"Expectation" in Chinese: A Functional Analysis of Two Adverbs
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I. Introduction

It is now commonly recognized in linguistic studies that, as interlocutors in our daily verbal interaction, we are constantly anticipating or expecting something, phonologically, syntactically, and semantically. Judging from the role that "expectation" plays in our verbal behavior, it would indeed be very strange if any natural language did not build into its system some way of showing expectation. In this paper, I would like to examine two morphemes, traditionally termed "adverbs," which have a great deal to do with communicating expectation in Chinese.

The two morphemes can occur in a sentence like (1).

(1) Wo {a. cai / b. dao} mei dong-guo ni-de dongxi.
I not move-ASP your things.
"I _____ didn't move your things."

Like many other adverbs, cai and dao have different senses. Because of the lack of systematic studies on adverbs in either the earlier structuralist framework or the new transformational-generativist model, these adverbs are often either overdifferentiated or underdifferentiated. Of course, how to determine different senses of a word is a question that, to the best of my knowledge, has never been satisfactorily answered. At this stage of the art, one can only hope that, as more and more systematic attempts are made, linguists can understand the exact nature of the problem and thereby develop some ways of tackling it. In the sense they are used in (1) cai and dao do not seem to affect the propositional content of the sentence, which is roughly, "I didn't move your things".[1] Each of them, however, carries with it certain presuppositions, which makes it impossible to find an exact equivalent in English without a larger context. The fact that these adverbs are so context-bound also explains why in the past Chinese grammarians, who do not go beyond the sentence boundary, have had so little success in explaining them.

Chao (1968), for instance, explains cai as "then and only then will it be, 'extremely'" and gives the example, "cai ma-fang ne, extremely troublesome" (p. 787). This characterization of the use of cai is inadequate in two ways. First, given that these meanings are correct (see below), it still does not explain why the same word cai should behave in ways so different. As suggested by the two definitions cited by Chao, a reader will be hard put to imagine what relationship, if any, there is between these two senses. Of course, by making such a remark, I do not mean that every homophonous morpheme should have the same

meaning as its homophones, which is obviously false. However, I do want to suggest that, to the extent possible, linguists should give a unified explanation to different senses of a polysemous set. Second, while it is not incorrect to explain cai ---- ne as 'extremely' in the example just given, it is inadequate. This inadequacy can be clearly seen if we use the term in a real context. Suppose you meet a friend on the street and you want to convey the meaning that 'it is extremely hot today', you can not say (2) in Chinese.

(2) # Jin-tian cai re ne.[2]
today extremely hot PART
"Today is extremely hot."

If you did, your friend would probably answer, "what's wrong with you?" in Chinese. The proper thing to say in this case is either (3) or (4), replacing cai with hao 'very' or -ji-le 'extremely'.

(3) Jin-tian hao re ah.
"Today is very hot."
(4) Jin-tian re-ji-le.
"Today is extremely hot."

The reason why (2) is inappropriate in this context will be explained later in the paper.

In section II and III of this paper, I will attempt to give a unified explanation of the different senses of each of the adverbs. Section IV will be concerned with the scope problem and the interaction with negation. The final section will examine the implications this analysis may have for grammatical theory in general and Chinese grammar in particular.

II. Cai

There are three related uses of cai in Modern Mandarin. In one of its senses, it means roughly "just" or "no more than." It occurs either in a time clause or a measurement clause.[3] Let's call cai so used cai_1. Some examples follow.

(5) Xian-zai cai si-dian-zhong.
now (no more than) 4 o'clock
"It is now just 4 o'clock.
(6) Ta cai lai san-tian.
he (no more than) come 3 days
"He has just been here three days."
(7) Cai wu-kuai-qian ma? Zhen pian-yi.
(just) five dollars PART really cheap
"Is it just five dollars? It's really cheap."
(8) Ta cai liang-sui, hai xiao ne.
he (just) 2 years' old still small PART
"He is just two years's old; he is still small."

Cai$_2$ differs from cai$_1$ in two respects. First it interacts with a wider range of clause types--time, reason, measurement, or condition clauses. Second, it is always preceded by a clause of one of the types just mentioned. Its meaning is roughly equivalent to "only then" in English, indicating that an action occurs, a state is achieved only after certain time, or when the manner, reason or condition set by the preceding clause is obtained. Some examples follow.

(9) Duo yi-jing guo-le wu-yei, yueliang cai chulai.
already passed midnight moon (only then) came out.
"It was only after midnight that the moon came out."

(10) San-ge yue, cai neng zuo-de-hao.
three month (only then) can do-finish
"(I) can finish doing it only in three months."

(11) Zhe-yang shuo cai dui.
this way say (only then) right
"It is right only by saying it this way; now you are talking."

(12) Neng chi-ku cai neng chu-ren-tou-di.
can eat-hardship (only then) can exceed others
"Only by enduring hardship can one exceed others."

(13) Ni zhi-you kuai pao cai neng zhui-shang ta.
you only fast run (only then) can catch up with him
"Only by running fast can you catch up with him."

(14) Zai min-zhu guojia-li cai neng chan-sheng zi-you.
at democratic countries (only then) can beget freedom
"Only democratic countries can beget freedom."

(15) Xiao mei-mei yin-wei kan-bu-jian mama suoyi cai ku.
little girl because can see mother so (only then) cried
"It was only because the little girl couldn't find her mother that she cried."

In addition to the meanings just posited for cai$_1$ and cai$_2$, both forms carry with them certain implications. These implications are clear when the two interact with time and measurement clauses and less so when they interact with other types of clauses. Cai$_1$ has the implication that the time is earlier or that the amount is less than expected, while cai$_2$ has the opposite implication. So in (5) the speaker implies that the actual time is earlier than expected and in (7), the amount of money is less than expected. In (9), the speaker anticipates the moon to have come out earlier and in (10) the implication is that "three months" is longer than expected. This contrast in expectation can be clearly seen in the following minimal pair.

(16) a. Tamen cai renshi yi-nian, jiu yao jie-hun-le.
they (just) know one-year want marry PART
"They have known each other just one year, and they want to get married."

b. Tamen renshi cai yi-nian, jiu yao jie-hun-le.[4]
they know (just) one-year want marry PART
"Same as above."

(17) Tamen renshi yi-nian-le, cai yao jie-hun.
they know one year PART (only then) want marry
"They have known each other for a year, and now finally they want to get married."

Clearly, in (16) the implication is that the period of acquaintance before marriage is shorter than expected, while (17) implies just the opposite. Since cai_2 also interacts with clause types other than time and measurement, one would expect that it may have a similar implication. This is so, only less explicitly. (14), for instance, has the implication that the places where freedom is found are more limited than the speaker and/or the hearer have expected.

Finally, there is cai_3. This is the direct extension of the "expectational" aspect of the meanings of cai_1 and cai_2. In a direct discourse situation, it is used to contradict the called-for, and therefore expected, response to the preceding speech act.[5] If the preceding act is a request, the called-for response will be compliance; while if the preceding act is an assertion, then the expected response will be belief or agreement. In general, we may say that cai_3 indicates an emphatic refutation of the expected response to the preceding act. This explains why (2) is inappropriate: it is used to begin a conversation and, therefore, is not in any sense the refutation of a called-for response. Some more examples involving cai_3 follow.

(18) Speaker 1: Ba le-se na chu-qu dao-diao.
OBJ. MARK. garbage take out dump
"Take out and dump the garbage."

a. Speaker 2: Cai bu yao.
(just) don't want
"(I) just don't want to."

b. Speaker 2: * Cai hao.
(just) O.K.

(19) Speaker 1: Ta shi-ge gong-ren, yi-ding mei shenme xue-wen.
he is a worker must have-not any knowledge
"Since he is a worker, he must have little knowledge."

Speaker 2: Ta xue-wen cai da ne.
his knowledge (just) great PART
"(On the contrary,) his knowledge is just great."

(20) Speaker 1: Zhongguo ren chang shuo, "Fa-cai, fa-cai",
Chinese people often say "develop wealth"
yi-ding zui xihuan qian.
must most love money
"Since Chinese people often say, "Get rich"

they must be money-hungry."
a. Speaker 2: Cai bu-shi ne.
(just) not-BE PART
"(On the contrary), it is simply not the case."
b. Speaker 2: *Cai shi ne.
(just) BE PART
*"Just right."

Sometimes, the speaker can play a double role, so to speak, by assuming the addressee's expectation and then negating it emphatically with cai_3 as in (21).

(21) Ni yi-wei ta qiong ma? Ta cai you-qian ne.
you think he poor PART he (just) rich PART
"Do you think he is poor? Just the opposite, he is rich."

As can be readily observed, the first part is actually a rhetorical question, which serves no other purpose than to provide a chance for the speaker to refute it emphatically with cai_3.

III. Dao

In modern Chinese, dao is still used as a manner adverb, meaning 'contrary' or 'opposite' as in (22) and (23).

(22) Ni yi-fu chuan dao le.
you clothes wear opposite PART
"You have worn your clothes inside out."
(23) Ta ba hua gua dao le.
he OBJ. MAR. picture hang opposite PART
"He hung the picture upside down."

The dao so used can be called dao_1. Its normal position is after the verb it modifies. In another sense of the adverb, it precedes a verb or a degree adverb if there is one. It has the whole sentence as its scope and the meaning is roughly 'contrary to expectation'. Let's call dao so used dao_2. Given the postulated meanings, are dao_1 and dao_2 related? They are because, in the case of dao_1 what is 'opposite' can only be interpreted relative to a norm, which, of course, is the expected state of the things involved. Only when dao is used in the sense of dao_1 the expectation is physically or socially determined. It is usually not subject to personal interpretation, as is very much the case of dao_2. Below are some examples involving the use of dao_2.

(24) Jia-li you-mei cai you-mei mi, ni hai zai xia
at home neither food nor rice you still at play-
xiangqi ni dao zhen kan-de-kai.
ing chess you really optimistic
"There is neither rice nor food at home, and you are still

playing chess; you are really optimistic (beyond my expectation)."

(25) Wo yi-wei-shi gege lai, jieguo meimei dao
I thought elder brother come result younger sister
lai-le.
come
"I thought the elder brother would come, but, as it turned out, it was the younger sister who did."

Because of this meaning of dao_2 it is also extensively used in making comparison. Observe the following sentences:

(26) Ta suiran bu zhenme congming, dao hai qing-kuai.
he although not quite smart still diligent
"Although he is not very smart, he is diligent."

(27) Didi hen lan, gege dao hen qingkuai
younger brother very lazy elder brother very diligent
"The younger brother is very lazy, but the elder brother is very diligent."

(28) Wanshang, Taipei hen renao, Tainan dao hen
evening Taipei very noisy Tainan very
anjing.
quiet
"In the evening, Taipei is very noisy, but Tainan is quiet."

From the above examples, it seems clear that dao_2 is involved in contrastive constructions. But what does it have to do with the expectation of the speaker and/or the hearer? I think the connection is also clear if we can fill in the missing links in the chain of practical reasoning. Thus, if a person or object has a good quality, people tend to expect he or it also has another, or if two persons or things are related, they tend to have similar qualities (for a psycholinguistic experiment bearing on this, see Osgood and Richards, 1973). Thus, in the case of (26), since the subject lacks one good quality, he is expected to lack another. However, when this expectation is not borne out, dao_2 is used to mark this 'contrariness of expectation.' In (27) and (28), it seems the chain of reasoning is more involved. In order to make sense out of (27) and (28), one would have to supply the links that brothers are related and that they are usually alike, and in the latter sentence, that Taipei and Tainan are cities and cities are noisy. If this analysis is correct, then it seems that the speaker and the hearer automatically bring their knowledge of the world to bear on the use and interpretation of grammatical stuctures.

Somehow because of this involvement in overt contrast, dao_2, even when used alone, can give rise to the implication that someone or something else is involved in the action or state opposite to that predicated by the main verb, whenever the context allows for such an implication. Below are some examples.

(29) Wo ziji dao mei zhuyi-dao bian pang-le.
I myself didn't notice turn fat PART
"I myself didn't notice that I had put on weight."
(30) Wo dao wu-sou-wei.
I don't care
"I don't care."
(31) Baba dao mei shuo shenme.
Father didn't say anything
"Father didn't say anything."

(29) indicates something contrary to expectation because one would generally expect oneself to notice something about oneself first, but in the case of (29), evidently the speaker didn't, so dao_2 is used. It also implies that someone else noticed the fact first. That is why if the speaker chooses to be more explicit, he could continue it with (32).

(32) Shi bie-ren gaosu wo de.
BE others told me PART
"It was others who told me."

Likewise, (30) means that, contrary to the addressee's expectation, the speaker asserts that he doesn't care but implies that someone else does. Finally, (31) means that, contrary to what the addressee had expected, Father was not the one who said something, but someone else did. That this predicted meaning is, in fact, true can be demonstrated by embedding (31) in a larger context as in (33)

(33) Speaker 1: Ni haoxiang hen bu-gaoxing, shi-bu-shi Baba
you seem very unhappy did Dad
ma-le ni?
scold you
"You look very unhappy. Did Dad scold you?"
Speaker 2: Baba dao mei shuo shenme. Shi Mama ba wo
Dad didn't say anything BE Mom OBJ. MAR.
ma-le yi-dun.
me scold one CLASSIFIER
"Dad didn't say anything. It was Mom who scolded me."

However, compared to cai_3, which is a strong refutation adverb, dao_2 is much milder. Thus, cai_3 can also be used in place of dao_2 in (33), although its negative (denial) force is much stronger and it lacks the implication that it was someone else who did it. At present I do not know of any test that can reveal the relative strength of negative force. One observation that may be relevant here is that cai_3 is always stressed while dao_2 may or may not be.

There is another difference in use between cai_2 and dao_2.

Dao$_2$ may be used to show a very weak casual relationship as in (34).

(34) Wo yinwei xiansheng chi-su dao xiang-qi yi-ge xiaohua
I because husband vegetarian think of a joke
lai-le.
PART
"Because my husband is a vegetarian, I am reminded of a joke."

Since under normal interpretation the causal connection between her husband's being a vegetarian and the joke is very indirect, it is also something the speaker and/or the addressee may not have expected. So dao$_2$ is used to show this contrariness of expectation. That this analysis is not too far off the mark receives some confirmation from (35), where the use of dao$_2$ in a sentence in which the causal relationship is more direct makes it ungrammatical.

(35) # Wo yinwei mei chifan duzi dao hen e.[6]
I because didn't eat stomach very hungry

However, if cai$_2$ is used in place of dao in (35), then it is appropriate. But the speaker would be asserting that it is only because he didn't eat that he is hungry, indicating a direct causal relationship between the two events.

Having explicated the meaning of cai and dao, we can now return to (1). Cai in (1a) is cai$_3$ and dao in (1b) is dao$_2$. So (1a) is actually an emphatic denial of the previous speaker's assertion that the present speaker moved his things. (1b) is a milder denial together with the implication that someone else did it. The meaning will be clear if we embed them in a larger context as in (36).

(36) a. Speaker 1: Ni dong-guo wo-de dongxi.
you move-ASP my things
"You moved my things."
Speaker 2: Wo cai mei dong-guo ni-de dongxi.
I (just) didn't move your things
Wo bu zhidao shi she dong-de. Fanzheng
I not know BE who moved anyway
bushi wo.
not I
"I did not move your things. I don't know
who did. Anyway, it was not me."
b. Speaker 2: Wo dao mei dongguo ni-de dongxi.
I didn't move your things
Shi didi dong de.
BE younger brother move PART
"(Contrary to what you have expected,) I
didn't move your things. It was our younger

brother who did it."

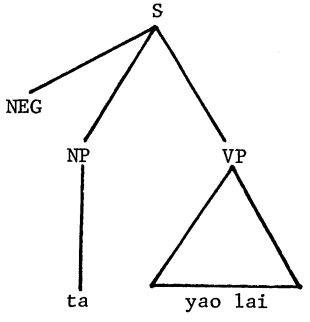
IV. The scope of the different senses of cai and their interactions with negation

Recently, there have been some arguments as to the scope of negation and some adverbs in Chinese (see Teng, (1973, 1974); Chan, (1973); Hashimoto, (1971)). It would be out of place to have a review of the literature here. As far as cai and dao and their interaction with negation are concerned, Teng's framework (Teng, (1974)) seems to be workable in general. So, without further justification, I would adopt Teng's framework in the following discussion, although I would like to make clear from the start that the correctness of the analysis does not depend on the framework adopted here. Before we examine the interaction, two kinds of negation need to be differentiated. Following Teng (1974), I would call them S-negation and S-refutation as exemplified by (37) and (38).

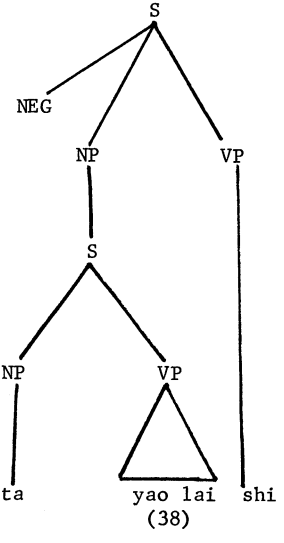
(37) Ta bu yao lai. (S-negation)
he not want come
"He doesn't want to come."

(38) Ta bu-shi yao lai. (S-refutation)
he not-BE want come
"It is not the case that he wants to come."

Schematically, they can be represented as:



(37)



(38)

The difference in meaning, according to Teng, lies in the fact that in S-negation the negative specifies that the whole S has a negative value while in S-refutation the S can be used to deny or refute an utterance made by someone. This distinction is valid in general although the test proposed by Teng is not foolproof, as shi, under some as yet unknown condition, can be deleted.

With this distinction in mind, we can then subject different senses of cai to negation test. Let's start with cai_1. For convenience, (6) is here repeated as (39).

(39) Ta cai lai san-tian.
he (no more than) come 3 days
"He has been here no more than three days."

(40) Ta cai bu lai san-tian.
he (no more than) not come 3 days
"He has been absent no more than three days."

(41) Ta bu-shi cai bu lai san-tian ma?
he not-BE (no more than) not come 3 days PART
"Isn't it the case that he has been absent no more than three days?"

(42)* Ta cai_1 bu-shi bu lai san-tian.
he (no more than) not-BE not come 3 days

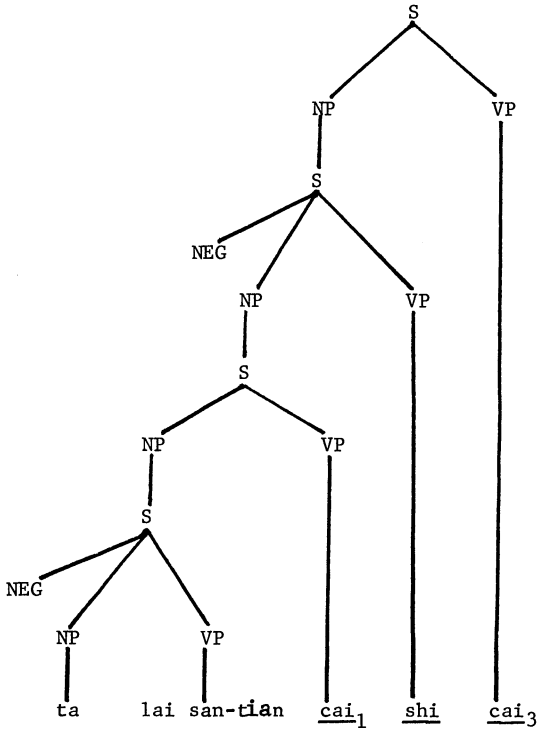
Clearly, S-negation can occur within the scope of cai_1 as in (40), and cai_1 can in turn occur within the scope of S-refutation as in (41). However, cai_1 can not occur outside the scope of S-refutation, as (42) is ungrammatical in cai_1 interpretation. The sentence, however, is grammatical if cai is interpreted as cai_3, as in (43).

(43) Ta cai_3 bu-shi bu lai san-tian.
he (just) not-BE not come 3 days
"It is just not the case that he has been absent for three days."

This phenomenon is perfectly in line with the meaning postulated for cai_3, i.e. an emphatic modifier modifying sentence refutation. That this analysis is correct receives another confirmation from the fact that both cai_1 and cai_3 can occur in a sentence in which both S-refutation and S-negation occur as in (44).

(44) Ta cai_3 bu-shi cai_1 bu lai san-tian ne.
he (just) not BE (no more than) not come 3 days PART
"It is just not the case that he has been absent for no more than three days."

So the scope of cai_3 and cai_1 and the two types of negation can be schematically represented in the following diagram.



With cai$_2$, however, the problem is different. Observe the following sentences. (10) is here repeated as (45).

(45) San-ge yue cai neng zuo-de-hao.
three months (only then) can do-finish
"(I) can finish doing it only in three months."

(46)* San-ge yue cai$_2$ bu neng zuo-de-hao.
3 months (only then) not can do-finish
?"(I) can not finish doing it only in three months."

There seems to be some pragmatic constraints concerning the occurence of negation within the scope of cai$_2$. This can be explained by the meaning of cai$_2$ and the condition of the world. Recall that cai$_2$ indicates that something can be achieved only when the condition set by the preceding clause is met. So it seems to me that unless something can be achieved negatively, it is impossible for negation to occur within the scope of cai$_2$. That this seems to be correct can be seen from the following pair of sentences.

(47)* Ni zhi-you kuai pao cai bu hui zhui-shang ta.
you only fast run (only then) not will overtake him
*"You will not overtake him only by running fast."

(48) Ni zhi-you kuai pao cai bu hui bei ta zhui-shang.
you only fast run (only then) not will PASS. MAR. him overtake
"Only by running fast will you not be overtaken by him."

(46), however, can receive an interpretation when cai there is taken to be cai_3 in a context like (49).

(49) Speaker 1: Wo xiang san-ge yue ding neng zuo-de-hao.
I think 3 months must be able do-finish
"I think (they) must be able to finish doing it in three months."

Speaker 2: San-ge yue cai bu neng zuo-de-hao.
3 months (just) not can do-finish
"(They) can not finish doing it in three months."

The second speaker's part in (49) is roughly equivalent to (50).

(50) Cai bu-shi san-ge yue neng zuo-de-hao.
(just) not-BE 3 months can do-finish
"It is just not the case that they can finishing doing it in three months."

This shows that cai in (49) is cai_3 not cai_2. Cai_2, however, can freely occur within the scope of S-refutation as in (51).

(51) Bu-shi san-ge yue cai neng zuo-de-hao.
not-BE 3 months (only then) can do-finish
"It is not the case that they can only finish doing it in three months."

The fact that cai_1, cai_2, and cai_3 interact differently with negation, and that these differences can be explained by their different scopes and meanings seems to show independently that our analysis is not too far off the mark. The interaction between dao and negation is, I believe, equally interesting, although space prevents us from going into it here.

V. Theoretical implication

This analysis of two Chinese adverbs has revealed three points of theoretical import.

1. To the extent that this analysis has been successful in explicating the meaning and use of the two adverbs, it demonstrates clearly that some adverbs are very much context-bound. It would be very difficult, if not impossible, to study their meaning and use if we continue to follow in the footsteps of many grammarians, who have claimed, in one form or another, that

the sentence is the largest unit that is important for grammatical analysis. If we restrict our grammatical description to the sentence boundary, then our grammar will probably have no place for cai$_3$ and dao$_2$.

2. Recently if has been quite fashionable in linguistic studies to analyze anything that contributes to the propositional content of a sentence as part of the meaning of the sentence and anything that does not as conventional implicature or conversational implicature in the Gricean sense. To the extent that this analysis of the two adverbs is correct it seems to show that such a distinction is arbitrary if not completely untenable.

3. This analysis has also shown that the pragmatic notion of "expectation" may have far-reaching interaction with syntax and semantics. And a survey of recent linguistic publication will show that this is by no means an isolated case. There are many studies in many different languages which show that form and use can interact in many more ways than have hitherto been imagined possible. So the problem facing linguists now is not whether we should study pragmatics or not, but rather how we can best study it so that we can bring to light the true nature of its interaction with syntax and semantics. It is in this regard that I think studies of adverbs can best contribute to our understanding of language.

FOOTNOTES

* I am greatly indebted to Professors Sandra A. Thompson, James T. Heringer, and Robert B. Kaplan for their valuable comments on an earlier version of this paper. Needless to say, I, and I alone, am responsible for all the possible errors in it.

1. Whenever a rough English equivalent is possible in a particular context, it is given in the gloss in parenthese.
2. '#' before a sentence indicates that the sentence is not appropriate in the context under consideration, though it may be so in other contexts.
3. How to characterize a time clause, a measurement clause, or, for that matter a manner clause is an unsolved problem that I will not go into here. Quite often there will be some time expressions (such as qian-tian 'the day before yesterday', san-nian-qian 'three years ago' or measurement expressions such as, wu-qian-kuai 'five thousand dollars', shi-jing 'ten katty', shi-wu-li 'fifteen miles') occurring in the clause, although this is not a necessary condition. Also these time or measurement phrases can often occur without a verb in the surface. Following Chao (1968), I am regarding them as nominal predicates. For a detailed discussion of time and measurement phrases see Chao (1968: Chapter 7).
4. It would seem from (16 a & b) that cai can occur either before the verb or after it. This fact can be captured by

positing a rule which moves cai from the preverbal position to the position between the verb and the following time or measurement phrase. There are, however, some unknown constraints on this otherwise optional rule. Observe that (I) is grammatical while (II) is questionable.

(I) Ta mei-ge-yue cai zhuang san-bai-kuai.
he every month (no more than) earn 300 dollars
"He earns no more than 300 dollars a month."
?(II) Ta mei-ge-yue zhuang cai san-bai-kuai.

5. The notion of "called-for response" was first proposed by George Lakoff (1974). Although it seems intuitively sound, it is not part of the essential condition in the theory of speech acts proposed by Searle (1969), as Lakoff claims. In Searle's framework, the essential condition is roughly equivalent to the illocutionary point of a speech act. In the case of request, for instance, the point is that the speaker intends the hearer to perform some future act. This intention on the part of the speaker can be said to call for certain response only when taken in the context of Grice's conversational maxims (Grice, 1975) together with a politeness convention. In other words, the speaker in uttering a request expresses a certain intention and the hearer, following the Cooperative Principle and the politeness convention will normally respect the intention unless he has reason not to do so.

6. Actually, I should say the sentence is inappropriate because it may be grammatical in a context like the following:

Speaker 1: Xianzai cai liang-dian. Ni yi-ding bu e ba.
"It is just 2. I am sure you are not hungry yet."
Speaker 2: Wo yin-wei mei chi wu-fan, duzi dao hen e.
"(Contrary to what you have expected,) because I didn't have lunch, I am really hungry."

Clearly, in the context dao_2 does not refer to the causal relationship.

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