Argument structure
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1 Introduction

This chapter deals with argument structure, the relationship between the underlying semantics of the noun phrases associated with a verb and the form of their syntactic expression. It explores the group of verbs known as the Exchange verbs, and one verb in particular, substitute, whose recent history is particularly intricate. Teasing out the details of what is happening to substitute will reveal significant differences between British and American usage, a surprising reason for the differences, and useful insight into the relationship between register and syntax.

A problematic reversal in the use of the verb substitute appears in the conclusion to a British newspaper leader about American forces in Iraq:

(1) A striking scene in The Battle of Algiers is a response by the French commander to allegations of brutality by his forces: “We are soldiers and our only duty is to win … I would now like to ask you a question: should France remain in Algeria? If you answer yes, then you must accept the consequences.” Substitute “France” for the US, and “Algeria” for Iraq, and the question remains the same.


The sense intended in (1) is clearly something like the following: ‘The quotation from a famous film of 1965 mentioned France and Algeria. If instead of those two countries we refer to “the US” and “Iraq”, the quotation will be equally apt in 2004.’ But for many speakers, the wording is odd. The apparent meaning of (1) reverses the direction of substitution (‘replace the US with France’, etc.) and hence is nonsensical. For me it should read:

(1)’ Substitute the US for France, and Iraq for Algeria.

However, many standard speakers notice nothing amiss until it is pointed out, and no one mistakes the meaning.

1 Versions of this chapter have been presented at the Universities of Liverpool, Paris III, Paderborn, Edinburgh and Vienna (13th ICEHL). I am grateful to those audiences for helpful suggestions, and in particular to David Allerton, Dominique Boulonnais, Teresa Fanego, Marianne Hundt, Christian Mair, Geoff Thompson and Roger Wright, and of course to the present editors. Gunnel Tottie independently and simultaneously worked on substitute (see sections 2.4 and 8.1 below), and Elizabeth Traugott and Arnold Zwicky have also corresponded with me about it. In addition, Ralph Brands, Ian Mayes, Phil Schwartz, Robert Stockwell and Edmund Weiner responded to queries, and Keith Suderman sent me some preliminary ANC data. I must also acknowledge conference travel support from the British Academy for the Vienna talk, and generous subventions from Professors Claude Delmas and Günter Rohdenburg for visits to Paris and Paderborn, respectively.
The cited *Guardian* usage is not isolated and cannot just be dismissed as an error. I have been observing this reversal sporadically in print and on the BBC and frequently in students’ writing for several years, and it raises the question of potential dysfunction, if different speakers in the same community can use the same verb in converse ways. I will explore this question and ask how the reversal in *substitute* could have arisen, whether it is a common type of verbal development, and why it is so much more characteristic of British than American English. This little by-water – or rather, eddy – in the river of English language history can be shown to have significance beyond itself, and I will try to derive some insights from it into the history of English and linguistic theory generally.

The chapter is organized as follows. I give a few more examples of reversed usage in 1.1, then discuss verb subcategorization in general terms in section 1.2. The account of *substitute* v. in the *OED* is examined in section 2, as are the comments of prescriptivists, and two sketches are offered of the historical development. In section 3 I look at the data in the BNC and discuss frequencies. In section 4 I consider the question of register and suggest that soccer is of crucial significance. This leads to the timing of the change (section 5.1) and a comparison with American usage (section 5.2). Section 6 brings in ambiguity, iconicity and focus. Now a more sophisticated account of the origins of the reversal can be offered in section 7. Finally, section 8 compares the British and American situations, considers analogous developments and draws some general conclusions.

### 1.1 More examples of ‘reversed’ use

First I give a handful of examples in the active ((2)–(4)) and passive ((5)–(6)), respectively, to demonstrate that the reversed subcategorization has some currency:

1. Well, we can substitute rain for wind today: it’s going to be a very windy day. (2004 Helen Young, BBC Radio 4 (21 Oct., 6.06 am)[the previous day had been very wet])

2. Prizes are subject to availability. [The promoter] reserves the right to substitute any prize for one of an equal value. (2001 scratchcard, ‘Thus plc’)

3. Next door, another room has bee[n] converted to house more of the latest technology, this time substituting a manual system of producing hand samples for a mechanical one in the shape of a “rapid pegging machine”. (BNC HRY 456)

4. Mount the board on small spacers, say 0.25" above the case. At a pinch the spacers can be substituted for four appropriately sized nuts. (BNC C91 228)
In games, the same thing applies when the word Extreme creeps into the title, which in most cases could be substituted for the more accurate word dull.


I made an informal survey of students to test their usage. 17 first-year undergraduates in Manchester (date of birth typically around 1984-5) were invited to construct a sentence involving the verb substitute for the imagined situation in which the vendor of a Picasso had actually sold a forgery instead of the original; the purpose of the task was not revealed in advance. The results are given in Table 1, abstracting the relevant parts of the verb phrase:

<table>
<thead>
<tr>
<th>VP pattern</th>
<th>label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>substitute forgery for original</td>
<td>V new_{do} for old = standard</td>
<td>1</td>
</tr>
<tr>
<td>substitute original with forgery</td>
<td>V old_{do} with new = used like replace</td>
<td>2</td>
</tr>
<tr>
<td>substitute original for forgery</td>
<td>V old_{do} for new = reversed</td>
<td>13</td>
</tr>
<tr>
<td>irrelevant (used the noun)</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>
I will refer throughout to the two VP arguments by the shorthand ‘old’ and ‘new’ in a way that is, I hope, transparent. The abbreviations ‘dO’ (above) and ‘iO’ (next section) stand for **direct** and **indirect object**, respectively. All three patterns mentioned in Table 1 will be discussed below. My brief survey suffices to show that the reversed pattern of (1)–(6) is robustly available in present-day Britain.²

### 1.2 Verb subcategorization

The differing patterns of usage belong under the heading of **subcategorization**. The lexicon must include information on the kind of complementation a verb can occur with. Thus *give* might be listed as occurring in the following frames:

1. **give NP\_iO NP\_dO** *(She gave her friend no choice)*
2. **give NP\_dO to NP** *(She gave no choice to her friend)*
3. **give NP\_dO** *(She gave a lecture)*
4. **give to NP** *(She gave to charity)*

and no doubt others. Often a number of verbs show a similar range of patterns. How do we know which verbs belong together? Here I turn to a most useful descriptive reference work by Levin (1993), which having listed the main complementation patterns for verbs in (standard American) English, attempts to group similar verbs together. I will cite some of her observations.

Some transitive verbs allow alternatives. There is the very well known alternation with *give*-type verbs, as shown in the contrast between (7)a and (7)b. Compare, too, the so-called *spray/load* alternation:

1. **a. splash NP\_dO=theme on NP\_loc** *(She splashed paint on the wall)*
2. **b. splash NP\_dO=affO/loc with NP\_inst** *(She splashed the wall with paint)*

Levin lists many such alternations, e.g.:

1. **a. carve a toy out of a piece of wood**
2. **b. carve a piece of wood into a toy**

1. **a. present a prize to the winner**
2. **b. present the winner with a prize**

In general, such alternations use different prepositions (or sometimes, no preposition for one alternant) and usually have slightly different meanings,

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² I also tried to survey a smaller number of postgraduate students who are well used to considering variation in Present-day English. The interesting point to come out of that discussion was that several pronounced themselves unsure both of the ‘correct’ and of their own usage of *substitute*. 
perhaps involving a contrast between part and whole. (Thus, roughly speaking, the actions of (8)b and (9)b affect the whole of the wall or the piece of wood, respectively, whereas (8)a and (9)a do not.). It is hard to imagine confusion arising between the alternative patterns. However, the alternations in *substitute* seem to be of a different nature: the same preposition for two of them, and no discernible difference of meaning. We will return to the question of whether *substitute* is a special case in sections 3 and 8.2 below.

2 The history of *substitute* v.

2.1 The evidence of the OED

According to the *OED*, the earlier history of relevant uses of *substitute* can be summed up as follows. The first, now obsolete, meaning from 1532 was ‘[t]o appoint (a person) to an office as a deputy or delegate’, as in Latin – hence *new* as direct object, since the focus is on the appointee. A generalized meaning ‘[t]o put (one) in place of another’ is listed from 1674 to PDE (s.v., 2.d), again with *new* as direct object. This is the (now standard) pattern $V \, \text{new for old}$.

However, a variant with *old* as direct object is listed (s.v., 4.a) from 1675 (passive) and 1778 (active); I give a pair of PDE examples. In this variant, *new* appears as subject of the active, and in the passive optionally in a *by*-phrase:

(11) 70% of present fuel consumption in cars could be substituted by use of battery vehicles. (BNC AT8 1126)

(12) They found that by introducing a normal gene to substitute the defective one, the mice recovered from the illness. (BNC K1H 3562)

Perhaps it is not surprising to find $V \, \text{old} \, \text{dO}$ first in the passive, and from virtually the same date as the standard usage, since a prepositional passive of the standard construction can be rather awkward:

(13) Baron Hans Heinrich Thyssen-Bornemisza shall be the Chairman of the Foundation's Council or Governing Body. He shall be substituted for and succeeded by his wife, the Baroness Carmen Thyssen-Bornemisza. (BNC EBW 474)

However, according to the dictionary, the pattern in (11)–(12) is ‘now regarded as incorrect’. Also condemned is a variant in which *new* appears in a *with*-phrase in both active and passive, the pattern $V \, \text{old with new}$, ‘used incorrectly for *replace*’:

(14) Hoechst UK Ltd reserve the right to substitute prizes with similar goods of equal or superior value subject to availability. (BNC HT5 37)
The adverb ‘incorrectly’ may be a matter of opinion, but that the usage is based on replace seems uncontroversial, since replace has precisely that subcategorization (as well as V old by new, just like substitute in (11)). The OED dates substitute old with new from 1974 (s.v., 4.b, but see section 2.4 below).

By contrast, the reversed pattern V old for new is not mentioned in the OED at all, and the Deputy Chief Editor, Edmund Weiner, was unable to spot any examples in OED’s database of incoming citations (p.c., 7 Jun. 2004). On these and other grounds I take it that reversed substitute is a reasonably new phenomenon.3

2.2 A first sketch of the history
In the light of OED’s data, the obvious path of development is as diagrammed in Figure 1. That is, the standard form for substitute, at the top left, is almost synonymous with the only pattern for replace, which for its part is far more common. Under its influence, substitute develops an analogical subcategorization pattern. Finally, the reversed pattern, at the foot of the diagram, develops as a blend between the argument order of the analogical pattern and the choice of preposition in the original, standard form.

![Figure 1: Development of reversed substitute](image)

3 Several colleagues have wondered whether the song ‘Substitute’ by The Who (released 1966) might contain some early examples of the reversal. I wrote to ask Pete Townshend, its writer, whether the line
   (i) Substitute you for my Mum
meant ‘replace you with my Mum’ or ‘replace my Mum with you’. The answer sent on his behalf (1 Dec. 2004) reads: ‘Pete says it is the latter (viz: “YOU” are the substitute)’. In other words the song exhibits standard usage, not reversed.
Now although there must be a lot of truth in this sketch, it is *post hoc*,
takes little account of frequency, and fails to explain why the reversed
pattern only seems to have developed very recently. The suggested
development would have been equally plausible at any time in the last two
hundred years or more, yet it is doubtful that the reversed pattern is more
than a couple of decades old at most. Frequency and salience must therefore
be addressed (sections 3, 5.1 and 7 below).

2.3 An alternative picture: French *substituer*

In an unpublished paper on diachronic changes in valency patterns, Richard
Waltereit (2001) considers data from several languages, including (2001:
§3) a development in French *substituer* ‘substitute’ which is astonishingly
reminiscent of the first stage noted in section 2.2 above. Apparently, the
pattern *substituer new à old* ((15)a, since the 13th century) has now been
joined in French by *substituer old par new* ((15)b, 20th century):

(15) a. Ils ont substitué un mot à un autre.
   ‘They have put one word in another one’s place.’
   b. Ils ont substitué un mot par un autre.
   ‘They have exchanged one word for another one.’

Waltereit hypothesises several intermediate stages between (15)a and b in
French:

- optional omission of the *new* argument
- reanalysis of the direct object as *new* because *old* and *new* are of the
  same type, with a concomitant change of perspective from
  ‘replacement’ to ‘exchange’
- reintroduction of the eliminated argument ‘in a semantically
  transparent (and optional) prepositional phrase’

This scenario could apply to the historical English data as well. I suggest
that Waltereit’s view enriches the sketch in section 2.2 without invalidating
it.

2.4 The evidence of the prescriptive tradition

For this aspect I am indebted to Gunnel Tottie, who has focused on the role
of prescriptive grammar and second language teaching in the choice
between the standard usage of *substitute* and its replace-like usage (Tottie
2004, 2005b). She finds a condemnation of the replace-like pattern in the
first edition of Fowler (1926: 578), which clearly suggests that the *OED*’s
first attestation of 1974 (see section 2.1) considerably postdates the actual
appearance of the usage. Indeed, according to David Allerton, there was
explicit instruction in the correct use of *substitute* in British schools of the

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4 For ease of comparison I have used *old* and *new* rather than Waltereit’s terms *goal* and
*source*, respectively.
1950s, while a replace-like usage is criticised as ‘incorrect’ in Wood (1962: 222) (Günter Rohdenburg, p.c. 10 Apr. 2007). Tottie finds American style handbooks which contrast the behaviour of substitute and replace, such as Copperud (1980: 367) and Crews, Schor & Hennessy (1989: 564). As far as I am currently aware, prescriptivists have concerned themselves with the spread of the replace-like construction and have not yet noticed the reversed usage. Prescriptive attention to the substitute old with new pattern is strong indirect evidence of the early tendency to analogize the complementation of substitute, just as neglect by prescriptivists of substitute old for new confirms the relative newness of that reversed pattern.

3 Pattern frequencies in the BNC

A detailed frequency count is necessary to contextualize and also to justify the suggestions of analogical change made in section 2.

In morphosyntax, anomalous but very frequent items can be resistant to change; see Krug (2003), Phillips (2001). Conversely, simply because they fail to occur, highly infrequent items are also unlikely to undergo rapid colloquial change – and I will be suggesting a colloquial origin for the reversed usage. The changes in substitute will be easiest to explain, therefore, if the verb is neither too frequent nor too infrequent. A starting-point is to compare it with its synonyms. In her §13.6, ‘Verbs of Exchange’, Levin (1993: 143-4) lists barter, change, exchange, substitute, swap, trade. Frequency data for these verbs in the British National Corpus (using the BNC’s own lemmatization) are as follows: change ×26629, trade ×2692, exchange ×1915, substitute ×1316, swap ×880, swap ×118, barter ×114. So substitute appears to be pleasingly middling in its relative frequency.

However, what I have done here is rather simplistic. Many examples represented in the counts above are not ‘Exchange’ uses; for example, change in the BNC is frequently intransitive or monotransitive. Furthermore, the whole Exchange grouping is not really satisfactory. Levin writes (1993: 144): ‘These for phrases are used to express the object that the agent receives as part of the exchange’. In other words, (all) Exchange verbs put the new argument in a for-phrase. In standard English, however, substitute is different and traditionally puts old in its for-phrase. And Levin does not discuss the important verb replace (×10921) at all, presumably because its subcategorization does not allow it to be grouped with any other semantically similar verb.

I put all the BNC’s 2739 examples of substitute(s/d) as noun, verb or adjective into a database, incidentally correcting those which were mis-tagged (5.8% of the total), and then classified the verbal instances, 1247 in all. One important variable, wherever a direct object is overt or can be inferred, is the referent of that object: old or new? Table 2 gives the
distribution of complementation patterns in the 1065 out of 1247 examples which have a direct object (if active) or a potential one (if passive).

Table 2: Direct object of *substitute* in the BNC

<table>
<thead>
<tr>
<th>pattern</th>
<th>voice</th>
<th>number of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>V new&lt;sub&gt;do&lt;/sub&gt; for old = standard</td>
<td>active</td>
<td>322 (+7 probable)</td>
</tr>
<tr>
<td></td>
<td>passive</td>
<td>113 (+1 probable)</td>
</tr>
<tr>
<td>(subtotals include probables)</td>
<td>subtotal</td>
<td>443</td>
</tr>
<tr>
<td>V new&lt;sub&gt;do&lt;/sub&gt; rather than old / V</td>
<td>active</td>
<td>27</td>
</tr>
<tr>
<td>new&lt;sub&gt;do&lt;/sub&gt; in place of old / V new&lt;sub&gt;do&lt;/sub&gt; instead (of old)</td>
<td>passive</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>subtotal</td>
<td>33</td>
</tr>
<tr>
<td>V new&lt;sub&gt;do&lt;/sub&gt; – other subcategories</td>
<td>subtotal</td>
<td>368</td>
</tr>
<tr>
<td></td>
<td>V new&lt;sub&gt;do&lt;/sub&gt; – overall</td>
<td>844</td>
</tr>
<tr>
<td>V old&lt;sub&gt;do&lt;/sub&gt; (± by new) = ‘now regarded as incorrect’</td>
<td>active</td>
<td>25 (+1 probable)</td>
</tr>
<tr>
<td></td>
<td>middle</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>passive</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>subtotal</td>
<td>152</td>
</tr>
<tr>
<td>V old&lt;sub&gt;do&lt;/sub&gt; with new = used like replace</td>
<td>active</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>passive</td>
<td>5 (+1 probable)</td>
</tr>
<tr>
<td></td>
<td>subtotal</td>
<td>28</td>
</tr>
<tr>
<td>V old&lt;sub&gt;do&lt;/sub&gt; for new = reversed</td>
<td>active</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>passive</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>subtotal</td>
<td>12</td>
</tr>
<tr>
<td>V old&lt;sub&gt;do&lt;/sub&gt; – overall</td>
<td>192</td>
<td></td>
</tr>
<tr>
<td>indeterminate</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>total with real or inferred direct object</td>
<td>1065</td>
<td></td>
</tr>
</tbody>
</table>

Actually, at least 29 of the 1065 are indeterminate, once we recognize the currency of the reversed usage beside the standard one:
(16) But if we have men who are not straight themselves, then you substitute one crooked man for another, regardless of colour. (BNC GXK 950)

Examples like (16) neutralize the distinction between standard and reversed order, and I will discount the indeterminate examples when calculating proportions, leaving 1036 examples to be discussed in relation to the referent of the direct object.

The figures in Table 2 allow us to be a little more precise about the analogical support for the reversed usage in the BNC. We can say that a subcategorization frame with old as direct object, which would be supported by normal usage both with other Exchange verbs and with replace, occurs in 192 out of 1036 (= 18.5%) unambiguous instances of substitute v., which is a substantial minority. In addition to the figures on the reference of the direct object, we can also say that a subcategorization frame including the preposition for occurs in 622 out of 1247 (= 49.9%) occurrences of substitute v., while the same proportion of one half is shown by substitute n. + for: 680 out of 1378 (= 49.3% on the BNC’s figures). The analogical support for the reversed usage is therefore quite substantial. Nevertheless the date of its appearance remains unexplained. This problem will be taken up in section 5.

4 Importance of register

4.1 Register of substitute in the BNC

Very many examples in the BNC come from scholarly and legal texts, some of them highly abstruse. There is also a special use in maths, economics and chemistry for formulas and equations, amounting to 186 out of 1247 examples (= 14.9%), often subcategorized with in(to):

(17) Substituting the above equation into eqn (3.1) we get [formula] (BNC FEF 638)

Incidentally, this usage does not involve straight replacement of old by new so much as variation of old by inclusion of new: it is actually semantically a little different. Some of the legal usages are similar. All in all, the various scholarly uses make up a good share of the total sample in the BNC, and in everyday speech the verb substitute does not seem particularly frequent.

4.2 Sport

One non-academic context does show up rather often. What is probably the most common everyday context is sport: 77 out of 1247 examples in the BNC, most often football (soccer). In order to compare sports usage with other uses of substitute, we must omit four middle voice examples, e.g.
In their teens Angel and Pedro had hung around the polo grounds, waiting for players to fall off, so they could substitute for them (BNC CA0 2119)

plus two oddities (a report on a rigged arm-wrestling match between American business executives, and an unidiomatic email from a Norwegian) and one example whose direct object is indeterminate between old and new, leaving 70 relevant examples with a (potential) direct object of unambiguous reference. The comparison is given in Table 3.

<table>
<thead>
<tr>
<th>Direct Object</th>
<th>Sport</th>
<th>Non-Sport</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>new</td>
<td>1</td>
<td>843</td>
<td>844</td>
</tr>
<tr>
<td></td>
<td>(1.4%)</td>
<td>(87.3%)</td>
<td></td>
</tr>
<tr>
<td>old</td>
<td>69</td>
<td>123</td>
<td>192</td>
</tr>
<tr>
<td></td>
<td>(98.6%)</td>
<td>(12.7%)</td>
<td></td>
</tr>
<tr>
<td>total</td>
<td>70</td>
<td>966</td>
<td>1036</td>
</tr>
</tbody>
</table>

Even the one sports-related example with new as direct object is exceptional and not at all colloquial, coming from the formal rules of a boxing competition. How substitution works linguistically in soccer is nicely illustrated in (19):

(19) By the way, Jamie started 5 matches last season (was substituted in 3 of them) and came on once as a substitute (all in the league), but no goals. (BNC J1C 990)

The player substituted is always the old NP object (i.e. already on the pitch), never the new (on the bench). Sporting usage is entirely one-sided. Whatever the reason,\(^5\) this is a fact to be reckoned with.

\(^5\) Günter Rohdenburg found a strong parallel in football usage in German, which has both Auswechslung (removal of a current player) and the logically corresponding Einwechslung (insertion of a substitute): Auswechslung is much more frequent in internet data than Einwechslung, and even more so in the inflected plural. He speculates that this matches the perspective of spectators (and camera), for whom players already on the pitch are perceptually more salient than those on the bench. Compare also Waltereit’s account of reanalysis in French (section 2.3 above).
5 Explanation for date and place?

5.1 Date

Now we can explain the recency of the change. It happens only after the verb substitute enters widespread colloquial use, and this in turn is triggered by its use in soccer (and other sports), which only becomes a matter worth discussing when substitution becomes a normal part of virtually every match, a matter of tactics rather than the occasional replacement of an injured player, and probably at least as frequent as the scoring of goals. Tactical (technical) substitution is a recent rule change in soccer, introduced in the 1966/7 season. Of course, it is entirely relevant that live radio and television coverage of football can foster the spread of the linguistic usage and encourage discussion of managers’ decisions. My first examples of reversed usage come from the BNC, which dates the relevant material 1985-93. This gives quite a good fit with the rule change in soccer.

5.2 American usage

If the link with soccer is valid, a prediction follows: the reversed type would not be used – or much less used – in America. American sports certainly make use of substitution as a concept: pinch-hitters in baseball, replacement of the whole offense by the defense and vice versa in football, and tactical substitution of individuals in many sports. However, the verb substitute is rarely used in US sporting language (though see now footnote 7) – rather some other verbal synonym or the noun sub(stitute). In one year of the New York Times sports section, I found only 57 hits altogether for substitut*, of which only five were verbs. (Compare any English newspaper, which would probably have that many in a day or two.) In those five New York Times examples, if new was expressed, it was always the direct object or middle subject, and old was always in a for-phrase:

(20) And in each game, Barber has gotten stronger as the game went along. Look for the Giants to substitute for him more to keep him fresh. (2003 NYTimes (5 Oct.))

In other words, what I have been calling the standard usage is employed, not the reversal.

Stephen Nagle drew my attention to the clipping sub, but in the New York Times data this is neither particular frequent nor significantly different in use. Thus we have such examples as:

(21) Brown, 29, a free agent, led the Cardinals to three victories in five starts while subbing for an injured Jake Plummer last season. (2000 NYTimes (24 Feb.))

I am grateful to Mr David Barber of the Football Association for information on this aspect of soccer history (p.c., 26 May 2004).
(22) … their first road game against a Vanderbilt team that started three sophomores and subbed in three freshmen. (2002 *NYTimes* (2 Dec.))

In (21), *sub* follows a middle voice pattern that is common for the full verb *substitute* and has *old* in a *for*-phrase, while in (22) the phrasal verb *sub in* (normal in AmE, cf. footnote 7, but not, I think, in BrE) is used with *new* as direct object – thus in both cases parallel to the standard pattern.

Since I have made use of the BNC to represent general current BrE, I turn now to the American National Corpus for general AmE. The ANC First Release is about 10 million words in size, one tenth of the size of the BNC. 91 out of 125 examples of *substitute v.* in the ANC (including some apparent duplicates) have a (potential) direct object. I give the distribution in Table 4 and then compare with the BNC in Table 5.

Table 4: Direct object of *substitute* in the ANC
<table>
<thead>
<tr>
<th>pattern</th>
<th>voice</th>
<th>number of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>V new(_{do}) for old = standard</td>
<td>active</td>
<td>58 (+ 1 elliptical)</td>
</tr>
<tr>
<td></td>
<td>passive</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>subtotal</td>
<td>64</td>
</tr>
<tr>
<td>V new(_{do}) instead (of old)</td>
<td>active</td>
<td>2</td>
</tr>
<tr>
<td>V new(_{do}) – other subcategories</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>V new(_{do}) – overall</td>
<td></td>
<td>83</td>
</tr>
<tr>
<td>V old(_{do}) by new = ‘now regarded as incorrect’</td>
<td>passive</td>
<td>1</td>
</tr>
<tr>
<td>V old(_{do}) with new = used like replace</td>
<td>active</td>
<td>1</td>
</tr>
<tr>
<td>V old(_{do}) out of X(^\d)</td>
<td>passive</td>
<td>1</td>
</tr>
<tr>
<td>V old(_{do}) for new = reversed</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>V old(_{do}) – overall</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>indeterminate</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>total with real or inferred direct object</td>
<td></td>
<td>91</td>
</tr>
</tbody>
</table>

Table 5: Comparison of unambiguous examples in the BNC and ANC

<table>
<thead>
<tr>
<th>BNC</th>
<th>ANC</th>
</tr>
</thead>
<tbody>
<tr>
<td>direct object = new</td>
<td>844 (81.5%)</td>
</tr>
<tr>
<td>192 (18.5%)</td>
<td>3 (3.5%)</td>
</tr>
<tr>
<td>total</td>
<td>1036</td>
</tr>
</tbody>
</table>

The example is probably from the rules of indoor Arena Football, a recent variant of American football:

(i) Non-specialists only can be substituted out of the lineup once per quarter, meaning two-way players can expect to be on the field upward of 45 to 50 minutes of a 60-minute game. (ANC, NYTimes)

This means that certain kinds of player currently ‘in the lineup’ (i.e., playing) can be replaced. I am grateful for a number of responses to a query about it on LINGUIST List 15.3523. Even if substitute old is entering the language of American sport, it remains less common there than the standard usage of substitute new, and the two are often kept apart by the addition of out or in, respectively, as in (i) or (22).
The use of *old* as direct object is much less well represented in the ANC at 3.5% than in the BNC (18.5%), and the reversed usage does not occur at all. The prediction appears to be borne out.

6 *Ambiguity, iconicity, focus*

We have seen that the standard use of *substitute* is not supported by analogy with any other verb. Furthermore, *substitute* is quite often used for genuine interchange, where *old* and *new* are symmetrical and the standard and reversed usages would be indistinguishable. If *old* and *new* are not symmetrical, context usually makes clear which is which. That is why the very public (1) apparently provoked no comment, no entry in the *Guardian’s* Corrections and Clarifications column.

Up to the late twentieth century, the traditional subcategorization was not deeply entrenched in everyday speech, given the relative infrequency of colloquial use outside sporting contexts and the need felt by prescriptivists to alert insecure writers to the danger of mistakes. If the verb was coming to be used in new contexts and hence by new users, another factor might have kicked in: I suggest iconicity. Conceptually, the *old* referent must come chronologically before the *new* one. Therefore principles of iconicity would support the ordering of arguments linguistically the same way round.

Elizabeth Traugott suggests another angle: ‘this reversal MUST have something to do with focus coming last in the ordinary English sentence, and focus being associated with “new”’ (p.c., 6 Sep. 2004). But that is *new* taken in the sense of rheme, and it is not necessarily the case that what is new as far as the exchange is concerned (the replacement) is always either discourse-new or carries greater focus than what is old in the exchange (that which is replaced, the ‘replacee’; cf. also footnote 5). However, when *new* – in the sense in which I have been using the term – coincides with discourse-newness, as it often may, then the focus structure of English discourse would also tend to support the reversal.

7 *The history of substitute revisited*

We are now in a position to give a fuller and better motivated account of the development of the reversed usage. Comparing just the standard and reversed usages, we can list in Table 6 a number of factors which might have been relevant once the verb *substitute* moved out of its previously rather specialized or scholarly registers into more widespread colloquial use. This I attribute largely to its adoption for the language of football from the 1960s onwards.

<p>| Table 6: Factors in choice of argument order |</p>
<table>
<thead>
<tr>
<th>favouring standard</th>
<th>neutral</th>
<th>favouring reversed</th>
</tr>
</thead>
<tbody>
<tr>
<td>entrenchment in scholarly registers, education, prescription</td>
<td>extension to new users, new registers</td>
<td><strong>old</strong> as direct object has a long history and is not rare overall</td>
</tr>
<tr>
<td><strong>new</strong> as direct object is the most frequent pattern overall</td>
<td>strong association of verb and noun with preposition <em>for</em></td>
<td></td>
</tr>
<tr>
<td><strong>old</strong> and <strong>new</strong> are referents of same type</td>
<td><strong>old</strong> as direct object is categorical in sporting usage, the commonest pragmatic context in colloquial usage</td>
<td></td>
</tr>
<tr>
<td>context usually makes clear which referent is <strong>old</strong> and which <strong>new</strong>, or else the distinction is immaterial</td>
<td><strong>old</strong> as direct object is categorical for the most common synonym, <em>replace</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>V <strong>old</strong> for <strong>new</strong> is normal for all other Exchange verbs</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>old</strong> before <strong>new</strong> is iconic</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>new</strong> in final position often matches the needs of focus</td>
<td></td>
</tr>
</tbody>
</table>

Most of the factors cited are to do with argument order and the selection of a particular argument as direct object. It is noticeable that there is some uncertainty about prepositional choice, and when *substitute* is used with **old** as direct object, the **new** argument can be found in a prepositional phrase headed by any of the following:
– for (reversed)
– with (like replace)
– by (another possibility for replace, or just the normal preposition of the passive).

8 Conclusions

8.1 Time and place: British vs. American English

I close with some questions. Why did the reversed usage of substitute arise recently and not earlier? Here the answer appears to be soccer: a change in rules on substitution, the availability of widespread broadcast commentary, a shift of register in the use of the verb. However, it is also conceivable that an earlier change has been masked by stricter editorial standards and a lack of spoken or colloquial data from older periods.

What about US English? We would not expect the reversal to be wholly absent in America, given the range of factors conducive to its appearance. Indeed Gunnel Tottie has found an American example (p.c., 16 Jun. 2004):

(23) THE FAIRMONT DAY SPA PACKAGE
Two 50-minute spa treatments of choice (not to exceed $119 per treatment)
Can be substituted for one 100-minute Kur (2004 Publicity from Fairmont Hotels)

Subsequently she found five in CNN transcripts (Tottie 2005b). The reversal has also been a recent topic of discussion on the American Dialect Society List (Arnold Zwicky, p.c. 2004-7; see http://www.americandialect.org/).

If it remains true that the reversal is less frequent and generally later to arrive in the USA, however, is that really because of differences in the language of sport, or is it merely a matter of editorial primness? Over the last two or three decades, after all, standards for edited material published in America (from newspapers to academic articles to children’s books) have been notoriously stricter (or fussier!) than in Britain.\(^8\) On the other hand, if it should turn out that the reversed usage is not uncommon in America, could we ascribe this to Hispanic influence? In Spanish, the order of arguments with the cognate verb is *sustituir* *old* *por* *new*. At present I stand by my suggestion that soccer has been the trigger for a noticeable difference between British and American English, but (as always) we must be prepared to reconsider if new evidence turns up.

\(^8\) It is instructive that Tottie (2005b) found a more permissive attitude to the *replace*-like use of *substitute* among British style manuals. She also points out that British students, unlike American students, do not generally bother with style manuals.
8.2 The argument structure of verbs

Do any other three-place verbs show similar alternations to those of *substitute*? As we saw in section 1.2, it is difficult to find anything closely similar. There are, of course, some well-known three-place verbs which have non-standard subcategorizations, such as

(24) learn somebody something ‘teach’

but standard usage of *learn* is two-place. Then consider

(25) a. lend somebody something
    b. lend something to somebody
    c. lend something from somebody ‘borrow’

The non-standard usage here is (25)c, but it has a different preposition from the standard (25)b and is anyway more typically found in two-place form:

(26) Can I lend your X?

Much closer parallels in argument structure and form-function mappings are shown by some two-place verbs:

(27) a. That colour really suits you
    b. You really suit that colour

Pairs like (27) provide an interesting present-day analogue to *substitute*. They also resemble the much-discussed historical changes in *like* and (other) impersonal verbs, so the recent and ongoing changes we have been examining in *substitute* might provide a test-bed for models of spread of innovation through a community, and for studying the question of (mis)communication between speakers with different usages.

Probably uniquely among the large set of verbs classified by Levin (1993), the Exchange group has two non-subject arguments which are usually symmetrical, and certainly semantically similar. So do other Exchange verbs suffer similar fates? I have only a couple of intriguing examples to offer:

(28) FM states that version 7 is compatible only with TrueType fonts so if you're using MacOS X you'd better replace those Type 1 fonts_{old} for their TrueType counterparts_{new}. (2004 Ibrahim Bittar, FMPExperts list (7 Apr.))

(29) The year-off generation waited breathlessly for a follow-up to Garland’s bestselling debut The Beach (1996), and were partially satisfied with The Tesseract (1998), which switched Manila_{new} for Thailand_{old}.


In (28), *replace* is used with the preposition *for* (but possibly by a non-native speaker); in (29), *switch* is used – like standard *substitute* – with *new*
before old, rather than the more natural old before new. Both have actually moved, though in different respects, towards the standard usage of substitute! An early use of replace in a substitute-like pattern is hinted at by Barber (1985: 44) – reference due to Günter Rohdenburg (p.c., 10 Apr. 2007) – while the American Dialect Society List offers some other oddities within the Exchange group. Reviewing the factors tabulated in Table 6, we can say that while some hold for all Exchange verbs and can therefore explain anomalies like (28)-(29), others are peculiar to substitute.

Manning (2003) has written illuminatingly on what he sees as the false demarcation between grammatical and ungrammatical complementation patterns, and on the need to allow for relative frequency, down to low but non-zero frequencies. He argues that most complementation patterns found among a group of similar verbs are in fact found with each one of those verbs in a large enough corpus, albeit sometimes with a frequency low enough to get them judged by linguists as impossible, and that such allegedly ‘impossible’ examples often look quite natural in context. His observations about real corpus data are clearly relevant to the present case: as far as verbal complementation is concerned, what can happen, will happen.

To close this chapter I offer several observations. First, abrupt change of register, like creolization, can facilitate the rise of unmarked or ‘natural’ syntax and therefore may provide more opportunities within language history to see the effects of iconicity and other such principles. In the recent history of substitute we see BrE moving faster than AmE for essentially social reasons: differences in the language of sport and perhaps in the reverence accorded to prescriptive ideas. I also take this micro-history of one verb to offer support for two more general claims, namely that speakers make far greater use of context than formal grammars allow, and that speakers associate collocations and construction fragments with meanings without necessarily making a precise form-meaning mapping, word by word.
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