“It seems reasonable to regard them as a single group”: As-predicative constructions in research articles in four academic disciplines.
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Introduction
In recent studies focusing on disciplinary differences in academic writing, much attention has been paid to such features as personal pronouns (Harwood 2005) and reporting verbs (Charles 2006). Meanwhile, the use of individual grammatical constructions has received less systematic attention. There is a clear explanation for this: while individual words can be retrieved easily and quickly from any corpora, one usually cannot link grammatical structures to particular words, and for this reason studies on grammatical phenomena require more extensively annotated corpora and more complex search syntax (Gilquin 2002).

This paper investigates the use of a particular grammatical construction, the as-predicative, in research articles in four academic disciplines. From the analyst’s point of view, this construction has the advantage of being associated with a particular lexical item, which can be made use of in corpus searches. This enables the accurate and relatively unproblematic retrieval of the construction from a corpus.

The term “as-predicative” refers to a complex-transitive construction exemplified in the following sentence, taken from a medical research article:

We used the midpoint of LVAD enrollment as the dividing point for comparing the 2 cohorts. (Park et al., 2003)

As defined by Gries et al. (2005), the construction consists of four elements: a verb (use), the direct object (the midpoint of LVAD enrollment), the word as, and a complement constituent (the dividing point for comparing the 2 cohorts). The construction comments on the semantic relationship between the noun phrase and the complement (ibid.). It is typically employed in sentences expressing an evaluation of some kind, which makes it an interesting object of study from the perspective of the rhetoric of science.

Material and method
The analysis is based on a corpus of 256 research articles representing four academic disciplines: medicine, physics, law, and literary criticism. Each subcorpus contains 64 articles published between the years 2002 and 2005. The articles have been chosen from influential journals in each discipline. The total size of the corpus is approximately two million words.

The corpus has been part-of-speech tagged using the CLAWS tagger (http://ucrel.lancs.ac.uk/claws/).

The use of the construction is explored in each of the four subcorpora, and to provide a comprehensive description of the construction, two different approaches are used. First, to obtain an overall view of the use of the construction, a simple frequency analysis is carried out in all four subcorpora. Second, to investigate the co-occurrence patterns of the construction in different disciplines, collexeme analysis (see Stefanowitsch and Gries 2003) is performed on corpus data. Furthermore, the typical discourse functions of the construction were considered, again paying attention to possible differences between subcorpora.

Results
The analysis of frequency shows that there is disciplinary variation in the use of the as-predicative construction. The construction is roughly equally common in three subcorpora: in medicine, physics and law, there are about one and a half instances of the construction per 1,000 words of running text. However, the construction is considerably more frequent in the literary criticism subcorpus with a normalised frequency of 2.6 instances per 1,000 words. Moreover, frequency analysis shows that the repertoire of verbs occurring in the as-predicative construction is larger in law and literature than in medicine and physics.

Collexeme analysis is a corpus linguistic method developed for the investigation of the relationship between grammatical constructions and lexical items. Using this technique, all verbs occurring in the as-predicative construction were retrieved, and their strength of association with the as-predicative construction was assessed.

The analysis shows that the construction is associated with different verbs in different subcorpora. In the subcorpus containing medical research articles, the as-predicative construction is frequently used with verbs describing typical activities in the research process, such as define, classify, and use. Other verbs associated with the as-predicative construction are express, report, and present, which are concerned with the presentation of data in presented in the research article. The data from the physics subcorpus demonstrates similar tendencies.

By contrast, the construction is associated with different verbs in law and literary criticism. Verbs that have the strongest associations with the construction in these subcorpora include see, view, treat, and understand. When these verbs occur in the as-predicative construction, they present or argue for an interpretation or a point of view, or report interpretations made earlier in other contexts.

In sum, the data from four subcorpora shows that the as-predicative construction is employed to perform different discourse acts in different academic
disciplines. These results also indicate that collexemes associated with the as-predicative construction are highly context-specific, even within the register of academic English.

References
Nigel Harwood. 2005. “Nowhere has anyone attempted . . . In this article I aim to do just that”. A corpus-based study of self-promotional I and we in academic writing across four disciplines. In Journal of Pragmatics, 37, 8, pp. 1207-1231.