In general, academic discourse is characterised by its specific vocabulary, peculiar linguistic patterns and register. The Passive Voice is one of its well-established features. However, English academic discourse seems to equally favour the pattern ‘inanimate subject + active verb’ (IS+AV), like in the example provided in the title of the paper: the paper suggests. Recent investigation has manifested its well-established position in scientific research articles (see Master 2001) and popular scientific prose (Johns 2001). English favours the above structure
in the explanatory context, its major function being to link experimental or observational evidence to conclusions (Johns 2001:56), e.g.: the evidence suggests, the results show, etc. Johns’ (ibid.) corpus-based study has identified the top three most frequent verbs in the above pattern: indicate, suggest and show/demonstrate. In many cases the above pattern functions as a hedge, mitigating the author’s claim and saving his/her face, which in scientific discourse is no less important than relaying factual knowledge. Interestingly, the verbs indicate and suggest are among the top three most common hedging items (Hyland 1996: 481).

The function of hedging is closely linked or derived from the changed meaning of the constituents of the pattern: the inanimate subject, which often is an abstract noun, and the active verb, which in this context is not really ‘active’. Master (2001) researched the frequency of the pattern in hard sciences and identified four types of environments where it occurs: cause-and-effect, change-of-state-or-location, presentation and explanatory. The first three types refer to the instigation of an event and employ such verbs as cause and produce (in cause and effect), change and increase (in change of state or location), contribute and provide (in presentation). The last type refers to the explanation of an event and employs such verbs as suggest, show and describe (ibid., p. 174). In hard sciences the last type seems to yield the highest number of the IS+aV patterns.

**Interpretability of meaning in the framework of cognitive linguistics**

The above pattern is interesting not only from the rhetorical point of view, despite that not all cases can be attributed to hedging (cf. the test measures, the methodology calls into question). From the semantic point of view it is interpretable as manifesting metonymical and/or metaphorical extension of meaning accounted for in the framework of the conceptual theory of metaphor (CTM).

The theory rests on a well-known claim that metaphor, which for many cognitive linguists also subsumes metonymy, is rooted in our thinking and understanding (see Lakoff and Johnson 1980/2003, Taylor 1995, Kövecses 2002) and emerges in language in the form of metaphoric expressions. The metaphor represents a cross-domain mapping, like in the English expression: to put ideas into words (the example has been taken from Taylor 1995: 134), which shows that linguistic forms, which represent the target domain, can be conceptualised as containers, representing the source domain (metaphors are usually written in small capitals: FORMS AS CONTAINERS). The metonymy represents a mapping within one and the same domain, like in the following: Pass me the Shakespeare on the top shelf (example from Evans and Green 2006: 313). In this case, the relationship between Shakespeare as an author and his book is that of a producer and a product and is one of numerous metonymical mappings (for other types see Croft and Cruse 2004, Evans and Green 2006). Thus, metonymy seems to work within conceptual contiguity (Paradis 2006) and in this respect is not incompatible with the traditional approach (see Taylor 1995:122).
The adherents of the cognitive approach do not have a unanimous view as to clear-cut criteria which help distinguish between metonymy and metaphor in all cases; rather, the two types of meaning extension represent the end points of a continuum. Its middle positions are taken by metonymy-based metaphors (see Barcelona 2000, Radden 2000, Deignan and Potter 2004). The explanation for such treatment lies basically in the anthropocentric parameter, an underlying major principle of metaphorical (and metonymical) reasoning (see, for example, Boers 1999, Deignan and Potter 2004, Gibbs, Lima and Francoso 2004).

The IS+A V pattern has received a sufficiently convincing interpretation in Low (1999). The author admits that the pattern under investigation can be interpreted as both—metonymy and metaphor. In metonymy the meaning shift takes place in one and the same domain between the writer, or the producer of the text, and the text itself (as in the example the paper suggests). In metaphor, we deal with a cross-domain mapping between the paper (or a domain of written works), an inanimate product, and a person, or a human being, in general. So the artefact assumes some characteristics of a living being. The author adheres to the metaphorical interpretation of the pattern. His research focuses on measuring the acceptability of the personification the paper takes the view/ believes/ feels based on the responses to a questionnaire completed by the teaching staff in two university departments.

Thus the present paper discusses the IS+AV pattern in research papers in applied linguistics attempting to identify major differences between linguistic discourse as a discourse of human sciences and hard sciences (as represented in Master 2001) and account for the usage and meaning of the pattern under investigation in the framework of the CTM.

**Data and methods**

The materials for the present investigation have been collected from the journal *Applied Linguistics* and cover a period from 2005 to 2008. The 6 research articles selected for the investigation mostly deal with issues of second language acquisition, language for academic purposes, native and non-native speaker interaction, teacher-learner interaction etc. The total number of words of the corpus amounts to 51, 625. The articles vary in length; the number of words in each of them is between 5,582 to 10,498 words (see Table 1).

The methodology of research is both quantitative and qualitative. The quantitative aspect of the investigation includes the overall frequency count of the pattern in the corpus and their distribution per 1000 words as well as the count of inanimate subjects and active verbs according to frequency. The qualitative aspect of the analysis involves the interpretation of the results in the framework of conceptual theory of metaphor (CTM). Finally, there is a comparative dimension involved in the investigation: the results of the present investigation into linguistic discourse roughly representing human sciences is compared to Master’s investigation into ‘hard’ sciences (2001).

Further in the results sections, the source texts are referred to by their author/s. The full list of sources is given at the end of the paper, after the references.
Major tendencies. Overall results

In the total corpus of data the overall number of IS+AV patterns amounts to 475. The overall frequency of the pattern in 1000 words amounts to approx. 9.2, whereas the frequency of the occurrence of the IS-AV pattern in each article is reflected in Table 1 below:

Table 1. IS+AV employed by different authors

<table>
<thead>
<tr>
<th>Article (author)</th>
<th>No of words</th>
<th>No of IS+AV</th>
<th>Frequency per 1000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alderson</td>
<td>9,539</td>
<td>64</td>
<td>6.7</td>
</tr>
<tr>
<td>Webb</td>
<td>7,304</td>
<td>87</td>
<td>11.9</td>
</tr>
<tr>
<td>Puffer and Nikula</td>
<td>8,455</td>
<td>74</td>
<td>8.7</td>
</tr>
<tr>
<td>Bell</td>
<td>10,247</td>
<td>99</td>
<td>9.7</td>
</tr>
<tr>
<td>North</td>
<td>5,582</td>
<td>72</td>
<td>12.9</td>
</tr>
<tr>
<td>Macaro and Erler</td>
<td>10,498</td>
<td>79</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51,625</strong></td>
<td><strong>475</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that the distribution of the pattern across the six selected authors varies from 6.7 to almost 13. The difference might be concerned with the topic of the article: the highest frequency was identified in the article focusing on undergraduate writing and the lowest frequency was found in the article dealing with judging the word frequency by linguists.

The verbs in the corpus refer to one of the four environments singled out by Master (2001), even though it should be admitted that the classification of the environments is rather problematic (see next section). As can be seen in Table 2, the explanatory environment is most numerously represented, since the three top verbs (show, demonstrate and suggest) belong to the explanatory subset and make up almost ¼ of the total number of the pattern occurrences. The three other verbs of the top most frequent verbs in the corpus (indicate, reveal and report) are also in the explanatory subset. This finding confirms the tendency identified by Master (ibid.) in reference to exact sciences. However, the other environments (cause-and-effect, change-of-state-or-location and presentation), differently from Master’s findings, are much less numerous in the linguistic corpus, with cause-and-effect and change-of-location environments hardly employed at all. The very frequent provide, according to Master, belongs to the presentation subset. Those that could be attributed to the cause-and-effect or change-of-state-or-location are rather scarcely represented. For example, affect, use, allow, according to Master (2001) attributed to the cause-and-effect environment, have only yielded from 1 to 5 occurrences each and have not been included into Table 2. Similarly, each of the verbs behave, construct, come, raise, move from the change-of-state-or-location environment has only occurred in 1-3 utterances; the only verb measure has 25 occurrences in the text. This might have been due to the fact that one of the articles focused on testing which is often concerned with measuring.
As seen in Table 3, the inanimate subjects (mostly abstract nouns) most frequently employed in the pattern are also from the explanatory subset and refer to the description of the investigation rather than to the process of research. Thus research in general together with study and analysis made up almost 20% of all occurrences. Interestingly, the item word/s, which at first sight should be in the focus of the linguist’s attention, in the data corpus occurred only 7 times and was not included into the table. Elements of the written text or general words referring to the process of research irrespective of a field (like results, findings, examples, data) were also fairly frequent.

The results seem to confirm the idea put forward by Mauranen (2001) that the Anglo-American way of writing is much more transparent and reader-friendly and the writer tries “to make the text easily palatable” (ibid., p. 44). Hence the subjects referring to the text and results of investigation in general prevail over those referring to the process and/or details of research.

**Another point of view: a key to interpretation**

The classification suggested by Master (2001) seems to be open to criticism mainly on semantic grounds. The researcher gives no explanation as to how he classifies the verbs. Indeed, the attribution of many verbs to one or another class is quite debatable and not self-explanatory. For example, the verb produce and especially the very frequent provide in their
primary ‘manufacturing’ or ‘acquisitive’ meaning collocate with very different words and therefore can be interpreted as rendering several different meanings, which are hardly interpretable in terms of production or acquisition, cf. the following examples:

1. Measures of dispersion provide an estimate of how evenly spread across the different sectors of the corpus a given word is. (Alderson)

2. (...) those tests provided an opportunity to score correctly through guessing (Webb)

3. (...) encounters with unknown words produced significant gains. (Webb)

In Master’s (ibid.) study they both are attributed to the presentation subset. Here also belongs the verb support, which in its primary meaning is concerned with physical support. Raise is another ambiguous case. The author treats it as a word in the explanatory environment but its direct meaning seems to fall into the change-of-state-or-location subset. Certainly, it often collocates with words like question or problem, which would explain its attribution to the explanatory subset, but is it always the case in research articles, for example, focusing on engineering? Some studies (e.g. Low 1999) have shown that these and other cases might be interpretable in the framework of the CTM theory. The present investigation would tend to pursue this line of thought.

Major extensions of meaning within the CTM

Low (1999) noted that frequently treated as metonyms the patterns of the paper suggests type can be interpreted in the framework of the CTM. The theory seems to be instrumental when trying to interpret cases like the study raises a question of (...), where raise clearly moves from the domain of physical action to the domain of reasoning. The theory gives an opportunity to interpret the findings considering the whole image imparted not by a single word but rather by the overall utterance or collocation, sometimes extending to a paragraph or even a longer text. Thus in the corpus of linguistic research the following metaphors have been identified: research as a person, research as a journey, research as construction/building, research as economic activity and research as (uncovering) a secret.

The research as a person metaphor seems to account for many metonymic extensions; moreover, it moves even further accounting for more complex cases. For example, sentence (4) can be interpreted as a metonymic extension, where approach is contiguous with the person/researcher putting forward the idea of teacher reliance:

4. (...) a general approach which suggests teacher reliance rather than self-reliance (Macaro and Erler)

Actually, almost all utterances with suggest can be interpreted along these lines, since in the collected corpus the inanimate subjects include such abstract nouns as discrepancy, similarity, research, evidence, writing, knowledge, approach, data, results, tests, test scores, extract, study, table, paper, interactions, comments, differences, findings, examples etc.. The results used in 6 utterances seem to be most productive in the collocation. Most of the above
subjects can be interpreted as products of a producer (researcher) and thus are compatible with the metonymic interpretation. Many of them perform the function of hedges in the text.

However, in some other cases of personification the strictly metonymic interpretation seems unlikely, since the relationship between the product and the producer, most frequently employed in research articles, seems to be more distant and less transparent. For example:

(5) *Tests of vocabulary size tell us about language proficiency* (Alderson)

(6) *(…) the finding (…) speaks for students being at some level aware of the complex pragmatic conditions in classrooms* (Puffer and Nikula)

(7) *None of the texts favoured the intervention cohort.* (Macaro and Erler)

Speaking abilities, favouring (like in examples (5)-(7)) and other more emotionally-charged activities are characteristic of humans, which is why the interpretation of the above expressions within the metaphor *research as a person* seems to be more plausible than within metonymy.

Another image of research is concerned with conceptualising *research/learning/understanding as a journey or movement*. Thus, research seems thought of as moving forward (never backward), on your way of research you might encounter problems or obstacles, the data are seen as coming from certain sources etc., e.g.:

(8) *(…) comprehension of a text (…) might otherwise provide obstacles and de-motivate the reader* (Macaro and Erler)

Understanding *language and research as a structure or building* seems to be quite natural and conforming to the intuitive understanding of the world as a building. Hence the productivity of the metaphor *research is construction/building*; however, as already noted (Šeškauskienė 2008), the building employed in researching linguistic issues has a basis, a foundation and is usually supported, the other elements, like windows or roofs, are missing, e.g.:

(9) *(…) playful talk frequently builds on references to culturally specific or in-group information* (Bell)

(10) *(…) evidence supporting the theory* (Webb)

The metaphor *research as economic activity* is manifested through using such verbs as *provide, use, utilize or offer* and the noun *resources*, as in the following examples:

(11) *(…) language provides a variety of resources* (North)

(12) *(…) sense-creation strategies which utilize both language and situational clues* (Macaro and Erler)

The image of research associated with economic activities in most cases exploits the verb *provide* which departs from its narrowly economic meaning and moves into more abstract domains, hence its combinability with such expressions as *evidence, information, assessment, results, opportunities, a way of viewing, accurate picture, resource, site, point of de-
parture, estimate, distinction, obstacles, clues, insights, a clear contrast, access, occasions, 
resources, indicator, support, confidence in judging etc.

Another conceptualisation of linguistic research seems to be related to uncovering a secret, 
which is again not counter-intuitive, since researchers always aim at discoveries. Thus 
many patterns employing the verb reveal are usually metaphoric expressions of the metaphor 
RESEARCH AS (UNCOVERING) A SECRET, e.g.:

(13) (…) students’ way of formulating questions (…) often reveals a great deal about the social 
reality of the classrooms (Puffer and Nikula)

Equally revealing are data, language play, analysis, research, distribution of speech acts 
or even the first column, as attested by the data of the present research corpus.

Less numerously represented are such metaphors as RESEARCH AS A CONTAINER and RE-
SEARCH AS A PICTURE, exemplified in such metaphoric expressions as the following:

(14) Songs and rhymes (…) often fall outside the category of ‘humorous language play’ (Bell)
(15) Correlations do not tell the whole picture (Alderson)

The latter utterance, however, is a case of blending when two target domains (person and 
picture) blend together. This type of extension serves as another argument that metonymical 
interpretation of the IS+AV pattern is not sufficient.

Conclusion

The present research has attempted to quantify and interpret the pattern IS+AV in English 
linguistic research articles comparing the findings with Master’s findings in hard sciences 
(2001) and going further to interpret them in the framework of the CTM. The tendency to 
use the pattern in the explanatory environment has been confirmed. However, other envi-
ronments (cause-and-effect, change-of-state-or-location and presentation) were much less 
frequently represented than in the hard sciences. Moreover, the classification suggested by 
Master (ibid.) is only partially instrumental since the identification of some environments is 
problematic, mainly for semantic reasons.

The interpretation of the results in the framework of the CTM has yielded several major 
metaphorical extensions: RESEARCH AS A PERSON, RESEARCH AS A JOURNEY, RESEARCH AS CON-
STRUCTION/BUILDING, RESEARCH AS ECONOMIC ACTIVITY, RESEARCH AS (UNCOVERING) A SECRET, RE-
SEARCH AS A CONTAINER and RESEARCH AS A PICTURE. The last two were nor very systematic, 
whereas the conceptualisation of research as a person or as a journey, construction/building, 
economic activity or a secret were the most outstanding. The personification type of metaphor 
(RESEARCH AS A PERSON) seems to overlap with what is usually interpreted as metonymy, but 
of a large variety of human features it only exploits his/her speaking and reasoning abilities. 
The RESEARCH AS A JOURNEY metaphor highlights moving forward and obstacles, RESEARCH AS 
CONSTRUCTION/BUILDING focuses on the foundations, support and some rather general unidenti-
fied structures, RESEARCH AS ECONOMIC ACTIVITY relies mostly on providing things, RESEARCH
As uncovering a secret is mostly concerned with unexpected but very much appreciated revealing of a fact or tendency.

This research has been limited to English linguistic discourse. It has some implications for teaching academic English to non-native speakers of English, especially speakers of languages which do not have any such patterns. Also further study into the field would be of interest if other languages in a cross-linguistic perspective were involved. For Lithuanian such studies seem to have broader implications, since it now seems under the influence of English. In today’s busy world it is much less resistant to language innovations, including, among other things, the pattern under discussion in Lithuanian academic discourse.

REFERENCES


SOURCES


TYRIMAS APTARIA: NEGYVAS SUBJEKTAS + AKTYVŲ VEIKSMĄ REIŠKIANTS VEIKSMAŽODIS ANGLIŠKAME LINGVISTINIAME DISKURSE

Inesa Šeškauskienė

Santrauka


Kvantitatyvinis aspekto papildomas interpretaciniu, pasitelkiant konceptualiosios metaforos teoriją. Nustatytos šios dažniausiai pasitaikancios metaforos: TYRIMAS YRA ŽMOGUS, TYRIMAS YRA KELIONĖ, TYRIMAS YRA STATINYS, TYRIMAS YRA EKONOMINĖ VEIKLA bei TYRIMAS YRA PASLAPTIES ATSKLEIDIMAS. Pirmoji metafora iš dalies sutampa su metonimijomis.

Šio tyrimo rezultatai galėtų pasitartauti diskuaro analizės tyrimams bei dėstant akademinių rašymų negimtakalbiams.

Išteikta 2009 m. birželio mėn.