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THE PASSIVE OF THE VERB *SEE*: A USAGE-BASED STUDY

Introduction

In usage-based models of language, grammar is seen as an inventory of patterns that derive from repeated use and differ in their complexity and the degree of their conventionalization. Such a view of language entails the fundamental role of frequency in linguistic analysis, as “both a result and a shaping force of the system” (Kemmer and Barlow 2000: x). The aim of this study is to examine the usage of the passive *see* in the light of the above mentioned assumptions.

The passive construction offers an interesting area of research, as it can be easily observed that the frequency of the passive construction varies with different verbs or even different senses of the same verb. The choice of the verb *see* for the analysis was prompted by the fact that on one hand it clearly differs from typical transitive verbs, and on the other, paradoxically, it is one of the ten most frequently passivized English verbs (Biber et al. 1999: 478). The question arises which features of the verb could account for its high passivizability.

It is generally assumed that clauses which are most likely to appear in the passive construction are those with the highest degree of transitivity (Rice 1987: 422). A prototypical transitive clause can be described in terms of a cluster of features, which include two distinct participants, volitional agent and affected patient, involved in a dynamic perfective event connected with kinetic action and energy transfer (Hopper and Thompson 1980: 252). The verb *see* clearly differs from the transitive prototype, as it denotes an act of perception rather than kinetic action, its primary participant, the perceiver, is not always volitional and controlling, while the secondary participant, the percept, usually remains unaffected by the event. Which features of *see* are then responsible for the high percentage of its passive uses?

For the purposes of this study, 500 tokens of the verb *see* were downloaded from the British National Corpus, 250 of them in the active and 250 in the passive. In the analysis of the corpus material, the study follows the procedures established by corpus-driven cognitive linguistic research. First the examples were coded for a number of syntactic, semantic and pragmatic factors to create a behavioural profile of the verb (Gries and Divjak 2009). Then they were submitted to multiple

correspondence analysis (Glynn 2014) by means of R statistical programming environment, in order to establish which of the features were systematically correlated in the data. Finally, the results of multiple correspondence analysis were confirmed with logistic regression to determine the statistical significance of individual factors. The categories of features that proved the most significant for the choice between the active and the passive are meaning, complementation pattern, Aktionsart (lexical aspect), affectedness of the percept and agency hierarchy of the perceiver.

Meaning

The main problem in characterizing the verb *see* results from the fact that it is a high frequency verb with varied usage and many of its features, such as meaning or lexical aspect, vary from token to token and depend to a large extent on the nature of the percept. This causes difficulties in delineating the senses of the verb *see*: Alm-Arvius (1993: 350–351), for instance, distinguishes as many as nine distinct senses, while Gisborne (2010: 133–148) delineates five. The distinctions proposed below are based on one hand on the meaning of the verb and the possible paths of its extension (metaphor vs. metonymy) and on the other on the systematic correlations with specific structures, such as aspect and complementation patterns. The senses are as follows:

- (1) Visual perception ‘Perceive visually’
*‘You **saw** the paper?’¹*
- (1a) ‘Scope of vision’
*The grouse moors stretched further than she could **see**.*
- (2) Visualization ‘Imagine, recall’
*He couldn’t **see** a horse playing badminton.*
- (3) Mental perception ‘Understand’
*‘Why can’t you **see** how much I love you?’*
- (4) Extensions
 - (4a) ‘Interact with’ *If you are depressed, **see** your doctor.*
 - (4b) ‘Control’ *My son will **see** to it that you have an allowance (...)*
 - (4c) ‘Check, find out’ *They’re trying me out – to **see** if I can manage.*
 - (4d) ‘Experience’ *The year 1165 also **saw** growing unrest in Saxony.*

Four basic senses of *see* have been distinguished. The primary meaning of the verb denotes visual perception and subsumes sense 1a, where there is no specific percept and the focus rests instead on the extent of the perceiver’s field of vision. Sense 2 relates to the ability of forming mental images of a percept which is non-existent or not directly accessible. In meaning 3 the original visual perception sense is metaphorically extended to include mental perception and the verb can be paraphrased as ‘understand’ or ‘realize’. The extended meanings listed in 4 are all based on the metonymy PART OF THE ACTION FOR THE ACTION (Kövecses

¹ Unless otherwise indicated, all examples come from the BNC Corpus. Emphasis added.

2002: 152), as they apply the verb *see* to an activity a salient part of which is visual perception.

The starting point for the distinction above is Gisborne's (2010: 121–122) division into five meanings. However, Gisborne's classification does not include the extended senses, which proved quite prominent in the data, and it features sense 1a, 'the scope of vision', as a separate one. In this study, sense 1a is subsumed under the basic 'visual perception' sense, as what distinguishes it from typical instances of 'seeing' is not the mode of perception in itself, but the highly unspecific nature of the percept. Similarly, the evidential sense distinguished by Gisborne and exemplified in 5 below is here treated as a subtype of meaning 3, mental perception, with the perceptual source of the conclusion explicitly mentioned.

5. *I see by the angle of the sun that the morning is almost over* (Gisborne 2010: 120)

The proportions of particular senses of the verb in the active and in the passive within the examined sample are presented in Figure 1 below.

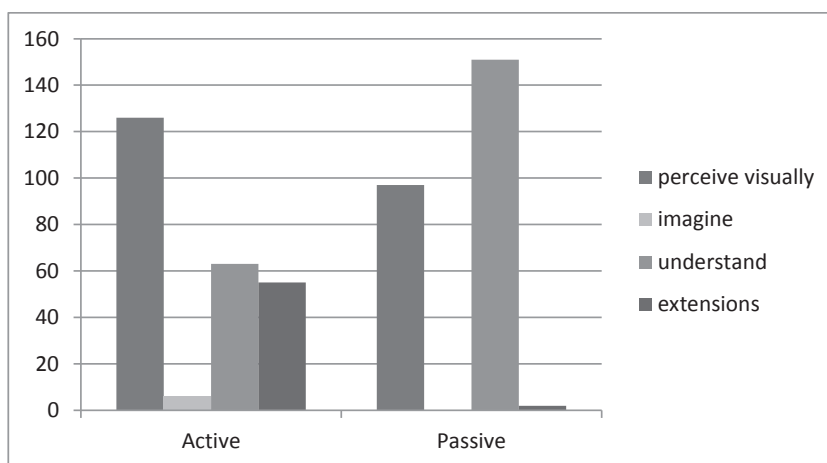


Fig. 1. The meanings of *see* in the active and in the passive²

The primary visual perception sense constitutes a significant percentage of the verb's uses, both in the active and in the passive. While in the active it is clearly the dominant sense, almost twice as frequent as the second most prominent meaning, in the passive it is the mental perception sense that takes the priority and appears in slightly over 60% of the sample. Another interesting regularity is the marked decrease of the dynamic metonymic meanings in the passive: they constitute 22% of the active sample, but the data suggest that they hardly ever passivize. Both of these tendencies in the passive of *see*, the increase in the mental perception sense and the decrease in the dynamic senses describing actions, run contrary to what could be expected on the basis of the transitive prototype, which favours dynamic, externally observable actions over mental processes.

² All the raw frequencies quoted in this study were submitted to the Chi-square test and were found to be highly significant statistically, with p-values well below 0.001.

Complementation pattern

When it comes to the argument structure of *see*, a range of patterns can be distinguished. Since complementation patterns constitute one of the main types of evidence for polysemy (Gisborne 2010: 125), they could be expected to correlate with the meanings described above and possibly with the active or passive diathesis. Three basic patterns appeared in the data: intransitive, monotransitive with either nominal or clausal object and finally a range of complex transitive structures, with various types of object predicative. They are exemplified below:

Intransitive

(6a) *I counted myself lucky to be able to **see** that far.*

Monotransitive

(6b) *This species **is** rarely **seen** before late October.*

(6c) *Council **sees** that the system has reached a very high standard.*

Complex transitive

(6d) See-as *Such a home **could** easily **be seen** as a failure.*

(6e) See-inf *He **saw** his sister gloat over the suitcase.*

(6f) See-ing *Jed **saw** Carol walking across the lawn.*

(6g) See-ed *But we would like to **see** dog owners registered.*

(6h) See-Co *They were pleased to **see** me back.*

The intransitive uses of the verb proved quite marginal in the data, and predictably correlated with the active diathesis and meaning 1a. Similarly, two of the complex transitive patterns, labeled *See-ed* (past participle as object predicative) and *See-Co* (object predicative realized by an adjective or adverb), were extremely infrequent and for the sake of clarity were excluded from the analysis. Figure 2 below presents the proportions of the major complementation patterns within the examined sample, for this distinction limited to 485 tokens.

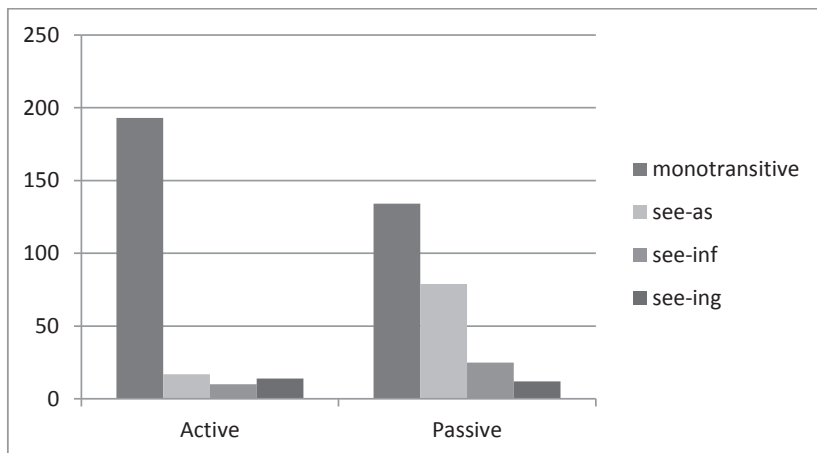


Fig. 2. The complementation patterns of *see* in the active and in the passive

In the active, the monotransitive pattern visibly prevails over the three complex transitive structures, whereas in the passive its dominance is less clearly marked, due to the increased frequency of two of the complex transitive patterns, *see-as* and *see-inf*. Interestingly, the frequency of the third complex transitive pattern, *see-ing*, describing the physical perception of an ongoing event, remains practically unchanged in both diatheses.

In the basic monotransitive pattern, the percept can be denoted either by a nominal or a finite clause. There are no dramatic disproportions between the active and the passive, although the passive shows slight preference for nominals (featured in 82% of monotransitive sentences, as opposed to 71% in the active) over clausal percepts (respectively 15% and 21%). This might suggest a tendency for simpler structures in the passive, which is, however, contradicted by the behavior of the complex transitive patterns, which gain more prominence in passive uses.

The results of multiple correspondence analysis of the two parameters discussed so far, the meaning and the complementation patterns, are presented in Figure 3.

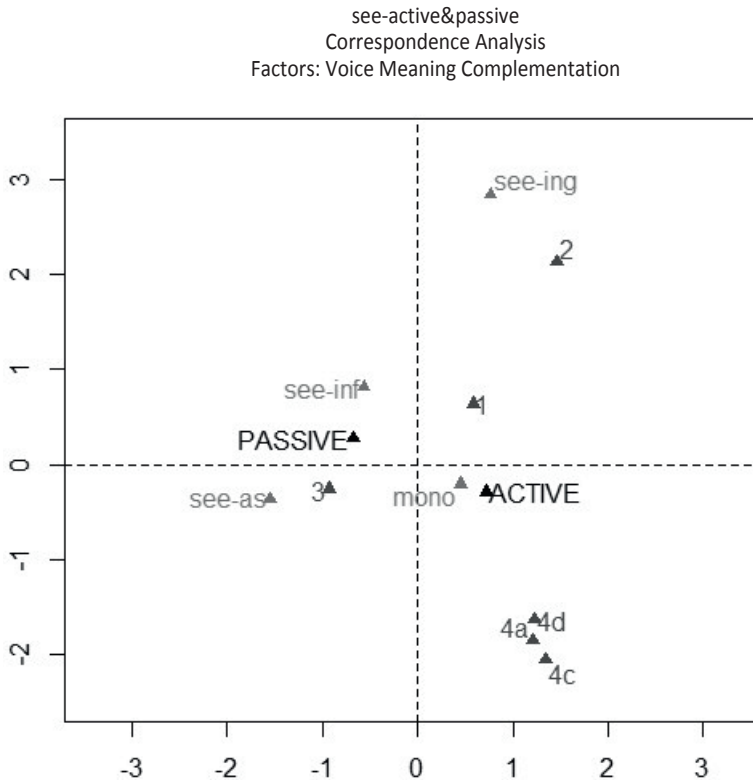


Fig. 3. Meanings and complementation patterns of *see* – correspondence analysis

Figure 3 above presents in graphic format the strength of correlation between particular factors: the factors which are more closely correlated in the data cluster together in the graph. The point representing the passive uses of *see* is surrounded

by such a cluster of three features: meaning 3 (mental perception) and two complex transitive complementation patterns: *see-as* and *see-inf*. The monotransitive pattern is more likely to occur in the active, while the *see-ing* construction is equally characteristic for both diatheses. Meaning 1 and meaning 2 both show slight preference for the active, whereas the three remaining metonymic meanings, 4a 'interact with', 4c 'check, find out' and 4d 'experience', cluster together and correlate with the active voice.

Multiple correspondence analysis was followed by logistic regression to establish the exact statistical significance of individual factors. The features highly significant for the distinction between active and passive uses of *see* are the *see-as* pattern with the p-value of 0.000283³ and meaning 4a ('interact with') with the p-value of 0.006393. What is worth noting is that all the factors forming the passive cluster – meaning 3, *see-as* and *see-inf* constructions – proved statistically significant, with the p-value below 0.05. Thus, in terms of their meanings and complementation patterns, the passive uses of *see* form a unified, highly characteristic group.

Aktionsart (lexical aspect)

The next feature which proved statistically significant for the active/passive distinction is Aktionsart, i.e. lexical aspect. As it has been mentioned above, the verb *see* is underspecified for aspect, which varies in different uses and depends on the context and the nature of the percept. What proved useful in characterizing the aspectual behaviour of the verb is the set of aspectual distinctions originally introduced by Vendler (1967), and adopted here in the form presented in Croft (2012: 44). The three relevant categories are state, achievement and accomplishment. States are durative and atelic: they extend in time but do not involve change or an inherent endpoint. Achievements and accomplishments both are dynamic and telic: they change through time and have an endpoint. Whereas achievements are punctual and describe events which instantaneously reach their completion, accomplishments are durative – they refer to extended mental or physical actions that gradually lead to an endpoint.

In most of its uses, the verb *see* is either a state or an achievement: an extended visual or mental experience or an instantaneous act of perception. The former case is exemplified in 7a and 7b, whereas the latter in 8a and 8b below, respectively in the active and the passive.

7a. *Families are like constellations of stars: we **see** each one as an entity, because they make some recognisable design (...)*

7b. *Low rents **are seen** as a form of bribery of the electorate.*

8a. *Diana is quite likely to open interesting-looking doors to **see** what is behind them.*

8b. *A modest, smiling, bespectacled figure **was suddenly seen** on the stairs.*

In some cases, the verb's aspectual construal is that of an accomplishment: an action gradually approaching its completion. This takes place mainly with the

³ P-value represents the probability of the result being random, so the lower the p-value, the more significant is the correlation.

metonymically extended meanings 4a–4c denoting an action, as in 9a below, where the meaning of the verb is that of ‘check, find out’ and involves actually performing the activity in question up to its completion, to be able to assess the result. Another characteristic context in which the verb *see* is construed as an accomplishment is the situation where the percept itself is a durative event with an endpoint, as in 9b.

9a. *See how long you can take to eat a meal or a sandwich, chewing every mouthful as slowly as possible.*

9b. (...) *stopping off in Moscow to see the May Day Parade (...).*

Figure 4 below shows the proportion of the three alternative aspectual construals in the active and in the passive.

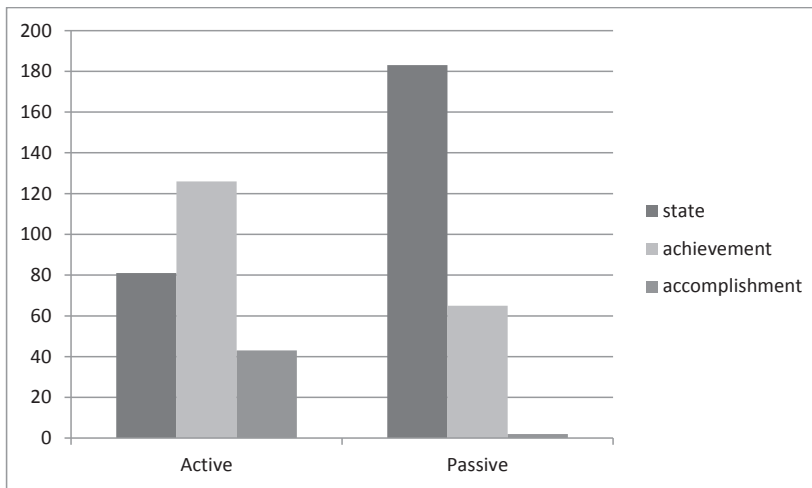


Fig. 4. The aspectual construals of *see* in the active and in the passive

In the active voice, the verb *see* is the most likely to describe an achievement, i.e. an instant act of perception, with states and accomplishments still visibly present. In the passive, however, it is the stative construal that takes precedence, with the number of achievements markedly decreasing and with accomplishments hardly present at all. Such a shift in the frequency of aspectual construals is coherent with the stativizing function of the passive: apart from reversing the hierarchy of salience between clausal participants, the passive “transforms a process into a state” (Langacker 1982: 60).

Affectedness of the percept

The remaining two parameters are concerned with the two clausal participants of *see*, the perceiver and the percept, and the nature of their involvement in the act of perception. Object affectedness is one of the main characteristics of prototypical transitive clauses: as a result of the action, the secondary clausal participant undergoes a visible physical change of state. With verbs of perception, however, it is the perceiver rather than the percept that is more likely to be affected, and the

nature of this effect is mental rather than physical. With the verb *see* three main patterns of percept affectedness could be distinguished: affected, unaffected and effected percepts. First of all, it is possible for the percept to be affected by the event, which may happen in the metonymically extended action senses of the verb, or as a result of a specific context. For instance, in the examples below the percept is a person who is affected by the event because s/he enters into social interaction (10a) or is consequently discovered and pursued (10b).

10a. *Come and **see** me again, on your birthday.*

10b. *Marie had thought about telling him the truth: that Bella **had seen** him and the police would soon be after him.*

In most cases, however, the percept remains unaffected by the act of perception, which is exemplified in 11a and 11b below:

11a. *She **had seen** the two women leave the hospital.*

11b. *They failed to **see** that the principle was inadequate to a modern society.*

The object, event or proposition that is perceived does not undergo any change of state caused by the act of perception. This is particularly clearly visible when *see* has a that-clause as object, because then the verb is factive: it implies the truth of its complement. For instance, in 11b above, the principle is actually inadequate, whether the perceivers see it or not. Compare with 12a below, an example constructed for the purpose of comparison:

12a. *They **saw** the principle as inadequate to a modern society.*

12b. *The rewards, however, **are seen** to be worth the effort to master the new game.*

Here, the inadequacy of the principle is a subjective conclusion, reached as a result of the perceivers' thought processes. Similarly in 12b above, whether or not the rewards are worth the effort is a matter of individual judgment. Such examples, where the percept is in fact created in the act of perception, were labeled as cases of 'effected' percepts. The proportions of particular patterns of percept affectedness are presented in Figure 5 below:

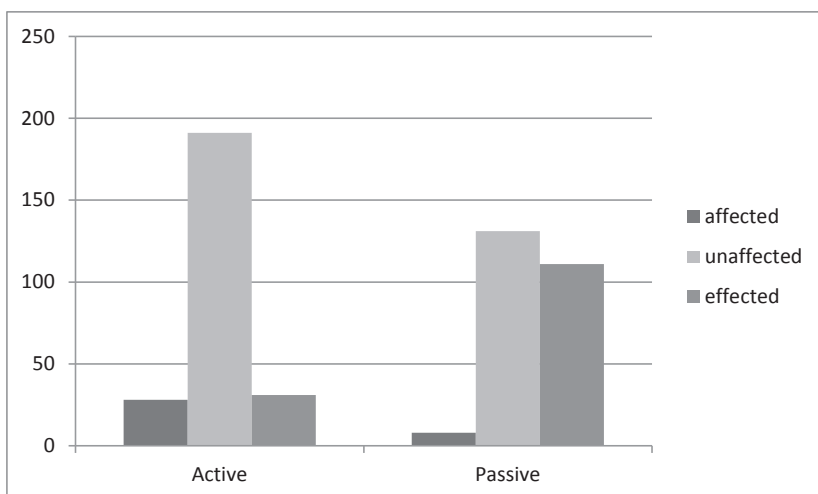


Fig. 5. Percept affectedness of *see* in the active and in the passive

In the active voice, the percepts generally remain unaffected and the other two patterns, affected and effected percepts, are minorities. In the passive the number of both affected and unaffected percepts decreases, and there is a visible increase in the number of effected percepts. This may contribute to the high passivizability of *see*, as effected percepts, which are created in the event, signify that the act of perception is here construed as a perfective action with a specific result.

Agency hierarchy of the perceiver

The last distinction to be discussed concerns the type of the perceiver, here described in terms of agency hierarchy – a person/animacy ranking correlated with semantic roles in such a way that elements higher in the hierarchy are more likely to be agents in typical, unmarked transitive sentences (Aissen 1999: 674). The agency hierarchy used for this study is a slightly adapted version of Empathy Hierarchy used by Shibatani (1998: 108) for a typological study of agents in the passive. The highest in the hierarchy are speech act participants – 1st or 2nd person pronouns (exemplified in 13a), followed by pronouns (here: third person pronouns with specific reference – 13b), definite humans (13c), indefinite humans (unspecific nominals, such as the one illustrated, as well as the cases where the perceiver is not explicitly present e.g. short passives or various non-finite constructions – 13d), and finally institutions (13e).

13a. *You can just see the kiosk, look, right along there.*

13b. *He sees his own vision not as personal, but rooted in tradition.*

13c. *When Nellie saw them she asked, 'Why 'ave yer bought blue?'*

13d. *The show was seen by over 90,000 people.*

13e. *Geothermal power (...) is seen by the Government as an energy longshot.*

The agency hierarchy of the perceiver in the active and passive uses of the verb *see* is shown in Figure 6.

In the active uses of the verb *see* all the categories mentioned above are represented and their proportions are exactly as might be predicted on the basis of the agency hierarchy: the higher in the hierarchy a particular element is located, the more likely it is to become the clausal subject in the active. This seems to indicate that agency hierarchy is also valid for perception verbs, even though the primary clausal participant is not, strictly speaking, an agent. In the passive, however, the perceiver is predominantly indefinite, with the remaining categories hardly present at all. This is due mainly to the large number of short passives (94% of the passive sample), where the perceiver is not explicitly present.

The results of multiple correspondence analysis of the three factors described above, the Aktionsart, the affectedness of the percept and the agency hierarchy of the perceiver, are presented in Figure 7.

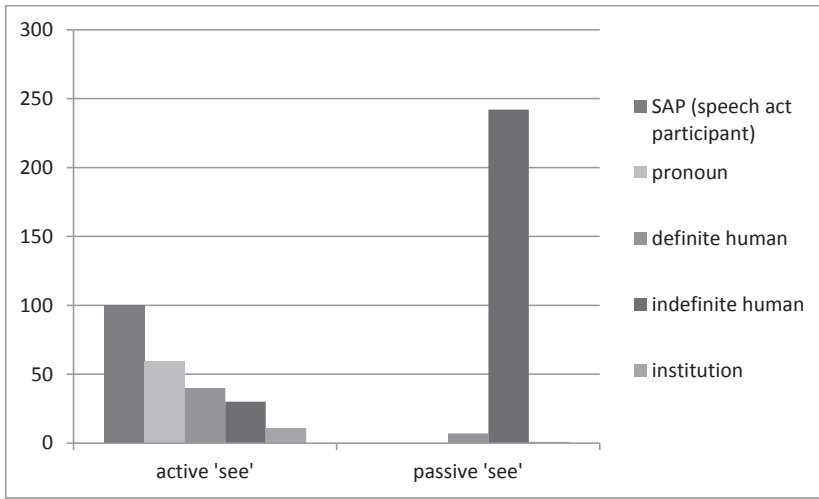


Fig. 6. Agency hierarchy of the perceiver of *see* in the active and in the passive

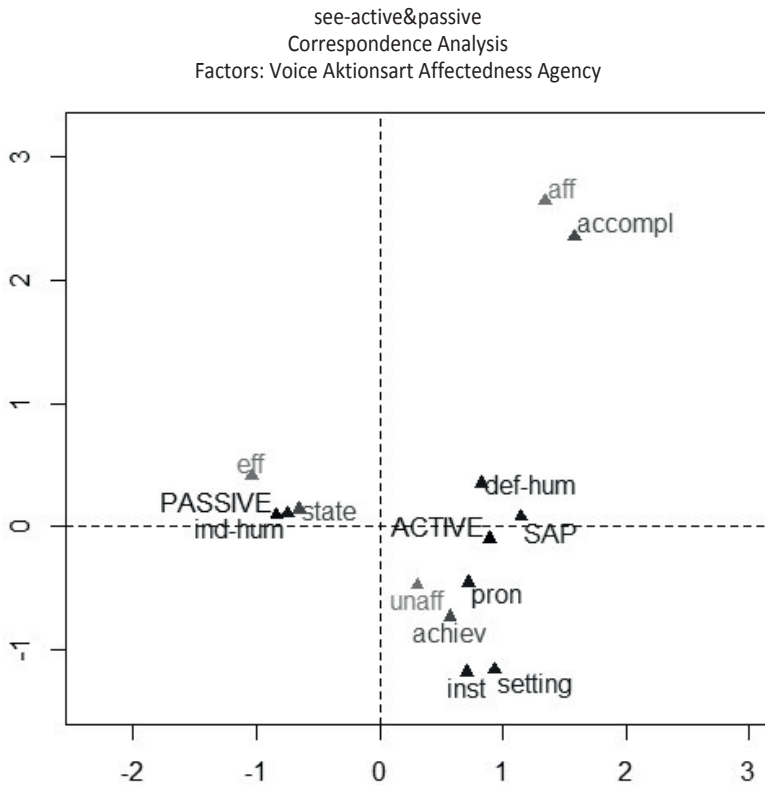


Fig. 7. Aktionsart, percept affectedness and perceiver agency hierarchy of the verb *see* – correspondence analysis

Again, a tight cluster of features is visible around the passive, consisting this time of states, indefinite human perceivers and effected percepts. The other regularity that the multiple correspondence analysis reveals is that there is a close connection between Aktionsart, affectedness and voice: states with effected percepts are characteristic for the passive, while achievements with unaffected percepts and accomplishments with affected ones correlate with the active. Aktionsart proved to be the most statistically significant: the correlation between states and passives has the p-value of 0.00095, while that of achievements with the active – 0.00530. Another highly significant parameter turned out to be the indefinite human perceiver, with the p-value of $2.80e^{-13}$, but this correlation is predictable, due to the general high frequency of short passives, in which the agent, or as in this case, the perceiver, is not explicitly present. The other perceiver types cluster around the active voice, and those perceivers that are the highest in the agency hierarchy – SAPs (speech act participants), pronouns and definite humans – are the most closely correlated with it.

Conclusions

In both stages of the correspondence analysis conducted above, the passive *see* presents itself as a specific construction with a clearly defined set of properties. The features characterizing the usage of *see* in the passive are state, meaning 3 (mental perception), *see-as* and *see-inf* constructions, indefinite human perceiver and an effected percept which is a proposition. The most typical examples of the passive *see* could be the following:

- 14a. *Female criminals are often seen as suffering from some physical or mental pathology.*
 14b. *The feudal bond of duty and loyalty was seen to be almost as strong as the ties of blood relationship.*

The features characterizing the passive *see* are by no means typical for the active uses of the verb. The passive *see* is in fact very different from its active counterpart in its meaning, aspectual potential and the ability to combine with particular complementation patterns and types of clausal participants. The question arises if it is possible at all to account for the verb's passivizability by applying the notion of the transitive prototype to the active uses of the verb, or whether it would be more productive to treat the passive as a separate construction in the sense used by Goldberg (2006: 5–9). This question, however, remains beyond the scope of this study.

For the present, the tentative conclusion, limited by the preliminary nature of the investigation and the size of the data sample, would be that the main problem in explaining the high passivizability of *see* in terms of the transitive clause prototype results from applying the prototype to the verb as a whole. It seems that a finer-grained approach is required, taking into consideration the individual senses of the verb. The verb *see* is 'massively polysemous' (Gisborne 2010: 119). Although none of the meanings distinguished in this study is a direct reflection of the transitive

prototype, some of the verb's senses approximate it more closely than others. For instance, what makes the combination of meaning 3, mental perception, with the effected percept (exemplified in 14a and 14b above) compatible with the passive construction is the fact that it allows for the act of perception to be construed as a perfective event with a result. Additionally, the high frequency of stative aspectual construals reinforces the "final state" reading of the passive (Langacker 1982: 59). In other words, the passive of *see* is a typical passive with typical passive functions, but what makes it unusual is that the verbal meaning it most frequently correlates with is not the basic meaning of the verb in the active voice.

Tools and sources

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Użycie czasownika *see* w stronie biernej

Streszczenie

Czasownik *see* jest jednym z dziesięciu najczęściej pasywizowanych czasowników w języku angielskim, choć nie przystaje on w żaden sposób do prototypu czasownika przechodniego. Celem pracy jest zbadanie, w ramach modelu języka opartego na uzusie językowym, jakie są możliwe przyczyny częstego (prawie 8%) użycia tego czasownika w stronie biernej. Dane z korpusu językowego British National Corpus zostają poddane analizie za pomocą środowiska oprogramowania statystycznego R, w celu ustalenia istotności statystycznej i wzajemnych korelacji poszczególnych semantycznych, pragmatycznych i składniowych czynników wyodrębnionych w materiale językowym. Kluczowe dla użycia czasownika *see* w stronie biernej okazują się: znaczenie, wzorce komplementacji, aspekt leksykalny, wpływ aktu percepcji na jego obiekt oraz pozycja postrzegającego w hierarchii agentywności.

Słowa kluczowe: tranzytywność, pasywizacja, czasowniki percepcji, badanie korpusowe