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# Verbal Syntax in an Electronic Bilingual Icelandic Dictionary: A Preliminary Study 

Denne artikkelen handler om verbbeskrivelsen i en elektronisk utgave av den enspråklige islandske standardordboken, Islensk orðabók (2000), og hvordan den kan utnyttes i tospråklig sammenheng. Hovedforskjellen mellom en trykt og en elektronisk ordbok ligger i de ulike presentasjonsmåtene, i et bokformat er det tekstens omfang som bestemmer utformingen av beskrivelsen men i en elektronisk framstilling må det tas hensyn til hvor mye tekst det kan vises på skjermen. Teksten må deles opp i passe store enheter. For å få det til i den elekroniske utgaven av Íslensk orðabók føres verbale konstruksjoner opp som sublemmaer under de enkelte verbene. Dette betyr at den syntagmatiske beskrivelse blir mer utførlig og systematisk enn i de eldre utgaver av ordboken. I artikkelen blir verdien av denne framstillingen vurdert, spesielt med hensyn til en tospråklig ordboksbeskrivelse.

## 1. Introduction

The 3rd edition of Íslensk orðabók (hereafter ÍO), the only extant monolingual Icelandic dictionary, was published on disc in November 2000 by Edda hf. ${ }^{1}$ As a printed book this dictionary is immensely popular and very influential; when one hears the words "pað stendur í orðabókinni" ('it says so in the dictionary'), this is the dictionary being referred to. This self-same dictionary has also been criticized on various grounds, notably for its lack of syntactic information, as by Eiríkur Rögnvaldsson (1998) and by Jón Hilmar Jónsson (1985).

The changes made from the printed dictionary to the electronic one are in one sense very slight, i.e., in the actual text of the entries, as this is not really a complete revision of the 1983 edition as far as vocabulary, explanations, etc., are concerned. In another sense the changes are quite substantial, i.e. in the format of the entries, as is made inevitable by the difference in media, and, in case of the verbs especially, in the addition of syntactic information. The topic of this paper is a tentative appraisal of how the changes made to this monolingual dictionary could be utilized for other projects in process at Edda, such as in the production of bilingual Icelandic dictionaries. The case in point is an Icelandic-Danish Dictionary being edited by Halldóra Jónsdóttir.

[^0]The changes discussed here are those made to the format of verbs and the idea of using this format from the monolingual dictionary as a base for the bilingual one stems from the very simple reason that no other suitable lexicographic description of Icelandic verbs is available at the moment. ${ }^{2}$ The need is acute; bilingual Icelandic dictionaries (i.e. dictionaries where Icelandic is the source language) are either too small or too old - or both.

## 2. From book to disc

The changes made from book to disc in the monolingual dictionary are the base of the speculations that follow on the presentation of the verbs in a bilingual one. These changes are made necessary by the change in medium. These reflect the limitations of the printed page, on the one hand, and the limitations of the computer screen, on the other hand.

### 2.1 The printed page: The problem of compactness

The limitation of the printed page is a familiar one to all lexicographers, i.e., the problem of compactness. In the 1983 edition of 1 ÍO, all available methods are used to compress the text into as compact a format as possible. The dictionary contains 85.000 entries on 1.259 pages of fine print, the difference in fonts is minimal, and examples are kept to the barest minimum, quite often to the user's grief, according to reviewers (cf. Jónsson 1985).

A list of a few compounds, as shown in figures 1 and 2, demonstrates the difference in layout in print and on the screen, showing the difference in access to the entries, althought this is, strictly speaking, a digression from the main topic of this paper.

[^1]presta-bók KV húsvitjunarbók (presta). -brá KV \& garðjurt af körfublómaætt (Chrysanthemum maximum). -dómur K $\ddagger$ kirkjulegur dómstóll á alpingi (dæmdi í málum vegna óhlýdni presta við biskup)
presta-fifill K \& ættkvísl garðjurta af körfublómaætt (Chrysanthemum). -garður K prestssetur. -hafrar K FT \& stöngullausar stofujurtir af ananasætt (Bilbergia). -kall H bjónustuumdæmi, starfssvæði prests. -kragi K 1 kragi sem tilheyrir hempu prests; pípukragi. 2 \& gróðurhúsa- og stofujurt af körfublómaætt í ýmsum afbrigðum (Chrysanthemum hortorum). 3 prestafífill. 4 brjóskhringur á stirtludálki á spröku. 5 ull skilin eftir á kindarhálsi viơ rúningu. -reiơ KV gutlreió, skokk. -reiða $K V ~ \dagger$ pad sem bændur skyldu leggaa presti til. -skóli K skóli fyrir prestsefni, skóli (háskóladeild) par sem guðfræði er kennd. -spaði K 1 lítil tréreka sem prestar nota til aõ kasta rekunum á líkkistu viđ̛ útför. 2 hvítur spađ̃i á lausakraga sem prestar nota í stađ pípukraga. -stefna KV samkoma, (árlegur) allsherjarfundur presta, synodus. -stétt KV klerkar sem sérstök starfsstétt. -veldi H klerkavald, klerkastjóm.

## FIGURE 1. Excerpt from the 1983 edition of ÍO

In the computerized version, there is no need for compactness of this kind, and, in fact a text as dense as this is very hard to read on a screen. The same entries as above, i.e., compounds beginning in presta-, are found by searching for the string presta* (wildcards allowed), and the result is the list on the left in figure 2 . A sample entry is shown on the right in figure 2, one entry appearing at the time on the screen. The example here is a simulation from the screen, with simplified fonts and without the colours used on the screen, etc.

| prestabók <br> prestabrá <br> prestadómur <br> prestagarður <br> prestakall <br> prestakragi <br> prestareio <br> prestareiða <br> prestaspadi <br> prestastefna <br> prestastétt <br> prestatal <br> prestaveldi | presta ${ }^{\text {kragi }}$ кк <br> 1 <br> - kragi borinn vio̊ hempu présts <br> - pípukragi <br> 2 <br> - brjóskhringur á stirtludálki á spröku <br> 3 <br> - ull skilin eftir á kindarhálsi viò rúningu |
| :---: | :---: |

FIGURE 2. The same section from the computerized edition of ÍO

These examples show the difference in presentation between the two editions, and they pinpoint the problem of space on the printed page, i.e., the problem of density.

### 2.2 The problem of space on the screen: The over-large entry

The screen poses a completely different problem from the printed page, which shows up in the over-large entry. If the problem of the printed book is condensing the text enough to make the dictionary easy to handle, the problem of the screen is making the text clear enough not to overtax the readers' eyes. To that purpose, the text is distributed on the screen, using linebreaks, indentation, colours and fonts as needed. The ideal entry fits one screen or less, as in the noun bein in figure 3, to give an idea of the amount of information easily handled in this manner. The size of the window can be varied; this is a simulation for print containing exactly one screenful from a 17 inch screen.

```
bein -s, - HK
1
líffrædi/læknisfræði
- sterkasta gerð af stoðvef, hluti af beinagrind
    beinin i mannslikamanum eru um }22
2
- fótleggur
    sitja flötum beinum
3
í ýmsum orðasamböndum
    bera beinin, bera bein sín deyja
    bíta bein fyrir sig sjaldgaft eiga auđ̃velt með aò svara fyrir sig
    hafa bein (beinin) til e-s vera nægilega sterkur til e-s
    hafa bein í nefi (nefinu) vera ákvedinn, láta ekki hlut sinn
    hafa mikiol bein í hendi vera voldugur
    hvila lúin bein hvilast, einkum eftir göngu eđa áreynslu
4
sjómennska
- leggur nota\partialur sem sôkkvibúna\partialur á neti, beinatygill, leggjateinn
5
um fisk, aflabrögd
    fá ekki bein (úr sjó) veiða ekki neitt
6
- bitlingur
7
hnjóđsyrði um mann
    bannsett beinid
```

FIGURE 3. The entry for bein (ÍO 2000)

The problem of space arises when the entry gets to be too long to fit one screen, especially in the really long entries, such as those for some common verbs. The verb taka ('take') for example, stretches to almost $3^{1 / 2}$ pages in the 1983 edition of ÍO. Browsing through the same entry on the screen by using 'Page Down' gives 20 screenfuls. Keeping track of information that way is exceedingly difficult.

These long entries therefore need to be broken up into manageable parts, and for the verbs that is done by making sub-entries of verbal phrases (particles and prepositional phrases), as well as of some verbal forms, such as the mediopassive, present and past participles, etc. These forms are shown in an index on the right of the screen in a separate window, and the items there appear on the screen at a click. A simulation of this can be seen in figure 4, i.e., the first screenful from the verb vera ('to be').

```
3
veri sem .óskháttur') vh. pt. veri; f elstu textum er -s-f ft. og pt.et.: vesa, vas
0.s.frv.) S
1
eiga sér sta0, vera til, gerast, vara, haldast
        bad var eitt sinn
        orustan var á ödrum degi vikurnar
    er ekki svo? er pad ekki rétr?
2
- dveljast
-dveljast, gista um natursakir, vera staddur
    lofa e-m ad vera hýsa e-n yfir nótt
    hann er á fundi
    vera af jolin dveljast um jolin
    vera um nórt gista um narursakir
    fari padoog veri p.e. fari pað grákollótt
3
(til ao tengja viơ frumlag setningar paob sem sagt er um pao (tengja sagnfyllingu
vio frumlag))
    hún er stór
    huin er gód
    hün er vondur
    Jón er bóndi
    hann er sjómaöur
    på̀ veri gaman
4
(1 y`msum merkingum)
    huin er sterri ef nokkud er p.e. ef par eru pá ekki jafnar, ef e-u munar
    pad er ekki margra ekki eru margir farir um pad
```



```
    er á meolan er p.e. paol varir meolan paod stend
    buad vard (hlaut) ad vera bad gat ekki veri\delta o\deltaruvisi
    pad vard (hlaut) ad̀ vera pad gat ekki veri\delta \deltaoruvisi
    pad verdur svo ad vera ekki er unnt ad b
    hveréáad vera hann? hver á aod vera tiltekinn adili? (fleik, t.d. sá sem eltir
    f eltingarleik)
    láta sem ekki (ekkert) sé láta sem ekkert sérstakt sé um aò vera
```

FIGURE 4. Beginning of vera (ÍO 2000)

By clicking on the items in the list on the right of the screen, the user gets to the appropriate part. Two such subentries with added English transcriptions from the list in figure 4 are found in figure 5, vera + saman and vera + til meठ:


FIGURE 5. vera + saman and vera + til með
An explanation of the use of the ' + ' is in order here. The term 'verbal phrase' is very loosely interpreted because the average user is not going to distinguish between particle verbs, verbs that take obligatory prepositional phrases, etc. ${ }^{3}$ The word-order in the structure can also be varied, and the ' + ' is only used as a heading to indicate subordinate constructions where both verb and particle (or preposition, adverbial, etc.) occur, without any information on the actual structure. These are, in the jargon, 'search strings'. The actual verbal phrases are listed under the main heading containing the ' + ' as subordinate constructions. On the screen colours are used for further differentiation between these two; the heading with the ' + ' is in black boldface, whereas the actual verbal phrases are in bright blue boldface on the screen.

Setting up verbal phrases as subentries, and thus, in a way, recognizing their status as lexical items or lexemes in their own right, inevitably leads to a fairly massive reorganization of the entries from the form used in the two older editions of the dictionary. One of the reasons for this is that the treatment of such material in the printed dictionary is by no means uniform. Verbal phrases are sometimes listed in the body of the text, i.e., under the appropriate semantic description, but they can also appear in a separate list at the end of the entry, ordered alphabetically by particles and prepositions. In some cases the same phrase even appears in both parts of the entry, sometimes with two different explanations. If phrasal verbs are to be treated

[^2]as sub-entries in a format where the perspective is limited by the size of the screen, a uniform approach has to be maintained. This does, of course, call for guidelines on what is to be regarded as a verbal phrase. In the 3rd edition of $I O$, the term is interpreted widely, even so far as to include some adverbials, the idea being to try to imagine what the average user might search for under the dual heading of verb and particle/preposition.

### 2.3 Differentiation within the subentry

The subordinate constructions are listed under the main heading described above (i.e., vera + saman) in different type (bright blue boldface on the screen), using the traditional short forms to indicate arguments as used in dead examples in the printed version of the dictionary. The term dead example is used in a wide sense here to include the appropriate short forms for subjects as well as objects, to cope with non-nominative or impersonal subjects, as in taka + fyrir in figure 6 : $^{4}$

| $\begin{aligned} & \text { taka }+ \text { fyrir } \\ & \text { taka fyrir e-б } \end{aligned}$ |  |
| :---: | :---: |
| 1 láta e-ठ ekki viðgangast lengur, afnema, hindra e-d | 'stop sth. from happening, rescind sth.' |
| 2 taka [pvert] fyrir e-d (pver)neita e-u, fortaka e-d | 'refuse (to do) sth.' |
| 3 taka [greiðslu] fyrir e-d piggja greióslu fyrir e-d taka e-n fyrir | 'accept payment for sth.' |
| 1 taka e-n til meðferðar, setjast ad e-m (á e-n) | 'harrass sby.' |
| 2 lögfrædi/félagsfræði taka e-n til y firheyrslu | 'call on sby. (for interrogation, etc.)' |
| taka e-d fyrir |  |
| 1 taka e-ठ á dagskrá (t.d. mál fyrir rétti) |  |
| 2 fara ad vinna ad e-u, leggja e- ${ }^{\text {dyrir sig }}$ | 'start working on sth., make a career of sth.' |
| hún tók lögfraððina fyrir taka e-d fyrir sig hefjast handa vio e-d taka fyrir sig verk | 'begin to do sth.' |
| e-d tekur fyrir e-d e-ठ skyggir á e-б sandrokið tók fyrir sólu | 'sth. obstructs the view of sth.' |
| pad tekur fyrir e-d ÓP e-u lýkur pá tók fyrir ásóknina pá hæıti ásóknin pá tók fyrir sjóródra pá hættu veiðar (vegna ótiðar) | (impersonal) 'sth. comes to an end' |

FIGURE 6. taka + fyrir

[^3]As evident in the example, the dead examples from the 1983 edition have been elevated to a form of sub-sub-entries; they are given the status of proper headings or lexical items on the screen, i.e., they are 'heads' or, in primitive computer-jargon, these constructions within each verbal phrase have 'search value'. In actual fact, these former dead examples are not confined to the infinitive, and they do include short forms for subject as well as for object, as can be see at the bottom of figure 6 .

## 3. Constructions as 'heads' (or lexical items)

The change from dead examples to 'heads' can be seen to represent a move away from the traditional dictionary headword where structural information is usually not a part of the headword itself, but shown in examples. The move is towards a fully specified lexeme, perhaps in the sense of Rochelle Lieber (1992) or Di Sciullo \& Williams (1987). The 'head', representing a complete (or discrete) unit meriting an explanation, examples, and whatever serves to make the user familiar with it, is then a unit in the lexicon in the sense of generative grammar, or a 'listeme', to use Di Sciullo \& Williams' term. Full specification implies giving the predicate argument structure for each lexeme, as Lieber does, and for Icelandic the intricacies of case-marking make that a very important part of the description. One could even argue that a lexeme does not exist without such information, i.e., that words do not exist in a vacuum.

Bringing this idea to its logical conclusion would perhaps entail a description on par with the one used at Orðabók Háskólans for verbs in the prospectus to a dictionary of verbs (Svavarsdóttir et al. 1993), where the microstructure of the entries is based on syntactic principles. A diagram of the structure used there is shown at the end of this paper for comparizon, but a description based on this kind of structure is very complicated and probably not at all suited to the needs of the ordinary user, but then it was never intended to be.

To make a long story short, the conclusion in the work on the new edition of the $I ́ O$ was to include syntax as expedient. The use of syntax in the headings is primarily intended to help the user find what he is looking for on the screen, and in this he is aided by the colours on the screen. A by-product is trying not to lead the user astray by falsifying data, e.g. by implied non-existant constructions such as finite forms of verbs in senses only found with the past participle or in impersonal constructions, or by giving the active voice of verbs only used in the middle voice (mediopassive).

The guiding principle was trying to be practical and user-friendly, keeping in mind that the older versions of $I O$ have been criticized for lack of information on usage, sometimes to such an extent that the assumption seems to be that the user is thoroughly familiar with all aspects of a word except for its meaning. In places one gets the feeling that all syntactic information is regarded as redundant. The verbs aftra and hindra show this clearly; their meaning is similar, but hindra takes an accusative object (hindra e-д, hindra e-n i e-u) and aftra a dative one (aftra e-m frá e-u, aftra e-u). Neither verb contains any syntactic information for the modern language in the 1983 edition, as seen in figure 7:

> aftra, -aঠi S hindra; $\dagger$ a. sér að e-u hika við e-ð.
> hindra, -að̃i S 1 koma î veg fyrir, tálma; tefja, slóra. $2 \dagger$
> hika, fresta. 3 LH PT hindruð kona ग: ófŕsk.

## FIGURE 7. The entries for aftra and hindra (ÍO 1983)

In the computerized versions the common constructions are stated, as can be seen in figure 8. The verb henda provides good examples of constructions as 'heads'; the verb takes a dative or an accusative object, henda e-u (dat., cf. section 1B2), henda e-ঠ (acc., cf. section 3). The subject in these sections is unspecified, i.e., either animate or inanimate, and thus not shown. In the sense in section 4, the subject is always inanimate ( $e-\partial$, nom., reflexive or not), or impersonal ( $e-n$, acc., + animate); see next page.

This verb is specially selected here to show different senses coinciding with difference in syntax, although sections 1 and 2 could be combined, both on grounds of syntax and sense. ${ }^{5}$

The minimal requirements in the case of Icelandic verbs is sufficient information on case-marking, both of objects and subjects. Sometimes semantic restrictions on either subject or object are also useful (e.g. $\pm$ animate). This, however, is not followed strictly, as nominative subjects (unspecified for $\pm$ animate) are assumed to be the norm, shown by the traditional description with inifinitives, as in sections 1B3 in henda in figure 8. In the last part of that verb the short forms for subjects are also shown, $e-\delta$ for an inanimate subject (nominative) and $e-n$ for an accusative subject; see figure 9 .

[^4]```
henda henti s
1
    henda e-u kasta e-u
        hann henti stönginni hátt i loft
        hentu til min hamrinum
2
    henda e-u fleygja e-u, setja e-d í ruslanlát
        ég er büinn aơ henda gömlu skónum
        ekki henda tyggjóinu á götuna
3
henda e-d
    1 grípa e-d
        henda e-ð á lofti grípa e-d og notfæra
        sér paö
        henda frétt á lofti
    2 ödlast e-d
    henda e-n/e-d ná e-m/e-u
        hendir seinn hvatan seinfær madur
        nær oft hinum fljóta
        henda sund (spor) byrja ad ganga
        henda sund (spor) byrja ad ganga
        óstuddur
    3 fornt/úrelt nema, læra e-d
        henda e-\delta af bókum
4
    e-\delta hendir, e-\delta hendir sig e- }\partial\mathrm{ kemur
    e-d hendir, ber vio, gerist
        petta hendir ödru hverju
        nú henti pað sig aঠ hann varð of
        seinn
    e-n hendir e-d ÓP e-r verठur fyrir e-u
[Obj.=dat. - animate] 'throw sth.'
'he threw the rod ...into the air'
'throw me the hammer'
[Obj.=dat. - animate] 'throw sth. away,
put sth. in the garbage'
I've thrown away the old shoes
street'
'learn sth.'
'learn sth. from books'
[Obj.=acc.-animate]
'catch sth.'
'make use of sth.' (idiom)
'obtain sth.'
[Obj.=acc.\pmanimate] 'catch sby./sth.
[Subj.=nom.-animate] 'sth. happens'
'this happens now and then'
[Subj.=acc. + animate] 'sth. happens to
sby.
```

FIGURE 8. The entry for henda (ÍO 2000)

| 1-2 | henda e-u | dative object, - animate |
| :---: | :---: | :---: |
| 3.1-3 | henda e-б | accusative object, -animate |
| 3.2 | henda e-n/e-d | accusative object, $\pm$ animate ${ }^{1}$ |
| 4 | e- $\delta$ hendir, e- $\delta$ hendir sig e-n hendir e-ठ | nominative subject, -animate accusative subject, +animate |

FIGURE 9. Arguments with the verb henda (ÍO 2000)
The details for the arguments of verbs to be expected in the headings are mainly the case of objects and oblique subjects, $\pm$ animate (when distinctive), 'dummy' (impersonal) subjects, reflexion, and retroactivity.

The difficulty lies in deciding how much of that information is necessary and what is redundant. The borderline for that is not the
same for the average user as for the syntactician who would probably interpret this as giving full information on lexical case-marking, for instance, and treating all structural case-marking as a default. This, however, would probably not be seen by the general public to be a very user-friendly way of doing things as most people are very often not aware of grammatical regularity. The guideline for the changes made in the description of the verbs in the 3rd edition of the $I O$ was to make the material as accessible and clear to the reader as possible in the very short time allotted to the job, using the framework described here to rearrange material from the older editions. It must be stressed that this is not a new dictionary being made from scratch, so to speak.

The computerized version of $I O$ is in many ways a pilot project, and very many questions are still unresolved. To take the format of the verbs as an example, these are not very standardized. There are a few possibilities of layout for each and every aspect and these are used as deemed appropriate for each individual verb.

## 4. From a monolingual to a bilingual dictionary

Bilingual dictionaries published in Iceland are primarily made to suit Icelanders, i.e., they are monodirectional, but dictionaries published in other countries tend to be more varied. All of them have had to do bidirectional duty. The needs of Icelanders and foreign learners are of course not the same, but of necessity the two must be addressed at once.

The question is then, how much of a problem that is. By taking advantage of the new medium, the mass of the whole work is no longer a problem, only the disposition of the information on the screen. The point is that this may be the means to serve the dual purpose of monodirectional and bidirectional dictionaries, and that going towards full specification of 'listemes' (or subentries) is equally important to both sets of users.

For a monolingual Icelandic dictionary, I maintain that the constructions are needed in order to find what one is looking for, as the meaning is construction specific. In a bilingual dictionary, it automatically follows that the equivalent constructions in the target language are given if the constructions are set up as 'heads' in the source language. In both cases, the same dictionary would therefore ideally serve both as a passive and an active dictionary. This point is well illustrated by impersonal verbs, as in the following examples.

### 4.1 Examples of impersonal verbs

The impersonal verbs proved to be quite a problem in the switch from book to disc for the new edition of Íslensk orðabók, as the aim was providing minimal syntactic information wherever it was missing in the book. This in fact proved to be impossible at times as the data was sometimes unavailable for rare or obsolete words. There is, however, substantial material on impersonal constructions in Icelandic, notably the work of Jóhannes Gísli Jónsson and Joan Maling, some of which they were kind enough to provide in manuscript when these verbs were being edited. The Institute of Lexicography's archives and corpus were then used to fill in the gaps as possible.

The facts on the impersonal verbs in the 1983 edition are these: Two types of constructions are marked with 'ÓP' (for ópersónulegt 'impersonal'), i.e., constructions with oblique subjects (in the accusative, dative or genitive), and constructions with a 'dummy' subject, bad or hann. ${ }^{6}$ The information on those verbs in the 1983 edition is very limited, and sometimes there was absolutely no syntactic information apart from a bare 'ÓP', i.e., no examples of any kind, and thus no indication of case-marking.

The verb fatra in figure 10 is one of those verbs: ${ }^{7}$
fatra, -adi S ÓP fata, skjátlast; MM fatrast fara í
flækju; tefjast, fara i handaskolum.
FIGURE 10. The entry for fatra (ÍO 1983)
A rough transcription of fatra would be 'to be wrong', but such complete lack of information on argument structure can make it very difficult to determine what is happening to whom or what - i.e., the argument structure can be so vague that the meaning becomes unclear. This probably poses even greater problems in a bilingual dictionary

[^5]for foreigners, who are probably not even familiar with the possible structures.

In the new edition, the active voice of this verb has an animate, dative subject, whereas the middle voice has a 'dummy' one as in figure 11:

| fatra -adi Sóp e-m fatrar e-m fatar, skjátlast | 'sby. makes a mistake, sby is mistaken' |
| :---: | :---: |
| ```fatrast + fyrir pad fatrast fyrir e-m ÓP e-d feri i flækju hjá e-m, e-r tefst (vid e-d), e-ठ fer í handaskolum hjá e-m``` | 'sth. gets tangled up for sby., sby. is delayed (by sth.)' |

FIGURE 11. The entry for fatra (ÍO 2000, update)
The new version shows all and only the constructions attested in the archives and corpus at the Institute of Lexicography. The data is therefore not falsified.

For differences in meaning, the importance of the differentiation between constructions can be seen in the verb batna, which can take either a nominative or a dative subject. The meaning changes between these constructions; with a nominative subject it means 'improve', whereas with a dative subject it means 'recover from an illness' (+animate subject only). In the 1983 version one explanation serves both; the impersonal construction is only shown as an example in figure 12 :
batna, -að̃i S verð́a betri, skána: \# hagur hans batn-
adi; ÓP: honum batnar (veikin).
FIGURE 12. The entry for batna (ÍO 1983)
Native speakers have no problem with the meaning here; they know it anyway as this is a very common verb. For learners of the language the new version is more helpful, and the difference between a singer whose singing gets better and a singer whose laryngitis gets better is clear, as seen in figure 13. The distinctive meaning in the sentences söngvarinn batnaði með hverjum tónleikum and söngvaranum batnaði hálsbólgan is no less clear when they are abbreviated to söngvarinn batnaði (nominative, and he sings better), and söngvaranum batnaði (dative, and he is no longer sick):

```
batna -adi s
1
    e-d/e-r batnar e-d/e-r verður betra/betri,
    e-z/e-r skánar
        hagur hans batnadi
        ástandið batnadi
    söngvarinn batnaঠi með hverjum
    tónleikum
2
    e-m batnar ÓP e-r nærr sér (af veikindum)
    söngvaranum batnadi hálsbólgan
        'sth./sby. improves, sth./sby. gets better'
his finances improved'
the situation improved
'the singer got better at each recital'
    'sby. recovers (from an illness), sby.gets
    better ...'
    'the singer recovered from his
laryngitis'
```

FIGURE 13. The entry for batna (ÍO 2000)
There are regular patterns of theta-roles and case marking in some classes of impersonal verbs (e.g. dative for +animate subject (experiencer) and nominative for -animate subject/object (theme)), but the impression is that the average native speaker is rather muddled by the grammatical structures as such, even if his usage conforms to the norms. This confusion is one of the justifications for having constructions as 'heads' in the monolingual dictionary. For users who are unfamilar with the structures themselves (e.g. foreigners) and for users who need to know the corresponding structure in another language (e.g. translators), being presented with a construction instead of a single headword is bound be more helpful as it is better guidance to usage.

A case in point is that an argument can be a subject in one construction and an object in an equivalent one, as can be seen in the entry for gagna (cf. figure 14). This can be true in paraphrases in the same language, as in sense 1 of $e-m$ gagnast $e-\delta$, at the end of figure 14 ; see next page.

The same kind of switching of argument can also be seen in translations (or transcriptions), as in the same place in the entry for gagna in figure 15 (corresponding arguments marked for clarity); see next page.

```
gagna -adi S
    e-\delta gagnar 一 e-\delta gagnast
        himnan gagnar til pess aठ festa garnirnar við̈ önnur liffari
    e-r gagnar e-m
    1\longrightarrow e-r gagnast e-m I
        hvernig má sá mér gagna sem er sjalfum sér verstur
        hver madur gagnar sinni fósturjörठ
    2\longrightarrowe-r gagnast e-m 2
        bolarnir gagna künum
    e-m gagnar e-д ÓP }\longrightarrow\textrm{e}-\textrm{m}\mathrm{ gagnast e-ð
        baõ gagnar mér ekki
gagnast MM
    e-\delta gagnast, e-\delta gagnar e-\delta verठor ad gagni
        hér gagnast ekki veiðarfarri i sjó
        or\delta peirra gagnast til a\delta afsanna petta
    vel gagnist staðbundio̊ verði pér (ykkur) aơ góóu
e-r gagnast e-m
l e-r verður ad liđi, kemur å gagni
        Jóhannes gagnast okkur vel í hreingerningunni
    2 e-r kelfir, fyljar, lembir e-n
    nautið gagnadist kuinni
    3 e-r hefur kynmök vid e-n
        hann mátti eigi gagnast konum
    e-m gagnast e-d, e-m gagnar e-d ÓP
    1 e-ð verð̃ur e-m aơ gagni
        honum gagnaðist lyfid ágattlega
    2 e-r fæer friô til e-s
    okkur gagnast ekki að sofa
```

FIGURE 14. The entry for gagna (ÍO 2000)


FIGURE 15. Last part of gagna with transcriptions
As the entry for gagna in figure 14 shows, the actual descriptions of individual verbs can be quite complex when it comes to giving all and only the constructions the ordinary user can expect to find in more or less ordinary texts. In comparizon the entry for gagna in the first two editions of Íslensk orðabók is very simple, and the same can be said for the entries for the verb in some bilingual Icelandic dictionaries shown in figure 16 in the appendix. A common denominator for these entries
is that constructions are only shown in examples, and the choice of examples seems to be rather the sketchy, only showing a part of the range of constructions. Complexity on par with the entry shown in figure 15 may not be everyone's idea of clarity, but the choice seems to be between the simplicity of the older dictionaries and the detailed description made possible by the new format. The task at hand at the moment is finding out what kind of description is suitable for the new Icelandic-Danish dictionary in preparation at Edda.

## 5. Conclusion

The decision to give 'lexeme'/'listeme' status to constructions and verb phrases by giving them 'search value' should ideally be a reflection of the mental lexicon, providing the proper argument structure. The constructions could then be used as 'heads' more or less in the same way as they must appear in our mental lexicon. Sometimes full specification is not needed, as the words do more or less enter into all regular constructions. In this way, leaving the arguments unspecified implies that anything goes. Very often, however, usage of a certain word is limited to a subset of the possibilities of its word-class, in some cases even to the point of one or two constructions for a verb, as in fatra in in figure 11 .

The new format, the screen, provides the possibility of showing this, and at the same time the use of constructions as heads is a way of splitting up unmanageable chunks of information into pieces small enough for the screen. In the end, the reactions of the users will show whether this is a move in the right direction, but as the disc is fairly new that feedback is still to come.

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## Appendix

gagna, -að̃i S ÓP 1 verða að gagni: pað gagnar (mér) ekki; $\odot$ vel gagnist verði ( ykkur ) ađ góđu. 2 fá frið til e-s: okkur gagnast ekki ad sofa. $\mathbf{3}$ notast af e-u, kelfa, fylja, lemba: nautið gagnadist künni.
(ÍO 1983)
gagna v. Eg gagna, gagnadi, at gagna. ... frugi sum, utilitatem adfero. pat gagnar eigi, non est usui. bat gagnar, expedit. §Mjer gagnast bat ei, non possum id propter turbulentiam et inqvietudinem ab aliis adlatam efficere, non id mihi facere expedit. at gagnast manni ad vitni, pro teste alicui utilis esse. Mier gagnast ei at vera at pvi, non dicet mihi id allaborare. (Orđabók Jóns Ólafssonar úr Grunnavík 1734-1779)

Gagnaz (at gagnaz), prodesse, gavne, være til Nytte, Hönum gagnaz ecki at skrifa fyrir hávada, ob garritum facultatem scribendi amittit, han har, formedelst Støj, ikke Lejlighed til at skrive. At gagnaz einum, auxilio, v. commodo alicui esse, være En til Nytte, gjøre Bistand. Pad gagnaz ecki, frustratur, det hjælper ikke.
(Björn Halldórsson 1992 [1814])
Gagnar(at gagna), prodesse, nytte, gavne. Pad gagnar ecki, non prodest, det nytter ikke noget.
(Björn Halldórsson 1992 [1814])
gagna (a) [gag.na] v. 1. v. impers. med dat. (verða a $\check{\delta}$ gagni) gavne, nytte: pǻ gagnar (mjer) ekki, det nytter ikke noget (for mig). - 2. refl. gagnast. a. gavne, være til Nytte: naer er at landseti gagnist húsbónda sínum til sjóródra, enn ödrum útifrá (LFR. VII. 154). - b. spec. om Tyre og Vædere: tarfurinn gagnadist kúnni (Breiðd.). - c. faa Lov til: pví gagnaðist ekki ad liggja i i gröfinni, det kunde ikke faa Lov til at ligge stille i Graven (JÁPj. I. 306); mikill helv. hávaði er í ykkur ytra, pað liggur við, ad okkur gagnist ekki ad sofa (MelBr. 85).
(Sigfús Blöndal 1920-1924)
gagna -aðiv upers. gavne, nytte; g.e-m være en til hjælp refl: gagnast gavne, være til nytte; bedække (om tyr, væder).
(Widding et al. 1976 )
gagn/a $v$ impers (-ađi): hverjum $\sim \mathbf{a r}$ pad? who will that help? pad $\sim \mathbf{a r}$ ekki it is no use
(Sverrir Hólmarsson et al. 1989)
gagn/a -adi opers $v$ gagna, vara til nytta, tjäna till (g.e-m)
(Leijström et al. 1994)

FIGURE 16. Sample entries from older dictionaries for gagna


FIGURE 17. The structure used in Sýnihefti sagnorðabókar


[^0]:    The 1st edition of $I O$ was published in 1963, the 2 nd in 1983; the editor in chief of both was Árni Böðvarsson. The editor in chief of the 3rd edition is Mörður Árnason. The author of this paper was on the editorial team for the 3rd edition from 1997. Sections of the dictionary are accessible for viewing at the website http://ord.is.

[^1]:    2 There are approximately 8.500 verbs in the 3 rd edition of $I O$. The restructuring of the verbs for the computerized version was the responsibility of the author of this paper.

[^2]:    3 In Icelandic, all these can be combined under the term smáorð (literally 'little word').

[^3]:    4 The short forms used are the ones traditionally used in Icelandic dictionaries and books on grammar: $e-\delta$ (nom./acc. -animate), $e-u$ (dat. -animate), $e-s$ (gen. tanimate), $e-r$ (nom. +animate), $e-n$ (acc. +animate), $e-m$ (dat. +animate), etc.

[^4]:    5 The meaning in section 2 is very common, but strangely enough it was missing in both older editions.

[^5]:    6 Hann is only used for verbs describing the weather.
    7 Possible constructions with oblique subject are e-n fatrar, e-m fatrar, e-s fatrar (the genitive is unlikely, the genitive subjects are very rare); the 'dummy' subject construction pad fatrar $+A d v P$ with argument for person, e.g., ?pað fatrar fyrir e-m is remotely possible in the modern language, (cf. pad skeøi fyrir honum, which makes anyone over a certain age cringe), but as the verb is exceedingly rare, that possibility is very remote. A comparable construction in middle voice pad fatrast fyrir $e-m$ is shown in Fritzner: fatrast mjök fyrir honum (Mork., probably the same example as found in the Institute's corpus, in Odds páttur Ófeigssonar). The explanations in the 1983 edition of $I O$ (and in Ásgeir Blöndal Magnússon's Islensk orðsifjabók (1989)) are probably based on these two citations, the different meanings for the middle voice being the result of uncertainty implied by the use of the noun fatur in the same text rather than actual attestations.

