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SOME NOTES ON THE SIGNALIZATION OF THE PLURAL IN ENGLISH NOUNS

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Josef Vachek has convincingly shown[1] how blurred the boundaries between words as well as those between word components are in English. He has also shown how the resulting situation makes possible the growth of new types of words (a sentence or part of a sentence turned to a word or parts of a word blended), as also of new types of sentence members (the possessive group-genitive).[2] It seems to us that this finding could be protracted into the sphere of grammatical morphology. Here, in our opinion, the situation prevalent in lexical morphology has prevented linguists from seeing what we take to be fairly important issues. Except for blendings, whose existence is marginal in the English lexicon, there is nothing like fusion—partial or complete—of morphemes in English word-formation.[3] If, however, we consider such phenomena as the restriction of the *cut* and *spread* type of preterits to stems ending in *-t* or *-d*,[4] we ask whether this is not a case of morphemic fusion.[5]

Juilland and Macris's interpretation[6] of *bent* as a change of *bend* to *ben* in the stem (with *t* added for the preterit) seems to be rather far-fetched. It merely shows the inability of the item-and-arrangement grammarians to deal with linguistic facts whose nature is not sequential. Intuitively, an English speaker feels the semantic carrier of 'bending' to be present in the linguistic form beginning with *b* and ending with the alveolar oral explosive, be it *d* or *t*. No doubt, the fact that *put* has the preterit *put*, and *meet*, the preterit *met*, has historical foundations. There are also historical grounds of the 'historically short' vowel in these preterits and of the coincidence of the preterit *put* with the simple (present) form. But evidently it may be premature to give up certain historically developed facts for an alleged 'elegant' interpretation of the contemporary state of things. Negative, for instance eliminating facts are also parts of a contemporary structure. Thus, a verb ending in [-g] or [-ŋ] and [-ŋk] can only have a 'regular' preterit or one signalized by medial vowel change (with [-t] only added in the case of *bring* and *think*). A monosyllabic verb ending in [-ou] can, beside a 'regular' preterit, only have the change of [-ou] to [-(j)uː] in that form. Apparently, we should not overrate the existence of *sit*, *bid* (bade), *get* and *tread*,[7] which are too few to destroy what seems to be a rule concerning the verbs ending in a short vowel + [t] or [d], which says that they either have a 'regular' preterit or one not signalized at all. And similarly the existence of *beat* — *beat, fight* — *fought* and *hold* — *held*[8] can hardly override the rule that except for a number of verbs in [-ait] and [-aid] the verbs ending in a long vowel + [t] or [d] have a 'regular' preterit or one signalized by a 'historically short' vowel only.

The historical shorts cannot be waved away in contemporary morphology, though of course the oppositions between short vowels and long vowels are now constituted a bit differently in the purely phonological system.[9] The oppositions

found, let us say, in *dear — dearth, bear — birth* (perhaps even *berth*), *shire — -shire, tour — turn, tone — tonic, midwife — midwifery, deep — depth, clean — cleanliness* etc. are still understood as oppositions on which the respective allomorphs are based.

In discussing our problem we fully identify ourselves with Smirnitski in his view[10] that [ĭ] in verbal [ĭd] and verbal and substantival [ĭz] is a mediating, structurally, though not semantically, functional morpheme and that the problem can be approched while dealing with [d] and [t] and [z] and [s] only. The insertion of [ĭ] is governed by a higher rule requiring it to be inserted after consonants which are in the relation of subminimal contrast to those which are to stand after them.

The preterit in English may be said to be signalized either

(1) by an appended alveolar oral explosive, or
(2) by a medial change of vowel other than the 'historical shortening', of vowel + consonant in *stand* only, or
(3) by a finally superimposed (fused) alveolar explosive.

While appendage and final superimposition cannot combine, the remaining combinations are all possible and represented (*sold, told, did, thought, caught* etc.). Here we are only interested in the third type. Final superimposition is based on three rules: (1) shorten the vowel, if it is long (*ai > i, i: > e, ei > əe, au > ʌ, u:* and *ou > ɔ, aiə, iə* and *uə > ə:*), (2) with a final vowel, plain or followed by *r* or *d*, make the end voiced, with the other consonants, unvoiced, and that as deep inside the end as possible (i.e. as far as unvoiced consonants exist as phonemes in English), (3) if there is no *t* or *d* at the end of the stem, make it stand at the end of the form.—*Be, have, make, say, go* and *beat* are perfectly irregular.

Presented like this, the preterit signal is no (mere) addition, but rather a prescription as to what the end of the form should look like. We could approximately say that the end gets a l v e o l a r i z e d with certain concomitant features making themselves felt as deep inside the end as necessary. There is a similar situation in signalizing the plural of nouns in English, only appendage and final superimposition do not practically stand here in contrast: *strut — strutted : cut — cut = bus — buses : Ø.* Still, a fully comparable superimposition may be marginally found in certain morphological types (*series, Chinese,* hotel *boots, means, barracks*) and isolated words (*narcissus, apparatus,* also taken for collectives; occasionally *pulse, balance,* in Eliz. E. *hose*). The rule for what might here be called the SIBILANTIZATION of the end is about as follows:
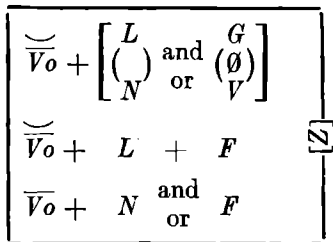
if the final vowel is followed by nothing (or a liquid or a nasal, liquids or nasals) and/or (an explosive, explosives, or a voiced fricative, or) nothing, a [z] follows the group of voiced sounds and an [s] the last unvoiced sound(s);

if the final vowel is followed by a liquid plus an unvoiced fricative or if it is (historically) long and is followed by a nasal and/or an unvoiced fricative, the form has a fully voiced end with a [z] added;
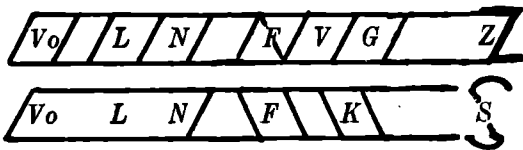
if, however, the final vowel is (historically) short and is followed by a nasal and/or an unvoiced fricative, the form has a fully unvoiced end as deep as possible, with an [s] added.

By this rule and considering that there are no final [h], [j] and [w] (and that final [č, dž, š, ž, s] and [z] have had a vowel added to them according to a higher rule), we can say that the forms *shelves, knives, mouths, wreaths* and *paths*[11] are regular while [hauziz] is not.

It should, however, be noted that [θ] felt itself as a morpheme (and as long as it is, rightly or wrongly, felt to be one) cannot be changed (*filth, length, birth/berth, girth,*

$$\breve{Vo} + \begin{bmatrix} L & G \\ \binom{\ }{N} \begin{matrix}\text{and}\\ \text{or}\end{matrix} & \binom{\emptyset}{V} \end{bmatrix}$$

$$\overline{Vo} + L + F$$

$$\overline{Vo} + N \begin{matrix}\text{and}\\ \text{or}\end{matrix} F$$

$\rightarrow$ Z

$$\breve{Vo} + N \begin{matrix}\text{and}\\ \text{or}\end{matrix} \quad F$$

$$\breve{Vo} + \begin{matrix}L \text{ and}\\ N \text{ or}\end{matrix} \quad K$$

$\rightarrow$ S

Simplified and slightly distorted:

Vo vowel, *L* liquid, *N* nasal, *F/V* unvoiced/voiced fricative, *K/G* unvoiced/voiced explosive
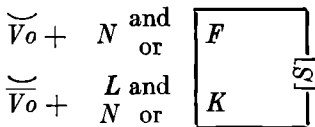
also *faith*, perhaps also *earth*). Nor can names and quotation words be changed (*Ralphs, Keiths, selfs* for *egos, ashleafs*, also *laughs?*). Some obscure reasons in the past development of the language have brought it about that the change of [*f*] to [*v*] has been prevented by what originally was closed [*e·*] and [*o·*] preceding them, as if the closed character were a support to the tense character of the consonant (*beliefs, chiefs, fiefs, reefs, beefs, roofs, proofs*). There is, however, *thief — thieves*. Further exceptions are partly due to the tendency to differentiate homonyms (*waifs — waves, safes — saves, fifes — fives*, now also *staffs — staves*). *Dwarfs* and *gulfs* and the vacillating *oafs/oaves* and *hoofs/hooves* appear as kind of strays. In Southern British English, the disappearance of [*r*] entailed the vacillation of *scarves/scarfs* (historically short vowel + *f*).

The superimposition here described is no isolated phenomenon in English grammar. The possessive-form morpheme is frequently superimposed on a final [*s*] or [*z*], thus regularly, if the sound is itself a morpheme: *Jesus', Nicholas'(s), the two grocers' competition, there are two grocer's in our street.* The curious 'unchanged plural' with *cannon* (in the sense of *gun*, not a unit of artillery) and *vermin* (as in *these vermin*, which if collective,[12] would present an isolated case, for a similar treatment of collectives is restricted to human collectives plus collectives of animals considerably useful to man) could be explained as a superimposition of the now practically extinct [*ən*] plural signal.

A parallel to the irregular preterits (irregular in the sense of falling under none of the three types of signalization or their combinations) is met with in the unexpected joining of the plural signal in *pence* (*dice* is gradually changing to a new word with *dices* for cubes and uncountable *dice*, like *chess*, for the game). There are, of course, also remnants of older plural suffixes (*ox*-en, *child*-r-en, *brethr*-en). The survival of *lice* and *mice* among irregular plurals, though they are low-frequency words in an urbanized society, may be due to their being taken for collectives.

Vachek's theory of the weak delimitation of words in English is also reflected in the tendency to signalize, under certain conditions, the plural only once for a group. This is not possible, if the group is balanced inwardly by a contrastive or a parallelizing relation (*ups and downs, gives and takes, men servants* = men who are servants and servants who are men[13]). To the latter, coordinatively joined nouns may be added (*brothers and sisters*, but not so where coordination is formal only—*whisky-and-sodas*). With titles and names prefixed to names etc., which clearly recede to the background (witness partial or complete loss of stress), there is only a final signal

(*King Henrys, the two Mrs. Smiths, the two W. S. Allens*). The group may also arise through saving the repetition of a noun in a qualifying linking construction:

$$\left.\begin{array}{l}\text{English language}\\ \text{Czech language}\end{array}\right\}\ \textit{English and Czech languages}$$

A group like *brothers and sisters* cannot be thus conflated: *ten brothers and sisters*. Coordination of elements, none of which can be spared, prevents it. Prefixed titles and names can themselves be grouped without however causing a bracketing out of the common member as plural: *Mr and Mrs Brown, Charles and Mary Lamb*. For neither is the *English and Czech languages* type of a group (there is no purely qualifying linking between the members).

If a group thus represents a new well-knit unit, it may be expected that other phenomena connected with the marking of the plural will be found in such a group. There is, for instance, neutralization of the plural marker when the semantic modification normally carried by the plural marker is no longer present. We may accept that the marker signals 'uniform divisibility' (of *boys*, a coexistent group, into units each called *boy*, of *days*, a mentally conjoint group, into units each called *day*, of *earnings* or *ruins*, where divisibility refers to the sequence of events leading to the result, or *trousers*, *teens* and *sixties*, where the number of the possible acts of division is pre-stated).[14] But a number of the so-called pluralia tantum no longer have the idea of divisibility (not even in a transferred sense) present in them. They represent 'empty' plurals and frequently undergo further development (*a barracks — two barracks, a lodging — lodgings, a gallows — gallowses, Athens is*...). Now, similarly, a group of the 'last ten days' type (denoting defined periods, not periods of uncertain extent) may be treated as an 'empty' plural and then require a singular agreement. Loss of the plural mark (like in the change of *lodgings* to *lodging*) has given rise to *fortnight* (and the obsolete *sennight*).

Whether a single word or a group, the plural marker should accordingly be expected to close up the respective unit. But inside clearly univerbal units the question of placing the plural marker is not always simple. It is easy to understand that in groups which are half-way to becoming units (the type *court martial* and *tug of war*) the placing is decided according to whether we are nearer to linked units or to complete fusions. Thus fusion is more likely where the final element is not clearly adjectival or qualifying (*attorney generals*) or where the head of the qualification is semantically divorced from the meaning of the new unit (*will o'the wisps, two pair of stairs*).

But what about the type *looker-on*? Vachek is convinced that this type is not productive and gives way to the type *onlooker*. This is, however, not confirmed by facts or statistics.[15] It is also worth considering that the very rare type 'give it several shakes-up' is restricted to combinations with the original verbal meaning well preserved (and referring to the very action). It seems as if this was an attempt to transfer the difference of aspect known in the infinitive (*go* vs. *be going*) to the gerund: *shake up* vs. *shaking up*. The proximity of this type to the likewise separable finite form is reflected in the separability of the compound and the marking as plural of the chief verbal part: *goings-on*. The type *lookers-on* merely confirms that agent nouns gradually force their way into the verbal pattern (with their passive counterparts in *-ee* following at a distance).[16]

Little is to be said about the so-called un-English plurals. Their relatively great number and relatively frequent use is a testimony of the stratification of the English-speaking society according to the levels of education attained and especially the

natural endeavour to signalize this level by using particular terminology in forms imparted in course of the speakers' education and specialization. In other countries this has a kind of counterpart in the doctor's use of Latin even outside the purposeful cryptic reference to the state of a patient's health.

The so-called unmarked plurals are, in principle, of two sorts. First, there are words, originally plural, now also singular (*means, barracks, three pair-of-stairs*) or words whose final sibilant may be felt as also covering the function of the plural marker (*Swiss, Portuguese*). Second, and more interesting, are the other unmarked plurals. With them, the function of collective nouns in English has frequently entered into play. It should be noted that *sheep* and *cattle* are parallel in modern English as far as grammatical 'behaviour' is concerned (*many, twenty, these sheep/cattle*). The only difference there is makes itself little felt: *a sheep* is common in reference to one animal, while *a cattle* would preferably be understood as one type of cattle. There are the well-known survivals of Old English morphology: *sheep, deer, swine* (*fowl* seems to have been added to them in a certain period without striking firm root). *A swine*, unless a term of abuse, is practically unused today. Then there are the 'nouns denoting animals hunted for their flesh', as Sweet once defined them.[17] All these nouns have their unmarked plurals practically put on a par with the collective *cattle*. With some, reference to exact numbers seems to stand in the way of keeping up the collective interpretation (*ten fishes*, rather than *fish*), which is not the case with *cattle*.

Of little importance is the hesitation to mark the plural with very exotic names of animals and also members of 'exotic' national or racial groups (*caribou, Somali*). It is merely another confirmation of the fact that even English, a language most readily adopting foreign vocabulary, has a fringe, or a periphery, of 'other-treated' words, and that not merely as far as phonetics and phonology are concerned (unusual sound combinations, little or no vowel reduction, etc.), but also in grammar. We may compare here the unexpected use of the definite article with foreign titles and exotic 'uniques': *the Czar Alexander, the Quai d'Orsay, the Chimborazo* as against *Scawfell*). It has been Vachek's merit to have stressed the dynamically centrifugal character of linguistic systems, creating in every single system a core and a periphery.[18] It is interesting again to note that the giving up of the marking of the plural is limited to what in the plural may be animal and human collectives, not groups of things. This is parallel to the phenomenon, hitherto unexplained, in the breach of singular-plural agreement. For outside quantifying expressions (*a great number* etc.) this is only possible with human and animal collectives: *police are, these cattle, everybody has their*... (but not **pottery are, *these china* or **everything has their*...).[19]

Up to now we have been dealing with the marking of the plural on the phonetic level and need not be surprised, instructed by a number of Josef Vachek's papers,[20] to find the graphic level to behave differently, at any rate, not always parallel to the phonetic level. The very distribution of the possible plural markers is different. There are even cases of no-marker or an un-English marker corresponding to a normal marker on the phonetic level (*corps* [kɔ:]—*corps* [kɔ:z], *beau* [bou]—*beaux* [bouz]). We cannot expect, however, to find a single case of a graphic marker corresponding to a phonetically unmarked plural.

Instead of the rule on inserting [i], there is merely the very general rule that any final *i*-sound should get represented (*roses, taxes, catastrophes, taxis, ladies, guineas, committees, Sundays, 6's, 60's*). Further there is the rule that the plural marker should be represented by *-es* after a single vowel grapheme (with the change of *y* to *i* inside

a form). This is naturally most frequent in such words as *lady — ladies*, where the old scribal vacillation between *-y* and *-ie* has been utilized so as to leave the letter, graphically more suitable for closing up a form, restricted to the end of the word. At the same time, a convenient distinction between Graeco-Latin and Latin stem *-is* and the form with a morphological suture was established and then extended to *-os* for similar reasons. Since words in *-as*, single *-i* and *-u* have never been numerous, the 'solution' using *-a's* and *-i's* never struck root. It seems that the more exotic a word appears to the language user, the more easily the rule about the *-oes* plural is broken. The rule on not changing anything in the graphic shape of words arisen through truncation is also reflected here. There is *buses*, *photos*, *pianos*, *autos*, though the American standard prefers *busses* and *plusses* (parallel to *fezzes*). Similarly, we have *bus*, *Chris*, *Gus*, *pal*, where a doubling is expected, or *hi-fi*, where there should be *hie-fie* on the 'three-letter rule'. This last-mentioned rule also has a reflex in marking the plural. The graphic marker *'s* is introduced to give the marked form a 'full-bodied' appearance and frequently also prevent it from being taken for a different function: *60's* (sixties) vs. *60s* (sixty shillings), *why's* by the side of *whys*, which looks rather like Welsh *Rhys*, etc. Unlike with the possessive form (*Jesus'*, *parents'*), the superimposition of sibilants is not marked in the plural (*Swiss*, *Portuguese*; cf. *the Swiss' proverbial cleanliness*). The change of [ʃ] to [v] is marked regularly, though some speakers pronounce [hæŋkəčivz] and [hʌzivz] without marking it. Apparently, this is a subconscious change, as in [sɘenwidžiz].

It is clear that the parallelism of the phonetic and the graphic systems is only partial. There is only a correspondence 'in outline'. In our opinion it is just the measure of correspondence between the two independent systems what should be studied in order to continue Vachek's work in this field.

NOTES

[1] J. Vachek, 'Some Less Familiar Aspects of the Analytical Trend of English', *Brno Studies in English* 3. 9—78 (Prague, 1961).

[2] J. Vachek, 'Notes on the English Possessive Case', *Časopis pro moderní filologii — Philologica* 7. 11—5 (Prague, 1955). An opposite view is that of A. A. Hill, *Introduction to Linguistic Structures* 254 (New York, 1958).

[3] There are occasional suggestions of this happening. Thus with the pejorative suffix [itiɘ], whose [it] appears to be at the same time part of the stem.

[4] I. Poldauf, 'Strukturalismus a americký deskriptivismus', *Problémy marxistické jazykovědy* 92 (Prague, 1962).

[5] Cf. K. L. Pike, *Language in Relation to a Unified Theory of the Structure of Human Behavior*[2] 545—64 (Hague—Paris, 1967).

[6] A. Juilland and J. Macris, *The English Verb System* 39, 42, 48, 52 ('s-Gravenhage, 1962).

[7] We do not mention *spit*, because of the two possible preterits: *spat* or *spit*.

[8] For some types of English (e.g. American) *eat* would have to be added because of [eit] instead of [et].

[9] J. Vachek, 'The Phonematic Status of Modern English Long Vowels and Diphthongs,' *Philologica Pragensia* 6. 69 (Prague, 1963).

[10] A. I. Smirnitski, *Morfologija anglijskogo jazyka* 25—7 (Moscow, 1959).

[11] The period decisive for the relation of historical shorts and longs in morphonology can be found on comparing *calf*, *half*, *path*, *bath* counting as longs, long *staff* (with *staves*) given up for short and long *clothes* separated as a different word from *cloth*, short. Some early grammarians point out to the parallelism between *pathes* and *clothes*. Cf. I. Poldauf, *On the History of Some Problems of English Grammar before 1800* 232, *Prague Studies in English* 7, (Prague, 1948).

A. A. Hill, Introduction... (cf. note 2), 134, expressly states that the alternation [kæf] : [kæv] is in no way related to the phonemic situation in which [-f] is found. It seems to us this is a rather rash generalization from the few pairs ('once no morphophoneme, never a morphophoneme'), compared with *staff* and *laugh*, of which the first is a change comparable to *cloth* [klɔːθ] — *clothes* [klouðz] becoming *cloths* [klɔːθs], and the second, a conversion from a verb, parallel to quotation. At any rate, the status of vocalic quantity in American English is not quite clear yet (cf. *passive* and *passing*, both described as having the same [pæ-]). A rule remotely similar to our superimposed alveolarization and sibilatization is Hill's signalization of negation in [kəe-] by nazalization (vocalic or consonantal), cf. ib. 195—6. Hill's assumption, meant to explain the parallelism of [jǎnz]/[jəeks] for *John/Jack is* | *'s* | *s* (progressive assimilation found nowhere else in English) through a past stage of replacement of a vowel by a juncture (p. 200) is rather far-fetched, especially since restoration of juncture after assimilation is adduced in other combinations, too (*həet + tə*, p. 198).

[12] See further down, p. 157.

[13] Here, however, the clash with a possessive interpretation is strictly avoided: *lady doctors*, not **ladies doctors*.

[14] This interpretation makes it easy to explain the 'psychological transfers' of the normal function of the plural marker, as we find them in *hopes* and *fears*—via repeated mental realizations of the respective feeling, in *waters*, *sands*, *heavens* and *skies*—via the idea of 'striking the senses on all sides, at any point, hence omnipresent', or in *riches*, *mansions*, *stores*, *Kensington Gardens*—via the idea of extent and imposing character.

[15] Cf. L. Soudek, *Structure of Substandard Words in British and American English 37* (Bratislava, 1967).

[16] We do not mention here the position of the plural marker in *these sort of books* and similar combinations. In his *Dictionary of Modern English Usage* (312), H. W. Fowler recognized that they were only new compounds (or rather derivatives like those with *-looking*, referring to subjective evaluation): *these-sort-of*.

[17] H. Sweet, *A New English Grammar* 2. § 1697—9 (Oxford, 1898).

[18] J. Vachek, 'On the Integration of the Peripheral Elements into the System of Language', TLP 2. 23—37 (Prague, 1966).

[19] We leave out of consideration the unmarked plural with number words and a few measure words with numerals, since it introduces problems belonging to the field of quantifying expressions.

[20] J. Vachek, 'Zum Problem der geschriebenen Sprache', TCLP 8. 94—104 (Prague, 1948); the same, 'Two Chapters on Written English', *Brno Studies in English* 1. 7—38 (Prague, 1959).

RESUMÉ

Poznámky k signalizaci množného čísla anglických substantiv

Takzvané pravidelné tvoření plurálu doporučuje autor formulovat jako sibilantizaci zakončení se znělostí pronikající do koncové partie slova při splnění podmínek týkajících se poslední souhlásky (poslední souhlásek) kmene a kvantity předcházejícího vokálu. Koncovka pak není připojována, ale spolu s případnou znělostí vkládána na koncovou partii slova. Slabá delimitace slov umožňuje signalizovat plurál u celé skupiny, pokud se neuplatní síly tomu bránící. Tzv. pluralia tantum se likvidují, když mizí možnost interpretovat plurál jako homogenně dělitelné seskupení. V typu *lookers-on* je třeba vidět vstup činitelských jmen do slovesné tvarové soustavy. Neanglické plurály jsou časté v důsledku snahy mluvčích projevovat odborné nebo vyšší vzdělání. Takzvané neoznačené plurály jsou dány jednak tím, že slovo končí na sykavku, která funguje jak v kmeni, tak při signalizaci plurálu, jednak tím, že slovo označuje jednotlivce i kolektiv, ať už vývojově bylo jedno či druhé prvotným *(fish — cattle)*. Neoznačování plurálu může být také signálem perifernosti slova v důsledku jakési exotičnosti. Také v grafickém systému jsou některé specifičnosti. Neoznačený plurál nemůže být označen v grafice, zatímco graficky neoznačený plurál může odpovídat tvaru s plurálem označeným *(corps)*.