

# VERBS FOR REFERRING TO SOURCES IN HUMANITIES AND SOCIAL SCIENCES: GRAMMATICAL AND LEXICAL ANALYSIS OF THEIR DISTRIBUTION

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## **Abstract**

Verbs for referring to sources in academic style, i.e. verbs which introduce explicitly mentioned sources in signal clauses of authorial text, rather than in bare parenthetical references in the form of brackets or notes, are by far not limited to *say*, *ask* and *write*. They display a variety including verbs of speaking and writing, reporting verbs, verbs of thinking, and verbs expressing different kinds of attitude and agreement. Similarly, referring verbs manifest a variety of grammatical forms, namely tenses, aspects, number, person and verbal voice. This paper is based on an analysis of academic papers in several disciplines of humanities and social sciences. The corpus consists of an equal share of native and expert non-native English papers to reflect the international status of English in academic discourse. However, possible differences between native and non-native distribution are of marginal interest; the main focus of the research is on establishing some rough ratios between individual types and forms of verbs for referring to sources, which would be beneficial in the instruction of future as well as novice authors, whether researchers or students.

## **Keywords**

grammatical forms, humanities, distribution of referring verbs, native, non-native, expert writers, reporting verbs, social sciences, verbs for referring to sources, verbs of speaking

## **1 Verbs for referring to sources – attempts at categorisation**

References to sources, which are invariably and carefully acknowledged in academic texts, can be realised in several ways. Apart from reference made with help of parenthetical notes, whether in the form of brackets, footnotes or endnotes including the source, reference can also be included in the author's own text. Such reference precedes either a direct quote from the source text or a paraphrase, for which it usually functions as an introduction to a *that*-clause. Unlike the latter type of reference, parenthetical reference does not normally contain a verb referring to a source. Such verbs for referring to sources (hereafter VRS) in the academic style are not only *say*, *write* and *ask*, but they consist of a variety of types depending on their grammatical behaviour and semantic roles.

In addition to the permanent semantic and syntactic properties of the verbs for referring to sources attention should be paid to the grammatical forms in which

VRS appear since the forms directly illustrate the use of such verbs. Observation of the displayed grammatical forms in the discourse in question, namely the tense, aspect, number, person and voice, enables a description of writers' techniques of handling and presenting thoughts of other authors.

### **1.1 Syntactic and discursive patterns including VRS**

From the formal point of view, reference to a source can be made (i) by including the author's surname in the main text (e.g. Baumann argues that ...), or (ii) – if the authorship is anonymous – (a shortened) title of the text is used instead of a surname (e.g. Report Writing), and in both cases it is followed by brackets, either with the year of publication and page number (e.g. in APA) or just page number (e.g. in MLA). Alternatively, (iii) it is possible to put a bracketed reference note at the end of the information, now including the author's surname, year of publication and page number (e.g. Baumann 2010: 132) (Report Writing, 2007: 7). The format of in-text reference depends on the conventions established in a chosen referencing system, thus “in some cases the source will be the main subject of the sentence, in others the sources may be mentioned parenthetically (in brackets) or via a notation system (e.g. footnotes)” (Academic Phrasebank, section Referring to Literature, 2010).

Verbs for referring to sources appear in the first of the two above-mentioned patterns, in a so-called signal phrase, which is defined as “a phrase, clause, or even sentence which leads into a quotation or statistic” (Using Signal Phrases, n.d.). By introducing the author's name (or source's title) the signal phrase introduces explicitly or acknowledges the borrowed information, but, apart from acknowledging the author, it provides “some justification for using him or her in this context; it may also help establish the context for the quotation” (Using Signal Phrases, n.d.). Related purposes of using signal phrases are thus to prepare readers for the included source material, to establish credibility of the source as well as of the writer (by adding some basic information about the profession, expertise or merits of the source), and, by varying signal phrases, to avoid monotony of reference (ibid.).

There are various strategies used for indication of a source. As the ‘Academic Phrasebank’ of the University of Manchester (2010) suggests, it is possible to provide:

- general descriptions of the relevant literature (such as in “In recent years, there has been an increasing amount of literature on...”),
- general reference to previous research or scholarly activity (e.g. “Several attempts have been made to...”, “Previous studies have reported...”),

- reference to current state of knowledge (e.g. “There is an unambiguous relationship between A and B.”),
- reference to single investigations in the past with the researcher(s) as sentence subject (e.g. “Smith analysed the data...”, “Smith identified...”),
- reference to single investigations or publications in the past (with prominence given to the time frame) (e.g. “In 1981, Smith demonstrated that ...”, “In 1994, Jones pointed to some of the ways ...”),
- reference to a single publication (without a time frame) (e.g. Smith has written the most complete synthesis of ...”),
- reference to single investigations in the past where the investigation is prominent (e.g. “The study of ... was first carried out by Jones et al. (2000)...”),
- reference to single investigations in the past where research topic is the subject (e.g. “X was first studied by Marks and Peters in 1983.”, “To determine the properties of Y, Marks analysed...”),
- reference to what other writers do in their text (with the author as subject) (e.g. “Jones (2005) discusses the challenges...”, “Peters (2011) provides an explanation of ...”),
- reference to other writers’ ideas (with the author as subject) (e.g. “Smith (2005) argues that...”, “According to Jones (1999), ...”, “Peters (2007) suggests a theory for...”).

(‘Academic Phrasebank’, section Referring to Literature, 2010; examples selected and adapted)

What needs to be added to this classification of approaches to the introduction of sources is that most of them can also be applied for reference to the current author him- or herself being the source or originator of information. He or she may either refer to him- or herself using the first person (“I have found that...”, “I investigated...”), or in the less personal third person (“The author of this paper reported in 2006 that...”, “The current author has examined...”, “Vogel (2010) claims...”). Also, prominence can be given to single investigations as such, their time frame or research topic, quoting the current author alone or among other authors. As will be demonstrated in the analysis of papers included in the corpus of this contribution, self-reference can be also directed to the current text or parts of it (e.g. “This paper sets out to identify...”, “As has been shown in the previous chapter, ...”).

The author thus does not have to be a syntactic subject and, at the same time, semantic agent of the clause (e.g. “Polák suggests ...”), but can become a

syntactic object (e.g. “I disagree with Polák...”, “In this respect, some researchers quote Polák...”) or an adverbial, typically that of process, specifically agency (cf. Greenbaum and Quirk 1990: 159) (e.g. “This idea was first formulated by Polák...”). The author can also become a complement of a clause (“The main proponent of this interpretation is Polák...”) or be incorporated in a noun phrase syntactically headed by and thus semantically directed towards another noun (e.g. “Polák’s main argument was ...” or “Polák’s paper of 2006 provides...”). The adverbial of agency mentioned above seems at least to preserve overtly the agentive function of an explicitly mentioned source, unlike the objectival patterns (Greenbaum and Quirk (1990: 214) rightly assert that an object cannot be agentive.) However, all of these diverse instances of an explicitly mentioned source (including a reference made to the author him- or herself) have been counted here as examples of reference.

Sometimes, verbs used to describe the undertaken research, experiment, analysis, etc. stop referring to the source as they rather describe the process. However, distinguishing the two functions, referencing and descriptive, is often difficult because some verbs combine them both (especially when the verb is the first one used in relation to the given source). The guide to distinguishing may thus be, besides the semantic properties of such verbs, their position in a sequence of clauses referring (here the verb *refer* is used in a broader sense) to a given source. Once the source has been acknowledged, the following consecutively occurring verbs are likely to lose the function of reference to the source and they rather perform other functions.

## 1.2 Types of classification of VRS in academic writing teaching materials

Apart from the academic writing guides available on the web, usually prepared and hosted by universities, little attention is paid to VRS in printed publications. The comprehensive practical handbook *Academic Vocabulary in Use* (McCarthy & O’Dell 2008) with practice exercises specifically focuses on VRS in two double-page units, titled “Sources” (U23, 54-55) and “Reporting what others say” (U32, 72-73), the latter being subdivided into reporting verbs and reporting nouns (which are almost always deverbal). Some other VRS can be found in other units, such as “Key verbs” (U3, 14-15), “Verbs and the words they combine with” (U12, 32-33), “Talking about meaning” (U34, 76-77), “Talking about points of view” (U36, 80-81), but they are neither classified semantically nor grammatically.

The pragmatically focused *Study Writing* by Hamp-Lyons and Heasley (2006) discusses the application of and differences between quotes, paraphrases and summaries (141-146), but the only relevant note on VRS seems to be a short

introduction and task titled “Using and commenting on quotes”, which plainly explains the usefulness of VRS: “It can be confusing for a reader to figure out how you are using the quotation – whether you agree or disagree with it and how strongly. Fortunately, there are a set of useful verbs for indicating this to your reader” (Hamp-Lyons & Heasley, 2006: 143). This is followed by a short list of VRS: *suggests, indicates, implies, shows, illustrates, tells us, supports, lends weight to, argues* (ibid.).

A longer list of VRS can be found at Indiana-Purdue University’s site in the document “Using Signal Phrases to Integrate Source Material” (n.d.). The listed verbs are as follows (adapted from a tabular format and from the 3<sup>rd</sup> person present tense form into the base form):

*acknowledge, add, admit, advance, affirm, agree, allude, argue, aseert, attest, characterize, chronicle, claim, comment, compare, conclude, concur, confirm, contend, contrast, create, declare, emphasize, define, delineate, deny, disclose, discount, dispute, document, explain, express, extrapolate, grant, highlight, hypothesize, illustrate, imply, indicate, insist, maintain, narrate, negate, note, observe, refer, point out, posit, present, propose, purport, reason, recount, reflect, refute, reiterate, relate, remark, reply, report, respond, reveal, state, submit, suggest, support, theorize, write, verify.* (Using Signal Phrases, n.d.)

A completely identical list in the same tabular format is available at the website of the Centre for Academic Excellence, Saint Joseph’s College (Signal Phrases, 2001), but it was probably copied (along with other passages) from Using Signal Phrases.

As there is such a wide choice of VRS, they occur in various grammatical patterns. University of Toronto’s “Verbs for Referring to Sources” (n.d.) quotes three basic patterns:

**Pattern 1:** reporting verb + *that* + subject + verb

e.g. *admit, assert, claim, conclude, consider, demonstrate, indicate, infer, point out, prove, say*

**Pattern 2:** reporting verb + somebody/something + *for* + noun/gerund

e.g. *blame, condemn, criticize, praise, thank*

**Pattern 3:** reporting verb + somebody/something + *as* + noun/gerund/  
adjective

*assess, class, classify, define, describe, evaluate, identify, interpret, present, view*

(adapted from Verbs for Referring to Sources)

The quoted list certainly does not embrace all possible patterns, but an analysis based on this classification could be a very useful support in a semantic

analysis thanks to the possible overlap between some grammatical patterns and semantic types. Semantic analysis will be touched upon only marginally in this paper (cf. Subsection 4.2.4).

## 2 Corpus and methodology

The paper analyses a corpus of papers published in renowned international academic journals which are meant to represent roughly the diversity of styles of writing for academic purposes in the area of humanities and social sciences. To be representative of a variety of possible disciplines in humanities and social sciences, the corpus contains papers on linguistics, literary criticism, law, economics, political science and archaeology. Internally, it is divided into two subcorpora, one consisting of papers written in each of the selected six disciplines in English by authors who are native speakers of English, whereas the other comprises papers by non-native authors. By choosing this arbitrary ratio, the international status of English in science is roughly reflected.

The analysed papers are referred to throughout this text by a combination of abbreviations where initial “N” stands for a native author, “NN” for a non-native writer using English. The next part of the code includes an abbreviation of a discipline (e.g. “Li” for linguistics, “Po” for political science, etc.), followed by a serial number of paper (from 1 to 12). Thus, NNPo9 means a paper on political science by a non-native author, number 9 (out of total 12 papers). (For a complete list of disciplines, authors and codes, cf. Tables 1 and 2.)

The native vs. non-native differences are not the key focus of the current research. Non-native authors to a large extent imitate the practices of native authors who, in turn, follow the conventions and formulaic patterns established in the style of writing for academic purposes. Possible non-native differences may, of course, be attributable to interferences from the respective native languages of authors but also to insufficient mastery of the required style (logically, calquing the lexical items and syntactic patterns from the native languages is a way of solving the handicap). What might be of some linguistic interest, then, are lexical choices (in this paper, limited only to verbs for referring to sources) in which non-native authors differ from native ones, whether intentionally or unintentionally.

However, the main focus of the present research is on establishing the ratios between the varieties of individual types and grammatical forms of VRS, based on the corpus which integrates papers written by native and non-native experts. Its aim is to provide a general picture pertaining to the discourse of humanities and social sciences. The practical ambition of the research is to find out heuristically how the verbs of referring to sources are applied in academic

papers, which would be beneficial to anybody desiring to learn and improve their skills of academic writing, should they be researchers or students. It strives to answer some simple basic questions, such as:

1. What type of reference to sources is characteristic of academic papers in humanities and social sciences?
2. What semantic and syntactic types of verbs for referring to sources are dominant?
3. Are there any regular differences observable between disciplines in the use of VRS?
4. What grammatical forms do VRS typically assume? What tense, aspect, verbal voice prevails?
5. How frequent are VRS in the texts (possibly compared with verbless, parenthetical reference)?
6. What are the most frequent syntactic patterns in which VRS are used (in other words, what syntactic position is assumed by the name of source)?

In doing such research, many methodological difficulties are obviously encountered:

1. Distinguishing between verbs referring to a source (which is the focus of this paper) and verbs describing the processes carried out during the research or mental processes undertaken during interpretation of facts and ideas. The problem is that some verbs combine both functions. It has been decided to identify as verbs referring to sources only those verbs which make the first reference, thus introducing the source, and not the subsequent simple mentions of it in an uninterrupted row, unless they evaluate the message communicated by the given author.

2. Identifying verbs of self-reference: to the author, to the current text or its parts or to the author's research underlying the text. The problem with self-reference is that it is not often explicitly marked by names and dates of authors in the signal phrase or in parenthetical reference. Self-reference may be disguised in a variety of syntactic and lexical patterns and may be even completely implicit.

3. Counting the ratios between VRS and other types of reference or counting the density of VRS within individual texts. The papers in the corpus, despite having been published in internationally recognised scholarly journals, are formally heterogeneous. They use a varying degree of long block quotes or explanatory footnotes, of which the latter could be reasonably included in the count of paragraphs as they closely complement the main text. Block quotes and long explanatory footnotes were not included in the analysis (particularly in papers NLC2, NNPS9 and NNEc11), although they contain VRS and specifically footnotes are even the authors' own text. On the other hand, some texts lack these elements or their occurrence is negligible.

4. Dealing with idiosyncratic deviations of any kind. Working with a corpus of texts is, in fact, a method of eliminating the influence of idiosyncratic usage favoured by individual authors as it gets “diluted” in the volume of all texts. Even then, decisions must be made as to what is acceptable for inclusion in the corpus. Some texts, for instance, include two parallel formats of reference, namely parenthetical in-text reference and footnotes or endnotes. In Bryan’s literary paper (NLC2), for example, such extensive footnotes have been ignored, as well as in papers on political science by Fawn (NPo3) and Bürgin (NNPo9). In legal texts (NLa6 and NNLa12) reference is frequently made not to other authors, but to laws (acts), court decisions (cases), international treaties, directives, etc. These were counted as a relevant type of reference in this paper as the usage of VRS in relation to them was quite conventional. Some texts also feature a high proportion of verbs referring to mental processes and attitudes of the author (namely Stark’s legal text NLa6), self-reference to the current author (Durlauf’s NEc5), concepts but not texts named after their authors (NEc5, NNEc11 by Mäki) or reference to (sections of) the given paper (NPo3 by Fawn). Such instances were not regarded acceptable for the current analysis of VRS.

5. Different formats of reference are used within the corpus, with some techniques being borderline cases. An example is the use of the verb *see* in the imperative form to introduce a reference, usually in a parenthetical reference (in brackets). This borders on verbless reference, but the verb is present. It is also comparable to phrases abbreviated to *cf.* (= *compare*, a verb) and *e.g.*, which were not included in the analysis. For the purposes of this research, instances with *see* were included in the total count of VRS, but they were ignored in the grammatical analysis of tense and aspect (although imperatives are capable of expressing some aspectual features in English). However, occurrences of *see* were included in the analysis of verbal voice (*see* was classified as an instance of active voice). Similarly, non-finite constructions were excluded from the analysis of tenses, as they do not express any, but were analysed for aspect (active participle as progressive, passive participle as non-progressive/simple, since their expansion from elliptical condensed non-finite clauses into finite dependent clauses would most likely yield such results).

6. In the grammatical analysis, identification of persons and numbers was omitted because the heterogeneity of syntactic constructions in which VRS appear (and corresponding syntactic roles of sources referred to) is too high to allow any reasonable analysis and yield relevant data. Also, reference to a source by one or more authors (i.e. using the plural here) is indicative of the extralinguistic context, not of linguistic preferences.



7. Finally, the selection of disciplines and individual papers can easily be subject to criticism. Although two texts can hardly be considered representative enough to provide a reliable picture of a discipline (despite this limitation, they seem to prove some interesting specific features in most disciplines, e.g. preference of preterite forms of VRS in political science, present perfect in archaeology or nearly identical ratios in texts in the field of literary criticism), I believe that the complete corpus of 12 papers from six disciplines is representative enough for observation of the usage of selected phenomena in academic discourse of humanities and social sciences.

### 3 Reference in the analysed papers

#### 3.1 General ratios of verbs for referring to sources in the native English corpus

The papers to be examined were selected randomly to represent six disciplines of humanities and social sciences, namely linguistics, literary criticism, political science, archaeology, economics and law. They were found either in electronic or printed editions of international scholarly journals, namely *Studia Anglica Posnaniensia*, *Scandinavian Studies*, *Perspectives: Review of International Affairs*, *Archaeological Reports* (selection of papers *Archaeology in Greece*), *Politics, Philosophy and Economics* and *The Cambridge Law Journal*. Three authors are British and three American and only one of the journals is published in the Czech Republic.

The papers are of different lengths, ranging from three to thirty pages, or from nine (law, paper NLa6) to 76 (economics, NEc5) paragraphs of eligible text (i.e. without footnotes, endnotes, block notes, an abstract and a list of references). The ratio of VRS to paragraphs ranges from 0.58 VRS/par. in archaeology (NAr4) to 2.2 in literary criticism (NLC2), but in most disciplines the ratio oscillates around 1 (the average is 1.17, coincidentally identical with that of the economics paper).

The papers differ somewhat in the type of reference used. Besides in-text reference, particularly papers by Durlauf (NEc5) and Fawn (NPo3) are supplemented by quite extensive endnotes and Bryan's paper (NLC2) by footnotes, referred to by superscript numerical notation. Although footnotes tend to be frequently used in legal papers, they were absent from the researched journal (*The Cambridge Law Journal*) in Stark's paper NLa6. This paper, on the other hand, differed from the rest by prevalence of reference to various legal documents with anonymous authorship (acts, court decisions, etc.), i.e. not to personalised authors.

The following table (Table 1) provides information about individual papers representing the selected disciplines, about the type and density of reference, and gives several examples of verbs for referring to sources (VRS) identified in each paper, in a format illustrating their grammatical form and immediate syntactic environment. Table 2 in the following section then provides analogous data for the subcorpus of English papers written by non-native researchers.

Number of paper/author/nationality	Field	Verbs of referring to sources – some typical examples	Notes	Ratio of VRS to paragraphs
NLi1/ Newman/ American	linguistics	discloses, highlights, underscores, examines, offers <i>the hypothesis</i> , has demonstrated, attempts to clarify, <i>it</i> has been recognized, <i>it</i> has been suggested, observed, support		16:24 (=0.67)
NLC2/Bryan/ American	literary criticism	have contributed, has challenged, adding <i>further</i> , observes, presents, has remarked, citing, argues, suggest, reflects, ( <i>is</i> ) supported by, see, outlines, says, points out, as indicated by, puts <i>it</i> , to borrow a phrase from	Explanatory or recommendatory footnotes were not included.	66:30 (=2.2)
NPo3/Fawn/ British	political science	disagree with, asks and observes, show, offers, reminded <i>us</i> of, was raised, ( <i>was</i> ) written in... and published, called, wrote, was ascribed or indicated by, implied, named, declared, warned, specified, said, refer to, spoke of, named, clarified that by stating, commented on		64:66 (=0.97)
NAr4/ Cavanagh/ British	archaeology	has looked to, have been reported, has underlined, suggests, have served to confirm, ( <i>were</i> ) reported from, has provided, have confirmed, emphasize, as illustrated by		23:40 (=0.58)
NEc5/ Durlauf/ American	economics	( <i>which were</i> ) raised in...by, challenges, is proposed by, <i>I</i> refer to, argues, <i>the most famous example</i> is, has introduced, is well surveyed by, have focused on, ( <i>is</i> ) summarized in, make clear, recognizes, states, <i>I</i> disagree with, ( <i>is</i> ) articulated by, criticizes, <i>I</i> have called, ...'s argument is that..., <i>I</i> have alluded to, has advocated	Frequent reference to oneself – 12 out of 89, i.e. 13.5% of such verbs among the identified VRS.	89:76 (=1.17)
NLa6/Stark/ British	law	was considered by, sets out, demonstrates, found, gave <i>evidence</i> , included, suggested, pointed out, raise questions about, ( <i>are</i> ) considered at, what is apparent from	Many verbs of commenting on mental processes (thinking, agreeing, asserting, ...): not classified as true VRS.	13:9 (=1.44)

**Table 1: Verbs of referring to sources in papers in humanities and social sciences: Subcorpus of native English authors**

### 3.2 General ratios of verbs of referring to sources in the non-native corpus

The subcorpus of papers published in English by non-Anglo-Saxon authors represents the same six disciplines of humanities and social sciences as in the native subcorpus, each of them by one paper. The papers come from electronic or printed editions of international academic journals, namely *Poznań Studies in Contemporary Linguistics*, *Studia Anglica Posnaniensia*, *Perspectives: Review of International Affairs*, *Anatolian Studies*, *Philosophy of the Social Sciences* and *The Cambridge Law Journal*. Three journals are identical with those used in the native corpus, three are different. All six authors are non-native users of English of five different nationalities and mother tongues, and none of them, quite deliberately, is Czech or Slovak.

Number of paper/author/nationality	Field	Verbs of referring to sources (VRS) – some typical examples	Notes	Ratio of VRS to paragraphs
NNLi7/ Fernández-Domínguez/ Spanish	linguistics	see, as founded by, ( <i>was</i> ) coined by, ( <i>was</i> ) started by, ( <i>is/was</i> ) cited in, it has been pointed out, as shown above, stresses, shows, proves essential, has been surveyed in, is remarked by, has argued		65:90 (=0.72)
NNLC8/ Stachura/ Polish	literary criticism	( <i>is/was</i> ) summarized by, asserts, describes, ...'s essay focuses on, discusses, provides examples, identifies, introduces, as ... <i>famously</i> had it, observes, concludes, proposed by, referring to	Quite many verbs were not classed as VRS, they rather refer to ideas.	18:23 (=0.78)
NNPo9/ Bürgin/ Turkish	political science	reveals, seeks to address, emphasizes, refer to, focuses on, emphasizes, argues/argued/arguing, postulate, showed, referred to, stated, declared, point out, said, denied, concludes, defined, insisted, compared, mentions, called for, reject, stressed	Brief endnotes were not included.	83:50 (=1.66)
NNAr10/ Debruyne/ Flemish	archaeology	has been published, <i>sources</i> were, was verified on..., as ( <i>it was</i> ) noted, shows, <i>I</i> noted, have also been identified, has conducted, reveals <i>that</i> , as ( <i>is</i> ) illustrated by		16:50 (=0.32)
NNEc11/ Mäki/Finnish	economics	one may cite, celebrate, object to, believe, see, presents, is expressed, pointed out, refers to, talks about, says/saying, mentions, contains the idea of, as ...put it, acknowledged, is proud of, argue, should add, is voiced by	Block notes and footnotes were not included.	62:78 (=0.79)
NNLa12/ Hinarejos/ Spanish	law	<i>conditions</i> set out in ..., not yet reported, adopted <i>the same position</i> , further clarifying, assumed by, argue, seems to assume that..., has made it clear that..., reiterated, as interpreted in...		13:8 (=1.62)

**Table 2: Verbs of referring to sources in papers in humanities and social sciences: Subcorpus of non-native authors writing in English**

Similarly to the previous subcorpus, the papers are of different lengths, in the range from three to almost thirty pages, or from eight (law, paper NNLa12) to 90 paragraphs (linguistics, NNLi7) of analysable text. The ratio of VRS to paragraphs ranges from 0.32 VRS/par. in archaeology (NNAr10; compare with 0.575 in NAr4) to 1.66 in political science (NNPo9; compare with 2.2 in NLC2 in the native subcorpus. The individual ratios as well as the average (0.984 VRS/par.) are thus smaller than in the native subcorpus.

Reference in the non-native subcorpus, similarly to the native one, sometimes supplements parenthetical in-text reference with endnotes (NNPo9 by Bürgin), footnotes (NNLi7 by Fernández-Domínguez) and with a combination of extensively employed block quotes and footnotes (NNEc11 by Mäki). The legal paper (NNLa12) is characterised by reference made rather to legal documents without given authorship. Grammatical specifics of some papers will be discussed in Section 4.

## **4 Grammatical analysis of verbs for referring to sources**

### **4.1 Identified verbs for referring to sources and their grammatical properties**

The following table contains data concerning grammatical properties of all twelve papers constituting the corpus, organised so that the native- and non-native-written papers are paired and enable thus comparison within individual disciplines. In most cases, this comparison shows internal homogeneity of discourse within the disciplines (e.g. in archaeology; it is even more conclusive since the striking similarity in grammatical properties is found in papers published in different periodicals, which means that it was not influenced by editors' guidelines). Sometimes, the differences can be interpreted as indicative of native/non-native differences, but given the small corpus it is necessary to be very careful when making such judgments, as the style can be more substantially affected by the individual authors' preferences, linguistic expertise and habits, adherence to the styles of individual journals and discourse established at their home institutions, specific needs of the topics, etc. However, the aggregated picture either of the subcorpora or of the whole corpus can be regarded as quite illustrative of the chosen discourse of humanities and social sciences.

**VERBS FOR REFERRING TO SOURCES IN HUMANITIES AND SOCIAL SCIENCES:  
GRAMMATICAL AND LEXICAL ANALYSIS OF THEIR DISTRIBUTION**

Field	Number of paper/author/nationality	Verbs of referring to sources (VRS) –dominant type(s)	Total no. of VRS (= n)	Tense (total occurrences; % of n)						Aspect (total occurrences; % of n)		Voice active : passive (ratio; % of active)	
				PresSimp	PresPerf	PastSimp	Plu (will)	PassPart	ActPart	simple	progress		perfect
ling.	NLi1/ Newman/ American	Present simple active.	16	11 (69%)	3 (19%)	1 (6%)	–	–	–	15 (94%)	–	3 (19%)	13:3 (4.33; 81.3%)
	NNLi7/ Fernández-Domínguez/ Spanish	Imperat. <i>see</i> (42 out of 65, i.e. <b>65%</b> )	65	8 (12%)	6 (9%)	–	–	8 (12%)	1 (2%)	22 (34%)	1 (2%)	6 (9%)	51:14 (3.64; 78.5%)
liter. crit.	NLC2/Bryan/ American	Present simple active.	66	42 (64%)	8 (12%)	3 (5%)	–	2 (3%)	3 (5%)	56 (85%)	4 (6%)	8 (12%)	56:10 (5.6; 84.8%)
	NNLC8/ Stachura/ Polish	Present simple active.	18	13 (72%)	–	2 (11%)	–	2 (11%)	1 (6%)	17 (94%)	1 (6%)	–	15:3 (5; 83.3%)
polit. sci.	NPo3/Fawn/ British	Past simple, mostly active.	64	17 (27%)	3 (5%)	33 (52%)	3 (5%)	4 (6%)	3 (5%)	60 (94%)	4 (6%)	3 (5%)	54:10 (5.4; 84.4%)
	NNPo9/ Bürgin/ Turkish	Past simple, foll. by present simple, active.	83	31 (37%)	1 (1%)	49 (59%)	–	–	2 (2%)	81 (98%)	2 (2%)	1 (1%)	83:0 (N/A; 100%)
arch.	NAr4/ Cavanagh/ British	Pres. perf. active and passive.	23	3 (13%)	14 (61%)	–	–	4 (17%)	1 (4%)	22 (96%)	1 (4%)	15 (65%)	12:11 (1.09; 52.2%)
	NNAr10/ Debruyne/ Flemish	Pres. perf, active and pass.	16	2 (13%)	5 (31%)	4 (25%)	–	3 (19%)	1 (6%)	14 (88%)	1 (6%)	5 (31%)	9:7 (1.29; 56.3%)
econ.	NEc5/ Durlauf/ American economics	Present simple active, but also passive v.	89	58 (65%)	11 (12%)	3 (3%)	–	7 (8%)	3 (3%)	79 (89%)	3 (3%)	11 (12%)	72:17 (4.24; 80.9%)
	NNEc11/ Mäki/Finnish	Present simple act.; 19% imperat. <i>see</i> .	62	40 (65%)	2 (3%)	6 (10%)	–	–	1 (2%)	49 (79%)	1 (2%)	2 (3%)	54:8 (6.75; 87.1%)

Field	Number of paper/author/nationality	Verbs of referring to sources (VRS) –dominant type(s)	Total no. of VRS (= n)	Tense (total occurrences; % of n)						Aspect (total occurrences; % of n)			Voice active : passive (ratio; % of active)
				5 (38%)	–	6 (46%)	–	2 (15%)	–	13 (100%)	–	–	
law	NLa6/Stark/ British	Past simple and active verbs, foll. by present.	13	5 (38%)	–	6 (46%)	–	2 (15%)	–	13 (100%)	–	–	10:3 (3.33; 76.9%)
	NNLa12/ Hinarejos/ Spanish	Non-finite passive participle phrases.	13	2 (15%)	1 (8%)	3 (23%)	–	6 (46%)	1 (8%)	12 (92%)	1 (8%)	1 (8%)	7:6 (1.17; 53.8%)
<b>Total - average</b>	<b>Papers 1-12</b>		44	40.8%	13.4%	20%	0.6%	9.9%	3.6%	86.9%	3.8%	13.8%	<b>76.6% active</b>

**Table 3: Verbs of referring to sources in papers in humanities and social sciences: Both subcorpora, native English and non-native authors**

## 4.2 Differences revealed between disciplines and between the native/non-native corpora

### 4.2.1 Tense

The dominant tense used in VRS has been identified as the present tense, in combination with the simple aspect (average 40.8%) and with the perfect aspect (13.4%). The present simple would have been even more frequently represented had it not been reduced by paper NNLi7 where 65 per cent of VRS are realised by the imperative form of the verb *see*, and papers on archaeology NAr4 and NNAr10, both roughly with only 13 per cent of present simple VRS (as they prefer the perfect aspect). In this corpus, the high occurrence of present perfect forms distinguishes archaeology from other disciplines, being established as 61 per cent and 31 per cent of VRS in the two researched papers.

The preterite tense (past simple; no other forms have been found) accounts for 20 per cent of VRS in the papers, with insignificant difference between native and non-native corpora (18.7% and 21.3%, respectively). Its extraordinarily high occurrence has been revealed in both papers dealing with political science (NPo3 with 51.5% and NNPo9 with 59%) and higher-than-average occurrence also characterises the samples from the discourse of law (NLa6 with 46% and NNLa12 with 23%). As the use of preterite in political science can be interpreted as a result of reference to sources stemming from events and actions anchored in some historical context, expressed thus by grammatical past tense, higher occurrence of the past in legal texts is less expectable, but interpretable analogously.

Occurrence of the future, in fact only *will*-future, with VRS is logically marginal (0.6%).

Non-finite verb forms, quite expectable in academic discourse, are represented by an average of 9.9 per cent of VRS appearing in the passive participle form and 3.6 per cent in the active participle. Their occurrence is typical of legal papers, known for their high level of syntactic condensation (46% of passive participle phrases with VRS in NNLa12 and 15% in NLa6).

#### 4.2.2 Aspect

Aggregating the present, past and future forms of VRS, an absolute majority, nearly 87 per cent, displayed the simple aspect, followed by 13.8 per cent of the perfect aspect and 3.8 per cent of progressive aspect (in fact occurring only in non-finite active participle phrases). Some difference has been observed between the native (on average 93% simple aspect) and non-native subcorpora (80.8%), where the average figure has been partly reduced by specific properties in paper NNLI7. However, the occurrence of the perfect aspect VRS is double in native-written papers (18.8%, although increased by exceptionally high 65% of present and past perfect VRS identified in NAr4) compared with non-native ones (8.7%). The extraordinarily high presence of the perfect aspect in archaeology papers has been discussed in 4.2.1 above.

#### 4.2.3 Voice

The distribution of verbal voice is almost identical in both subcorpora (76.8% of active voice forms of verbs in the native, 76.5% in the non-native subcorpus). Nevertheless, the subcorpora are not so homogeneous internally since both papers in the field of archaeology display a larger share of passive forms (only 52.2% and 56.3% of verbs are active in NAr4 and NNAr10, respectively) as well as the legal paper NNLa12 (with 53.8% active forms). The higher proportion of the passive correlates with the preference of non-finite constructions in NNLa12 (46%) and although the use of passive participle clauses is markedly higher than average in NAr4 (17%) and NNAr10 (19%), it is mainly the use of finite passive present perfect verbs that has led to an almost equal share of VRS in the passive form in these papers.

#### 4.2.4 Semantics of VRS

Apart from simply quoting somebody's words or thoughts, verbs for referring to sources often express various additional information. However, identifying the individual types of meaning they convey is difficult due to the apparent combination and overlapping of meanings. In order to properly classify VRS

semantically, an all-encompassing classification with a precise methodology would need to be devised.

I have only attempted to make a very rough classification based on several categories of abstract verbs connected with thinking, saying, believing, seeming, etc. proposed by Leech and Svartvik (1994). They classified such verbs according to the type of communicative function they perform (and related grammatical patterns). The classification does not cover all meanings communicated by VRS, but seems to embrace most of them. Leech and Svartvik (1994: 74-76) thus distinguish verbs of perceiving (e.g. *see, look, sound*), verbs referring to a state of mind or feeling (e.g. *believe, doubt, forget, hope, imagine, know, like, love, mean, prefer, remember, suppose, understand, want, wish, seem, appear*), verbs referring to a relationship or a state of being (e.g. *be, belong to, concern, consist of, contain, depend on, deserve, equal, have, involve, owe, own, possess, remain, require, resemble*), so-called 'mental activity verbs' (e.g. *think, imagine, remember*, etc. used in the progressive form) and of course verbs of saying (e.g. *say, answer, declare, reply* – used both with direct and indirect speech; and *assert, confirm, state* – used mainly with indirect speech) (ibid.: 134).

As identification of the dominant semantic function is often rather speculative (in the present study, classification was found to be debatable e.g. in the imperative *see*, verbs *refer to, coin, cite, demonstrate, illustrate, introduce, reject, find, observe*, complex verb phrases or verbo-nominal expressions such as *seems to differentiate between, goes on to provide a subtle defense of, clarified that by stating*, and metaphorical expressions such as *has launched a critique of, has borne fruit, has opened the way for*), the following analysis does not have the ambition of giving a precise picture of semantic classes of verbs used for referring to sources, not even just within the corpus in question. A smaller sample of papers was chosen (comprising half of the corpus, i.e. 3 papers from either of the subcorpora) and the main aim has been to find the rough ratio between explicit verbs of saying or reporting and a few distinguishable classes of similar verbs with additional meanings. If the methodology of classification is consistent and correct, the rough results obtained from individual papers will be similar. However, the assumption of tendency to analogous ratios is not supported by any stylistic rules or by any other linguistic theory since writers are in fact free to choose these verbs from a variety of possible options so that the verbs suit the complex needs of the texts and the authors' communicative intentions.



VERBS FOR REFERRING TO SOURCES IN HUMANITIES AND SOCIAL SCIENCES:  
GRAMMATICAL AND LEXICAL ANALYSIS OF THEIR DISTRIBUTION

Type of verbs/Paper	NLi1	NAr4	NLa6	NNLi7	NNLC8	NNEc11
Verbs of saying	12.5%	<b>26.1%</b>	<b>30.8%</b>	<b>12.3%</b>	<b>38.9%</b>	<b>43.5%</b>
Verbs of perceiving	<b>18.8%</b>	4.4%	-	<b>64.6%</b>	11.1%	<b>22.6%</b>
Verbs referring to a state of mind or feeling	<b>25%</b>	<b>30.4%</b>	<b>30.7%</b>	4.6%	-	12.9%
Verbs referring to a relationship or a state of being	6.3%	21.7%	15.4%	4.6%	<b>22.2%</b>	6.5%
Mental activity verbs	<b>18.8%</b>	4.4%	7.7%	3.1%	11.1%	1.6%
Other (unclassified) verbs	<b>18.8%</b>	13%	15.4%	10.8%	16.7%	12.9%

**Table 4: Semantic analysis of VRS in six selected papers based on classes proposed by Leech and Svartvik (1994) (Two most frequently occurring types in each paper are highlighted)**

The tentative results of the semantic analysis undertaken on the sample papers seem to suggest that the most frequent category of VRS are verbs of saying proper (including verbs such as *suggest*, *claim*, *note*), followed by verbs of referring to a state of mind or feeling (they reveal quite a regular occurrence in the native-authored segment of the mini-corpus, but the insufficient corpus size prevents us from making further conclusions) and verbs of perceiving (including *see* used in the imperative form, particularly frequent in NNLi7). On the other hand, verbs referring to a relationship or a state of being (i.e. verbs usually avoiding the use of the name of the source as an active or passive agent in signal clauses) and verbs of mental activity (contrary to Leech and Svartvik's requirement (1994), I classified relevant verbs as members of this category even if they were not used in the progressive form) seem to be used considerably less often. Other verbs, i.e. verbs difficult to classify in one of the above categories, represent quite a constant small share of VRS in the scrutinised papers.

## 5 Interpretation and synthesis of findings

As can be seen from Table 5 below, on the basis of analysis of verbs for referring to sources in twelve papers from six selected disciplines representing humanities and social sciences, the discourse is characterised by roughly an equal number of reference by verbs in signal phrases as is the number of paragraphs. This of course does not mean that one paragraph typically contains one verb for referring to a source (VRS). Some paragraphs, usually in the introductory and final parts of papers, contain no VRS, but some paragraphs in the sections reviewing literature, establishing methodology, interpreting findings or discussing arguments contain more of them, and they do not always include the VRS.

Grammatically, the dominant form of VRS is the present simple with about 40 per cent, followed by past simple with about 20 per cent. The past simple forms have been found dominant in papers in the field of political sciences. The present perfect form reveals a higher percentage in one of the selected disciplines, viz. archaeology. The ratio of active to passive voice in the corpus is roughly 3:1, but it would be higher were it not for specifics of some disciplines, here again archaeology. Regarding the ratio of simple to perfect aspect, the average is about 6:1 for the simple aspect. The progressive aspect is quite rare. Non-finite forms are quite rare too, on average well under 10 per cent, but their occurrence is significantly higher in legal texts.

Differences between native and non-native written texts seem to be insignificant in terms of voice and aspect, but they indicate some possibly different practices, namely a more evident preference of present simple and higher share of present perfect VRS in papers by native authors. Also the higher density of VRS in the native-written subcorpus may be indicative of a bigger inclination of native speakers towards using signal phrases; their non-native colleagues may rather prefer the safer parenthetical reference where no syntactic structures including suitable verbs are necessary.

	Density (VRS/para- graphs)	Tense – Present Simple	Tense – Present Perfect	Tense – Past Simple	Voice	Aspect
Subcorpus of papers by native English authors	<b>1.171</b>	46% (distorted by NAr4 with 13%)	18.2% (distorted by NAr4 with 61%)	18.7% (distorted by NPo3 with 52% and NLa6 with 46%)	76.8% active (lower, 52.2%, in NAr4)	93% simple; 18.8% perfect (distorted by 65% in NAr4)
Subcorpus of papers by non-native authors	0.984	35.7%	8.7% (distorted by NNAr10 with 31%)	21.3% (distorted by NNPo9 with 59%)	76.5% active (lower, 56.3%, in NNAr10, and 53.8% in NNLa12)	80.8% simple (too low in NNLi7, 34%, due to exclusion of 65% imper.); 8.7% perfect
<b>Total corpus - average</b>	<b>1.078</b>	<b>40.8%</b>	<b>13.4%</b>	<b>20%</b>	<b>76.6%</b>	<b>86.9% simple 13.8% perfect</b>

**Table 5: Comparison of average figures for both subcorpora and the whole corpus**

The corpus of analysed papers is not big enough to make qualified judgments about individual disciplines, but it hopefully provides some relevant data about the discourse in humanities and social sciences as a whole, thanks to a relative

homogeneity of the source publications (prestigious international academic journals), linguistic expertise of authors of the papers and especially thanks to the representative choice of disciplines. However, in a potential follow-up research it would be worth expanding both the number of analysed papers and the involved disciplines, as well as making a comparison with reference and verbs employed for this purpose in exact sciences and technology. Another research question which still remains to be answered (based on a wide enough corpus of texts) is one concerning the ratio of reference using VRS to verbless, parenthetical reference. Also devising a feasible methodology for analysis of syntactic patterns and semantic types of VRS would certainly generate fruitful and inspiring research, contributing relevantly to the rather grammatical results yielded by this initial study.

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