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## Verbal Reduplication and Grammaticalization: A Study of Mandarin *VV-kan* and *V-kankan* Constructions

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### Introduction

The present study investigates two constructions in Mandarin<sup>1</sup>—*VV-kan* and *V-kankan*—which show an interesting formal asymmetry in the distribution of verbal reduplication and *kan* ‘see’, but denote the same meaning ‘try ... and find out’. The *VV-kan* construction involves a schematic slot that is filled with a reduplicated verb, as in (1), while the *V-kankan* construction involves a verb that is followed by reduplicated *kankan* ‘see.see’, as in (2). What is intended to be discovered, or “found out,” by trying out the action is either covertly implied through context, as in (1a) and (2a), or overtly expressed by an interrogative complement clause, as in (1b) and (2b). Despite the formal asymmetry between the two constructions, (1) and (2) are observed to be free variant forms competing for the same meaning ‘try ... and find out’, since a speaker would switch from one to the other without even noticing their choices.

- (1a) zhe    shui    ni    hehe-kan            ba!  
      this    water    you    drink.drink-see    PART  
      ‘Try drinking this water and find out (implied: how it tastes)!’

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<sup>1</sup> Contemporary data examined in this study are based on Mandarin spoken in Taiwan.



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incorporated with the verb in V slot into a complex verb phrase that precedes *kankan*. Therefore, *ta* ‘he’ serving as *wen-kankan*’s complement in (4b) is unacceptable, but the complex verb phrase *wen ta* ‘ask him’ in [*wen ta*]-*kankan* ‘try asking him and find out’ in (4c) is acceptable.

- (4a) wo     qu         wenwen-kan   ta  
 I        go        ask.ask-see   he  
 ‘I’ll go and try asking him and find out.’
- (4b) wo     qu         wen-kankan   ?[ta]<sub>NP</sub>/[ta yuan-bu-yuanyi   lai]<sub>CL</sub>  
 I        go        ask-see.see   he/he willing-NEG-willing   come  
 ‘I’ll go and try asking him/and find out if he’s willing to come.’
- (4c) wo     qu         [wen [ta]<sub>NP</sub>]-kankan [(ta) yuan-bu-yanyi   lai]<sub>CL</sub>  
 I        go        ask   he-see.see   (he) willing-NEG-willing   come  
 ‘I’ll go and try asking him and find out if he’s willing to come.’

In addition, *V-kankan* exhibits ambiguity in two contexts. When preceded by a complex motion verb, *kankan* exhibits a fuzzy status between (i) an independent verb in serial verb construction [*V<sub>comp/motion</sub> + kankan*]<sub>SVC</sub> meaning ‘to go somewhere to look around/take a look,’ as in (5a)<sup>5</sup>, and (ii) a grammaticalized particle in the construction *V<sub>comp/motion</sub>-kankan* meaning ‘to try going somewhere and find out,’ as in (5b).

- (5) wo xiangyao chuguo(-)kankan  
 I    want    go.abroad(-)see.see  
 a. ‘I want to go abroad to look around/take a look (of the world).’  
 b. ‘I want to **try** going abroad and find out.’

When *kankan* is preceded by a complex verb and followed by an interrogative complement clause, the collocation [*V<sub>comp</sub> + kankan + CL<sub>intrgv</sub>*] has two interpretations: (i) ‘to do something to find out what happens’, with *V<sub>comp</sub>* and *kankan + CL<sub>intrgv</sub>* serving as two verbs in serial verb construction, as in (6a); (ii)

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<sup>5</sup> Mandarin serial verb constructions denoting two or more separate events are essentially ambiguous (Li and Thompson 1981:595). Here, a *purpose relation* between two events is the most appropriate interpretation, hence the translation ‘V<sub>1</sub> to V<sub>2</sub>’.

‘to try doing something and find out what happens’ with  $V_{\text{compX-}kankan}$  serving as a complement-taking construction meaning ‘try ... and find out’, as in (6b).

- (6) zhe ben shu    ni naqu    cankao(-)kankan    you-mei-you    bangzhu  
This CL book you take.go reference(-)see.see exist-NEG-exist help  
a. ‘Take this book as reference to find out if it can be of any help.’  
b. ‘**Try** taking this book as reference and find out if it can be of any help.’

The two constructions raise particular interests because they show differences in their morpho-syntactic properties but are functionally equivalent when used with monosyllabic verbs.  $V-kankan$  can be used with both simplex and complex verbs, is syntactically constrained, and shows ambiguity in two contexts when preceded by complex verbs, while  $VV-kan$  shows a more stable behavior—it is used exclusively with simplex verbs, and takes both nominal and clausal complements.

In light of their synchronic properties as discussed above, this study is an attempt to examine the grammaticalization pathways that the two constructions have undergone by exploring uses of *kan*, *kankan*, and their diachronic evolution in Middle, Pre-Modern, and Modern Chinese.<sup>6</sup> It is demonstrated that although grammaticalization of the two constructions occurred in different morpho-syntactic environments at different historical stages in Chinese, a recurrent path has been taken first by  $VV-kan$ , and later by  $V-kankan$  which is right now emerging in Contemporary Mandarin. Taking into account all the interacting factors that have led to a synchronic competition of the two constructions, the phenomenon investigated then presents language as a complex adaptive system (The “Five Graces Group” 2009), in which change is motivated by interacting language-internal and language-external factors (Du Bois 1985).

This paper is organized as follows. A diachronic account of the two constructions is given respectively in section 1 and section 2. In section 3, their synchronic coexistence is examined with regard to interacting language-internal and external factors, and in section 4, the conclusion of this study is provided.

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<sup>6</sup> The diachronic data examined in this study are retrieved from the Scripta Sinica database unless otherwise indicated. The periodicization of retrieved data generally follows Chen (1999:2) with minor modifications: (i) the period *Medieval Chinese* is referred to as *Middle Chinese*; (ii) a new period *Contemporary Chinese* is added to capture further development of the two constructions from their sources in Pre-Modern and Modern Chinese.

## 1 Verbal Reduplication and the Development of *VV-kan*

As has been discussed in literature, the *VV-kan* construction is diachronically related to the *V-yi-V* construction which consists of a head verb *V*, and *yi-V* which functions like an adverbial phrase denoting the meaning ‘once’ (Chao 1968: 205). The construction as a whole has the literal meaning ‘to do something just once’ but may also be metaphorically interpreted as ‘to do something a little:’

(7) *shuo-yi-shuo* (say-one-say) ‘say once ~ say a little’

Although still in debate, *V-yi-V* is generally considered as one of the diachronic sources that led to contemporary verbal reduplication (Wu 1995:165). First attested in early Pre-Modern Chinese, *V-yi-V* had undergone the drop of *yi* ‘one’ in the path *V-yi-V* > *VV*, and grammaticalized into *VV*, through which the metaphorical sense ‘to do just a little’ was conventionalized and came to be known as the tentative aspect in contemporary verbal reduplication<sup>7</sup> (Smith 1994:119). As can be seen in (8), reduplicated verbs cast a tentative scope over the designated event, hence *da* ‘play’ becoming *dada* ‘play some/just a little’.

(8a) *jintian wo xiang da lanqiu*  
today I want play basketball  
‘I want to play basketball today.’

(8b) *jintian wo xiang dada lanqiu*  
today I want play.play basketball  
‘I want to play some / a little bit of basketball today.’

What came to be associated with the *V-yi-V* construction was post-verbal *kan* during Pre-Modern Chinese. During Middle Chinese, the meaning of *kan* ranged from perception ‘look/see’ to cognition ‘find out/check’. The former is restricted to situations where the object/event being ‘looked at/seen’ is concrete or has

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<sup>7</sup> Note that an optional *yi* ‘one’ may still be inserted into reduplicated verbs in contemporary Chinese. Therefore, the path *V-yi-V* > *VV* does not mean that all instances of *V-yi-V* grammaticalized into *VV* in Mandarin. It only refers to one of the diachronic sources leading to contemporary verbal reduplication (cf. the origin of *kankan* discussed in the next section).

already happened, while the latter is related to future-reference, or unknown nature of the object/event. Regarding their distribution (as main predicate or post-verbally in serial verb construction) and syntactic behaviors (transitivity), Middle Chinese *kan* can be categorized into the following four types:

- |                                                                    |                                                       |
|--------------------------------------------------------------------|-------------------------------------------------------|
| (9a) Main predicate/transitive/perceptual                          | ( <i>kan</i> <sub>vi.</sub> + NP)                     |
| ... kan xin fu                                                     | ( <i>ShiShuoXinYu</i> )                               |
| ... see new woman                                                  |                                                       |
| ‘... see the bride.’                                               |                                                       |
| (9b) Main predicate/transitive/cognitive                           | ( <i>kan</i> <sub>vt.</sub> + CL <sub>intrgv.</sub> ) |
| ... kan tang re bu                                                 | (Wu 1995:162)                                         |
| ... see soup hot NEG                                               |                                                       |
| ‘... find out if the soup is hot or not.’                          |                                                       |
| (9c) SVC/intransitive/perceptual                                   | (V <sub>motion</sub> + <i>kan</i> <sub>vi.</sub> )    |
| xin fei shu chu kan                                                | ( <i>ShiShuoXinYu</i> )                               |
| Xin abandon book out see                                           |                                                       |
| ‘Xin then stopped studying and go out to see (what has happened).’ |                                                       |
| (9d) SVC/intransitive/cognitive                                    | (V <sub>action</sub> + <i>kan</i> <sub>vi.</sub> )    |
| ni shi shuo kan                                                    | ( <i>ZuTangJi</i> )                                   |
| you try say see                                                    |                                                       |
| ‘Try saying (it) and find out (what will happen).’                 |                                                       |

Note that the case in (9d) is usually found in imperatives, where a pragmatic implicature ‘try’ naturally arises: as the speaker requests that the hearer perform some action in order to find out what will happen as a result of that action, s/he is implicitly requesting the hearer to *try* performing that action. Therefore, ‘try’ is implied in (9e) below, even when the lexical verb *shi* ‘try’ is not present:

- |                                                                              |                     |
|------------------------------------------------------------------------------|---------------------|
| (9e) qing xiong yu wu nian kan!                                              | ( <i>ZuTangJi</i> ) |
| please brother to I read see                                                 |                     |
| ‘Please, my brother, read it / ( <b>try</b> ) reading it to me to find out!’ |                     |

It was post-verbal intransitive *kan* with the cognitive sense ‘find out’ in (9d) and (9e) that came to co-occur with V-*yi*-V during Pre-Modern Chinese. As shown in



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(10), the collocation [V-yi-V + *kan*] involves ‘try’ as its meaning even when the verb *shi* ‘try’ is absent and when occurring in declaratives:

- (10) die      qi zhitou suan-yi-suan      kan      (*ErKePaiAnJingQi*)  
 pile      up finger count-one-count see  
 ‘(He) piled up his fingers to try counting in order to find out.’

Tsao (2001:291) observes a close semantic connection between ‘do a little’ and ‘try’: “when one is just trying, one will normally do just a little.” Accordingly, ‘try’ implied by post-verbal *kan* may have been pragmatically strengthened by the semantics of V-yi-V, hence conventionalized in the context [V-yi-V + *kan*]. As V-yi-V grammaticalized into VV, the collocation [VV + *kan*] was also found in Modern Chinese:

- (11) gu              chacha              kan              (*LuQiDeng*)  
 tentatively check.check see  
 ‘(I’ll) just try checking and find out.’

Note that by Modern Chinese, all cases of post-verbal *kan* were used intransitively. The transitive uses of VV-*kan*, as seen in (1) and (4a), are clearly a contemporary innovation, which indicates that (i) the meaning ‘try ... and find out’ has been semanticized in [VV + *kan*]; (ii) a constructional schema VV-*kan* with the new coded meaning has emerged; and (iii) the grammaticalized construction has generalized its grammatical behavior to be used transitively in taking nominal and clausal complement,<sup>8</sup> hence is not restricted to the original context.

(12) Development of VV-*kan* from post-verbal *kan*

<b>Mid. Ch.</b>	<b>PreMdn.-Mdn. Ch.</b>	<b>Contemp. Ch.</b>
V <sub>motion</sub> + <i>kan</i> <sub>vi</sub>		
V <sub>action</sub> + <i>kan</i> <sub>vi</sub>	> V-yi-V + <i>kan</i> <sub>vi</sub>	> VV + <i>kan</i> <sub>vi</sub> > VV- <i>kan</i> <sub>vi/vt</sub>
‘try’ as <u>pragmatic implicature</u>	> ‘try’ as <u>conventionalized implicature</u>	> ‘try’ as <u>new coded meaning</u>

---

<sup>8</sup> Note that *kan* taking interrogative clauses as seen above in (9b) is still in use. The transitive use of VV-*kan* that takes an interrogative clause as its complement might be attributed to analogy to complement taking verbal *kan*.

## 2 Reduplicated *kankan*, Complex Verbs, and the Emerging *V-kankan*

*V-kankan* interestingly contrasts with *VV-kan* since the former involves post-verbal reduplicated *kankan* instead of a schematic slot filled with reduplicated verbs. However, unlike *VV* in *VV-kan*, *kankan* was among the verbs that underwent direct reduplication instead of the path  $V\text{-}yi\text{-}V > VV$ , as indicated by Tsuei (2010). In Middle Chinese, direct reduplication generally rendered a durative/continuous interpretation, and reduplicated *kankan* served like an adjunct adverbial clause with the meaning ‘as someone looks/observes for a while’, as in (13a). However, when followed by a nominal complement, reduplicated *kankan* came to have the meaning ‘to look at’, and when used in imperatives it may also serve a tentative meaning ‘to take a look’, as can be seen in (13b).

(13a) Intransitive *kankan* ‘durative see’

kankan shui mo lai shi lu (Tsuei 2010:228)

see.see water submerge come time road

‘As (I) looked for a while, the water has submerged the road I took.’

(13b) Transitive *kankan* + NP ‘durative look at/tentative take a look at’

kankanjia shang ying (Tsuei 2010:228)

see.see rack up eagle

‘Look at/take look at the eagle on the rack!’

In Pre-Modern Chinese, the tentative meaning of transitive *kankan* was extended to several different contexts. Like *kan* in Middle Chinese, *kankan* at this period involved both perceptual and cognition senses. First, it began to take interrogative clausal complements and had the cognition meaning ‘find out’. Second, it began to occur in post-verbal positions in a serial verb construction, where the first verb can be classified into two categories: motion verbs and action verbs, as can be seen in (14).<sup>9</sup> Note that in (14c) there is a pragmatic implicature ‘try’ arising out of the context, since when one is doing something in order to find out what will happen as a result of performing that action, one is also *trying* that action out.

<sup>9</sup> There are also cases of *kankan* used as main predicate, but their functions are identical to those of their post-verbal counterparts, thus are not included due to spatial concerns.

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(14a) SVC/transitive/perceptual ( $V_{\text{compX}} + kankan + NP$ )

xiaozǐ      jīnwǎn      yào **huìqù**      **kankan**      jiālǐ (*XingShiHengYan*)  
little.boy    tonight    will return.go see.see    home.inside

‘The little boy is going to go back to take a look at/check on his family.’

(14b) SVC/intransitive/perceptual ( $V_{\text{motion/compX}} + kankan$ )

xū              shàngxiān      **qīnqù**              **kankan** (*XiYouJi*)  
need            up.celestial    personally.go see.see

‘It requires that the great celestial go and take a look in person.’

(14c) SVC/transitive/cognition ( $V_{\text{compX}} + kankan + CL_{\text{intrgv}}$ )

nǐ      **tàitóu**      **kankan**      wǒ      shì      nǎge              (*XiYouJi*)  
you lift.head see.see    I    be    which.one

‘(Try) lifting your head/lift your head to find out which one I am!’

Also note that the verbs preceding Modern Chinese *kankan* were usually morphologically complex. This can be attributed to a long period of development of complex predicates that had been in progress starting from the period of Middle Chinese.<sup>10</sup> The newly formed complex verbs constitute a crucial factor that distinguishes the development of *V-kankan* from that of *VV-kan*, which will be discussed in the next section. Right now, it is appropriate to see the connection between the collocation [ $V_{\text{compX}} + kankan + CL_{\text{intrgv}}$ ] in Pre-Modern Chinese and its counterpart in Contemporary Chinese.<sup>11</sup>

The reader is advised to refer back to (6) and compare it with (14c). Observe that while ‘try’ had been an implicature in (14c), it is included in one of the two meanings in the ambiguous [ $V_{\text{compX}} + kankan + CL_{\text{intrgv}}$ ] in (6), where one interpretation is identical to the coded meaning in (14c), and the other interpretation includes ‘try’ serving no longer as an implicature but as part of the new coded meaning. According to Hopper (1991), grammaticalization crucially involves inferences being semanticized in a forming construction, the process of which may last for a long period where the old sense and the semanticizing inference coexist. Since there is evidence that [ $V_{\text{compX}} + kankan + CL_{\text{intrgv}}$ ] is

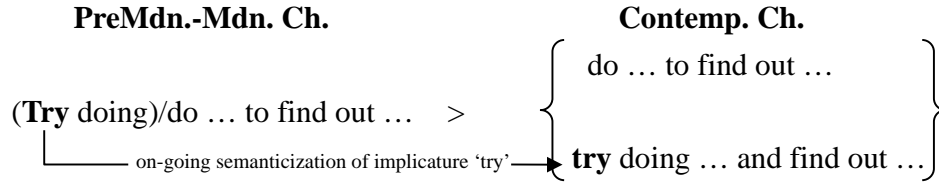
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<sup>10</sup> Multisyllabic complex verbs began to develop as the number of possible syllables had been decreasing due to simplification of the Chinese phonological system, before which the language had shown a one-word/one-syllable pattern (Norman 1988:112).

<sup>11</sup> No obvious changes are found in Modern Chinese [ $V_{\text{compX}} + kankan + CL_{\text{intrgv}}$ ].

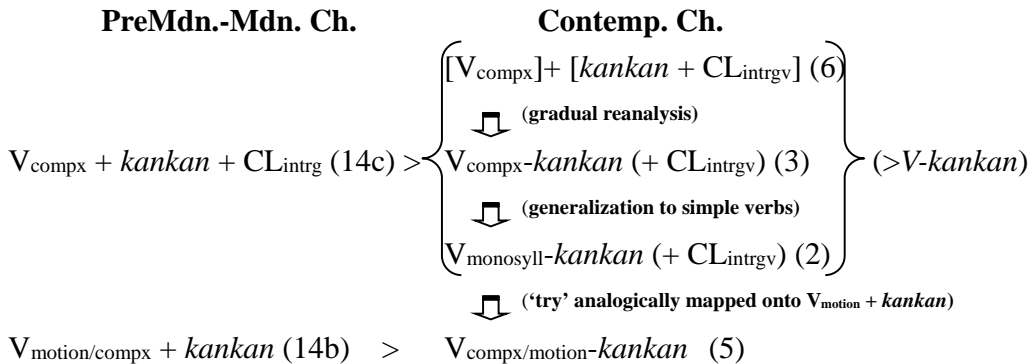
attested in both Pre-Modern and Contemporary Chinese, it can be inferred that the implicature ‘try’ is right now undergoing semanticization in this context.

(15) Semanticization of ‘try’ in [V<sub>comp</sub> + *kankan* + CL<sub>intrgv</sub>]



Having established that there is an on-going process of semanticization in [V<sub>comp</sub> + *kankan* + CL<sub>intrgv</sub>], the other cases of *kankan*-related constructions (which are treated as instantiations of *V-kankan* in the introduction) exemplify a typical case of *layering* (Hopper 1991), where older and newer forms co-exist at an intermediate stage of grammaticalization. First, the fact that there is intransitive use of *V<sub>comp</sub>-kankan*, as seen in (3) indicates that a gradual reanalysis [V<sub>comp</sub>] + [*kankan* + CL<sub>intrgv</sub>] > *V<sub>comp</sub>-kankan* (+ CL<sub>intrgv</sub>) is in progress. Second, the other case of ambiguity observed in [V<sub>comp/motion</sub>-*kankan*] can be seen as influenced by the forming construction *V-kankan*, whose meaning ‘try ... and find out’ is being analogically mapped onto the collocation [V<sub>comp/motion</sub> + *kankan*] where ‘try’ did not exist during Pre-Modern Chinese. Third, as *V-kankan* is forming, it is also spreading its use to monosyllabic verbs, as a result of generalization of its grammatical behavior.<sup>12</sup> Hence a competition with the extant *VV-kan* is set up.

(16) Layering and the emerging *V-kankan*



<sup>12</sup> Note that no uses of *kankan* preceded by monosyllabic verbs with the meaning ‘try ... and find out’ were attested before Contemporary Chinese.

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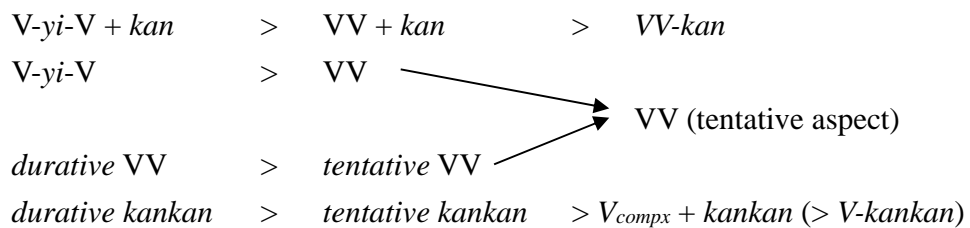
The on-going change is explanatory of the syntactic constraint that *V-kankan* does not take nominal complements, as has been shown in (4b). This can be seen as a case of *persistence* (Hopper 1991) of original context since the collocation [ $V_{\text{compX}} + kankan + \text{NP}$ ], as in (14a), did not involve implicature ‘try’ at all. Therefore, *V-kankan* is different from *VV-kan* in that the former is an emerging construction that is still undergoing grammaticalization, while the latter has developed into a full-fledged construction with its own generalized grammatical behavior.

### 3 A Recurrent Path and Co-existence of the Two Constructions

As has been shown, different morpho-syntactic contexts are observed in the grammaticalization of *VV-kan* and *V-kankan*: while the former involved intransitive *kan* that participated in the path  $V\text{-}yi\text{-}V > VV$ , the latter is emerging from the context [ $V_{\text{compX}} + kankan + \text{CL}_{\text{intrgv}}$ ]<sub>SVC</sub>. A close examination of the development indicates that their convergence in Contemporary Chinese is nevertheless motivated and can be attributed to a recurrent path that has been taken.

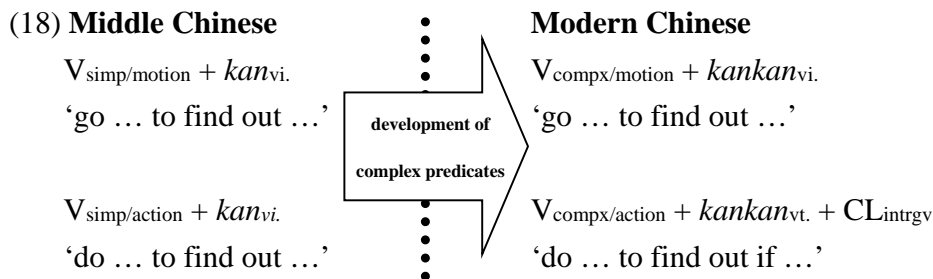
To begin with, the interaction of two historical factors—development of verbal reduplication and formation of complex predicates—plays a crucial role in providing context for the emergence of *V-kankan*. As mentioned above, the lexical source for *V-kankan*, i.e. reduplicated *kankan*, is created as distinct from those for *VV-kan* since the development of contemporary verbal reduplication can be seen as a merger of two diachronic paths into one synchronic morphological process.

(17) Two merging paths of verbal reduplication



On the other hand, the context for *V-kankan*’s emergence crucially relies on the development of complex predicates. By the period of Modern Chinese, post-verbal monosyllabic *kan* had gradually lost its function as an independent

verb since it has become highly dependent on the preceding VV in denoting the sense ‘try ... and find out’ in the evolution of *VV-kan*. At the same period, *kankan*, whose tentative use had been well-developed, had also started to interact with newly formed complex verbs and developed periphrastic combinations that served to convey concepts that used to be expressed by post-verbal *kan* in Middle Chinese. As illustrated in (18), two uses of post-verbal *kan* in Middle Chinese have corresponding (near) synonymous uses of post-verbal *kankan* in Modern Chinese. Observe that the two stages are separated by a long period of development of complex predicates in the language.



Furthermore, comparison of the development of the two constructions reveals that the mechanisms involved are essentially the same despite the different, unpredictable morpho-syntactic contexts involved. Considering the nature of the lexical sources, *kan* and *kankan* at all levels both had the cognitive sense ‘find out’ from the perceptual sense ‘see/look,’ as a result of cross-linguistically attested metaphorical mapping between the domains of perception and cognition (Sweetser 1990). One characteristic of the rise of the meaning ‘find out’ from ‘see/look’ is future time-reference; that is, *kan/kankan* meaning ‘find out’ both refer to events that are unactualized but of interest to the interlocutors because they are to be actualized as a result of performing certain actions. Interacting with context, the meaning ‘find out’ then gave rise to the pragmatic implicature ‘try’ through metonymic inferencing (Hopper and Traugott 2003). As the implicature ‘try’ became conventionalized through pragmatic strengthening, and the context for the rise of the implicature have grammaticalized, the construction as a whole with ‘try’ semanticized as part of its meaning ceased to be restricted by the original context and developed its own grammatical behavior. The previous two sections have been devoted to accounting for the observation that synchronically

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*VV-kan* has reached this final stage in which ‘try’ has been semanticized as new coded meaning, while *V-kankan* is right now entering this stage.

Considering the preceding discussions, the interaction of diachrony with cognitive mechanisms therefore leads to a recurrent path that has been taken first by post-verbal *kan* in the grammaticalization of *VV-kan*, and later by post-verbal *kankan* in the emerging *V-kankan*.

(19) Mechanisms involved in the recurrent path

‘see’ → ‘find out’	>	‘(try) ... to find out’	>	‘try ... and find out’
<b>Metaphor</b>		<b>Metonymic Inferencing</b>		<b>Pragmatic Strengthening</b>
Perception→Cognition		invited inference of ‘try’		conventionalization of ‘try’

The recurrent path can therefore be seen as a *strange attractor* that yields a repeated global pattern despite showing differences in detail (Bybee 2010:198). In light of this, coexistence of the two constructions at the synchronic level is motivated by the interaction between language-internal factors (the development of verbal reduplication and complex predicates) and language-external factors (cognitive mechanisms of metaphor and metonymic inferencing). Note that the factors contributing to the coexistence of the two constructions are not independent but serve as different facets of the whole process of change, and that this process naturally leads to a competition of *VV-kan* and *V-kankan* at the synchronic level.<sup>13</sup> The phenomenon then highlights the adaptive nature of language as a self-organizing complex system, in that it undergoes change as a result of the interaction of its internal organization with external environments (Du Bois 1985:362, The “Five Graces Group” 2009:16).

#### **4 Conclusion**

The present paper has explored the diachronic development of two constructions in Mandarin—*VV-kan* and *V-kankan*. It has been shown that the formal asymmetry between the schematic V/VV slot and *kan/kankan* underlying the two constructions is attributed to the different morpho-syntactic contexts involved in

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<sup>13</sup> Compare the competition between two coexisting negative constructions in English and their diachronic development (Bybee 2010:110).

grammaticalization, and that a recurrent path has led to synchronic coexistence of the older *VV-kan* with the younger, still emerging *V-kankan*. The phenomenon examined presents language as a complex adaptive system, in which global patterns emerge from the complex interaction of internal and external factors.

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