



## STRESS PLACEMENT ON PHRASES AND COMPOUNDS IN ENGLISH

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### Abstract

The three types of stresses namely “word stress,” “compound stress” and “phrasal stress” are the key elements to determine the exact means of conveying a specific intent in an utterance. Therefore during perception and production of such meaning-carrying codes, being able to use the right stress pattern is vitally important to establish the intended communication, or the language learning and teaching technique to be followed. This research investigates the learner’s ability to perceive, distinguish and produce the meaning differences between words, phrases and compounds during L2 acquisition through various stress patterns. In such contrastive patterns as ‘HOT ,dog (type of food) [compound] vs. ,hot ‘DOG (hot canine) [phrase]’ and “a ‘GREEN ,house (a building made of glass for growing plants inside) [compound] vs. a ,green ‘HOUSE (a house which is painted green) [phrase] the difference in the stress placement is a clear indication of meaning changes expressed. Compounds have primary stress on the first word and on those following them they have secondary stress. In the compound ‘GOLF ,ball, the first word has primary stress and the following the secondary stress. As for phrases, however, their qualified elements i.e. the words second in line are stressed more prominently. Therefore the acquisition of such a distinction in stress patterns in phrases and compounds is very important for learners of English in order to analyze what is said and convey their meaning more precisely in their oral communication. Natives make little mistake in distinguishing between the two because they are consciously familiar with them from their childhood on in their immediate environment. We, as language teachers, can and must help our student to acquire this skill by teaching them special stress paradigms, and allow them to compare minimal pairs using pictures representing a compound word or a phrase and asking them to tell the difference between the two. Students can hear a prerecorded tape with the names of the items, and be asked to indicate which one it is that they’ve heard. Such words may be marked with capitalized letters in relevant syllables or phonetic transcriptions with suprasegmental features to show relevant stress patterns with primary or secondary stress where necessary. These drills may also include many other activities until we are satisfied of their performances. Thus our students having full consciousness of the meaning-determining feature of stress placement in compounds and phrases are eventually able to understand and convey their intended meaning more clearly.

**Key words:** stress placement, L2, compound, phrase, transcription

### Background of the issue of stress placement on phrases and compounds

Throughout this century the stress patterns on oral expressions (specifically compound words and phrases) somehow a direct consequence of their syntactic structure are in question (usefulenglish, 2017). Numerous pedagogical resources on ESL/EFL pronunciation advocate teaching nonnative speakers (NNSs) suprasegmentals to improve the intelligibility of their speech (ibid). There are many instances that some foreigners speak English with perfectly intelligible consonants and vowels and with standard grammatical forms, and yet the native have the greatest of difficulty in understanding them because of the speakers’ lack of using suprasegmental elements in their oral utterance (ibid).

Moreover, such mispronunciation may cause misinterpretation and potential discomfort devaluing the speaker’s effort in oral communication irrespective of their fairly good grammar. Emphasizing on proper intonation in L2 teaching contributes to a high percentage to the total intelligibility of the speaker’s speech (Damar, 2014).

McNerney and Mendelsohn (1992) claim that a short term pronunciation course should focus first and foremost on suprasegmentals as they have the greatest impact on the comprehensibility of the learner’s English. Thus giving priority to the suprasegmental aspects of English not only improves learners’ comprehensibility but is also less frustrating for students because greater change can be effected by such a priority in their teaching.

This argument has been supported by works of Brazil (1994), Coulthard (1994), Pennington and Richards (1986), Celce-Murcia, Brinton and Goodwin (1996) and many other phoneticians. Stress placement on compound words and phrases have also been the topic of research by several researchers such as Kubozona, Quirk et al (1985). They have dealt with the issue of Blending Phonological



Headedness as well as Phonological Headedness of English compound words and noun phrases to explain the paradigms of Stress Placement in English Blending words (Liu, 2017). Quirk et al. (1985) suggested that stress pattern of blend forms tends to follow that of the rightward source word. According to Kubozono and Quirk et al. (1985), phonological headedness in English blending words should be rightward.

However, Tzakosta and Weijer (2006) pointed out that phonological headedness depends on different degrees of stress: accented syllables are head while unaccented syllables are nonheads. According to this definition, we can say that headedness of English compound words is leftward (stressed), while headedness of English noun phrases is rightward (stressed) (ibid). While some have contended that the stressing of phrases and compounds in English is impossible to master in a nativelike way.

However, some others like Giegerich (1992) have adopted the view that the compound-phrase distinction is not that robust and that the stress criterion, commonly invoked in attempts to draw the compound-phrase distinction in English, is even less reliable than previously thought. It not only fails to correlate with other (semantic, syntactic) criteria for compound status, but also draws on incomplete and deeply flawed generalizations regarding stress in compounds and phrases. Some phoneticians like Gero Kunter (2011) adopt the terms “left prominence” and “right prominence” instead of “compound stress” and “phrasal stress”.

### **The distinction between phrasal vs. compound stresses**

Stress in English compound words poses difficult problems for foreign learners. English does not seem to be at all consistent in the way it treats compounds and phrases, either from the point of view of writing or from the point of view of pronunciation and especially stress.

If we look at how this uncertainty and inconsistency arises we can perhaps understand better the difficulties (McMahon, 2002). If we look beyond the principles of word stress to the principles of accent placement, and in so doing pay attention to the information structure of compounds, we can obtain valuable guidance about stress placement in such words (Vogel, 2001).

It is notoriously difficult to know how to stress English compound words. This is partly because we cannot easily define what a compound word is, and partly because it is not simply a question of stress but also of accent. The latter involves a significant combination of both stress and tone and serves to highlight what is regarded as “new” or important information in a particular group of words or tone group. If we look beyond the principles of stress to the principles of accent as well, we are in a better position to try and explain the stress of compound words in English (Roach, 2013).

Compound nouns generally have a primary stress on the first element but with a secondary stress on the second constituent: *'EARTH*quake, *'LIFE*boat, *'WAIT*ing room, *'FIRE*-ex*'*tinguisher. Contrasting the compounds with the corresponding noun phrases we come up with such pairs in sentences: "That sounds like a *'BLACK*bird . [compound], and "A carrion crow is a completely *black* *BIRD*. [n. phrase]. Similar compound / phrase contrasts can also be found in the following examples: “*'BLACK*board [C] vs. *black* *BOARD* [NP]”; “*'GREEN*fly [C] vs. *green* *FLY* [NP]”; “*'HOT*house [C] vs. *hot* *HOUSE* [NP]” (ibid).

The stress often shifts from the second to the first element when the compound is being used attributively in a noun phrase. This is analogous to the redistribution that occurs in compounds like “*'LIGHT*house-keeper vs. *lighthouse*-*'KEE*Per”. Or in these contrastive examples: “*The room is down* *STAIRS*. vs. a *'DOWN*stairs room” -- “*His work is first* *CLASS*. vs. *his* *'FIRST* class work”, “*The water is knee*-*'DEEP*. vs. *'KNEE*-deep in water. ” (ibid)



The stress distribution provides a firm basis for distinguishing between different underlying relations, not so much between compound and phrase as between different semantic relations (ibid): a 'BULL-fight involves bulls, and a ,bull 'CALF is a young bull. a 'FRENCH ,teacher teaches French, but a ,French 'TEACHer is French. A 'SLATE ,quarry yields slate. and a ,slate 'ROOF is made of slate. A 'TOY ,factory produces toys, but a ,toy 'FACTory is a model of a factory used as a toy (ibid). As for the compound nouns, the stress is on their first part, e.g. 'BLACK ,bird and 'RAIL ,road. The compound adjectives have the stress is on the second part as in ,bad- 'TEMpered and old- 'FASHioned. The compound verbs have the stress on the second part as in to ,under 'STAND and to ,over 'FLOW. A compound word consists of two or more lexical components each of which can stand alone as separate words. Thus corn and field can combine to produce 'CORN%field (a field where corn is grown), kick and back produce 'KICK%back (money that someone kicks back to someone as a bribe). out and house give 'OUT%house (a smaller house located outside a larger house, often containing a primitive toilet); tens of thousands more examples like these can be found in literature (ibid).

English strongly favors compounding. In terms of stress placement, most of the English compounds strong-stress the left component of the compound such as 'AFTER ,birth, 'AIR ,base and 'BAS ,ketball. Indeed, about 90 percent of all compounds written as single words strong-stress the left component (Teschner, 2004). But the remaining 10 percent do not, strong-stressing instead the right-hand component though giving the appearance of strong-stressing both components equally. Here are five some of such exceptions having right-strong-stressing compounds: ,after 'NOON, ,back 'YARD, ,black 'CURRant, ,broad- 'MINDeD and ,buck 'TEETH.

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Many have contended that it is impossible to master the skill of stressing compounds and phrases properly in a nativelike way. Giegerich (1992) on the other hand looks at the issue from another perspective. He tries to prove that the compound-phrase distinction is not that robust and that the stress criterion, commonly invoked in attempts to draw the compound-phrase distinction in English, is even less reliable than previously thought (ibid).

As for the determination of prominence in a compound, Roach (2013) suggests that if the first part of the compound is (in a broad sense) adjectival, the stress goes on the second element, with a secondary stress on the first.

For example: ,loud 'SPEAKer, ,bad- 'TEMpered, ,second- 'CLASS and ,three- 'WHEELer.

If, however, the first element is (in a broad sense) a noun, then the stress goes on the first element. Examples: 'TYPE ,writer, 'CAR- ,ferry, 'SUN ,rise, 'SUIT ,case and 'TEA- ,cup.

Roach (2013) is however fairly cautious about these 'rules', but states in this way that they are genuinely helpful to teachers and learners alike. Tayler (1991) suggests that by following the predictability and information-conveying feature of either part of the compound stress is determined. Thus 'PARK ,Street, as opposed to 'PARK ,Avenue, 'PARK ,Road, or 'PARK ,Place.

Street is the more common and predictable term in these cases, and is thus de-accented as opposed to the less common terms such as ,place, ,square, ,terrace, ,grove, ,lane, ,avenue, and many others which are all accented.

It is interesting to note, however, that many compounds marked by Kingdon (1958) as having 'double primary stress' is nowadays considered as having one primary and secondary stress.

Although Kingdon marks the following words, among others, with double stress, most speakers today would probably distinguish the primary and one secondary stress on them:



'FARM house, 'BOX office, 'SEA level, 'TISsue paper, 'BOA constrictor, 'VACuum cleaner, 'COLD cream, 'SIX shooter, 'SLEEPing partner, 'FLYing fish, 'SMALL holder, 'PUBLIC school, 'TRAVeller's cheque, 'STAGE manager, 'WEEK end, 'WARrant officer, 'SUGar beet, and 'MAIDen name.

What seems to be happening is that sometimes speakers tend to have some difficulty in recognizing a compound in the first place. One could say that they are treating the compounds as two separate words and stressing them accordingly. In this they are perhaps often led (or misled) by the spelling, but not always as in the case of 'MAKE- believe, 'HOSE pipe and 'GRAND mother).

Sometimes the contrasts are so clear that one cannot but help stressing the relevant item when one talks about it: a 'DANCing teacher vs. a dancing TEACHER, a 'YOUNG GERMan teacher vs. a young GERMAN teacher or an 'ENGLISH student vs. an English STUDent.

To sum all this up very briefly, we can say that, in cases of doubt, if we look at which element of a compound carries most information, or is the most unpredictable, and place the accent on that element, we have a good chance of producing correct compound stress (Kunter, 2011).

### The structure of phrasal and compound stresses

According to Hayes (1995) the *word stress* is the strongest stress in a prosodic word. As for the *phrasal stress*, it is assigned beyond word stress in syntactic collocations of words, such as phrases, clauses, or sentences. Essentially like Bloomfield, for whom ICE-cream was a compound and ice CREAM a phrase, Liberman & Sproat (1992) drew the PS/NS distinction strictly along stress lines. Thus he suggests that placing stressing in relevant syllables of the word “girlfriend” as girl FRIEND having end-stress while for GIRL-friend with fore-stress would determine the intended meaning. As in the examples of such phrases like a green HOUSE [wS] (which is a house that is green), but a GREEN house [Sw]” (is a glass building for growing plants). Likewise a French TEACHER [wS] a phrasal meaning a teacher from France but a FRENCH teacher [Sw] who is a teacher of French is a compound word. Another example a woman DOCTOR [wS] is any female doctor, however a WOMan doctor [Sw] is a gynecologist.

This distinction can be attributed to the difference between compound and phrase in surface structure; hence the common names “phrasal stress” and “compound stress”. This is the analysis formalized in the Chomsky-Halle Compound Rule (1968) which presupposes a syntactic analysis such that “compound” is defined as a branching structure of the sort.

The treatment of cases like “STEEL warehouse vs. steel WAREhouse” under this analysis is somewhat obscure, since both seem to be noun-noun compounds.

Here, however, reference is often made to deep syntactic differences – i.e. “warehouse made of steel” vs. “warehouse for storing steel” - and, though details of such an analysis have never actually been worked out, the assumption continues to be held that ultimately the whole phenomenon will be shown to depend on syntax at one level or another.

While phrases tend to be stressed phrase-finally, i.e. on the last word, compounds tend to be stressed on the first element (Compounds vs. noun phrases, 2017).

This systematic difference is captured in the so-called nuclear stress rule (phrasal stress is on the last word of the phrase) and the so-called compound stress rule (stress is on the left-hand member of a compound) formalized in Chomsky and Halle (1968) as in these examples of noun phrases: the orange CARpet, this new HOUSE, such a good JOB, contrasted with these examples of the



nominal compounds: 'PAYment ,problems, ,instal'LAtion ,guide, 'SPACE ,requirement (Dalton, C. & B. Seidlhofer, 1994).

This systematic difference between the stress assignment in noun phrases and in noun compounds does lead to minimal pairs where it is only the stress pattern that distinguishes between the compound and the phrase: a 'BLACK ,board [C] (a board to write on) vs. a ,black 'BOARD [P] (a board that is black)– 'OPERating ins ,tructions [C] (instructions for operating something) vs. ,operating in 'STRUCTIONS [P] (instructions that are operating) –in 'STALLing ,options [C] (options for inst. sth) vs. ins ,talling 'OPTions [P] (the installing of options).

Given the correctness of the compound stress rule, another interesting problem arises how are compounds stressed that have more than two members? (Hayes, 1995). Consider the following compounds, their possible stress patterns, and their interpretations. 'MAIL ,delivery service – mail de 'LIVery service / 'STUdent ,feedback ,system – student 'FEEDback system / 'GOVERNment 'REVENue policy – ,government 'REVENue ,policy

The data at hand show that a certain stress pattern seems to be indicative of a certain kind of interpretation: A 'MAIL de ,livery service is a service concerned with 'MAIL de ,livery (i.e. the delivery of mail), whereas a ,mail de 'LIVery service is a de 'LIVery ,service concerned with mail. This is a small semantic difference indeed, but still one worth taking note of.

A 'STUdent ,feedback system is a system concerned with 'STUdent ,feedback, whereas a ,student 'FEEDback system may be a 'FEEDback ,system that has something to do with students (e.g. was designed by students or is maintained by students).

While the 'GOVERNment ,revenue policy is a policy concerned with the 'GOVERNment ,revenue, the ,government 'REVENue policy is a certain 'REVENue ,policy as implemented by the government. Many pronunciation teachers usually sum up the whole concept of compound and phrase stress in these five rules (compound words, 2017):

1. compounds combining two nouns have the stress on the first element. e.g. 'TYPE ,writer, 'SUN ,rise, 'TEA- ,cup, 'SUIT ,case
2. compounds with an adjectival first element and –ed at the end have stress on the second word.e.g. ,bad- 'TEMpered, ,heavy- 'HANDed...
3. compounds in which the first element is a number tend to have final stress.e.g. ,three- 'WHEELer, ,second- 'CLASS, ,five- 'FINGer...
4. compounds functioning as adverbs are usually final-stressed.e.g. ,head- 'FIRST, ,north- 'EAST, ,down 'STREAM...
5. compounds which function as verbs and have an adverbial first element take final stress.e.g. ,down- 'GRADE, ,back- 'PEDAL, ,ill- 'TREAT.

### The methodology of teaching phrasal and compound stresses

The teaching of compound and phrasal stress patterns to L2 learners is very important to increase their understanding of the spoken language and especially their oral performances. We can help them acquire such skills by getting them to know the basic elements of stress patterns and by drilling minimal pairs of such compound words or phrases and by asking them to distinguish between the two meanings.

Students may be exposed to some pictures and words on them referring to the names of the items, and be asked to indicate which one it is that they've heard. Words may be marked on the words with capitalized letters and with primary and secondary stresses shown on relevant syllables either as they are written ordinarily or in their IPA transcription. After many such examples, students acquire full



consciousness of the meaning-determining feature of stress placement in compounds and phrases and are able to convey their meaning more clearly.

### Minimal pair drills for phrasal and compound stresses

Minimal pairs are most convenient for the teaching of stress distinction. Students can look at these examples on the board, with the explanations given from the loudspeaker and try to guess which item is meant by the relevant stress pattern (minimal distinctions, 2017):

a 'WHITE board [C] (a board to write on) vs. a ,white BOARD [P] (any board that is white) – a 'WHITE house [C] (a house that is painted white) vs. the ,white HOUSE [P] (where the U.S. president lives); 'RED socks [C] (ordinary red socks) vs. ,Red SOX [P] (Boston's baseball team) – a 'WET nurse [C] (a woman hired to suckle another's infant) vs. a ,wet NURSE (a nurse who has gotten wet) – ad 'MISSsible evidence (evidence that is admissible) [C] – auto 'MATic pilot (a pilot that is automatic) [C] – 'BAKED beans (beans that are baked) [C] – 'BIG business (business that is big) [C] 'BLACK sheep (a sheep that is black) [C] vs. ,black SHEEP [P] (a worthless or disgraced member of a family)

The following listing (stress in speech, 2017) contains only phrases, and one can tell this by their having metaphorical sense and stress on the second part of the statement, which is a clear criterion for the learners to observe while distinguishing phrases from compounds:

an ,arm and a 'LEG [P] (a large, possibly exorbitant, amount of money) – ,bad 'EGG [P] (someone or something that disappoints expectations) – the ,big 'APPLE [P] (nickname for New York, USA) – to ,break the 'ICE [P] (to break down social formality and stiffness) – ,carbon 'COpy [P] (an exact duplicate) – ,crocodile 'TEARS [P] (insincere show of sorrow) – ,cut the 'MUStard [P] (to come up to expectations) – ,drop in the 'BUCKet [P] (a very small proportion of the whole) – ,funny 'FARM [P] (mental institution) – ,guinea 'PIG [P] (a person or animal who is used as the subject of an experiment) – ,ivory 'TOWer [P] (a state of sheltered and unworldly intellectual isolation) – ,mum's the 'WORD [P] (keep quiet - say nothing) – ,old 'HAT [P] (old-fashioned; hackneyed) – ,paint the ,town 'RED [P] (engage in a riotous spree) – ,paper 'Tiger [P] (a person who appears to have power but is in reality ineffectual) – ,sacred 'COW [P] (something too highly regarded to be open to criticism or curtailment) – ,sick 'PUPpy [P] (someone who behaves oddly) – ,son of a 'GUN [P] (a rogue or scamp) – ,swan 'SONG [P] (a final gesture or performance, given before dying or retirement) – ,well 'READ [P] (erudite and literate) – ,yellow 'BELLY [P] (a coward).

Then students are given another listing of compounds vs. phrases and are asked to read them aloud making sure that both primary and secondary stresses are placed on their right places.

“ge, ologist - as 'TROnomer vs. ge 'Ologist - as, tronomer” – “apple 'PIE vs. 'APple ,pie” – “scholar- 'ACTivist vs. 'SCHolar-, activist” – “apricot 'CRUMble vs. 'Apricot ,crumble” – “Michigan 'HOSpital vs. 'MICHigan ,hospital” – “Madison 'AVenue vs. 'MADison ,avenue” – “Boston 'MARathon vs. 'BOSon ,Marathon” – “Penny 'LANE vs. 'PENny ,Lane” – “summer 'NIGHT vs. 'SUMmer ,night” – “a ,luminum 'FOIL vs. a 'LUMinum foil” – “May 'FLOWers vs. 'MAY flowers” – “silk 'TIE vs. 'SILK tie” – “'FOUNtain ,pen vs. ,fountain 'PEN” – “'HOSE ,pipe vs. ,hose 'PIPE” – “'FAULT ,finding vs. ,fault 'FINDing” – “'MAKE-, believe vs. ,make-be 'LIEVE” – “'ENGLISH ,teacher vs. ,English 'TEACHER” – “'BUS con, ductor vs. ,bus con, DUCTor” – “'ENgine ,driver vs. ,engine 'DRIVER” – “'DINing ,room vs. ,dining 'ROOM”.

Finally students are asked to read some sentences containing minimal pairs of compound and phrases to make sure that the meaning intended is crystal clear by themselves and the audience (Compounds vs. noun phrases, 2017):

A 'BULL-, fight involves bulls; but a ,bull 'CALF is a young bull. – A 'TURKISH ,teacher teaches Turkish. but a Turkish 'TEACHER is Turkish. A 'SLATE ,quarry yields slate; but a ,slate 'ROOF is made of slate. A 'TOY ,factory produces toys. but a ,toy 'FACTory is a model of a factory used as a



toy. I told you he was a *bank* CLERK, and NOT a *bank* PRESident. Just the one *air* BASE is under attack, and NOT the whole *air* FORCE. I wanted them to come in the *BACK* door, and NOT the *FRONT* door. I wanted them to come in the *back* DOOR, NOT the *back* WINDOW. They told me they wanted *APPLE* pie, and NOT *PUMPKIN* pie. They told me they wanted *apple* PIE, and NOT *apple* CIDER.

## Conclusion

The basic general characteristics of compound and phrasal stresses are that compound stresses are right-headed and inherit their major properties from their head. Furthermore, compounds exhibit a regular compound-specific stress pattern differing systematically from that of phrases. As for the phrases they are stressed on their second parts, in other words, they have their prominence on their last part. There are basically five elements summing up the compound and phrase stress rules:

1. compounds combining two nouns have the stress on the first element.e.g. *TYPE* writer, *SUN* rise, *TEA*-cup, *SUIT* case
2. compounds with an adjectival first element and –ed at the end have stress on the second word.e.g. *bad*-TEMpered, *heavy*-HANDed
3. compounds in which the first element is a number tend to have final stress. e.g. *three*-WHEELer, *second*-CLASS, *five*-FINGER
4. compounds functioning as adverbs are usually final-stressed.e.g. *head*-FIRST, *north*-EAST, *down*STREAM
5. compounds which function as verbs and have an adverbial first element take final stress.e.g. *down*-GRADE, *back*-PEDAL, *ill*-TREAT. Natives make little mistake to distinguish betw. the two because they are naturally familiar with them. Therefore the teaching of such stress patterns to learners of English is very important for their progress in pronunciation skills. Such features can be taught them by exercising on a listing of minimal pairs or pictures representing a relevant compound or a phrase and asking them to distinguish between the two. Students hearing a prerecorded tape with the names of the items learned may be asked to indicate which one it is that they've heard. The relevant syllables of the words may be marked with capitalized letters or their phonetic transcriptions may have suprasegmental features on them. Students can also be exposed to some sentences having these elements in them to distinguish meaning differences based on stress distinction. Thus the present study will serve its purpose to bring an awareness in students for the distinction between compound and phrasal stress patterns of the English language in order to express their meaning more clearly.

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