Chapter 6
Grammaticalization

In chapter 4, we have claimed that there are three types of *diao*, and each of them has a distinct meaning and syntactic status: *diao*<sub>result</sub> means ‘to be removed in a downward direction’, *diao*<sub>phase</sub> means ‘to be removed’, and *diao*<sub>aspect</sub> bears a grammatical meaning indicating inchoative. To account for the polysemy and the multiple syntactic status of post-verbal *diao*, we believe that *diao* is in the process of grammaticalization. The theories of grammaticalization are first introduced in section 6.1 for an easy access to our latter discussion. Then in section 6.2, the five principles of grammaticalization proposed by Hopper (1991) will be brought up, and we will examine whether *diao* observe them. At last, the grammaticalized cline of post-verbal *diao* will be constructed in section 6.3.

6.1 Theories of Grammaticalization

Grammaticalization has aroused many linguists’ interest and thus become a popular research topic in recent years. In fact, as early as tenth century, Chinese writers have been aware of the distinction between “full” and “empty” lexemes. In Yuan dynasty (A.D. 1271-1368), a man named Zhou Bo-qi claims that all empty lexemes had an origin from full ones. (Heine, Claudi & Hünnemeyer 1991, cf. Harbsmeier 1979).

Traditionally, linguists have emphasized on either the form or the meaning of a grammaticalized lexeme. Some linguists define grammaticalization from a morphological perspective, while some from a semantic perspective. The former linguists are like Heine et al. (1991: 3) who states: “when words belonging to an open

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9 Hopper (1991) used grammaticization rather than grammaticalization to avoid the hint of a suggestion that the resultant forms are “grammatical.”
class, like that of nouns, develop into closed class words such as adverbs, this constitutes an instance of grammaticalization,” and Heine et al. who cites Kurylowicz ([1965] 1975): “Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g. from a derivative formant to an inflectional one” (Heine et al. 1991: 3). The linguists subscribing to the latter claim are like Pagliuca (1994: viiiii) who declares: “As a lexical construction enters and continues along a grammaticalization pathway, it undergoes successive changes in meaning, broadly interpretable as representing a unidirectional movement away from its original specific or concrete reference and toward increasingly general and abstract reference.”

Grammaticalization possesses a few characteristics worthy of mention: (a) unidirectionality (b) selection restriction (c) clines (d) abstractness. First, grammaticalization is a process that leads lexemes from lexical to grammatical and from concrete to abstract, and this direction cannot be reversed; that is, grammaticalization is a unidirectional process of decline or decay. Second, not all kinds of lexical items can undergo grammaticalization. Superordinate terms (also known as “hyperonyms”) have a stronger tendency to grammaticalize than specialized ones. In other words, typically it is “basic words” that involve in grammaticalization. Specific terms cannot grammaticalize unless they become more general (Hopper and Traugott 1993). Third, the concept of “clines” is basic to the studies in grammaticalization. As Hopper and Traugott (1993) point out, the term “cline” can be interpreted both diachronically and synchronically. In a diachronic sense, a cline is a natural pathway of the evolvement of lexical items. In a synchronic sense, a cline is the same as a continuum, which is an imaginary line with one end lying a source lexeme (e.g. a lexical item) and the other end a target lexeme (e.g. a grammatical
item). Many kinds of clines have been proposed, and the cline of grammaticality is the most recognized one: content item > grammatical word > clitic > inflectional affix. Fourth, grammaticalization usually encounters the abstractness of meanings. There are two types of abstraction which are frequently applied to grammaticalization: generalizing abstraction and isolating abstraction (Heine et al. 1991). The former diminishes any other meaning of a lexeme except its core meaning, and the latter extracts a particular meaning from all the meanings of a lexeme. These two types of abstraction represent that the final abstract meaning of a grammaticalized lexeme comes from its source meanings; hence Givón (1973) posits that the meaning of a grammaticalized lexeme is predictable. Sometimes the abstraction of meaning also has an effect on the categorial status and sometimes it does not. The first one is labeled as structure-changing abstraction, while the second one structure-preserving abstraction. However, there is also a possibility that the source meanings of a grammaticalized lexeme completely disappear or are replaced by a new meaning that is unrelated to its source (Heine et al. 1991).

6.2 Evidence of Grammaticalization

For the convenience of using synchronic data to discriminate grammaticalization from accidental collocations, Hopper (1991) proposes five principles that underlie the initial stages as well as the later stages of grammatical forms: Layering, Divergence, Specialization, Persistence, and De-categorialization. Layering is a condition that new meanings or functions have emerged, but the old ones still exist. Divergence describes a phenomenon that a lexeme has grammaticalized into a clitic or affix, but its original form still keep the same way it was. Specialization portrays a situation that once grammaticalization occurs, the numbers of variant forms performing the same
function will be reduced. Persistence depicts a condition that a grammaticalized lexeme still sticks to its source meanings and even its grammatical distribution.

De-categorialization refers to a tendency that a grammaticalized lexeme switches from full categories (e.g. verb and noun) to secondary categories (e.g. adjective, participle, preposition, etc.).

From our earlier study of post-verbal diao, it is not hard to find that diao displays most of these five characteristics of grammaticalization. Recall there are three types of diao: diao\textsubscript{result} is a resultative complement, which means ‘to be removed in a downward direction’ and puts emphasis on the final state of the subject or the object; diao\textsubscript{phase} is a phase marker, which means ‘to be removed’ and focuses on the whole event conveyed by the preceding verb; diao\textsubscript{aspect} is an aspect marker, which bears little lexical meaning and denotes an inchoative. Diao\textsubscript{result} and diao\textsubscript{phase} have the meanings related to the movements of entities, either physical or psychological, which must occur in space, hence we may say diao\textsubscript{result} and diao\textsubscript{phase} construct a spatial layer. Diao\textsubscript{aspect} expresses an inchoative which is a concept of time, so we may say diao\textsubscript{aspect} builds a temporal layer. For example:

(57) Ta che-diao chenshan de kouzi.
    he tear-DIAO shirt POSS button
    ‘He tore down the button of his shirt.’

(58) Ta dao-diao beizi li de shui.
    he pour-DIAO glass in POSS water
    ‘He poured away the water in the glass.’

(59) Jidan chou-diao le.
    egg stink-DIAO LE
    ‘The egg has become stinky.’
In (57), *diao* is a resultative complement and describes *kouzi* ‘the button’ removed from *chenshan* ‘the shirt’ to another place. In (58), *diao* is a phase marker and describes *shui* ‘the water’ removed from *beizi* ‘the glass’ to other places. *Diao* in these two sentences are in the spatial layer. In (59), *diao* is an aspect marker and indicates the time when *jidan* ‘the egg’ became stinky. This kind of *diao* is in the temporal layer.

To sum up, post-verbal *diao* has two layers: spatial and temporal. Since they co-exist and the latter emerges later than the former (we will prove this cline in section 6.3), it is clear that *diao* follows the Layering principle.

To assume the meaning of verbal *diao* is ‘to fall,’ a resultative complement can be regarded as a full-fledged verb because it bears a much verb-like meaning — to be removed in a downward direction; a phase marker can be regarded as a degenerate verb because it bears a less verb-like meaning — to be removed; an aspect marker is a clitic because it bears little lexical meaning. When *diao* has grammaticalized into a clitic (i.e. *diao*<sub>aspect</sub>), the original *diao* (i.e. *diao*<sub>result</sub> and *diao*<sub>phase</sub>) still remains its traits such as the compatibility with potential forms *de* and *bu*. The following examples illustrate this characteristic:

(60) a. Ta pai-diao kuzi shang de mianfen.
    he pat-DIAO pant on POSS flour
    ‘He patted the flour off his pants.’

    b. Ta pai bu diao kuzi shang de mianfen.
    he pat cannot DIAO pant on POSS flour
    ‘He cannot pat the flour off his pants’

(61) a. Ta liu-diao le.
    he slip-DIAO LE
    ‘He has slipped away.’
Diao in (60a) is a resultative complement and it is compatible with the potential form 
bu as (60b) shows. In (61a) diao is a phase marker and it is compatible with the 
potential form de as (61b) presents. From these examples, we learn that though diao 
has grammaticalized into a clitic, its original forms still preserve their properties. This 
phenomenon is Divergence as Hopper (1991) calls.

We have claimed that the meaning of diao_result is ‘to be removed in a downward 
direction’, while the meaning of diao_phase is ‘to be removed’. It is clear that diao_phase 
retains certain meaning of diao_result. This preservation of source meanings is a 
characteristic of grammaticalization named Persistence. Moreover, if tracing back to 
verbal diao, whose meaning is ‘to fall’, we will find that the meaning of diao_result 
actually comes from verbal diao. Since ‘to fall’ is the core meaning of verbal diao, 
and the meanings of diao_result and diao_phase both derive from it, we may consider diao 
undergoes a generalizing abstraction.

Diao also experiences a process of de-categorialization, which refers to a 
situation that a grammaticalized form loses morphological or syntactic features of the 
full categories (i.e. noun and verb), and then assumes the attributes of second 
categories (i.e. adjective, participle, preposition, and so on). Diao_result is a full-fledged 
verb, so it can be a predicate in a clause as (62b) displays, whereas diao_phase and 
diao_aspect are not a full-fledged verb, so they cannot be predicates in (63b) and (64b).

(62) a. Ta Zhuang-diao menya. 
    he bump-DIAO incisor 
    ‘He bumped off his incisor.’
b. Ta zhuang, menya diao.
he bump, incisor fall
‘He bumped, and his incisor fell down.’

(63) a. Ta chou-diao yi bao yan
he smoke-DIAO one CL cigarette
‘He smoked away a pack of cigarettes.’

b. * Ta chou, yi bao yan diao
he smoke, one CL cigarette DIAO

(64) a. Shutiao leng-diao le.
French fries cold-DIAO LE
‘The French fried has become cold.’

b. * Shutiao leng, shutiao diao.
French fries cold, French fries DIAO

Since with the abstraction of *diao*, the syntactic status of *diao* also changes, we may say *diao* goes through a structure-changing abstraction.

To conclude, we have shown that except Specialization, *diao* obeys all of the principles proposed by Hopper (1991): Layering, Divergence, Persistence, and De-categorialization. Therefore, it is reasonable for us to suggest that *diao* is in a process of grammaticalization.

6.3 The Cline of Post-verbal *Diao*

Cline is an important concept to the studies of grammaticalization. It refers to the order of the process a grammaticalized form goes through. Since the study of post-verbal *diao* we conduct at present is in a synchronic nature, the cline of *diao* is in
fact equal to a continuum, which is “an arrangement of forms along an imaginary line
at one end of which is a fuller form of some kind, perhaps ‘lexical,’ and at the
opposite end a compacted and reduced form, perhaps ‘grammatical’” (Hopper and
Traugott 1993). A continuum is a continuous line, so the position of the three types of
diao in the grammaticalization cline would not be clear-cut. In other words, there will
be some situations that diao may be of different types in the same sentence, and thus
produces ambiguous meanings. For example:

(65) a. Wo de maozi bei feng chui-diao le.
   I POSS hat PASS wind blow-DIAO LE
   ‘My hat has been blown off.’
   ‘My hat has been blown away.’

There are two possible interpretations for (65a) as indicated in the English translations.
Diao may denote ‘to be removed in a downward direction’ on the one hand, so the
meaning of the compound chui-diao is ‘to blow off.’ On the other hand, diao may
denote only ‘to be removed’ without indication of directions, so the meaning of the
compound chui-diao is ‘to blow away.’ These two interpretations can be expressed
more clearly in the following sentences.

(65) b. Wo de maozi bei feng chui-diao zai dishang.
   I POSS hat PASS wind blow-DIAO on ground
   ‘My hat has been blown down to the ground.’

c. Wo de maozi bei feng chui-diao le, dao chu dou
   I POSS hat PASS wind blow-DIAO LE, everywhere all
   zhao bu dao.
   find cannot out
   ‘My hat has been blown away, and I could not find it everywhere.’
The meaning of *diao* in (65b) is ‘to be removed in a downward direction’, and *diao* is viewed as a resultative complement; while the meaning of *diao* in (65c) is ‘to be removed,’ and *diao* is regarded as a phase marker. The ambiguity of *chui-diao* tells us that in the cline of post-verbal *diao*, a resultative complement must be adjacent to a phase marker. Recall a resultative complement is a full-fledged verb, whereas a phase marker is a degenerate verb, we may assume post-verbal *diao* is grammaticalized from a resultative complement to a phase marker. As for *diao* aspect, which has little lexical meaning and is the most grammatical form among the three types of *diao*, it would be placed at the end the cline. The cline of post-verbal *diao* presents as follows: Resultative complement > phase marker > aspect marker

This cline also has been proposed by Lien (1995) when he investigates several phase markers in Taiwan Southern Min, and by Kuo (2003) when she examines the syntactic status of *ki* ‘to go’ in Taiwan Southern Min. Our study of post-verbal *diao* is the first case illustrating this cline, since post-verbal *diao* possesses all of these three different syntactic status.