

II. COMPOUNDING

The term 'compound'

2. 1. 1. When two or more words are combined into a morphological unit, we speak of a compound. The principle of combining two words arises from the natural human tendency to see a thing identical with another one already existing and at the same time different from it. If we take the word *rainbow*, for instance, identity is expressed by the basic *bow*: the phenomenon of a rainbow is fundamentally a bow. But it is a bow connected with the phenomenon rain: hence the differentiating part *rain*. The compound is thus made up of a determining and a determined part. In the system of languages to which English belongs the determinant generally precedes the determinatum. The types which do not conform to this principle are either syntactical compounds (e.g. *father-in-law*) or loan-compounds (e.g. *MacDonald, Fitzgerald*) with the "inner form" of a non-English language. There is a very interesting article by Stefán Einarsson, *Compounds of the mann-skratti type*¹. Icelandic *mann-skratti* means 'devil of a man' and thus represents a type of combination in which the determinatum precedes the determinant. It is worthy of note, however, that all those compounds have an emotional character which reminds one of emotional forms of poetic word order in German, used in address only: *Brüderlein fein; ach Mutter mein; o Jesulein süß*. It would thus appear that the type of inverted word order is somehow tied up with emotional motivation. We observe the same sequel with derivatives by appreciative suffixes, endearing, derogatory, and otherwise; *dadd-y, G Väter-chen, blu-ish*. This is only a statement of a phenomenon, not an explanation. The determinatum is the grammatically dominant part which undergoes the changes of inflection. On the other hand, its semantic range is considerably narrowed as the second-word of a compound, determined as it is by the first-word.

Compounds with a zero morpheme

2. 1. 2. A compound, we have said, has two constituent elements, the determinatum and the determinant. There are, however, many combinations which do not seem to fulfill this condition. The essential part of the determinatum as a formal element is obviously missing in such types as *pickpocket, runabout, overall, blackout, dugout*, the bahuvrihi types *hunchback, paleface, five-finger, scatterbrain*. A *pickpocket* is neither a *pick* nor a *pocket*, a *hunchback* is neither a *hunch* nor a *back*, and so on. In all of the preceding combinations the basis, the determinatum, is implicitly understood, but not formally expressed. The combinations are compounds with a zero determinatum (also called exocentric compounds, as the determinatum lies outside the combination).

¹ Studies in Honor of Albert Morey Sturtevant, University of Kansas Publications, Humanistic Studies No. 29, Lawrence 1952, 47—56.

Synthetic compounds

2. 1. 3. A similar concept underlies combinations of the type *householder*. The analysis of *householder* is parallel to that of *pickpocket*: 'one who holds a house'. The difference is that *householder* has a formal determinatum (-er) whereas *pickpocket* has not. However, the conceptual analysis clashes with a word-forming principle in English. *Householder* cannot be considered a suffixal derivative from the basis *household* in the way that *old-timer* or *four-wheeler* are derived from *old time(s)* resp. *four-wheel(s)*, as there is no compound verb type to *household* in English. The modern type to *brainwash* is of quite recent development and is not nearly so well established as the type *householder*, which is very old (in its present form, extended by -er, it goes back to late Old English while the original OE type *man-slaga* 'man-killer' is Indo-European; cp. L *armiger*, *signifer*, *artifex*). The idea of verb/object relation could combine with the concept of agent substantive only by way of joining an agent noun created ad hoc as a pseudo-basis to a common substantive. We are thus faced with the fact that an analysis which considers the underlying concept only may be disavowed by the formal pattern. The formative basis of combinations of the type *householder* is the agent substantive, however artificial the analysis may sometimes appear. A *skyscraper*, though not naturally analysable as 'a scraper of the sky' but '(a building which) scrapes the sky', from the formative point of view must be understood as a compound with *scraper* as the basis. This type of compound therefore is not the primary one which arises from combining two fully independent common substantives (as in the type *rainbow*). Because of their 'forcible' character, such compounds have been termed synthetic compounds (in German they are called *Zusammenbildungen*).

2. 1. 4. Parallel to the type *householder* are the types *housekeeping* (sb) and *heartbreaking* (adj). The second-words of such combinations do not often exist as independent words: *holder*, *keeping*, *breaking* are functional derivatives, being respectively the agent sb, the action sb, and the first participle of the underlying verbs. Strictly speaking, they should not figure in a dictionary, which is an assemblage of semantic units. The lexical value of, say, the word *crasher* is nil, as the word represents nothing but the aspect of actor of the verb *crash* whereas *gate-crasher* is a lexical unit. In the same sense the second elements of most compound impersonal substantives of the type *housekeeping* and of most compound participles of the type *heartbreaking* are semantic units only in conjunction with their first-words. In a similar way, other combinations with participles as second-words are synthetic compounds: *cooking*, *going*, *working* are not adjectives, but preceded by adjectives or locative particles they form compounds (*quick-cooking*, *easy-going*, *hard-working* | *forthcoming*, *inrushing*, *outstanding*). *Eaten*, *bred*, *borne*, *baked*, *flown*, *spread* are nothing but participles, but *moth-eaten*, *home-bred*, *air-borne* | *fresh-baked*, *high-flown*, *widespread* are compounds.

2. 1. 5. The non-compound character of extended bahuvrihi combinations is manifest. *Hunchbacked*, *palefaced*, *five-fingered*, *knock-kneed* are not analysable into the immediate constituents *hunch* + *backed*, *pale* + *faced* etc.; the

determinatum is always *-ed* while the preceding compound basis is the determinant. Extended bahuvrihi adjectives therefore are suffixal derivatives from compounds or syntactic groups. Exactly parallel are combinations of the types *old maidish* and *four-wheeler*.

Compounds with composite constituents

2. 1. 6. One of the constituent members of a compound may itself be a compound. In German, the determinant as well as the determinatum occur as compounds (*Rathaus-keller*, *Berufsschul-lehrer*, *Stadt-bawrat*, *Regierungsbaumeister*). The regular pattern in English, however, is that of the determinant being a compound (*aircraft-carrier*, *traffic signal-controller*, *flower pot-stand*, *plainclothes-man*, *milktruck-driver* etc.) whereas in the event of a compound determinatum the whole combination usually becomes a two stressed syntactic group (*night watchman*, *village schoolmaster*, *house doorkeeper*). The two regular cases of a compound determinatum in English I can think of are substantives whose second constituent is a preparticle compound, as *baby outfit*, *oil outfit*, and substantives whose second element is the semi-suffixal determinant *-man* (with a reduced vowel), as in *traffic policeman*, *hat salesman*.

The criterion of a compound

2. 1. 7. What is the criterion of a compound? Many scholars have claimed that a compound is determined by the underlying concept, others have advocated stress, some even seek the solution of the problem in spelling. H. Paul says that "die Ursache durch welche eine syntaktische Verbindung zu einer Zus. wird, ist darin zu suchen, daß sie ihren Elementen gegenüber in irgend-einer Art isoliert wird"¹. By isolation he understands difference in meaning from a syntactic group with the same words, and treats as compounds such phrases as *dicke Milch*, *das goldene Vlies* which are what Bally terms 'groupes locutionnels'. H. Koziol² holds that the criterion of a compound is the psychological unity of a combination, adding that there "seems to be" a difference of intonation between a compound and a syntactic group which it is, however, difficult to describe. W. Henzen³, who discusses at some length the diverse definitions, decides on "the impossibility of a clear-cut distinction" between a compound and a syntactic group and hesitatingly proposes to consider a compound as "den mehrstämmigen Ausdruck einer Begriffseinheit, der zusammengeschrieben wird". This is a very weak definition, and he admits that the German separable verbs do not fit it. Bloch-Trager⁴ do not treat the question in detail; they call a compound "a word made up wholly of smaller words", specifying that both of the immediate constituents must be free forms.

¹ H. Paul, *Deutsche Grammatik*. Band V. Teil IV. Wortbildungslehre (Halle 1920) 4.

² pp. 46—47.

³ p. 44.

⁴ B. Bloch-G. L. Trager, *Outline of Linguistic Analysis* (Baltimore 1942) 54, 68.

2. 1. 8. Stress also has been advocated as a criterion. "Wherever we hear lesser or least stress upon a word which would always show high stress in a phrase, we describe it as a compound member: *ice-cream* 'ajs-'krijm is a compound, but *ice cream* 'ajs 'krijm is a phrase, although there is no denotative difference of meaning."¹ Kruisinga² makes no difference at all between a compound and a syntactic group, at the same time feeling the need to maintain the traditional concept of compound. He defines the compound as "a combination of two words forming a unit which is not identical with the combined forms or meanings of its elements". In a similar way, Bally defines the compound as a syntagma expressive of a single idea³. Jespersen also introduces the criterion of concept and rejects Bloomfield's criterion of stress. "If we stuck to the criterion of stress, we should have to refuse the name of compound to a large group of two-linked phrases that are generally called so, such as *headmaster* or *stone wall*." This is certainly no argument, nor is the objection that words such as *sub-committee*, *non-conductor* have forestress according to Jones, but level stress according to Sweets. The first elements are not independent morphemes, anyway. For this reason it is wrong to argue that "the prefixes *un-* (negative) and *mis-* are often as strongly stressed as the following element; are they, then, independent words?"⁴ If it rains, the ground becomes wet. But if the ground is wet, we are not entitled to the conclusion that it has rained. As for the criterion of stress, we shall see that it holds for certain types only.

2. 1. 9. That spelling is no help in solving the problem I will add for the sake of completeness only. A perusal of the book *Compounding in the English Language*⁵, which is a painstaking investigation into the spelling variants of dictionaries and newspapers, shows the complete lack of uniformity. The fact that a compound-member cannot serve as a constituent in a syntactic construction is no criterion of a compound. Bloomfield (*Language* p. 232) argues that "the word *black* in the phrase *black birds* can be modified by *very* (*very black birds*), but not so the compound-member *black* in *blackbirds*". This argument holds for phrases as well. We could not modify the first elements of *black market*, *Black Sea* by *very*, yet the phrases are not compounds, as they do not enter the stress type of *blackbird*. A similar argument is used by Bloch-Trager (*Outline of Linguistic Analysis* 66) who point out that we cannot insert any word between *black* and *bird* as members of the compound *blackbird*. This is correct, but neither can we split up the group *black market* which is a double stressed syntactic group with a specified meaning.

2. 1. 10. For a combination to be a compound there is one condition to be fulfilled: the compound must be morphologically isolated from a parallel

¹ L. Bloomfield, *Language* (New York 1933) 228.

² E. Kruisinga, *A Handbook of present-day English*. Part II. Accidence and Syntax 3. Fifth edition (Groningen 1932) 1581.

³ Ch. Bally, *Linguistique générale et linguistique française*, Second edition (Bern 1944) 94.

⁴ MEG Part VI. Morphology (Copenhagen 1942) 8. 12.

⁵ A. M. Ball, *Compounding in the English Language* (New York 1939) and *The Compounding and Hyphenation of English Words* (New York 1951).

syntactic group. However much *the Holy Roman Catholic Church* or *the French Revolution* may be semantic or psychological units, they are not morphologically isolated: they are stressed like syntactic groups. *Blackbird* has the morpho-phonemic stress pattern of a compound, *black market* has not, despite its phrasal meaning; the latter therefore is a syntactic group, morphologically speaking. Stress is a criterion here. The same distinction keeps apart the types *stronghold* and *long wait*, the types *sharpshooter* and *good rider*, the types *bull's-eye* and *razor's edge*, the types *writing-table* and *folding door*.

2. 1. 11. On the other hand, there are many combinations with double stress which are undoubtedly compounds. Most combinations with participles as second-words belong here: *easy-going*, *high-born*, *man-made*. We have already pointed out their synthetic character. Being determined by first-words which syntactically could not be their modifiers, they must be considered compounds. The type *grass-green* has two heavy stresses, but again the criterion is that an adjective cannot syntactically be modified by a preceding substantive (the corresponding syntactic construction would be *green as grass*). The adjectival type *icy-cold* is isolated in that syntactically the modifier of an adjective can only be an adverb. The corresponding coordinative type *German-Russian* (*war*) is likewise morphologically distinct. The corresponding syntactic construction would be typified by *long, grey (beard)*, with a pause between *long* and *grey*, whereas the combination *German-Russian* is marked by the absence of such a pause.

Factors conducive to compounds

2. 1. 12. The most important type in which stress is morpho-phonemic is *rainbow*. As it has been the object of much discussion, it will here be given a somewhat detailed treatment. English has at all periods known and made use of this Germanic type of word-formation. The possibility of combining substantives is today as strong as ever. On the other hand, English has, for at least three centuries, been developing the syntactic group of the type *stone wall*¹ which has two stresses. While the coining of forestressed compounds continues, a new syntactic type has arisen which challenges the privileged position of the type *rainbow*. Though the co-existence of two types of substantive—substantive combinations has long been recognized, the conditions under which a combination enters the compound type *rainbow* or the syntactic group type *stone wall* do not seem to have been studied. Sweet, in his chapter on the stressing of compounds², has a few remarks on the subject, but otherwise the problem has not received attention. The following, therefore, can be an attempt only.

2. 1. 13. The most important factor is the underlying concept. Some concepts are invariably tied up with forestress pattern. The concept may be grammatical: when the verb/object or subject/verb relation is present, the combination receives forestress. Therefore the following are types of stable

¹ O. Jespersen, MEG I. 5. 33—37 and II. 13.

² H. Sweet, *A New English Grammar* (Oxford 1892) 889—932.

compounds: householder (*skyscraper, doorkeeper, caretaker*), housekeeping (*sightseeing, mindreading, childbearing*), rattlesnake (*popcorn, sob sister, crybaby*). The first-word is the object in the verbal nexus substantives *householder* and *housekeeping*. Combinations in which the underlying concept is the same though the formal type be different follow the pattern: *geography teacher, art critic, car thief*, related constructions such as *tea merchant, cloth dealer, leather worker, steel production, traffic control, money restrictions, fur sale, grain storage*. If the second-element has acquired the status of an independent word, the predicate/object nexus may have come to be blurred, as in *párty leáder, fúneral diréctor* which are stressed as syntactic groups. Again, a combination may step out of line, either because the verbal nexus is blurred or because the combination is too long: *contract violdtions, búsinéss administrátion, cóncert pérformánce* always have two stresses.

2. 1. 14. As a rule, combinations in which a verbal nexus is expressed have forestress. Most combinations with a verbal stem therefore are compounds: *showroom, payday, dance floor, playboy, sweatshop*. But in cases where the verbal stem is used in adjunctal function, i.e. has become a quasi-adjective, equivalent to a second participle, a situation similar to that in *stone wall* has arisen: the two constituents receive full stress. We say *roást beéf, roást mútton* etc., and *wáste páper, wáste lánd* are often heard though many speakers always give to these combinations the compound stress. The case is the same with combinations whose first constituents are *-ing* forms of a verb. Most combinations of the type *writing-table* are compounds because the underlying concept is that of destination (*looking-glass, frying-pan* etc.). But when the verbal *-ing* is apprehended as an adjunct, i.e. a participle, the combination is susceptible of being treated as a syntactic group: *Flying Dutchman, flying saucers, revolving door*. However, other combinations have forestress owing to the idea of implicit contrast: *humming-bird*, with the frequent constituent *bird*, receives forestress to distinguish it from *blackbird, bluebird, mocking-bird*.

2. 1. 15. Other relations are of a purely semantic nature. The following cases involve forestress pattern. The underlying concept is that of purpose, destination: *theater ticket, freight train, bread basket, paper clip, reception room, concert hall, windshield, toothbrush*.

The signficante of the second-word is naturally dependent on that of the first-word: *windmill, watermill, water clock, motorcar, motorboat, steam engine, mule cart, sea bird, water rat, lap dog*.

The first-word denotes the originator of what is expressed by the second-word: *rainwater, rainbow, bloodstain, birth right, pipe smoke, smoke screen*.

The underlying concept is that of resemblance: *blockhead, bellflower, goldfish, horse-fish, iron-weed, silkweed, wiregrass*.

2. 1. 16. There are other, quite external factors conducive to forestress. The frequent occurrence of a word as second constituent is apt to give compound character to combinations with such words. The most frequent word is probably *man* (the reduction of the vowel and the loss of stress of *man* as a second-word is another result of the same phenomenon): *policeman, congressman, gunman, postman, milkman*. A few other words which are frequent as second consti-

tents of compounds are *ware* (*houseware, hardware, silverware*), *work* (*wood-work, network, wirework*), *shop* (*giftshop, candyshop, hatshop*), *store* (*bookstore, drugstore, foodstore*), *fish* (*bluefish, goldfish, jellyfish*). The forestress of such combinations is thus due to implicit contrast: each *-man, -shop, -store* word is automatically stressed on the first member to distinguish the combination from others of the same series. The case of *-girl* combinations is particularly interesting in this connection. Appositional combinations are usually syntactic groups with two stresses in English (*boy king, woman writer, gentleman-farmer*), but *servant girl, slave girl, peasant girl, gipsy girl* have contrastive forestress.

Syntactic groups

2. 1. 17. The criterion of the underlying concept may now be applied to the syntactic group type *stone wall*. The grammatical concept which involves syntactic stressing is that of adjunct/primary. Most coordinative combinations, additive as in *king-emperor, secretary-stenographer*, or appositional as in *gentleman-farmer, prince consort* have two heavy stresses. Here belong combinations with sex- or age-denoting first constituents as *man, woman, boy, girl, baby, embryo* except that, owing to contrast, *boy friend, girl friend, manservant, maidservant* have developed forestress. (It is perhaps interesting to point out that the sex-denoting pronouns *he, she*, as in *he-goat, she-dog*, form forestressed compounds, despite Sweet 904.) Combinations with first constituents denoting relational position, as *top, bottom, average, brother, sister, fellow* likewise have the basic stress pattern of the syntactic group under discussion.

2. 1. 18. Combinations with a first member denoting material are treated as adjunct/primary groups and receive two stresses: *gold watch, silver chain, steel door, iron curtain, cotton dress, silk stocking, leather glove, straw hat, paper bag* a.o.

2. 1. 19. Incidentally, the treatment of adjunct/primary combinations consisting of two substantives has a parallel in Turkish. Determinative substantive + substantive combinations all receive the determinative group suffix whereas coordinative combinations made up of two substantives do not. Turkish morphologically opposes *kadın terzi-si* (*kadın* 'woman', *terzi* 'tailor, dressmaker', *-si* = the determinative group suffix) 'women's tailor' to *kadın terzi* '(woman) dressmaker'. Coordinative groups in both languages are treated like syntactic groups of adjective + substantive.

Some borderline and other cases

2. 1. 20. Often two contradictory principles are at work; then one has to give way. Though material-denoting first constituents usually make a combination into a syntactic group, a frequently used second-word may obviate the result, as in *tinware, ironware, silverware*, or contrastive stress may interfere with the normal two-stress pattern of coordinative combinations, as in *fighter-bomber, girl friend, boy friend*.

2. 1. 21. When a substantive can also be interpreted as adjective, changed analysis may lead to change in the stress pattern. Though a hospital can be neither mental nor animal, we stress *méntal hóspítal, ánimál hóspítal*, as

against *sick roòm*, *poór hoùse*. Similar shifts occur also in a more fully inflected language such as German: *ein deutsches Wörterbuch*, *ein lateinisches Heft*, *die französische Stunde*.

2. 1. 22. Many forestressed compounds denote an intimate, permanent relationship between the two significates to the extent that the compound is no longer to be understood as the sum of the constituent elements. A summer-house, for instance, is not merely a house inhabited in summer, but a house of a particular style and construction which make it suitable for the warm season only. Two-stressed combinations of the type *stone wáll* never have this character. A syntactic group is always analysable as the additive sum of its elements. It is an informal, non-committal meeting, never a union of the constituents. This is a great advantage English enjoys, for instance, over German. German cannot express morphologically the opposition permanent, intimate relationship ~ occasional, external connection instanced by *súmmer-hoúse* ~ *súmmer résidence*, *Christmas tree* ~ *Christmas tráffic*. English, therefore, has acquired a substantive + substantive combination of a looser, casual kind for groups in which an intimate, permanent relationship between the significates is not meant to be expressed: *field artillery*, *world war*, *country gentleman*, *village constable*, *parish priest*, *city court*, *state police*, *home town*, *district attorney* and countless other combinations.

2. 1. 23. On the one hand, the possibilities of coining compounds are much more restricted than in German where any occasional combination of two substantives automatically becomes a onestressed compound (see 2. 1. 26). On the other hand, English compounds are much closer morphologic units which cannot be split up the way German compounds are. In German, it is possible to say, for instance, *hand- und elektrische Modelle* (Weltwoche, Sept. 26, 1947), clipping the *rainbow* type compound and leaving the adjective/substantive syntactic group intact. However, in English as well as in German, serial combinations like *house and shopowners*, *wind- and watermills* occur (Bloomfield, Language, p. 232 restricts them to German).

2. 1. 24. It is nevertheless often difficult to tell why in one case the language has created a compound while in another it has coined a syntactic group. Conceptually, *college président* is in about the same position as *opera dirèctor*, but the first combination is a syntactic group, the second a compound. Form is one thing, concept is another. On the other hand, the same morphologic pattern does not involve the same degree of semantic unity: *lipstick* is a closer unit than *reception roòm*. The morphologic criterion of a compound enables us to do justice to both form and concept.

Compounding and stress

2. 1. 25. A few words are required about the problem of stress with regard to compounding. With Stanley S. Newman¹ we accept three degrees of phonemic stress: heavy stress (marked '), middle stress (marked `), and weak stress

¹ Stanley S. Newman. On the Stress System of English, *Word* 2. 171—187 (1946).

(which is traditionally and perhaps more appropriately called absence of stress). As a combination of two independent words, basically speaking, a compound combines two elements which are characterized by presence of stress. Absence of stress in general indicates grammaticalization of a morphemic element (as in *police-man*, *Mac Dónald*, *Fitz-gérald*). The determinant has the heavy, the determinatum the middle stress. Thus the usual pattern is ' ' (e.g. *rainbôw*) which is also followed by combinations with a zero determinatum (*pickpòcket*). All substantival compounds show this pattern, with the exception of those whose first element is the pronouns *all* or *self*. Such compounds have double stress (e.g. *áll-souíl*, *áll-creditor*, *sélf-respéct*, *sélf-seéker*). Of adjectival compounds, only two types have the stable stress pattern heavy stress/middle stress: the type *cólor-blínd* (i.e. adjs determined by a preceding substantive, unless the underlying concept is that of emphatic comparison, as in *gráss-green*, where double stress is the rule) and *héart-breaking*. All other adjectival types are basically double stressed.

2. 1. 26. Bloch-Trager¹ posit four degrees of phonemic stress: loud stress, reduced loud stress, medial stress, and weak stress. They find reduced loud stress on the adjunct of a syntactic adjunct/primary group (*óld mán*) as well as on second-words of forestressed compounds (*bláckbírd*, *élevátor-òperator*) which are obviously not on the same level. The reduced stress on *óld* is rhythmically conditioned by the position of *óld* before a likewise heavy stressed word to which *óld* stands in the subordinate relation of adjunct. This is a syntactic phenomenon of stress reduction. No change of the underlying concept is involved in a shift from reduced to loud stress as no oppositional stress pattern ' ' ~ ' ' exists in the case of adjective/substantive combinations. So *óld mán* is really a free variant of *óld mán*. *Bláckbírd* is different: we cannot oppose *bláckbírd* to *bláck bírd* without changing the underlying concept. The stress pattern ' ' of *bláckbírd* is morpho-phonemic. The case of *élevátor-òperator* is similar. A combination of the type *hóuse-hólder* (discussed 1. 3) implies the stress pattern ' ' as morpho-phonemically relevant. Though in the particular case of *élevátor-òperator* we cannot oppose the heavy/middle stress to a heavy/heavy stress combination, we can conceive of other pairs where change of stress implies change of the underlying concept, as *Frénch téacher* 'a teacher of French' ~ *Frénch téacher* 'a teacher who is French' *réd hünter* 'one who hunts reds' ~ *réd hünter* 'a hunter who is red', *fát produéer* 'one producing fat' ~ *fát produéer* 'a producer who is fat'.

We must therefore assume a relevant degree of stress which distinguishes the phonemic non-heavy stress of *bláckbírd* and *élevátor òperator* from the non-phonemic non-heavy stress of *óld mán*. While we interpret the reduced loud stress as a positional variant of the heavy stress, we must consider the phonemic secondary stress of *bírd* and *òperator* as a middle stress. On the other hand, the degree of stress on the third syllable of independent *élevátor* and *òperator* is not different from that on *bírd* in *bláckbírd*: in either case we have a full middle stress. When these words become second elements of compounds, the intensity of the full middle stress is lessened and shifted to a light middle stress (which, for the sake of convenience, I will here mark ∨): *élevátor òperator*. This light

¹ B. Bloch-G. L. Trager, *Outline of Linguistic Analysis* (Baltimore 1942) 48.

middle stress is non-phonemic. We interpret it as the rhythmically predictable form assumed by the full middle stress in a position before or after a morpho-phonemic full middle stress. In composition, it occurs chiefly with compounds of type *aircraft-carrier* on the second-word of the determinant, the full middle stress being morpho-phonemically reserved for the determinatum. This full middle stress on the determinatum is morpho-phonemic as is also manifest in the behavior of German compounds: those having a compound determinant are stressed as in *Rathaus-keller* whereas those with a compound determinatum are stressed as in *Stadt-baurat* or *Reichs-innenminister* (the latter is the common pattern rather).

Compounds not dealt with in this book

2.1.27. Compounding occurs in all word classes. There are compound substantives, adjectives, verbs, pronouns, and particles (conjunctions and prepositions). The strongest group is that of substantives. Next come compound adjectives, then verbs. There is a small group of compound pronouns (the pronominal adverbs included), conjunctions and prepositions, which is naturally restricted. As compounding here serves grammatical rather than lexical purposes, we have not dealt with them.