there is more to be said about it.

Our focus has been on the underlying semantic cross-event relations between the two clausal elements in the construction. In the 2661 instances retrieved from the *BNC* newspaper subcorpus, we observed that two basic relations seemed to be at play – namely, PERCEPTION and FORCE-DYNAMICS; as these relations are specific to the seven (excluding *have*) V^{matrix}-verbs, such that we can set up an AwBI constructional network which covers the two item-class-specific subconstructions [$V_{PERCEPTION}$ NP^{acc} V^{inf}] and [$V_{FORCE\text{-}DYNAMICS}$ NP^{acc} V^{inf}], both of which may be divided into further, item-specific (sub-) subconstructions. The former subconstruction comprises item-specific (sub-)subconstructions specifying the relation of PERCEPTION as one of VISUAL PERCEPTION ([*watch* NP^{acc} V^{inf}] and [*see* NP^{acc} V^{inf}]), one of AUDITORY PERCEPTION ([*hear* NP^{acc} V^{inf}]), or one of TACTILE PERCEPTION ([*feel* NP^{acc} V^{inf}]), while the latter covers force-dynamic relations such as may be traced back to the force-dynamic image schemas of ENABLEMENT ([*help* NP^{acc} V^{inf}] and one pattern of use of [*let* NP^{acc} V^{inf}]), REMOVAL OF CONSTRAINT (another pattern of use of [*let* NP^{acc} V^{inf}]), and COMPULSION ([*make* NP^{acc} V^{inf}]).

These suggestions concerning underlying cross-event semantic relations are further supported by our findings regarding the relations of semantic coherence between the covariant pairs, with many V^{inf} groups being attracted to V^{matrix}-lexemes with which they are, to varying degrees, semantically compatible. Thus, semantic coherence typically reflects the specific underlying semantic relations of PERCEPTION or FORCE-DYNAMICS. The use of covarying collexeme analysis allowed us to measure the coattraction of items in two positions in a construction, as the relations of semantic coherence (and lack thereof) do indeed seem to reflect underlying cross-event relations. For instance, the verbs of perception in the V^{matrix}-position tend to attract V^{inf}-lexemes that express events compatible with the specified manner of perception; *hear*, for example, primarily enters into covariant pairs SOUND EMISSION verbs, while *see* and *watch* enter into covariant pairs with verbs expressing MOTION; similarly, *help* – which ultimately expresses the force-dynamic relation of ENABLEMENT – primarily enters into covariant pairs with ACHIEVEMENT verbs. This latter fact likewise clearly reflects semantic coherence, whereas the absence of any clear pattern of specific semantic coherence in the cases of *make* and *let* could be taken to reflect the force-dynamically broad nature of the relations of COMPULSION and REMOVAL OF CONSTRAINT respectively.

What the present article hopes to have shown is how covarying collexeme analysis may contribute to the study of the underlying relations of the AwBI-construction, inasmuch as covariant pair rankings tell us a lot about relations of semantic coherence; these in turn generally overlap with, or maybe even determine, the underlying cross-event relations.

Institut for Kultur og Globale Studier
Aalborg Universitet
Kroghstræde 3
DK-9220 Aalborg Ø

References

Bache, Carl & Niels Davidsen-Nielsen. 1997. Mastering English: An Advanced Grammar for Native and Non-Native Speakers. Berlin: Mouton de Guyter.

Biber, Douglas, Susan Conrad & Randi Reppen. 1998. Corpus Linguistics: Investigating Language Structure and Use. Cambridge: Cambridge University Press.

Croft, William A. 2001. Radical Construction Grammar: Syntactic Theory in Typological Perspective. Oxford: Oxford University Press.

Croft, William A. 2003. Lexical Rules vs. Constructions: A False Dichotomy. In Hubert Cuyckens et al. (eds.) Motivation in Language: Studies in Honour of Günter Radden. Amsterdam: John Benjamins. 49-68

Croft, William A. 2005. Logical and Typological Arguments for Radical Construction Grammar. In Jan-Ola Östman (ed.) Construction Grammars: Cognitive Grounding and Theoretical Extensions. Amsterdam: John Benjamins. 273-314.

Davies, Mark. 2013. BUY-BNC: British National Corpus. http://corpus.byu.edu/bnc

Goldberg, Adele E. 1995. Constructions: A Construction Grammar Approach to Argument Structure. Chicago: Chicago University Press.

Greenbaum, Sidney & Randolph Quirk. 1990. A Student's Grammar of the English Language. London: Longman.

Gries, Stefan Th. 2007. Coll.analysis 3.2. A program for R for Windows 2.x [Computer software].

Jespersen, Otto. 1909. Progress in Language (2nd ed.). London: Schwann Sonnenschein.

Johnson, Mark. 1987. The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason. Chicago: Chicago University Press.

Kemmer, Suzanne & Michael Barlow. 2000. Introduction: A Usage-based Conception of Language. In Michael Barlow & Suzanne Kemmer (eds.) Usage-Based Models of Language. Stanford: Stanford University Press. vii-xxviii.

Kirk, John M. 1996. Review of Karin Aijmer & Bengt Altenberg (eds.). 1991. English Corpus Linguistics: Studies in Honour of Jan Svartvik. London: Longman. Journal of English Linguistics 24. 250-258.

Lakoff, George. 1987. Women, Fire, and Dangerous Things: What Categories Reveal about the Mind. Chicago: University of Chicago Press.

Levin, Beth. 1993. English Verb Classes and Alternations. Chicago: University of Chicago Press.

Palmer, Frank R. 1974. The English Verb. London: Longman.

Quirk, Randolph et al. 1985. A Comprehensive Grammar of the English Language. London: Longman.

Rivas, Javier. 2000. Ergativity and Transitive Gradients in the Accusative and Infinitive Construction: A Cross-Linguistic Typological Approach. Santiago de Compostela: Universidade, Servicio de Publicacións e Intercambio Científico.

Stefanowitsch, Anatol & Stefan Th. Gries. 2003. Collostructions: Investigating the Interaction between Words and Constructions. International Journal of Corpus Linguistics 8(2). 2-43.

Stefanowitsch, Anatol & Stefan Th. Gries. 2005. Covarying Collexemes. Corpus Linguistics and Linguistic Theory 1(1). 1-43.

van Gelderen, Elly. 2010. Introduction to the Grammar of English. Amsterdam: John Benjamins.

Zeitlin, Jacob. 1908. The Accusative with Infinitive and Some Kindred Constructions in English. New York: Faculty of Philosophy, Columbia University.