1. Introduction
1.1. The Puzzle: long-distance binding interacts with affectedness marking

The central puzzle of this paper is a surprising interaction between purpose clause markers and long-distance binding. The Mandarin directional verbs lai ‘come’ and qu ‘go’ may optionally head purpose clauses (Li and Thompson 1981, Zhang 2001), as indicated in the schema in (1).

(1) S...VP...{lai, qu, ⊘} ...VPn ≈ S VPn in order to VPn.

When neither lai nor qu head the purpose clause, the long-distance reflexive (henceforth, LDR) ziji ‘self’ can be bound, as otherwise expected.

(2) Null-headed purpose clause; LDR possible: 
\[1/2/3...[3...⊘...ziji]\]
wo/ni/Bill, renwei John, jintian na yizhi da ziji/i/j.
I/you/Bill think John today take chair hit self
‘I/you/Bill, think that today John took a chair in order to hit himself/i/j/me/you.’

However, when lai and qu are present, they constrain the LD-binding possibilities as follows:1 qu ‘go’ prevents any long-distance binding out of its scope, while lai ‘come’ show sensitivity to the person features of the antecedent, allowing only 3rd person LD-binders.

(3) LDR impossible with qu: 
\[1/2/3...[3...qu...⊘...ziji]\]
wo/ni/Bill, renwei John, jintian na yizhi qu da ziji/i/j.
I/you/Bill think John today take chair GO hit self
‘I/you/Bill, think that today John took a chair in order to hit himself/i/j/*me/*you.’

(4) LDR with lai dependent on binder’s person features
a. LDR possible: 
\[3...[3...⊘...ziji]\]
Bill, renwei John, jintian na yizhi lai da ziji/i/j.
Bill think John today take chair COME hit self
‘Bill, thinks that today John took a chair in order to hit himself/i/j.’

b. LDR impossible: 
\[1/2...[3...⊘...ziji]\]
wo/ni, renwei John, jintian na yizhi lai da ziji/i/j.
I/you think John today take chair COME hit self
‘I/you think that today John took a chair in order to hit himself/*me/*you.’

This, in short, is the central puzzle of the paper: Why would lai and qu interact with long-distance binding?

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1. In all of these, an embedded 1st or 2nd person prevents long-distance binding, a general fact about Mandarin LDR known as “the blocking effect” (Huang 1984).

1.2. The Proposal: Binding competition produces ineffability

Our story for the contrast in (2-4) begins from the observation that the appearance of *lai* and *qu* correlate with two semantic implications. First, as we will show in section 2, *lai* and *qu* correlate with obligatory *de se* and non-*de se* readings of pronouns in their scope, respectively. But long-distance *ziji* must be bound *de se* (Pan 1995), conflicting with *qu*’s independent non-*de se* requirement, and hence preventing LDR out of *qu* headed clauses.

In addition to the *de se* attitude consequences, we demonstrate in section 3 that *lai* and *qu* introduce implications about whether the purposive events in their scope would affect a certain individual. We argue that the identity of this individual is specified by a covert variable within *lai/qu* that must itself be bound. This variable, we argue in section 4, is the culprit preventing LDR out of *lai*-headed purpose clauses, as it enters into binding competition with the long-distance antecedent, as shown in (5a) below.

\[(5)\]  
\[a. \quad A = 1/2...[lai...ziji] \quad \text{vs.} \quad B = 1/2...[lai...ziji]\]

b. Why *A*? \([A]=[B]\), so A out by Rule H (Heim 1993, Fox 2000)

c. Why *B*? *ziji* must be bound by a subject (Li and Thompson 1981)

We further demonstrate that this account explains the interesting data pattern that in 3rd person antecedent cases, the affectee and the binder of *ziji* cannot be co-referent. Finally, in section 5 we explore the implications of this analysis, which predicts that in general *ziji* cannot be bound by an antecedent if there is a closer co-referential antecedent that is not a subject – a “New Blocking Effect” that seems to be true.

2. Attitudinal conflict: *ziji* under *qu* ‘go’

Our explanation for the facts in (3-4) begins by assimilating the lack of any LDR out of *qu*-clauses to the fact that long-distance *ziji* must be interpreted *de se*, as first noticed by Pan (1995). In the example below, for instance, the binding of *ziji* within the embedded clause by the matrix subject, Zhangsan, is a licit report only in a context where Zhangsan knows that the purse being carried off is his own (context C1); if he merely notices that the pickpocket is stealing a purse, long-distance *ziji* cannot co-refer to him (context C2), regardless of whether the purse is in fact his.

\[(6)\]  
\[\begin{align*}
\text{C}1: & \quad \text{Zhangsan says, “That thief stole my purse!”} \\
\text{C}2: & \quad \text{Zhangsan says, “That thief stole someone’s purse!” (doesn’t know it was his purse).}
\end{align*}\]

Zhangsan shuo pashou tou-le ziji-de pibao
Zhangsan say pickpocket steal-PERF self-DE purse
‘Zhangsan said that the pickpocket stole his purse.’ \([\checkmark \text{C}1, \#\text{C}2]\) (Huang and Liu 2001)

Importantly, *Lai* and *qu* make their own (mutually exclusive) contributions to the attitudinal interpretation of DPs within their scope. Hence, if we are reporting a deliberate self-hitting by Bill, *lai* is appropriate (7a), while *qu* is not (7b); however, if Bill thought he was hitting someone else (perhaps, like many confused souls in non-*de se* scenarios, he is disconnected from reality by drunkenness), (7a) is inappropriate and (7b) is appropriate.

\[(7)\]  
\[a. \quad \text{A = 1/2...[lai...ziji]} \quad \text{vs.} \quad \text{B = 1/2...[lai...ziji]}\]

b. Why *A*? \([A]=[B]\), so A out by Rule H (Heim 1993, Fox 2000)

c. Why *B*? *ziji* must be bound by a subject (Li and Thompson 1981)

2. That is not to say that *ziji* must be bound by a self-ascriber (as Pan proposes), since it can be bound out of non-modal environments:

\[(i)\]  
\begin{align*}
\text{Zhangsan, zai mei you jian-guo jiu-le ziji ming de na-ge ren,} \\
\text{Zhangsan again not have see-EXPER save-PERF self life \text{ DE that-CL person}}
\end{align*}

‘Zhangsan, didn’t see again the person, who saved his, \text{ life}.’ (Pollard and Xue 2001)

However, such cases do not falsify the contention that long-distance *ziji* must be bound *de se*, as non-modal contexts are insensitive to the interpretative consequences of such binding.

3. It is possible for *ziji* to refer to the speaker, or discourse-prominent topic. We return to this possibility in section 4.2.
(7)  
\[ C_1: \text{Bill deliberately hit himself last night.} \]
\[ C_2: \text{Bill hit himself with a chair (he thought he was hitting someone else).} \]

a. Bill, na yizhi lai da ziji  
   Bill, take chair COME hit self  
   ‘Bill took a chair to hit himself \( [\checkmark C_1, \# C_2] \) (de se).’

b. Bill, na yizhi qu da ziji  
   Bill, take chair GO hit self  
   ‘Bill took a chair to hit himself \( [\# C_1, \checkmark C_2] \) (non-de se).’

We thus conclude that lai forces a de se interpretation while qu forces a non-de se interpretation.\(^4\) It is the latter which crucially mucks things up when long-distance ziji enters the picture, since it must be interpreted de se.\(^5\)

3. Lai/qu ‘come/go’ contain covert variables

In addition to the de se/non-de se distinction, lai/qu introduce the implication that some entity \( x \) would be (un)affected by the event of the purpose clause. This is illustrated below, where \( x \) is taken to be the speaker.

(8)  
\[ C_1: \text{I have just remarked how much I love John’s statue; I own John’s statue.} \]
\[ C_2: \text{I have just remarked about my apathy regarding John’s statue.} \]

a. Bill na yizhi lai da John-de diaoxiang  
   Bill take chair COME hit John-POSS statue  
   ‘Bill took a chair to hit John’s statue (which would affect me).’ \( [\checkmark C_1, \# C_2] \)

b. Bill na yizhi qu da John-de diaoxiang  
   Bill take chair GO hit John-POSS statue  
   ‘Bill took a chair to hit John’s statue (which would not affect me).’ \( [\# C_1, \checkmark C_2] \)

In a context where it is common ground that the speaker loves John’s statue \( (C_1) \), the use of qu in (8b) is infelicitous (unless he is being ironic). In contrast, lai is infelicitous when the speaker’s apathy regarding John’s statue is common ground. Thus, lai introduces the implication that the entity \( x \) is affected by the event in its scope, while qu introduces the implication that \( x \) is unaffected by the event.

This can be shown more clearly in imperatives such as (9b), where simultaneous to the command to help the speaker is the implication that the speaker is not vested in the outcome of the event (e.g., this is a bureaucratic hoop that one must jump through):

(9)  
\[ a. \text{shei lai bang wo jiejue zhe-ge wenti} \]
   \[ \text{who COME help me solve this-CL problem} \]
   ‘Someone help me solve this problem (to my benefit)!’

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4. Note that this is not simply de re ascription, since that should be, in general, compatible with de se contexts. While we can cash these vague remarks more formally (e.g., assuming Lewis (1983), qu could place restricts on the kind of acquaintance relations), we currently have no non-stipulative account, nor one that makes testably different predictions.

5. Note that ziji is a possible referent for Bill in (7b), despite the appearance of qu. This ziji we take to be the short-distance (i.e., clausemate-bound) variant, which is not subject to the blocking effect (Pan 1995):

(ii) Zhangsan gaosu wo ziji-de fenshu  
    Zhangsan tell I self-POSS grade  
    ‘Zhangsan told me about his own grade.’ (Huang and Liu 2001)

In addition, short-distance ziji is not subject to the condition that clausemate zijis must be co-referent Pan (1995). These strike us as the best evidence for the distinction between the two. It is claimed in descriptive literature (e.g., (Li and Thompson 1981)) that long-distance antecedents as animate and conscious while short-distance antecedents do not. As the animacy and consciousness conditions are arguably reducible to the conditions for de se ascription, this “difference” between the two zijis seems of a type with the problem discussed in footnote 2.
While the speaker is understood as the affected entity in matrix contexts, when the purposive clause is embedded under an attitude verb, the attitude holder (but not the embedded subject) may additionally be the affected entity:

(10) Mary renwei Bill na yizhi lai da John-de diaoxiang.
Mary think Bill take chair COME hit John-poss statue

a. ‘Mary thinks Bill took a chair to hit a statue of John (which would affect Mary).’

b. ‘Mary thinks Bill took a chair to hit a statue of John (which would affect me).’

When the matrix subject in (10) is replaced with a quantifier, attitude-holder affectedness implication is licit, but is itself quantified over. That is, the affected entity can be bound, and hence is a variable.

(11) mei-ge nuhai dou renwei Bill na yizhi lai da John-de diaoxiang.
every-cl girl DOU think Bill take chair GO hit John-poss statue

a. ‘Every girl thinks Bill took a chair to hit a statue of John (which wouldn’t affect any girl).’

b. ‘Every girl thinks Bill took a chair to hit a statue of John (which wouldn’t affect me).’

We assume that the implications introduced by lai/qu are globally-accommodated presuppositions (i.e., speaker presuppositions), given that they survive negation, question formation, and conditionalization.

(12) Tests for presuppositional status of affectness implication

a. NEGATION: It is not the case that X

   bing bu shi Mary renwei Bill na yizhi lai da diaoxiang
   not.at.all NEG COP Mary think Bill take chair COME hit statue

   ‘It’s not the case that Mary thinks that Bill took a chair to hit the statue (which would have affected me).’

b. POLAR QUESTION

   John renwei Bill na yizhi lai da diaoxiang ma
   John think Bill take chair COME hit statue Q

   ‘Does John think Bill took a chair to hit the statue (which would affect me)?’

c. CONDITIONALIZATION

   ruguo John renwei Bill na yizhi lai da diaoxiang de-hua, namo John jiu zhende
   if John think Bill take chair COME hit statue if, so John then really
   man bende rather stupid

   ‘If John thinks that Bill took a chair to hit the statue, then John is really very stupid (and Bill hitting the statue would have affected me).’

For concreteness, we will assume a counterfactual presuppositional content of lai, as given in the denotation below (note that the accessibility relation is relative to w*, as this presupposition projects).

(13) \[ x, lai p \] = \lambda w : \forall w' (w'Rw^* \land p(w')) = 1 \rightarrow g(i) is affected in w', p(w) = 1

While much of the presupposition above is open to debate (given how poorly we understand the precise felicity conditions for lai and qu), crucial to our analysis is the free position \( x_i \), filled by binding. It is the semantic action done by this little variable that we will scrutinize in the following section.

6. This reading is somewhat difficult to get without proper context; note that questions make it much more salient; see (12b). We have no explanation for this fact.
4. Our Analysis: Disjoint reference as binding competition

In this section, we put the affectedness variable to work, showing how its existence coupled with a preference for local-binding can account for the inability of 1st and 2nd person subjects to bind into *lai*-clauses. Our explanation begins with the interesting restriction that when a 3rd person element long-distance binds *ziji*, it cannot also serve as the affectee of *lai*. We demonstrate how this Disjoint Binding Condition is accountable if Rule H applies to *ziji*. We then pursue the intuition that the lack of 1st/2nd binding of *ziji* arises because it is impossible for 1st/2nd to bind *ziji* without violating the Disjoint Binding Condition.

4.1. Disjoint reference between *lai/qu*’s variable and *ziji*

Let us begin with the data. Example (14) is exactly like (10), except John has been replaced by *ziji*. When *ziji* is bound short-distance, both the speaker and Mary can serve as the affectee (14a,b). However, when *ziji* is bound long-distance by Mary, only the speaker can be the affectee; a reading where a statue of Mary is hit and the speaker is asserting that Mary would be affected is unavailable. 7

(14) Mary renwei Bill na yizhi lai da ziji-de diaoxiang
Mary think Bill take chair COME hit self-POSS statue

a. ‘Mary thinks Bill took a chair to hit a statue of Bill (which would affect me).’
b. ‘Mary thinks Bill took a chair to hit a statue of Bill (which would affect Mary).’
c. ‘Mary thinks Bill took a chair to hit a statue of Mary (which would affect me).’
d. * ‘Mary thinks Bill took a chair to hit a statue of Mary (which would affect Mary).’

We dub this data pattern the Disjoint Reference Condition:

(15) **Disjoint Reference Condition**: The affectee of *lai/qu* and *ziji* cannot co-refer.

We propose that the Disjoint Binding Condition arises from binding competition, as follows. The referential possibility \[3_{i}...lai_{i}...ziji_{i}\] can be produced from two distinct representations, one with local binding by the affectee variable of *lai* and one with non-local binding by the matrix subject:

(16) Binding configurations for \[3_{i}...lai_{i}...ziji_{i}\]

a. \[[\lambda \lambda_{i} [3...[lai_{i} x_{j} [ziji_{j}]]]]\] LOCAL BINDING
b. \[[\lambda \lambda_{i} [3...[lai_{i} x_{j} [ziji_{j}]]]]\] NON-LOCAL BINDING

The presence of two semantically indistinguishable interpretations allows us to invoke Rule H (as formulated by Fox), which filters out (16b):

(17) **Rule H**: A variable, \(x\), cannot be bound by antecedent, \(\alpha\), in cases where a more local antecedent, \(\beta\), could bind \(x\) and yield the same semantic interpretation. (Fox 2000, p. 111)

As \([(16a)] = [(16b)]\], Rule H rules out (16b). As things stand, this should mean that (16a) is a licit representation. However, it too violates a principle of the binding theory: the subject-orientation of *ziji*.

(18) Tomi dui Billj shuo Johnk chang piping ziji_{i}/\*j\*/k
To to Bill say John often criticize self

‘Tomi said to Bill that John often criticizes him_{i}/\*j\*/k.’

As the covert variable of *lai* is not a subject, (16a) violates the subject-orientation of *ziji*, and hence neither configuration is licit. 8 Worth emphasizing here is the architecture of the grammar that this account

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7. The test is a context where the speaker first asserts/implicates that he would be unaffected by the hitting of the statue; in such a context, the sentence is deemed infelicitous with *lai*. Crucially, in such contexts (10) is still considered felicitous (but not if Mary’s unaffectedness is also asserted).
8. This account predicts that if *ziji* is replaced by a pronoun, there is no disjoint binding condition; this seems to be correct (cf. (11))
requires. Rule H applied to both representations in (16), thus requiring (16a) to be present despite violation of the subject-orientation constraint. We thus require subject-orientation to apply to the output of Rule H, not the input. If such a system is correct, it renders subject-orientation on par with Condition B as described by Heim (1993) – a filter of outputs.

4.2. Generalizing to 1st/2nd person

Finally, at long last, we can return to the central puzzle framed at the outset: why can’t 1st and 2nd person elements antecede ziji? The obvious proposal (which we will push) is that the Disjoint Binding Condition is necessarily violated when 1st/2nd person elements bind into a lai-clause. Why might this be?

The tricky case is clearly that of 2nd person subjects, since when there is a 1st person subject, the only available binder for lai’s variable is the subject (hence the Disjoint Binding Condition is necessarily violated). Indeed, the very existence of a default “indexically-dependent” interpretation of lai’s hidden variable by the speaker suggests that 2nd person subjects should behave exactly like 3rd person subjects. But they do not – they cannot bind into lai-clauses.

We will pursue the idea that the indexically-dependent interpretations of the affectee variable are due to syntactic binding by a covert referentially denoting element: the P(erspectival)-Center. Following Tenny & Speas (2003), we will assume that the P-Center is a point-of-view head high in the left periphery that referentially denotes the psychological perspective from which the sentence is situated (in analog to the deictic center for a sentence). Although the P-Center is syntactic (and hence enters into binding competition), its value is (partially) discourse dependent. As a first approximation, we formulate the following discourse rules.

(19) P(erspectival)-Center discourse rules
   a. Discourse Rule #1: In unmarked contexts, the P-center is the speaker.
   b. Discourse Rule #2: When a speech-act-participant (SAP) is the matrix subject, the P-center is that SAP.
   c. The P-center can be a non-SAP in marked contexts, where the 3rd person is established by discourse to be the perspective-holder (e.g., narrative).

It is Discourse Rule #2 which explains the problem with 2nd person subjects: 1st person P-Centers necessarily cannot appear with 2nd person matrix subjects. While this condition is admittedly stipulative, it does allow us to make sense of a surprising data point in the affectee paradigm – when the subject is 2nd person, the affectee is not the speaker but the addressee, even though non-attitude holder subjects cannot in general bind the affectee variable:

(20) Overt 2nd subject forces 2nd affectedness:
   ni na yizhi lai da John-de diaoxiang
   you take chair come hit John-POSS statue
   ‘You took a chair to hit John’s statue (which would affect you/*me).’

We interpret this as evidence for the operation of Discourse Rule #2, which forces the P-Center to be 2nd person, and hence the affectee to be 2nd person as well.

This section began with the observation that the binder of ziji and the affectee cannot be co-referent. We argued that the original 1st/2nd puzzle was best thought of as an obligatory violation of this Disjoint Binding Condition, and that this condition itself can be captured by appeal to a preference in the grammar for local binding.

(iii) mei-ge nuhai dou renwei Bill na yizhi qu da ta-de diaoxiang.
every-CL girl DOU think Bill take chair GO hit she-POSS statue
   a. ‘Every girl thinks Bill took a chair to hit a statue of her (which wouldn’t affect any girl).’
   b. ‘Every girl thinks Bill took a chair to hit a statue of her (which wouldn’t affect me).’
5. Implications

5.1. A New Blocking Effect

The crucial work in the theory presented above was done by the covert variable that we argued *lai/qu* introduce. However, the story itself should generalize to a more general condition:

(21) **New Blocking Effect**: When a co-referent non-subject intervenes between *ziji* and a possible binder, LDR should be impossible.

Although more systematic survey of Mandarin is necessary, it appears that this is true, as shown by the double-object constructions below. First note that in these constructions, the goal c-commands the theme at surface structure, given the ability of a quantified goal to bind the theme and the lack of covert QR in Mandarin:

(22) John *renwei* Bill *gei* mei-ge ren, *ta-*de shu
    John thinks Bill give every-CL person self-POSS book
    ‘John thinks that Bill gave every person, his, book.’

When a co-referent pronoun c-commands *ziji*, LDR is blocked (23a); this blocking disappears when the pronoun no longer c-commands (23b).

(23) a. John *renwei* Bill *gei* ta, *ziji_{i/j}-de* shu
    John thinks Bill give he self-POSS book
    ‘John thinks that Bill gave him, his_{i/j} book.’

    b. John *renwei* Bill *gei* ta, *mama ziji_{i/j}-de* shu
    John thinks Bill give he-POSS mother self-POSS book
    ‘John thinks that Bill gave his, mother his_{i/j} book.’

5.2. Discourse-dependent *ziji* is P-center-bound *ziji*

It has been pointed out in the literature that *ziji* also has a “logophoric” or “discourse-dependent” referent (the speaker) that comes for free from the utterance context (Li 1991).

(24) lingdao de biaoyang dui *ziji* shi yi-ge bianche
    leader DE compliment to self COP one-CL impetus
    ‘The leader’s compliment was an encouragement to me.’ (Pollard and Xue 2001)

Interestingly, this discourse-dependent *ziji* is also subject to the New Blocking Effect in (21).

(25) wo *renwei* John *jintian na yizhi lai* da *ziji_{i/j}.
    I think John today take chair COME hit self
    ‘I think that today John took a chair in order to hit himself/*me.’

(26) a. Bill *gei* wo *ziji_{i/j}-de* shu
    Bill give I self-POSS book
    ‘Bill gave me_{i/j} his_{i/j} book.’

    b. Bill *gei* wo *mama ziji_{i/j}-de* shu
    Bill give I-POSS mother self-POSS book
    ‘Bill gave my_{i/j} mother his_{i/j} book.’

We take this as evidence that discourse-dependent *ziji* is actually bound by the P-center. Note that, as a P-Center, it can vary depending on the perspectival stance taken for the sentence. That is, discourse-dependent *ziji* can refer to 2\(^{nd}\) person or a narrative-center 3\(^{rd}\) person element.

(27) a. *ziji weishenme bu qu*
    self why NEG go Q
    ‘Why didn’t self(I/you) go?’ (Pan 2001)
b. ziji da ziji bu hao
   self hit self NEG good
   ‘You hitting yourself isn’t good.’
   ‘Self-hitting isn’t good.’

c. C: In a biographical narration of John’s life [same as (24)]
   lingdao de biaoyang dui ziji shi yi-ge bianche
   leader DE compliment to self COP one-CL impetus
   ‘The leader’s compliment was an encouragement to John.’

6. Conclusion

Though the binding theory of *ziji* has turned out to be complex and intricate, one clear generalization seems to have emerged: a c-commanding subject may antecede *ziji* only if there is no intervening element between the putative antecedent and *ziji*. Since Huang’s (1984) discovery of this Blocking Effect, the consensus has been that what characterizes a potential intervener is featural *distinctness* with respect to the antecedent, be it person disagreement (Huang and Tang (1991), Cole et al. (1990)), number disagreement (Huang and Liu (2001), or the obligatoriness of self-ascription (Pan (1995)). In this paper, we argue that the opposite side of the coin is true as well – when a non-subject c-commander of *ziji* is *identical* to the long-distance antecedent, long-distance binding is impossible. We have argued that this is manifestation of the preference for local binding in long-distance contexts, and that appeal to local binding can make sense of an otherwise surprising interaction between perspectival marking and LDR blocking, as well as blocking by non-subjects more generally.

In closing, we would like to suggest how further examination of these facts could shed light on the syntax of the *lai/qu* purposive construction more generally. As it stands, our theory potentially predicts the following to be bad, since there is only one potential antecedent (the speaker):

(28) a. wo na yizhi lai da ziji-de diaoxiang
    I take chair COME hit self-POSS statue
    ‘I used a chair to hit my statue (*which occurred near to here*).’

b. wo na yizhi qu da ziji-de diaoxiang
    I na chair GO hit self-POSS statue
    ‘I used a chair to hit my statue (*which occurred far from here*).’

Given the lack of affectedness for these sentences, it might be tempting to argue that these are deictic (not affective) directionals, containing indexical *here* (cf. Fillmore (1997)). Such a story requires a more explicit theory of the distribution of the deictic directionals, and we leave that to future research. Instead, we would like to suggest that these are grammatical because there is a covert PRO that locally binds *ziji*-binding.

(29) Evidence for the last idea

a. wo na yizhi lai na yizhi da ziji-de diaoxiang
   I know I take chair COME hit self-POSS statue
   ‘I know that I took a chair to hit my statue (*which occurred near to here*).’

b. John na yizhi lai na yizhi da ziji-de diaoxiang
   John know he take chair COME hit self-POSS statue
   ‘John know that he took a chair to hit his, statue (*which affected him*).’

If this story is on the right track, it suggests that *lai/qu*-clauses are big enough to accomodate an empty category subject (i.e., an element capable of binding *ziji*), even though they arguably have no separate aspect projections (Zhang 2001). The role of future research is, then, to figure out how these two conditions can be made compatible.
References

Zhang, Ning. 2001. One the pre-predicate lai and qu in Chinese.