Strategies for the interpretation and formation of Mandarin Chinese compounds, designed for the English-speaking learner of Mandarin, as well as the linguist, make a distinction between two compound types: lexical and phrasal. While both types consist of sequences of verbs and nouns, lexical compounds are indivisible words formed in the lexicon, and phrasal compounds are sequences of words joined by syntactic phrase structure rules. While rules for the combination of categories can be identified for both compound types, only phrasal compounds may be freely formed by these rules. In contrast, categories combined in accordance with lexical rules may not result in actually occurring words. The language learner needs to identify compound processes as lexical or phrasal in order to know when he can use a process freely to produce well-formed expressions.
Compound Nouns in Mandarin

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In Mandarin Chinese as in English, new words are formed by combining existing words or morphemes. But the word formation rules are different in each language, and the English speaker learning Chinese must determine what the Mandarin rules are. This task is made more difficult by the absence of inflectional and derivational morphology to indicate the relationship of the combined parts and the grammatical category of the resulting form. The aims of this paper are twofold: 1) to simplify the language learner's task by identifying some basic rules of NP formation and noun compound interpretation in Mandarin, and 2) to distinguish between regular and idiosyncratic compound formation. The first part of this paper is concerned with nouns composed of antonym pairs. The second part focuses on noun compounds composed of the category sequence Verb (V) + Noun (N).

Antonym Pairs

In Mandarin, stative verbs which are semantic opposites can be combined to form words of the grammatical category N.
Certain types of antonyms are represented more frequently than others in this sort of compound. Three types of antonym relationships are generally recognized by linguists: gradable, complementary, and relational. Gradable opposites are those that refer to two ends of a scale for which there are intermediate values. An example of gradable opposites in English are tall and short. Com-
Complementary opposites refer to two states for which there are no intermediary values. The pairs dead-alive and win-lose illustrate this complementarity in English. Relational opposites refer to two states which are opposites only in a particular context, which may itself be language and culture bound. To illustrate the difference between relational antonyms and the other antonyms, consider the opposite of mother. The opposite will depend upon the precise context in which mother is being considered. If the context is the family tree and if the tree is considered vertically, the opposite of mother is child. But if the tree is considered horizontally, the opposite is father. Given other contexts, other opposites will emerge. The opposite of mother may also be wife, or mother in law, or grandmother, etc.

Gradable and complementary opposites occur much more frequently than relational opposites in the type of compound illustrated in (1). Gradable opposites are represented by (b), (c), (f) and (g); complementary opposites are represented by (a), (d) and (e). As (2) illustrates, relational opposites are also possible in this sort of compound.

2. a. 黑 (V) - 白 (V) black and white (N)
   "black  white"

   b. 甘 (V) - 甜 (V) bitter and sweet (N)
   "bitter  sweet"
But relational opposites occur more frequently in compounds made up of four verbs, as illustrated in (3).

3. a. qīng (V) -hóng (V) -zǎo (V) -bái (V) distinctions of blue red black white right & wrong (N)
b. xīn (V) -suān (V) -kū (V) -là (V) all sorts of pungent sour bitter hot/spicy sufferings (N)
c. xǐ (V) -nǚ (V) -āi (V) -lè (V) all kinds of happy angry sad joyful sentiments (N)

Relational opposites belonging to a grammatical category other than V may also form noun compounds. The compound xiōng-dī-jìe-měi 'siblings,' for example, consists of four nouns. The bound and free forms of the component nouns and the meaning they contribute to the compound are as follows.

4. free form | bound form | relative age | sex
---|---|---|---
a. gēge | xiōng | older | male
b. dīdī | dī | younger | male
c. jiējiē | jiē | older | female
d. mèimei | měi | younger | female

The tendency for relational opposites to occur in four -pheme compounds is probably due to the dependency on context in the interpretation of this type of antonymical relationship. While
gradable and complementary opposites are inherently opposites, relational opposites are interpreted as opposites only in a particular context. Although a pair of words is sometimes sufficient to define the context in which the words are to be interpreted as antonyms, two pairs of opposites makes the context clearer.

In addition, the peculiarities of the lexicon sometimes make it impossible to specify a concept with only one pair of relational opposites. Consider again xiōng-di—jie-mēi, the Mandarin word for sibling. In English, siblings are identified along the single dimension of sex: male = brother, female = sister. The concept "sibling" may be expressed by the phrase "brother and sister," consisting of the words corresponding to the two values of the sex dimension. In Chinese, siblings are identified along two dimensions: sex and relative age. It is impossible to refer to siblings in Chinese with a single pair of opposites. Xiongdi refers only to male siblings, and jie-mei refers to female siblings. Xiong and mei, jie and di are not simple opposites since they differ in two dimensions each, and thus they cannot be combined. In order to refer to siblings, all four terms must be used.

It should be noted that while two morpheme oppositional compounds occur more frequently than four morpheme oppositional compounds, neither kind represents the random juxtaposition of opposites. In all cases, the order of the morphemes is fixed and lexically determined, and cannot be predicted by any general seman-
tic rule. Thus, for example, while "right" precedes "wrong" in (1e) shàn-wò 'virtue and evil,' "wrong" precedes "right" in (1d) fān-zhèng 'both sides.' Thus, knowledge of the structure of these compounds will not enable the language student to consistently construct well-formed oppositional compounds. But it will facilitate his interpretation of the compounds, and it will contribute to his understanding of Chinese culture as well.

Noun-Final Compounds

We now turn to a different type of compounding in Mandarin, that which involves a compound final noun preceded by a member of another grammatical category, typically a noun or a verb. I will concentrate here on the structure of V-N compounds. N-N compounds will be covered briefly in the course of the discussion.

V-N compounds in Mandarin have been the subject of several studies including Chao 1968 and recently Chi 1984. Chi identifies V-N compounds in terms of certain semantic criteria which, he claims, must be met for a compound to be well formed. He identifies five criteria for "productive" compounds types, and two for "non-productive" types, one of which is actually a collection of indeterminate semantic relationships. I will consider only the productive types here. They are listed and described in (5).

5. a. compound meaning is the result of the noun being effected by the verb:
zhá - jī
fry chicken
‘fried chicken’

b. the noun is caused to do something by the action of the verb:
sài - mā
compete horse
‘horse racing’

c. the thing denoted ‘... is used to do what the verb means to the referent of the noun.’ (Chi 1984:21)
dīng - zhēn
push needle
‘thimble’

d. the compound refers to agents whose names are derived from the task described by the verb-object string:
guān - jiā
manage house
‘house-keeper’

e. the compound denotes the location where a motion is directed to or originates from, or where an action or process takes place:
huá - bīng
slide ice
"ice skating"

The problem with a semantic characterization of compounds becomes clear when we try to place the expression kuài-chē (fast-vehicle) "express" on the list. Kuài-chē represents a productive type of compound consisting of a stative V and an N. Other members of this type of compound include bīng-rén (sick person) "patient," and rē-shuí "hot water." There is no place for these compounds in (5). That is, the list is not exhaustive, and the possibility is real that it will need to grow unmanageably large to account for all possible semantic relationships. Moreover, while kuài-chē "express" does not fit any of the semantic relationships specified in (5), the syntactic relationship of kuài to chē is no different from that of zhā "fry" to jī "chicken" in (5a). In both cases, the relationship is one of modifier to head. Zhā-jī denotes some kind of chicken, a fried one, and kuài-chē denotes some kind of vehicle, a fast one. The fact that kuài-chē does not denote just any kind of fast car but refers specifically to an "express" will be discussed in the comparison of lexical and phrasal processes below.

In short, a characterization of one type of nominal compound in terms of modifier-head structure eliminates the need for a new category of compound types. Characterized in this way, N-N com-
pounds such as 草帽 'grass hat' and 电灯 'electric light' need not be distinguished by separate criteria. A well-formed compound in each case is an N modified by something.

The only restriction that must be placed on such compounding is one independently needed in the grammar, that involving selectional restrictions. The modifier and head must be semantically compatible. Semantically incompatible compounds are ill-formed in precisely the same way as incongruous sentences such as Chomsky's famous 'colorless green ideas sleep furiously.'

A partial list of V-N compounds in which V modifies N is presented in (6).

6. a. kuài-chē express
   fast car

   b. zhā-jī fried chicken
   fry chicken

   c. kǎo-yā roast duck
   roast duck

   d. 电-guō frying pan
   fry pan

   e. zhēng-lóng steamer
   steam basket
Examples (d), (e), and (f) illustrate that the N need not be an argument of the V.

A syntactic classification of V-N compounds makes it possible to collapse Chi's categories (c) and (d). In both cases, the compound denotes an NP which is the agentive subject of the VP consisting of V and N. Thus, dīng-zhēn "push needle" refers to the thing that pushes the needle, a thimble, and guān-jīā "manage house" refers to one who manages a house, a housekeeper. (7) is a partial list of compounds of this type (incorporating examples from Chi).

7. a. dīng-zhēn thimble
   push needle

   b. guān-jīā housekeeper
      manage house

   c. bāng-tū́ tie leg
   c. gāi-huò cover for stove
      cover fire

   e. zhēn-tōu pillow
      rest head
f. jiān-gōng  oversee
    supervise work

g. chuán-dào  preacher
    spread doctrine

h. shòu-yè  night watchman
    guard night

It is interesting to note that English also has compounds of this sort in which the verb and object form a new word which denotes the agentive subject of the verb phrase. But as (8) indicates, the order of V and object in English is reversed from that of Chinese. In English agent-denoting nominal compounds, the object precedes the verb.

8. a. dog catcher (catch dogs)
    b. house keeper (keep house)
    c. foot rest (rest foot)
    d. dish washer (wash dishes)

This is a potential problem spot for the English speaker learning Mandarin. First, the English speaker may have trouble with Mandarin compound formation. He must be careful to form agent denoting compounds according to the Chinese pattern and not according to the English pattern. Second, the pattern may cause problems in
compound interpretation. In English, agent denoting compounds and compounds denoting a modified N differ both in morphology and in sequence of grammatical categories. Compare the order of V and N in the examples in (8) with that in the following modified nouns.

9. a. caught dog
b. well-kept house
c. rested foot
d. washed dish

But Mandarin lacks both morphological and word order cues to distinguish these types of compounds. For both compound types, the order of categories is V-N. The listener must use the semantic properties of the V and N to interpret their relationship in the compound. Knowledge of the possible relationships of V and N in a V-N sequence greatly simplifies the task of noun compound interpretation.

Let us now consider Chi's category (b) (the noun is caused to do something by the action of the verb), represented above by the string sài mà "horse racing." This type of V-N sequence differs from agent denoting and modifier-head strings in several ways. Unlike modifier head strings, the noun in sài mà strings must be the subcategorized syntactic object of the verb. And unlike agent denoting strings, the V-N sequence in sài mà strings does not denote the agent. Rather, it refers to the state associated with the VP
composed of the V-N string. That is, săi mã strings may be interpreted either as VPs or as NPs. This is illustrated in (10).

10. 

<table>
<thead>
<tr>
<th>VP</th>
<th>NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. săi - mã</td>
<td>to race horses horse racing compete horse</td>
</tr>
<tr>
<td>b. dâu - jī</td>
<td>to fight chickens chicken fight fight chicken</td>
</tr>
<tr>
<td>c. bàng - qiu</td>
<td>to hit a ball baseball to hit ball (with a club)</td>
</tr>
</tbody>
</table>

The fact that săi mã strings may be either VPs or NPs is confirmed by tests for grammatical category membership. NP status can be identified by the ability to occur as the head of a de-modified phrase. This test identifies săi mã strings as well as agent denoting and modifier head strings as NPs.
11. zhēr de sài mã hěn yòu míng.
dōu jī
bāng qiú
dīng zhēn
zhā jī

here very have fame

"The horse racing here is very famous."
chicken fights
baseball
thimbles
fried chicken

VP status can be identified by the ability of the string to be
negated or aspectually modified. As (12) illustrates, these tests
identify sài mã strings but not agent denoting or modifier head
strings as VPs. Negated agent denoting strings are semantically
nonsensical. When head-modifier strings are negated, they must be
interpreted as V-object strings (VPs), and lose their head-modifier
interpretation.

12. a. xīngqītiān bù sài mã.

Sunday not compete horse

"On Sunday there is no horseracing."

15
b. Yǐjīng sāi-le mǎ le.
    already
    "(I) have already raced the horse."

c. *Dīng-le zhēn hěn yǒu yòng.
    very have use

d. *Bú dīng zhēn hěn máfan.
    very bothersome

e. Bú zhā jī yě hǎo chī.
    not fry chicken also good eat
    "If you do not fry the chicken, it is also good to eat."
    not 'Unfried chicken is also good to eat.'

f. *zhā-le jī yě hǎo chī.

The fact that the N in sāi mǎ strings must be the syntactic and semantic object of the verb suggests that these sequences originate as VPs which are then nominalized. Let us consider the productivity of this process. As (13) illustrates, Mandarin VPs may occur quite freely as subjects.
13. a. Shuō huà měi yǒu yòng le.
    talk speech not have use completive aspect
    V    N
    'Talking is useless now.'

b. Shōushi fāngzi měi yǒu yīsī.
    clean-up house not have interest
    V    N
    'Cleaning the house is not interesting.'

c. Kān péngyou hǎo wǎr.
    see friend good play
    V    N
    'Seeing friends is fun.'

But while these VPs may occur as subjects, they differ from
sāi mā strings in that they may not function as the nominal head of
a de modifier strings.

    yesterday
    'Yesterday's talk was useless.'

b. *Jīntian de shōushi fāngzi měi yīsī.
    today    clean    house not have interest
    'Today's housecleaning was not interesting.'
c. *Zuòtian de kàn péngyou hěn hǎo wán.

"Yesterday's visiting of friends (visiting friends yesterday) was fun."

In this way the V-N subjects in (13) and (14) are not NPs but VPs; VP nominalization is not freely occurring but applies only to certain VPs. That is, VP nominalization is not an unrestricted process, but is lexically determined. Now we must explain how VPs may function as subjects. This possibility follows directly from the following generally accepted assumptions about Mandarin. First, sentences in Mandarin may function as subjects (or objects) (cf. Chao 1968:86). Second, the subject position in Mandarin sentences may be lexically empty. In this way the VP status of the sentence initial V-N strings in (13) may be analyzed as having underlying structures as in (15).

15. a. [NP [S [NP [VP shuō huà]]] méi yǒu yòng le.
   
   b. [NP [S [NP [VP shōushí fāngzī]]] méi yǒu yīsì.
   
   c. [NP [S [NP [VP kàn péngyou]]] hǎo wán.

In sum, sentential subjects with lexically empty subject positions occur freely in Mandarin. But nominalizations from VPs is much rarer, with acceptable nominalizations predetermined in the
VP nominalization is a third type of nominal compound, and like agent denoting and modifier-head compounds, acceptable compounds must be learned and cannot be freely coined.

It is important for the language learner to be aware of the idiosyncratic acceptability of lexical compounds. As we have seen here, the rules which can be used to interpret lexical compounds do not necessarily generate well-formed compounds. Only a subset of strings generated by the rules actually occur in the lexicon. This idiosyncracy is a feature of lexical processes. But languages often have regular syntactic processes for generating well-formed expressions which are semantically equivalent to non-occurring lexical forms. Thus, for example, if I wish to refer to my fat (pàng) friend (péngyou) in Mandarin, I cannot simply join pàng, a verb, with péngyou, a noun, to form the compound pàng péngyou, or pàng péng, or pàng yóu. These are non-occurring lexical forms. But I can use the regular syntactic rule of de modification (cf. Ross 1983) and form the acceptable noun phrase pàng de péngyou. Syntactic rules, unlike lexical rules, are regular and general in operation. Similarly, if I wish to refer to a person who sells (mài) ducks (yāzi), I cannot apply the rule for agent denoting lexical compounds to form mài yā or mài yāzi. These are also non-occurring forms. But I can form the expression by the syntactic rule of de modification, using the VP mài yāzi plus the modification marker de to modify a lexically unspecified NP: mài yāzi de [Np]
'one who sells ducks.' Agent denoting phrases may be freely formed using this syntactic process of de modification.

Lexical and phrasal compounds may be distinguished by an additional property: predictability of meaning. The meaning of a phrasal compound is typically the sum of its parts. Lexical compounds, on the other hand, are not directly compositional. A comparison of modifier-head strings with and without de clearly illustrates this difference, and supports an analysis of de-less compounds as lexical.

12. de - NPs de-less NPs
   a. hóng de shū hóng shū
      red book red book
      'a book which is red' 'Mao's red book (regardless of the color of the binding)'
   b. bái de rén bái rén
      white person white person
      'a person who is white or pale'
      'a Caucasian'
   c. xiǎo de háizi xiǎo háizi
      small child small child
      'a child who is small' 'a child (regardless of size of child)"
Returning now to the classification of noun final nominal compounds, let us consider Chi's category e ('the compound denotes the location where a motion is directed to or originates from, or where an action or process takes place'). Examples of this kind of string are presented in (17).

17. a. mà jiē
   scold street
   'to scold on the street'/'a street scolding'

   b. huá bīng
   slide ice
   'to ice skate'/'ice skating'

   c. shuǐ dì
   sleep ground
   'to sleep on the ground'/'ground sleeping'

These V-N strings are different from the ones discussed above in that the noun is neither the affected object of the verb nor the agent of the VP. It is not a semantic argument of the verb at all, but rather represents an optional adjunct relationship of location. In fact, strings like these can be paraphrased by strings like (18), in which the NP is the object of a locative, and not of huá, mà or shuǐ.
18. a. zài jiē-shang mà
   at street-on scold
   "scold on the street"

   b. zài bīng-shang huá
   at ice on slide
   "slide on the ice"

   c. zài dì-shang shūn
   at ground on sleep
   "sleep on the ground"

Structural properties indicate that strings like (18) are nominalized VPs, and as such, represent a special case of sài mà type strings.

First, the tests of negation and aspectual modification indicate that mà jiē strings function as syntactic VPs.

19. a. Tā mà-le jiē dé-le rén, xiànzài yǒu zhǎo wǒmen de
   she scold street hit person now again seek
   máfan le.
   trouble
   "She scolded on the street and hit someone, and now
   she's causing us trouble again."
b. Wǒ mèi huá-guó bīng.
   I not slide ice
   "I have not ice skated before."

c. Wǒ yě mèi shuǐ-guó dī.
   I also not sleep ground
   "I have also not slept on the ground."

That is, while the N in each case is not the semantic/thematic object of the V, it functions as the syntactic object of the verb.

Second, mà jiē strings, like sàì ma strings may also function as NPs. In particular, they may occur as the head of a de modifier clause.

20. a. Nàge lǎopó de mà jiē hěn lǐhai.
   that old-woman street-scolding very severe
   "That old woman's street scolding is very severe."

b. Hélǎn de huá bīng hěn yǒu míng.
   Holland ice skating very have fame
   "Holland's ice skating is very famous."

In this way, mà jiē strings, like sàì ma strings, are nominalized VPs. The difference between these strings is in the thematic peculiarity of the mà jiē strings. It is not difficult to explain the syntactic well-formedness of the mà jiē strings. In each case,
the verb is transitive, and as such, subcategorizes for an object N.

   she often scold person
   "She often scolds people."

   b. Tā zài lù-shang huá le yī jiǎo.
   he at road-on slide one foot
   "He slipped on the street."

   c. Tā, zài dì-shang shuì jiǎo.
   he at ground-on sleep
   "He sleeps on the ground."

Ma jiā strings preserve the subcategorizations of the verbs. They violate only the selectional restrictions of the verbs in terms of the thematic role associated with the subcategorized object. Since the offending N may easily be interpreted as a locative, the strings are not anomalous.

But why should Mandarin substitute locative NPs for thematic objects? I suggest that the reason has to do with a preference in Mandarin for two syllable phrases, a principle which can be informally stated as in (22).

The effect of (22) is to increase monosyllabic words and phrases by one syllable where possible and to reduce phrases and words consisting of more than two syllables to two. For example, the bisyllabic preference principle is responsible for the semantically empty zi suffixed onto many monosyllabic nouns as in (23).

23. dâizi 'rope'
fângzi 'house'
xiāngzi 'box'

It is also responsible for the disappearance of this semantically empty syllable when zi suffixed words combine with one syllable morphemes to create new words.

24. yâo-dâi
waist rope 'belt'
chû-fâng
kitchen room 'kitchen'
ko-xiâng
roast box 'oven'
Morphemes like zi with weak semantic loads are obvious targets of the principle. They can be eliminated without rendering a string incomprehensible. Other such words include cognate objects like jiǎo in the VP shuǐ jiǎo "sleep," and locative coverbs that can be predicted from the meaning of the verb. The multi-syllable expressions in (18) all have expendable morphemes and can all be rephrased as two syllable strings. The bisyllabic preference principle values these two syllable strings, so the reduction is sanctioned.

Let me stress here that I use the term 'reduction' descriptively to mean that the strings in (17) have fewer syllables than those in (18). I do not intend to imply that the strings in (18) have been reduced by some transformation. It would be impossible to formulate a syntactic transformation to derive (17) from (18). For as (25) illustrates, strings like (17) are not freely occurring; not all VPs with objects and locative phrases have equivalent V-N paraphrases like those in (17).

23. a. Tā zài chúfāng-1i chī fàn.
   he at kitchen-in eat (rice)
   "He eats in the kitchen."

                      b. *Tā chī chū (fāng).
In fact, it is not necessary to posit a reduction process in order to generate n̄a jie strings. Rather, we need only assume a second, semantically related verb for each instance of an apparently reduced phrase. The first lexical entry (corresponding to the unreduced string) subcategorizes for a syntactic object with an objective thematic role. The second entry (corresponding to the reduced string) subcategorizes for a syntactic object with a locative thematic role. This is the more marked entry, because syntactic objects are not typically assigned locative thematic role. Rough entries for n̄a are as follows.

26. a. n̄a₁ (V): ___ NP
   ◦-object
   'scold'

b. n̄a₂ (V): ___ NP
   ◦-location
   'scold'

n̄a₁ will permit an adjunct locative phrase while n̄a₂ will not. Inclusion of such a phrase for n̄a₂ would be redundant.

Finally, it is interesting to note the pervasive role of the bisyllabic preference principle in Mandarin word formation. It is a well known fact that Mandarin has many two syllable words along-
side semantically equivalent multi-syllable expressions. Some examples are presented in (27).

27. a. ｙｏｕｊｉ  +  長船  →  郵鴨
mail  boat  mail  boat

b. 保護  +  衣服  →  衣服
protect  coat  overcoat

c.  活動  +  模範  →  活動
labor  model  model  worker

d.  禁止  +  影響  →  禁止
restrict  order  ban

e.  記  +  音  →  記憶
record  sound  record

f.  失  +  行政  →  失政
lose  policy  lost  policy

As Chi notes, it is impossible to formulate a rule or rules which derive the shorter from the longer forms. As can be seen from (27), the morphemes that occur in the shorter form are not predictably the first or second morpheme in the longer forms. But these two syllable expressions can easily be explained as lexical innovations sanctioned by the bisyllabic preference principle.
While the longer forms have greater semantic transparency than the two syllable forms, two syllable forms conform to a more highly valued metrical pattern. Thus, two syllables from the longer forms may be selected (at random or for some vague semantic reasons) to form a bisyllabic word. Only certain bisyllabic expressions 'catch on' in the language and achieve the status of word, and these new words exist side by side the longer words in the lexicon.

Conclusion

This paper has presented strategies for the interpretation and formation of Mandarin compounds. It has distinguished between two types of compounds: lexical and phrasal. While both types of compounds consist of sequences of verbs and nouns, lexical compounds are indivisible words formed in the lexicon, while phrasal compounds are sequences of words joined by syntactic phrase structure rules.

I have shown here that this distinction has more than a theoretical significance, and is relevant for the language learner as well as the linguist. For while rules for the combination of categories can be identified for both types of compounds, only phrasal compounds may be freely formed by these rules. In contrast, categories combined in accordance with lexical rules may not result in actually occurring words. The language learner needs to identify
compound processes as lexical or phrasal in order to know when he may freely use a process to produce well-formed expressions.

The strategies for the interpretation of compounds has obvious relevance for the language learner. The absence of inflectional cues to identify the relationship of lexical items in a string results in the surface convergence of several different structural relationships. Knowledge of possible relationships and relevant syntactic, semantic, pragmatic and stylistic cues greatly simplifies the task of compound interpretation and contributes to the general understanding of Chinese.
References


Footnotes

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1 Nouns may not be negated or aspectually modified. The ability to be negated is a property of all verbs. Aspectual modification is possible for a subset of verbs.

2 I use the term "thematic" here in the sense used by Chomsky 1981 and others to refer to the semantic relationship of an argument subcategorized by a verb. Thematic theory is not well developed, and labels for these relationships are not standard in the literature. I use the term "agent" to refer to the source of the action of the verb, and "object" to refer to the affected object.