On Topic A-movement and Unvalued Interpretable Features

Chao-Ting Tim Chou University of Michigan, Ann Arbor

GOAL The goal of this paper is three-fold: (i) I argue that topic A-movement exists in Chinese, contra [5]. Specifically, argument displacement in Chinese raising verb constructions (RVC) is A-movement to Spec-TP, yet semantically exhibits topicality; (ii) building upon [7]'s observation, I show a general under-generation problem of object A-movement under a probe-driven system of movement based on feature inheritance; (iii) in view of (ii), I argue that, following [1] & [6], Chomsky's (1) should be abandoned to derive object topic A-movement based on a fine-grained featural characterization of topic A-movement.

DATA Chinese raising verbs like epistemic modal *yinggai* 'should' take a TP complement as in (2) (see [4]). Interestingly, either the subject or the object can raise over the modal, as exemplified by (3a) & (3b). Building upon [4]'s analysis of subject raising in (3a) as A-movement, I argue that the pre-modal object in (3b) appears in its surface position via A-movement as well, rather than via A'-movement or base-generation. Supporting evidence comes from (i) the lack of reconstruction in (4), (ii) the raising of idiom chunks like *kai-dao* (lit. open-knife) 'do surgery' in (5), and (iii) the feeding of Binding Condition A in (6). Curiously, A-movement in RVC exhibits topicality, which is usually a property associated with A'-movement. For example, Chinese indefinite NPs are ambiguous in specificity, as shown in (7a); when it is topicalized as in (7b), only the specific reading is available. As (8) shows, A-movement of indefinite NPs in RVC patterns together with topicalization – the raised indefinite NP exhibits only a specific interpretation. Other supporting evidence (not shown here) includes the raising of strong/weak quantifier NPs, and the raised argument's inability to function as an information focus to reply to *wh*-questions.

PROBLEM The topicality of A-movement in RVC seems to lend support to [5]'s extension of feature-inheritance to [+topic] feature to derive topic A-movement. However, the inheritance of [+topic] from C to T is too late for T to attract the object bearing [+topic] in the embedded VP. Specifically, [7] observes an incompatibility between [3]'s PIC and the feature inheritance hypothesis due to the simultaneity of the Transfer of VP and the introduction of C into the derivation, as in (9a). T can probe only after inheriting [+topic] from C, but by this 'time', the VP containing the object is already Transferred, as in (9b). Thus, I conclude that object A-movement in RVC is underivable under [5]'s probe-driven system of movement based on feature inheritance. To derive object A-movement in RVC, the object needs to start moving before the probe(i.e. [+topic] on matrix C/T) enters the structure, but the implementation of this local step crucially depends on lookahead into subsequent as yet non-existant derivational steps external to the v*P phase. Thus we confront the same lookahead problem observed by [2] concerning [3]'s analysis of successive-cyclic movement of Y to W across phase XP in (10) in terms of X's EPP feature whose assignment fully relies on whether W would enter the structure later, which is unknown at stage (10b).

ANALYSIS I advance a solution to this under-generation problem based on a fine-grained featural characterization of topic A-movement that is made possible if (1) is abandoned (see [1] & [6]). Two types of new features are predicted to exist under [1]'s & [6]'s system, as shown in (11). I argue that both of these two new features are necessary in the establishment of topic A-movement. First, I advance that the topic feature on the moving DP should be recast as an interpretable yet unvalued feature (= (11d)). Specifically, even though φ-features and a topic feature on DP are both interpretable, their interpretation differs in one crucial aspect – the former are inherently interpretable at the CI interface, given their lexical valuation; the interpretation of the latter by contrast is configurational, requiring a syntactic relation between a DP and another syntactic category. Consequently, the DP's topic feature, though potentially interpretable, cannot be intrinsically valued. In addition, I assume that the topic feature on matrix T inherited from C assumed by [5] should be valued yet uninterpretable (= (11c)). It is uninterpretable since a syntactic position is not what is interpreted as "topic" at the CI interface; on the other hand, it is valued because an argument agreeing with T and moving to Spec-TP in RVC is always interpreted as the topic. This novel understanding of topic feature and topic A-movement can be combined with [2]'s moving-element-driven approach to syntactic movement to derive object topic A-movement in RVC as depicted in (12). I will also (i) explain why object topic A-movement is not possible in Chinese mono-clausal structures, but generally allowed in languages like Finnish, and (ii) discuss whether an unvalued interpretable feature causes CI crash when entering CI without being syntactically valued.

(1) Valuation/Interpretability Biconditional: A feature F is uninterpretable iff F is unvalued. (Chomsky 2001: 5)

(2) Yinggai [$_{TP}$ Akiu zhunbei.hao wancan le]
should Akiu prepare.done dinner PERF
'It should be the case that Akiu has prepared the dinner.'

(3) a.[$_{TP}$ **Akiu$_i$** yinggai [$_{TP}$ t_i zhunbei.hao wancan le] b. [$_{TP}$ **Wancan$_i$** yinggai [$_{TP}$ Akiu zhunbei.hao t_i le]
'Akiu should have prepared the dinner.' 'The dinner should have been prepared by Akiu.'

(4) *[$_{TP}$ **[Tazij$_i$-de pengyou]$_j$** yinggai [$_{TP}$ **Akiu$_i$** bu hui beipan t_j]]
himself-MOD friend should Akiu not will betray
Intended: 'It should be the case that Akiu$_i$ will not betray his own$_i$ friend.' [Against A'-movement analysis]

(5) **Zhe-tai tao** yinggai [$_{TP}$ hui shi Chen Yishi lai **kai** ___]
this-CL knife should will FOC Chen Doctor come open
'It should be the case that this surgery will be done by Dr. Chen.' [Against base-generation]

(6) [$_{TP}$ **Akiu$_i$** yinggai [$_{TP}$ [zhiyou [tazijii-de laopuo] shodeliao t_i]]
Akiu should only himself-MOD wife tolerate
'It should be the case that only his own$_i$ wife can tolerate Akiu$_i$.' [Supporting evidence for A-movement]

(7) a. You yi-ge Meiguoren yinde le guanjun
have one-CL American win ASP championship
'An (specific or not) American won the championship.'
b. You yi-ge Meiguoren a, yinde le guanjun
have one-CL American TOP win ASP championship
'A specific American won the championship.'

(8) a. You yi-ge Meiguoren$_i$ yinggai [$_{TP}$ t_i yinde le guanjun]
have one-CL American should win ASP championship
'A specific American should have won the championship.'
b.You yi-dao cai$_i$ yinggai [$_{TP}$ Akiu zhunbei t_i]
have one-CL dish should Akiu prepare
'There is one specific dish that should be prepared by Akiu.'

VP Trasnferred

(9) a. [$_{CP}$ C [$_{TP}$ T [$_{vP}$ yinggai [$_{TP}$ T [$_{v*P}$ Akiu [$_{VP}$ zhunbei.hao wancan$_{[+topic]}$ le]]]]]]]
b. [$_{CP}$ C [$_{TP}$ T$_{[+topic]}$ [$_{vP}$ yinggai [$_{TP}$ T [$_{v*P}$ Akiu [$_{VP}$ – TRANSFERRED –]]]]]]]

C-to-T [+topic] inheritance

(10) a.W$_{[uF, iK, EPP]}$ ... [$_{XP}$ ... X ... Y$_{[iF, uK]}$] (XP a phase)
b.[$_{XP}$Y$_{[iF, uK]}$ ... X$_{EPP}$ ... t_y] (XP a phase)

(11) a. *u*F[ ] (uninterpretable unvalued, e.g., φ on T, Case on NPs)
b. *i*F[val] (interpretable valued, e.g., φ on NPs)
c. ***u*F[val] (uninterpretablevalued)**
d. ***i*F[ ] (interpretable unvalued)** } **New features under [1]'s and [6]'s system**

(12) a. [$_{v*P}$ **OBJECT$_{\textit{interpretable.}\text{topic[]}}$** SUBJECT [$_{VP}$ VERB *t*]]
(The unvalued interpretable topic feature triggers object movement to phase edge to avoid being Spelled-out)
(Chomsky's [2000] PIC is adopted here since there is no reason to delay Transfer under the proposed system)
b. [$_{CP}$ C [$_{TP}$**T$_{\textit{uninterpretable.}+\text{topic}}$** [$_{VP}$ yinggai [$_{TP}$ [$_{v*P}$ **OBJECT$_{\textit{i.}\text{topic[]}}$** SUBJECT [$_{VP}$ – TRANSFERRED –]]]]]]
(Matrix C passes down the valued uninterpetable topic feature to T, *á la* [5])
c. [$_{CP}$ C [$_{TP}$**OBJECT$_{\textit{i.}+\text{topic}}$** T$_{\textit{u.}+\text{topic}}$ [$_{VP}$ yinggai [$_{TP}$ [$_{v*P}$ *t* SUBJECT [$_{VP}$ – TRANSFERRED –]]]]]]
(Object bearing unvalued topic feature moves as a probe to matrix Spec-TP to c-command the valued counterpart on T to obtain a value, following [2]'s moving-element-driven approach to syntactic movement)

References:

[1] Bošković, Ž. To appear. On valued uninterpretable features. In *Proceeding of NELS* 39. **[2]** Bošković, Ž. 2007. On the locality and motivation of Move and Agree: an even more minimal theory. *LI* 38. **[3]** Chomsky, N. 2001. Derivation by phase. In *Ken Hale: a life in language*. MIT Press. **[4]** Lin, J. T.-H. 2011. Finiteness of clauses and raising of arguments in Mandarin Chinese. *Syntax* 14. **[5]** Miyagawa, S. 2010. *Why Agree? Why Move?* MIT Press. **[6]** Pesetsky, D. & E. Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture: Syntactic derivation and interpretation*. John Benjamins. **[7]** Richards, M. 2011. Deriving the edge: what's in a phase. *Syntax* 14.