WE TURN NOW TO our analysis of the riddle as language. Our point of departure for this analysis will be an examination of wit and ambiguity in riddles. For it seems that a basic problem in the consideration of the riddle is that the riddlee is (or should be) incapable of solving riddles posed by the riddler. That is, there is a block element (see p. 73), or what appears to be unsolvable opposition, contained within the composition of the riddle. It will be our contention that this block element is directly related to the notion of ambiguity in two senses. First, there is often linguistic ambiguity, i.e., ambiguity in the grammatical form of the riddle. Second, there is contextual ambiguity, i.e., ambiguity produced through a conscious manipulation of social decorum that results in disorientation or confusion of the riddlee, within the riddle act itself. Thus, the riddler attempts to outwit the riddlee by presenting ambiguities that the riddlee cannot resolve. The notion of “wit,” or of “being outwitted,” then, can be equated with the riddlee’s inability to resolve these ambiguities. Our goal is to define the particular aspects of wit that correlate with the two senses of ambiguity we have characterized, as they relate to the riddle.

We shall deal first with the strictly linguistic notion of ambiguity. Ambiguity, in this sense, refers to the situation that obtains in language when two or more different under-
lying semantic structures may be represented by a single surface structure representation. The nature of this surface representation is such that the actual utterance (i.e., the phonological form) of the ambiguous structure is identical in both or all of its semantic interpretations. However, this correspondence of surface forms may have several sources. That is, this correspondence may be the result of linguistic processes that occur at the phonological, morphological, or syntactic levels of grammar.

To clarify this claim, we shall exemplify these three types of ambiguity in ordinary conversation. In ordinary speech ambiguity is considered to be a linguistic accident, i.e., it is not planned. Such an accident may occur at any of the three levels we have specified. So, for example, consider sentence 1.

1. John lives near the bank.
The ambiguity here lies in the word bank, in that it may refer to a building, a mound of earth, or the sloping earth on either side of a river. Such an ambiguity is purely a surface phonological one, in that we are dealing with three separate lexical items that have identical phonological forms, /bæŋk/.

These three lexical items are all the same part of speech, nouns, and differ only by semantic features.

This type of ambiguity is to be distinguished from the type exhibited in sentences 2 and 3.

2. The book is red.
3. The book is read.
The phonological forms of these two sentences are identical, with the ambiguity lying in the utterance of the item /red/. But we can see here that the reason for the correspondence of the surface forms is quite different from that of sentence 1. That is, in sentence 1 we had three lexical items, all nouns, with identical phonological forms. In sentences 2 and 3, however, we find that the underlying difference of the two identical surface structures stems from the morphological level of grammar. Thus, in sentence 2 /red/ is a simple lexical item, an adjective. But in sentence 3, the surface form /red/ must be interpreted as the verb /riyd/ plus its past participle morpheme, which in the case of this irreg-
ular verb consists of a vowel change from /iy/ to /e/. Therefore, the semantic difference between the identical phonological forms of sentences 2 and 3 is not the result of a mere correspondence of the phonological forms of independent lexical items, but rather of an identity that results from a process of English morphology.

Finally, ambiguity may result from processes that take place at the syntactic level of grammar. Let us consider first sentences like sentence 4.

4. Sam looked over the car.

The ambiguity in sentence 4 rests on the syntactic classification of over. For in underlying structure, over may function as a preposition that takes a noun object (figure 3), or as a particle which is part of the verb phrase (figure 4). In the former case, sentence 4 indicates an action whereby Sam cast a glance in a manner such that his line of vision was above the level of the car; in the latter case, sentence 4 indicates that Sam studied the car. It is necessary to show that the surface ambiguity of over is not merely phonological,
and that the difference in this case is indeed syntactic. This can be shown if we disambiguate sentence 4 in the following way. Notice that it is possible to move the particle "over" to the end of its clause in figure 4, yielding sentence 5.

5. Sam looked the car over.

This sentence is unambiguous and means only that Sam studied the car. That is, sentence 5 cannot have the meaning connected with the underlying structure in figure 3. We see, then, that although the particle "over" may be moved to the end of its clause (by a transformation called Particle Movement), the same is not true of the preposition "over." The fact that the lexical items pronounced /owvar/ do not act alike syntactically proves that they are different kinds of syntactic constituents and therefore participate in different kinds of syntactic relationships. This type of syntactic ambiguity, in which two different underlying syntactic constituents have the same phonological form, we call phrase structure ambiguity, since the syntactic difference is revealed in the underlying trees, or phrase structure syntactic configurations of the ambiguous constructions.

Another kind of syntactic ambiguity results when the application of transformations to two different underlying
structures results in homophonous surface structures. For example, consider sentence 6.

6. Who do you expect to marry?
This sentence is multiply ambiguous. Let us consider two of the possible readings and their sources of ambiguity. On one reading, sentence 6 is asking about your expectation of another person marrying some unidentified third party (figure 5). On another reading, sentence 6 is asking for the identification of the person with whom you intend to enter into marriage (figure 6).

It is immediately apparent that the underlying structures in figures 5 and 6 are substantially different. However, the nature of the transformation that produces questions in English (called Question Formation) has the effects on both

**Figure 5**

```
S1
   NP
     you
   VP
     expect

S2
   NP
     who
   VP
     marry
     NP
       some
```
underlying structures of moving the interrogative pronoun "who" to the front of the entire structure. Then in figure 6, a transformation called Unspecified Pronoun Deletion allows the indefinite (i.e., unspecified) pronoun "someone" to be deleted from object position in $S_2$. The results of these separate derivations are identical, yielding homophonous surface structures of the form in sentence 6.

Thus we see that ambiguity in ordinary speech may have three sources. It should be noticed that we avoid the term semantic ambiguity, since in fact all ambiguity is by nature (and definition) semantic. Our concern here has been to explain the grammatical relationships that obtain between underlying (semantic/syntactic) structure and surface (phonological) structure, and which may result in ambiguity.
We proceed now to an examination of how linguistic ambiguity is exploited in the riddle genre to produce wit. That is, we shall explore how these three types of ambiguity, which are considered accidents in ordinary speech, may be consciously manipulated in riddling. We shall see how the riddler, in creating ambiguity in the form of the riddle, has a double advantage. First, only he knows where in the composition of the riddle an ambiguity exists. Second, only he knows at what linguistic level this ambiguity exists.

In dealing with linguistic ambiguity in the riddle, we note one important consideration for such a study. Since language is, as we have seen, a communication system composed of three subsystems that are designed to actualize semantic information, it is inevitable that these subsystems will interact. That is, a given riddle may simultaneously employ ambiguity at more than one linguistic level. In such cases, it is pointless to debate which level of ambiguity is more basic, since there are no criteria for making such a determination. It is, nevertheless, necessary to note and classify such interactions, since we are concerned with characterizing linguistic aspects of wit in the riddle. Therefore, we shall deal first with each linguistic level in relative isolation, detailing how it may be exploited in riddling. Our secondary concern will be how the interactions of various of the three levels also serve to create ambiguity.

We begin at the phonological level, with an examination of lexical ambiguity in the riddle. There are two basic exploitations of this type of ambiguity, the first of which is seen in riddles like those in sentences 7, 8, and 9.

8. What has a mouth but does not eat? River.
9. What has an eye but cannot see? Needle.

In each of these cases, the ambiguity is caused by the fact that two different lexical items have identical phonological form. Thus, /tarm/, /mawg/, and /ay/ may each have at least two different referents.

Aside from this possibility of different lexical items having identical phonological form, the underlying structures involved in the various interpretations of the riddle ques-
tions in sentences 7, 8, and 9 are identical. For example, the underlying structure of sentence 7 is roughly similar to figure 7. This structure specifies that some indefinite NP performs the action of turning (S₁), but does not perform the action of moving (S₂). That this indefinite NP is the same in both S₁ and S₂ is indicated by the subscript marker \(_i\). That the verb in S₂ is negated is indicated by the marker \(\text{NEG}\) that is attached to S₂. The actual series of transformations that derives the surface question from the underlying structure involves basically three operations. First, the NP “something,” in S₂ can be deleted since it is identical with the NP “something,” in S₁. This transformation is common in English when one NP is the subject of two or more verbs. So, for example, in a sentence such as \(\text{Joe likes dogs and Joe likes cats}\), we may eliminate the second occurrence of Joe (and of likes, as well), giving \(\text{Joe likes dogs and cats}\). The application of this transformation to figure 7 results in a structure like \(\text{Something turns but does not move}\). The transformation called Question Formation then changes the indefinite NP “some-

Figure 7

![Diagram](image_url)
thing" into the corresponding interrogative pronoun, namely "what," yielding the surface question of sentence 7.

Regardless of which semantic interpretation we choose for the lexical item "turn," the syntactic, morphological, and phonological processes involved in forming a question from figure 7 are identical. That is, since the only variable in the differing interpretations of the question in sentence 7 is the semantic marking of the verb "turn," it is here that the ambiguity of sentence 7 is to be found.

Whereas the ambiguity of sentence 7 rests on the interpretation of a verb, that of sentence 8 is to be found in an ambiguous noun. Thus, the underlying structure of sentence 8 is roughly similar to figure 8.

The deletion of identical subject NPs discussed above yields a structure _Something has a mouth but does not eat_, which is transformed into sentence 8 by Question Formation. Here, regardless of which semantic interpretation for _mouth_ is chosen, the derivation of the question is exactly the same phonologically, morphologically, and syntactically. The ambi-

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**Figure 8**

```
S₀
  └── but
    ├── S₁
    │   ├── NP
    │   │   └── N
    │   │       └── something
    │   └── VP
    │       └── V
    │           └── has
    └── S₂
        ├── NEG
        │   └── NP
        │       └── N
        │           └── mouth
        └── VP
            └── V
                └── eats
```
guity therefore lies in the choice of semantic interpretation for the lexical item, a noun, mouth.

In these cases, then, it is clear that the ambiguity involved is a result of homophony. That is, the pronunciation of various underlying concepts (i.e., words) is identical. In such cases the advantage of the riddler in posing riddles is that only he knows which semantic interpretation is involved in the riddle, and, indeed, he may demand, in some instances, any of the possible interpretations from the riddles as the correct answer. It should be noticed here that the homophonous constituents are always the same parts of speech, and that the lexical items may or may not be morphemically complex. However, if there is morphemic complexity, there is also a one-to-one homophony of morphemes. Thus in sentence 7, /tərnz/ consists of two morphemes, the root verb /tərn/ and the third person singular present tense morpheme /-z/. Since the ambiguity of sentence 7 depends upon the homophony of verbs, it is the case that for each separate lexical item /tərn/ we have homophony of the phonological form of the root, and so naturally for the person-number-tense marker. In sentence 8, however, the morpheme /məwθ/ is unaffected, and the ambiguity rests solely on the homophony of the various lexical items represented by that pronunciation.

Whereas the preceding examples represent one type of ambiguity that results at a surface, phonological level, there are other phonological processes that play a part in riddling. Specifically, word stress and juncture (i.e., pause phenomena) may contribute to the creation of ambiguity in the riddle. Let us consider word stress first. Word stress is utilized in riddling to create ambiguity by playing on the difference between a compound word and a phrase which, although it has the same morphemic content as the compound, is composed of a modifier plus a noun. For instance, consider the difference between the utterances of the phrases hothouse (compound) and hot house (modifier plus noun), where the former is a place to grow plants and the latter is a very warm domicile. Regardless of spelling conventions,
these words are distinguished by the placement of primary stress in their pronunciations. In the compound, primary stress is placed on the first syllable, with a lesser degree (tertiary stress) being placed on the second syllable, giving us a phonological representation /hátháws/ ( indicates primary stress,  indicates tertiary stress). In the combination of modifier plus noun, however, the stress pattern is different. In this case primary stress is on the second syllable of the combination, with secondary stress (marked as  ) on the first syllable. It is this difference in stress patterns that in English provides the basis for distinguishing compounds from modifier plus noun constructions, with their differing semantic content.

This difference may be exploited in riddling. Consider, for example, riddles like those in sentences 10, 11, 12, and 13.

10. What bird is lowest in spirits? Bluebird.


12. When is a black dog not a black dog? When it is a greyhound.

13. When did Moses sleep five in a bed? When he slept with his forefathers.

In sentence 10 we find an example parallel to the explanatory illustration just presented. The riddle asks for a particular species of bird that is sad. Of course, such a determination is impossible in the real world. However, if a bird were to be sad, such a bird would indeed be a blue bird /blúwbárd/. The riddle exploits this possible modifier-plus-noun sequence by ignoring the fact that its stress pattern differs from that of a corresponding compound, /blúwbárd/. This suspension of stress pattern distinctions is facilitated in English by the fact that we may use what is called contrastive stress to emphasize any word in an utterance, simply by shifting primary stress to that word. Thus, the riddler, in revealing the answer to sentence 10, can emphasize the adjective blue, thus shifting the primary stress to that adjective, whereas it otherwise would fall on the
noun being modified. The result is that the new modifier-plus-noun construction, with its contrastive stress, is practically homophonous with the compound word.

In sentences 11–13 we find similar contrasts of compound words with modifier-plus-noun constructions. However, in these cases the constituents of the constructions are homophonous, rather than identical, as was the case in sentence 10. So in sentence 11, although both the weapon /krásbow/ and the lover /krásbow/ have a basic adjective-plus-noun source, we have in fact two separate lexical items that correspond to the pronunciation /kras/ and two lexical items that are pronounced /bow/. We see, then, that the ambiguity in sentence 11 is complex. First, it involves lexical ambiguity of the type discussed earlier. Second, it plays upon contrasting stress patterns of the homophonous constructions to confuse the riddlee. Indeed, this confusion is made even more complex by the fact that the answer to such riddles may be either the compound (10, 12, 13) or the adjective-plus-noun construction (11). Solving such riddles, then, involves (1) perceiving a lexical ambiguity, (2) recognizing the role of contrastive stress patterns, (3) determining which combination of lexical items and stress patterns serves as the answer to the riddle.

By way of clarifying these claims, let us now consider in some detail riddle 12. The primary lexical ambiguity in this case lies in the distinction between the adjective gray and the first morpheme of the compound greyhound, both of which are pronounced /grey/. Thus the distinction that is played upon in this riddle is that between a dog that is gray, /gréyháwnd/, and a certain breed of dog, /gréyháwnd/. We see here, as in 10, that the obvious answer to 12 is /gréyháwnd/, for indeed such a dog is by definition not black. However, the riddler, in giving the answer, employs contrastive stress, shifting the primary stress from /-háwnd/ to /grey-//, making the answer homophonic with the compound word. This same strategy is employed in 13, where the utterances /fowrfáðorz/ and /fowrfáðorz/ are manipulated. The riddler’s advantage is that only he knows which
combination of lexical items and stress is being employed in such riddles.

In making the distinction between compound words and sequences of adjective-plus-noun, it should be noted that there is a difference in pronunciation aside from the stress patterns. Namely, in the adjective-plus-noun combinations, there is a slight pause between the two constituents, whereas no such pause occurs in the pronunciation of compounds. Thus, a more accurate representation of the constructions being manipulated in 10, for example, would be /blúwbård/ versus /blúw + bård/, where / + / represents the pause phenomenon that we call juncture.

Occasionally there are instances of utterances in English that are distinguished primarily by the presence or absence of juncture. Consider, for example:

14. /náytrèyt/

which, depending upon placement of juncture, may mean either a chemical compound containing NO₃ or the cost of an airplane ticket after 6:00 P.M. The former reading is represented adequately by 14, but the latter possesses a pause (juncture) by which it is to be distinguished from 14, /náyt + rèyt/. Notice that the stress is identical in these two cases, so that the placement of juncture is the distinguishing feature.

We see that juncture is used to distinguish utterances that would otherwise be homophonous, and therefore ambiguous. It is not surprising, then, that juncture is in the riddler’s repertoire of ambiguity-creating devices. Consider riddle 15:

15. Why is a man clearing a hedge in a single bound like a man snoring? *He does it in his sleep (his leap).*

The ambiguity played upon in this case results from the placement of juncture in the utterance /hлизliyp/. We should first point out that *his sleep* consists technically of two separate lexical items, pronounced in isolation as /hлиз/ and /лиyp/. In speech, however, the final /z/ and initial /s/, which are both alveolar fricatives, elide, resulting in the articulation of one sound, /z/, which serves double duty as a
final and initial consonant simultaneously. It is this process of elision that produces /hlzliyp/, which is homophonous with his leap. This utterance, in turn, is subject to different interpretations, depending upon placement of juncture. Thus, his sleep can be represented as /hl + zliyp/, whereas his leap can be represented as /hlz + liyp/. We should note here that both phrases consist grammatically of a possessive pronoun and a noun, so that the homophony in this case occurs within a given grammatical construction, the elements of which must be discerned by the riddlee. An interesting note here is that in riddles like 15 the “answer” is the ambiguous utterance, rather than one of the possible utterances that serve as the question. That is, the answer to 15 depends upon the creation of ambiguity rather than on its resolution.

A similar case involving juncture is seen in riddle 16:

16. When is it hard to get your watch out of your pocket?

When it keeps sticking (keeps ticking) there.

Here, the utterance keeps sticking is pronounced in ordinary speech as /kiypstklnj/, making it homophonous with keeps ticking. As with 15 we find an elision of alveolar fricatives, so that in the former phrase, /s/ serves simultaneously as a final and an initial consonant. The only basis for distinguishing the two phrases is by the placement of juncture, so that the former is represented by /kiyp + stklnj/. We see here again that the grammatical forms involved are the same, in this case the verb keep plus a present participle. Again as in 15, the wit of this riddle depends upon the ambiguity being present in the answer, not in the question.

This makes an important point concerning the role of ambiguity in the riddle. For we see from examples like 15 and 16 (and 10–13, as well) that it is not the case that the ambiguity involved in a riddle is necessarily contained in the question. Rather, it is the case that the wit of the riddle depends on the resolution of an ambiguity somewhere in the riddle structure, which includes the answer as well as the question. We see, then, that the consideration of wit in the riddle must encompass more than traditional studies have indicated (cf. our discussion of the definition of the riddle, chapter 5). For to understand the wit involved in riddling, it
is necessary to scrutinize the entire structure of the riddle act to determine at what point the element of wit (through ambiguity) is introduced.

There is one last category of phonologically-based riddles that must be treated. These riddles are concerned with minimal phonemic pairs, i.e., with words used to contrast the phonemes of English. Thus, to return to an earlier example, we saw that the difference between /pet/ and /bet/ lies in the distinction between /p/ and /b/, since the pronunciations of these two words are otherwise identical. Such pairs of words, which are distinguished by only one phoneme, are called “minimal pairs.” There are riddles that exploit minimal pairs, as in riddles 17 and 18.

17. What is the difference between a baby and a coat? One you wear, one you were.
18. What is the difference between a ballet dancer and a duck? One goes quick on her legs, the other goes quack on her legs.

In 17 the minimal pair played upon in /wer/ versus /war/, where the minimal distinction is based upon the difference between /e/ and /a/. In 18 the minimal pair is /kwIk/ and /kwæk/, where /I/ and /æ/ are contrasted.

It is interesting here that the element of wit involved is not ambiguity, but rather another aspect of what Abrahams 1972 has called “word resiliency.” In this case the resiliency consists of using minimal pairs as phonological distinctions to make a comparison between two referents that are not apparently comparable. Although such examples do not fall within our categories of ambiguity, they do represent a conscious effort to manipulate the phonological level of grammar to produce wit.

We see, then, that what is traditionally regarded as wit in riddles can be partially related to the creation of ambiguity in the riddle form. In this chapter we have explored how ambiguity can be produced by the manipulation of the phonology of English. In chapter 3 we shall explore the role of ambiguities produced at the morphological and syntactic levels in creating wit. We shall then relate the linguistic aspects of wit to the broader context of riddling.
1. For purposes of simplicity, in underlying structures such as those in figures 3 and 4 we shall omit unnecessary elements such as articles and tense markers throughout this work.

2. In the cases to be discussed, "phonological" refers to lexical ambiguity of phonemic form, stress, and juncture. Thus, our use of the term "phonological" is more precisely characterized than that of Ben-Amos 1976.