Phonology and morphology

Phonology and Morphology correlate with each other lexically and grammatically. Phonology is essentially the description of the systems and patterns of speech sounds in a language. Morphology is the study of words in a language. The interplay between the two categories has a mutual effect in the process of word formation. The relationship between the two systems can be attributed to Morphophonemics which is a branch of Linguistics that delves into the interaction between morphological and phonological components of a language. The phonological and morphological operations embedded into this field of linguistics lay emphasis on the sound changes that take place in morphemes when they coin words. In fact the significance of morphophonemic structure springs from a word's pronunciation which can mainly be ascribed to morphological factors. But morphophonemic constituent of a word is discussed in relation to two spheres, i. e. morphemic boundaries within the confines of phonemic structure. Apparently the changes that morphemes undergo in the values of phonological features should be taken into account within the perspective of word formation. The word formation process which marks the combination of morphemes under the influence of phonology is rule governed and has a considerable impact on many facets of morphophonemic manifestations. Further these rules may pave the way to have access to a morphophonemic analysis through which we seek to establish a connection between data and theory. The theory underlying this phenomenon states that morphemes are stored in the lexicon in an invariant phonemic form. They are clasped together by morphological and syntactic rules. Thereupon the morphemes recorded in the speaker's lexicon in a given environment are converted by rules into a surface form. These surface forms can be viewed in terms of linguistic data based on a

system of underlying units called morphophonemes. The intersection of morphology and phonology gives rise to the term " morphophoneme" and it denotes the phonological variations in morphemes. These phonological variations form phonologically conditioned allomorphs which are the members or the variants of a morpheme. On the other hand it derives the empirical generalization that allomorph selection is always opaque with phonology, conditioned by the competing allomorphs. Nonetheless the interface between phonology and morphology is such convincing that it yields a concatenation of words. Morphophonemic rules have the form of phonemic rules restricted to a particular morphological environment. Within these rules we can find each morpheme that alternates through which we locate all of its allomorphs. All these allomorphs possess particular segments which undergo changes. Moreover these allomorphs are derived from a single underlying representation by general phonological rules. So it is patent that a language's morphophonological structure is generally described with a series of rules which ideally can predict every morphophonological alternation that takes place in the language. For example the plural morpheme written as "-s" or "-es" which represent three allomorphs /s/, /z/ and /iz/ gives way to a morphophonological alternation in English language. When two or more instances of a given morpheme occur with different shapes they are termed as " allomorphs". The occurrence of the above three allomorphs in English is predictable in terms of the phonological ending of the base form of the noun. This kind of predictability is called phonological conditioning. The phonological realization of the plural morpheme or the morpheme alternants or the allomorphs is categorized according to their manner of articulation and voicing aspect. The rules

regarding the formation of plurals are as follows. /s/ occurs after the singular forms of nouns ending in voiceless consonants except the sibilants and affricates. Examples: cat-/s/, map-/s/, rack-/s/ /z/ occurs after the singular forms of nouns ending in voiced consonants or vowels except the sibilants and affricates. Examples: dog-/z/, shade-/z/, pub-/z/ /iz/ occurs after the singular forms of ending in the sibilants and affricates. Examples: witch-/iz/, hedg-/iz/, brush-/iz/ In some words the plural form is projected through the phonological modification such as a change in the vowel of the noun as in " tooth" " teeth". Here the morphemes get infused into one another and the allomorph which shows this process is called a " process allomorph". ' Zero realization rule' in making plurals is noteworthy in the sense that it has no plural marker at all. As shown in the words " sheep" " deer" the allomorph of the plural morpheme is depicted as /Ç¿/. Exclusively the plural suffix "-s" has an impact on the form taken by the preceding morpheme, as in the case of the words ' leaf' and ' knife' which end with /f/ in the singular and end with /v/ in the plural forming the words ' leaves' and ' knives'. On a morphophonological level these morphemes may be analyzed as ending in a morphophoneme /f/, which becomes voiced when a voiced consonant i. e. /z/ is attached as the plural marker. Thus it is evident that the allomorphs used in plurals are the actual forms derived from the abstract form of a morpheme and are essentially determined by the phonological components of the relevant word. Apart from this there is a set of formal rules which successfully predict the sound changes occurring in Past Tense. They too convert theoretical underlying representations into surface forms which are actually heard. The abstract form of the Past Tense morpheme is physically realized by three types of allomorphs namely /t/, /d/ and /id/. A purely

phonological analysis may have assigned to these three endings the phonemic representations they evince. In accordance with morphophonological rules the Past Tense morpheme "-ed" underlies all these three allomorphs. The different forms it takes according to the phonological aspect of the word are as follows. The allomorph /t/ occurs if a verb ends in a voiceless sound other than /t/. Examples: jump /t/, pack /t/, hope /t/ The allomorph /d/ occurs if a verb ends in a voiced sound other than /d/ Examples: clean /d/, hug /d/, bob /d/ The allomorph /id/ occurs if a verb ends in a /t/ or a /d/ Examples: add /id/, paint /id/, mend /id/ It is crystal clear that phonology plays an integral part in morphological components in responding to the changes undergone by morphemes. Thus the set up of the linguistic branch morphophonemics comes to light. The rule of ' assimilation' may further explore the phonemic interference in combining morphemes in the process of word formation. This rule can be clarified in terms of ' negative formation morpheme'. The allomorphs pertaining to the negative formation morpheme are /im/, /in/, /iŋ/,/il/,/ir/ etc. Among these allomorphs the three allomorphs /im/, /in/, /iŋ/, are explained under the rule of " Partial Assimilation" and the two allomorphs /il/,/ir/ are defined under the rule of " Complete Assimilation". Partial Assimilation /im/ possible /im/ movable /in/ tolerable /in/ decent /iŋ/ gratitude /iŋ/ corrigible /p/ and /m/ in possible and movable are bilabial sounds. Hence is the prefix in the form of allomorph /im/ which has bilabial /m/ attached. /t/ and /d/ in tolerable and decent are alveolar. So the prefix in the form of allomorph /in/ which has alveolar /n/ is attached. /g/ and /k/ in gratitude and corrigible are velar. To indicate the negative aspect of them the prefix in the form of allomorph /iŋ/ which has velar /ŋ/ is attached. Thus this morphophonemic rule further substantiates

the relationship between phonology and morphology. Complete Assimilation /in/ literate - illiterate /in/ mortal - immortal /in/ regular - irregular The morphemic change occurs here is such that the last consonant of the prefixal morpheme undergoes a complete assimilation which changes it into a phoneme identical with the starting phoneme of the word root. The influence of phonology on morphology is further emphasized through this rule. ' Dissimilation' is a process which is in flat contradiction of the above mentioned process of' Assimilation'. According to this rule, two phonemes form two different morphemes, most often the last of prefix and the first of the root are dissimilated in such a way that they are no longer the same phoneme, but the first one is changed into a different one. Examples: 1. /in/ noble — innoble > ignoble 2. /in/ nominy — innominy > ignominy Thereupon the interaction between phonology and morphology is essential in many aspects of word formation with regard to morphemic changes. This linguistic branch of language incorporates more morphophonemic rules other than the above discussed. Some of them are " Synthesis", " Simple consonant change", " Gradation", " Ablaut", " Loss of the Phonemes" and " Addition of the Phonemes". All of these morphophonemic rules stand for the interaction between phonology and morphology. As discussed in the above analysis phonologically conditioned morphological components play an integral part in the process of the interaction between phonology and morphology