Lecture 2: Theta structure
unaccusativitiy, ditransitives, and extraargumentality

• Goal: to examine the argument structure of some constructions in Chinese, argue for a lexical decomposition analysis for them, and put these constructions in a parametric perspective.
• Part I (Lecture 2): Unaccusativity, ditransitives and extra-arugmentality
• Part II (Lecture 3): Resultatives, event structure and argument structure
• Readings and references:
• Download: 所有講義、讀物、與部份參考文獻可以在此網址點擊下載：
  http://www.people.fas.harvard.edu/~ctjhuang/NTNU/ntnu.html
  （資料將陸續上載，並留在原址一個月。）

1. Introduction

• The unaccusative hypothesis (Perlmutter 1978, Burzio 1986):
  a. There are two kinds of intransitives: An unaccusative has an (underlying) internal argument [object] but no external argument [subject], while the unergative has an external argument but no internal argument.
  b. An unaccusative transitivizes by adding an external argument, whereas an unergative is made transitive with the addition of an internal argument.

(1) a. Yangjidui dasheng-le Hongwadui. [洋基隊打胜了红袜队。]
   Yankees win-over-LE Red Sox
   The Yankees defeated the Red Sox.

   b. Yangjidui dasheng-le. [洋基队打胜了。]
   Yankees win-LE
   The Yankees won.

(2) a. Yangjidui dabai-le Hongwadui. [洋基队打败了红袜队。]
   Yankees defeat-LE Red Sox
   The Yankees defeated the Red Sox.

   b. Yangjidui dabai-le. [洋基队打败了。]
   Yankees defeat-LE
   The Yankees lost. (cf. 吕叔湘 1987)
a. The unergative series: *dasheng* ‘win (over)’
   One-place:  [Agent V]  (‘intransitive’)
   Two-place:  [Agent V Theme]  (‘transitive’)

b. The unaccusative series: *dabai* ‘get (NP) defeated’
   One-place:  [V Theme]  (‘inchoative’)  (→ [Theme V t])
   Two-place:  [Causer V Theme]  (‘causative’)

Goals:

- To establish the claim: the unaccusative-unergative distinction applies not only to 1-place and 2-place predicates but also to 3-place predicates: thus 6 different patterns will fit under this scheme.

(4)

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<tr>
<th></th>
<th>A: Unaccusative series</th>
<th>B: Unergative series</th>
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<tr>
<td>i. 1-place V Theme</td>
<td>Agent V</td>
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<td>ii. 2-place Experiencer V Theme</td>
<td>Agent V Theme</td>
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<td>iii. 3-place Causer Experiencer V Theme</td>
<td>Agent V Affectee Theme</td>
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To wit: The unaccusative-unergative dichotomy groups events/situations into two types: An unaccusative describes a patient-centered state or situation that may optionally involve an experiencer and a causer (in that order), whereas an unergative describes an agent-centered event or activity that may optionally involve a patient and an affectee (in that order).

- To show that this scheme nicely accommodates two ‘problematic’ sentence patterns in Mandarin. (Sections 2-3)
- To defend this proposed view against known or potential alternatives. (Section 4)
- To address some empirical questions that arise from the proposed analyses, and broach theoretical issues concerning extra-argumentality, syntax-semantics interface, and parametric variations. (Section 5)
- NB: according to the above scheme, the causative ‘break’ is actually a 3-place predicate.

(5) The unaccusative series:

Aa:  *lai-le san-ge keren*  
     came 3-CL person
     There came three guests.

Ab:  *Wangmian qi sui si-le fuqin*  
     Wangmian 7 yr die-LE father
     Wangmian ‘died [his] father’ at 7.

Ac:  *Zhangsan gei-le Lisi liang-ben shu*  
     Zhangsan give-LE Lisi two-CL book
     Zhangsan gave Lisi two books.
(6) The unergative series:

Ba: Zhangsan chi-guo le. 张三吃过了。
Zhangsan eat-Exp LE
Zhangsan has eaten.

Bb: Zhangsan chi-le liang-wan mian. 张三吃了两碗面。
Zhangsan eat-LE 2-bowl noodle
Zhangsan ate two bowls of noodles.

Bc: Zhangsan chi-le Lisi liang-wan mian. 张三吃了李四两碗面。
Zhangsan eat-LE Lisi two-bowl noodle
Zhangsan ‘ate Lisi of’ two bowls of noodles.

• Of the above 6 frames, two (4Aii and 4Biii) are of special interest and have been
the subject of much discussion.
Aii: The so-called double unaccusatives (Chappel’s terminology) seem to
involve one extra argument each.
Biii: Sometimes called the non-canonical DOC of the ‘receive’ type (as opposed
to the ‘give’ type), or the ‘source DOC’ (as opposed to the ‘goal DOC’)

→ Sometimes referred to as ‘external possession’ constructions, with each
sentence apparently containing one-too-many argument to be accommodated by
the argument structure of the predicate.
→ Shall argue that these fit readily under the normal argument structure scheme
as above, under the assumption that theta-roles are compositionally assigned:
→ What is relevant here is not external possession per se, but the naturalness of
construing a given participant as an intermediate argument of a partially
composed event.

• The analysis
  - The double unaccusatives as an experiential construction (involving an
‘internal subject’)
  - The non-canonical DOC as an affectee construction (involving an ‘external
object’, or outer object)

2. External, Internal and Intermediate Arguments

(7) a. (等了半天) 終於來了一碗麵。 (客體或受事)
(deng-le ban-tian) zhongyu lai-le yi-wan mian.
(wait-LE half-day) finally come-LE one-bowl noodle
(After waiting a whole half day), finally there came a bowl of noodles.

b. 我已經來過兩碗面了，吃不下了。 (我 = 經驗者 = 历事)
wo yijing lai-guo liang-wan mian le, chi-bu-xia le.
I already come-Exp two-bowl noodle LE, eat-not-down LE
I already had two bowls of noodles, cannot take any more.
2.1. Two types of transitives:

- the unaccusative transitive: 王冕七歳死了父親。（詳如下）
- the unergative transitive: 張三吃了兩碗麵。（略）

2.2. The unaccusative transitive

(8) a. 王冕七歲死了父親。 (= 5Ab)
Wang Mian qi sui si-le fuqin
WM 7-years-old died father
[Lit.] WM ‘died [his] father’ when he was 7.

b. 張三又瞎了一隻眼睛。
Zhangsan you xia-le yi-zhi yanjing.
Zhangsan again blind-LE one-CL eye
Zhangsan again had a blind eye.

c. 看守又逃了三個犯人了。
Kanshou you tao-le san-ge fanren.
Guard again escape-LE 3-CL prisoner
The guard again had 3 prisoners escape (on him)

d. 昨天他們發生了一件車禍。
Zuotian tamen fasheng-le yi-jian chehuo.
[Lit.] Yesterday they happened an accident.

e. 他們公司又沉了一艘船，恐怕要撐不下去了。
Their firm again sank a boat [=had a boat sinking], ….

(9) a. 他家來了许多要飯的。
ta-jia lai-le xuduo yaofan-de.
[Lit.] His home arrived many beggars.

b. 中国出了一个毛泽东。
Zhongguo chu-le yi-ge Mao Zedong.
[Lit.] China emerged a Mao Zedong.

c. 張三的儿子长出了两颗门牙。
Zhangsan de erzi zhang-chu-le liang-ke menya.
Zhangsan’s son grew two front teeth.
d. 他起了一身鸡皮疙瘩。
   ta qi-le yi-sheng jipigeda
   [Lit.] He rose a whole body-ful of google pimples.

→ Important points:

- The subject in each case is merged in situ receiving a (compositional) theta role as Experiencer (历时). Not derived by possessive raising or lowering. (Huang 1989, Chappel 1999, Wu and Sun 2003, Hole 2005, etc.)
  - Proposed movement excluded on theoretical grounds. (e.g., LBC)
  - The possession relation cannot always be established.
  - The subject is more than a possessor even if a possession relation is there.
  - The experiencer requirement: e.g., the “no death argument” requirement.
    (Hole 2005, also Chappel 1999, Teng 1974: 孔子死了后裔 Lit. Confucius died [his] offspring. [Very strong argument against possessive-raising])

(10) Scenario:  Zhangsan died two years ago. Then his father died last month.
    *Zhangsan shang-ge yue si-le fuqin.
    Zhangsan last-CL month died father.

- The subject’s denotation need not be adversely affected or sustain any loss. (e.g. 9b-d; also 我们来了这么多客人，真好 Lit. ‘We have arrived so many guests, really great.’). It’s rather neutral (compare the ‘outer object’ to be discussed below), and may often be paraphrased as a subject of have or experience. (cf. Chappel, Hole, Shen)

- There need not be any possession relation at all (e.g., 8d = They had an accident). And so neither raising nor binding needs to play a role. (Cf. Hole 2005, who proposed the binding analysis.) ‘External possession’ just happens to be the most natural relation, the relevant point is the cognitive plausibility of an Experiencer of an event denoted by a VP. In English the subjects of these constructions are often naturally rendered as object of “happen to”.

3. Two types of double-object construction

- The give-type (= unaccusative series): involving verbs like gei ‘give’, song ‘send’, shang ‘award’, etc.

3.1. The unaccusative DOC

- The canonical give-type DOC involves a 3-place predicate in the unaccusative series.

(11) a. 张三给了李四一本书。
   Zhangsan gei-le Lisi yi-ben shu
   Zhangsan gave Lisi a book.

   b. 我卖了李四两辆汽车。
      wo mai-le Lisi liang-liang qiche.
      I sold Lisi two cars.

   c. 李先生租(给)了我一间办公室（却从来没来收房租）。
      Li Xiansheng zu(gei)-le yi-jian bangongshi.
      Mr. Li rented me an office space (…).

   d. 他借了我两万块钱（还说我可以不还）。
      Ta jie-le wo liangwan-kuai qian ….
      He loaned me $20,000 (…).

→ The analysis:

(12)
Important points:

- See the P-marker in (12). The give-type DOC involves a 3-place predicate of the unaccusative type. The lower VP is a 2-place unaccusative structure of the sort represented by 王冕死了父亲 or others in (8). And this structure is embedded under a causative light verb.


(13)

- To wit: ‘to be with’ = ‘to have’. With is a ‘preposition of central coincidence’ (Hale and Keyser 2002) as opposed to to, a ‘preposition of terminal coincidence’.

- Evidence for this structure: French (Kayne 1993, Gueron 1995) [see Harley 2002]


- BTW: if ‘give’ can be decomposed into “CAUSE X to be WITH Y”, the commitative with could be the source of the instrumental, as well as the source for the conjunction ‘and’, and the instrumental could in turn be the source for the disposal. Grammaticalization: weakening, exaptation, reanalysis.
• The limitation of give-type DOC verbs:
  - (a) gei ‘give’, song ‘give’, mai ‘sell’, shang ‘award’, jie ‘lend’, zu ‘rent’
  - (c) *zhu-gei ‘cook for’, *gai-gei ‘build-for’, *nian-gei ‘read-for’, *chang-gei ‘sing-for’, etc.
  → Compare with English.
  → Reflects high analyticity

• BTW: 他送我兩本書，可我從來沒拿到。But He caused me to have two books, *but I never had them. (cf. he sent me two letters, but I never had the letters.)
  → Solution: the CAUSE light verb is really the (purposive) complement of the action (unergative) verb.

3.1.1. gei in Northern Chinese:

(11)  a.  ni you rang ta gei pao-le.
    You again let him give escape-Perf
    ‘You again let him run away.’

    b.  ta ba pingguo dou gei chi-diao-le.
    ta BA apples all give eat-up-Perf
    ‘He ate up all the apples.’

  → Analysis: gei = ‘happen’ (an existential verb)
  → Cf. German Was gibt es? ‘What is there?’

因此：gei 給 can mean ‘give’ or ‘exist’ (happen)
    yu or ho 與 can mean ‘give’, ‘be with = have’, ‘cause’, ‘passive’.
  → Evidence for decomposition.

3.2. The unergative series

(14)  a.  他抢了我五百块钱。
    Ta qiang-le wo wubaikuai qian.
    Lit.: He robbed me $500.

    b.  我只听了他两堂课。
    Wo zhi ting-le ta liang-tang ke.
    Lit.: I only attended him two classes.
c. 你吃了人家两碗面，怎么拍拍屁股就走？
Ni chi-le renjia liang-wan mian, zenme paipai pigu jiu zou?
Lit.: You ate them two bowls of noodles, how come left like that….

d. 他租了我一间公寓，一直没付我房租。
Ta zu-le wo yi-jian gongyu, yizhi mei fu wo fangzu.
He rent-LE me one-CL apartment, straighly not pay me rent
He rented [from] me an apartment, but never paid me rent. [ta = tenant]

e. 他借了我两万元，从来没付过利息。
Ta jie-le wo liang-wan yuan, conglai mei fuguo lixi.
He borrow-LE me 2-wan $, ever not paid interest
Let.: He borrowed me $20k, never paid interest.

(15)

 Important points:
• These structures are of the unergative type, with verbs of the unergative series.
They are like the ‘retained object constructions’ with ba in (12), with two objects: DP3 = inner object (Theme), DP2 = outer object (Affectee). The main difference is that the light verb DO-TO is not filled by ba. Verb movement across the outer object gives rise to the surface double-object pattern.
• The DP2 has object properties, is minimally an Affectee (a neutral Experiencer is not sufficient).
• This pattern admits any action verb + complement combination whose meaning is ‘sufficiently transitive’ so as to be able to take an outer object.
  - In many cases the Affectee happens to be a source from which things are taken, robbed, rented, borrowed.
  - But definitely this is just a subset of the possible outer-object constructions.
  - There is no real possessor requirement between DP2 and DP3, hence no raising nor binding analysis would be sufficient. (cf. Hole 2005) Consider
examples like: 赢了他两次桥牌 ‘win him twice the bridge game’, 摸了他两次清一色 ‘draw him twice straight-one-color’ [=won the mahjiang game on him twice, by drawing a card that makes a straight suit], 连续进了他们两个三分球 ‘consecutively score them two 3-pointers’ [=score two 3 pointers on them in a row], 亏了他一屁股的债 ‘owe him a butt-ful of debt’. There is no conceivable, natural, possessive or binding relation between DP2 and DP3. Other more radical examples involve idioms like 我开了他一个玩笑、你敲他三次竹杠、李四愚了他一默、我们准备开他一刀 (and more!) also strongly resist a binding (not to mention raising) analysis for the outer object ‘him’ in each case.

→ Summary: according to our analysis: see PM (13) and (15)
- The unaccusative type of DOC has one object and two subjects: one large (the Causer) and one small (the Experiencer)
- The unergative type of DOC has one subject and two objects: one inner (the Theme) and one outer (the Affectee).

3.3. Against a ‘cause-to-lose’ type of DOC

- Since Zhu (1979) many scholars juxtapose the two types of DOC as if they should be analyzed in similar fashion. Certain authors (Zhang (1998)、张宁 (2000)、邓思颖 (2003) 与徐德宽 (2004) treat the Affectee (rob-type) construction as also involving a causative (hence unaccusative) template, except that the meaning of the rob-type construction is “X causes Y to lose Z”. Some functionally oriented scholars (e.g., 张伯江 1999, 张国宪 2001) try to relate the two types by the claim that one type represents a metaphorical or metonymic extension of the other.
- Similar arguments against Pylkänn (2002 [2008]) on ‘Source Applicative’ (low applicative)
- See Tsai and Yang (2008 and ongoing research) on the range of applicatives

→ Arguments against this alternative:

- Not all the unergative DOCs involve possession or loss thereof in any sense, however stretched, as noted above, with ta ‘him’ in DP2 and bridge games, a straight suit, 2 3-pointers or a butt-ful of debit in DP3; or between ‘me’ and ‘3 days and 3 nights’.  
- Under my proposal, the give-type IO is an inner subject (Experiencer) and the rob-type IO is an outer object (Affectee). This explains why only the Affectee may be passivized, ba-transformed, etc. (because it’s an object) but not the Experiencer (because it’s a subject). This distinction would be obscured by a causative (unaccusative) analysis of the rob-type.
• There is strong cross-linguistic, cross-dialectal, morphological and orthographical evidence for an unaccusative analysis of the give-type, but not for the rob-type.

授-受 shou = give or receive; 卖-买 mai = sell or buy; “假、租、借” 与闽语“与” TS Min yu ‘give, cause, undergo, etc.’

• My proposal makes an important prediction that the alternatives do not: The ambiguity of (19) vs. the non-ambiguity of (20):

(16) 张三租了李四一栋房子。
Zhangsan zu-le Lisi yi-dong fangzi.
Zhangsan rent-LE Lisi one-CL house
a. Zhangsan rented Lisi a house. (Zhangsan = landlord)
b. Zhangsan rented a house from Lisi. (Zhangsan = tenant)

(17) 李四租了一栋房子。
Lisi zu-le yi-dong fangzi.
Lisi rent-LE one-CL house
Lisi rented a house. (Lisi = tenant, *landlord)

Similarly, with jie which can mean ‘borrow’ or ‘lend’. The reason:

(18) a. The unaccusative frame (Causer V Exp. Theme): the Causer is the second option to merge (after Exp). The unergative frame (Agent Affectee V Theme): the Affectee is the last option (after inner object).
c. Non-selection of this last option will eliminate the Causer from the unaccusative frame, and the Affectee from the unergative frame. The result is that the subject is unambiguously the tenant (as an Agent or an Experiencer).
   [A tenant or borrower qua Experience if s/he acts under external causation, qua Agent otherwise.]

• Orthographical considerations: 授-受 shou = give or receive; 卖-买 mai = sell or buy. ‘give’ and ‘sell’ are marked (for the additional causative meaning). But there is no word of the type rob vs. be robbed with marking on rob.

• 张伯江 (1999), 张国宪 (2001): give-type ↔ rob-type by ‘extension’. Cf. Peyraube (1999), who shows that the rob-type clearly did not exist in Archaic Chinese. Also, typologically, languages often differ in having only one type but not the other type of DOC. (Cf. Harley, who argues that only languages that ‘have’ can ‘give’.)
4. **Remarks on extra-argumentality:**

→ Do these sentences with inner subjects and outer objects contain ‘one argument too many’?

- Semantically, there is no reason why these are not arguments (compositional arguments on a par with subjects).
- Syntactically:
  - the experiencer subject of ‘die, happened an accident, etc.’ walks and talks like an argument (extraction, etc., though such sentences are not easily passivized—perhaps a reflection of get-passives).
  - The affectee object walks and talks like an object (passive, ba-, etc.).
- One-argument-too-many is a problem of a theory that takes them to be non-arguments.
- From Chinese point of view, these guys are there because it is normal for arguments to be there. The question is not why Chinese allows too many arguments per sentence, but why English (for example) does not allow some of them.

5. **Remaining issues and clarification:**

- What accounts for the Chinese-English difference? Why doesn’t English allow for these constructions (as) freely?

(19) a. *John died a father.
    b. *They arrived many guests.
    c. *They happened an accident.

(20) a. *John robbed Bill $500.
    b. *John rented Bill an apartment. (for John = tenant)
    c. *John ate Bill two bowls of noodles.

- Except: The court **fined** me $300. This **cost** me a lot. (These seem good unergative DOCs in English.)
- **rob** and **rent** in (20a, b) may not be good examples for English. It is possible to *John robbed Bill $500* in English, in fact, but this is being used in the give-sense (張三搶給了李四500元)。Similarly *John rented Bill an apartment* is grammatical, *John* = 付房租的人；張三在台北租了一棟公寓給他兒子，以便他準備考插班。）In both cases we have V-so-as-to-give, a kind of give, a causative DOC with a manner expressed by V. But in general, unergative DOCs are not grammatical in English.
- The question is why.
→ Proposal:

(21) The EPP: English clausal heads have [+EPP] features that requires its specifier be lexically filled. But (Modern) Chinese TP does not have [+EPP] of this sort.

(22) The inherent Case parameter (descriptive): In Chinese all verbs are able to assign an Inherent Case (Dative or Partitive) in addition to any structural case they may or may not have. In English, only a closed class of verbs have Inherent Cases including the give-type verbs (and a few exceptions of other classes: fine, cost, etc.).

From Peyraube (2005):

(23) Subjects of unaccusatives moved to postverbal position (Peyraube 2005)

- 孔子趋出，子路趋而也 (荀子) AC
  Kongzi qu chu, Zilu qu er chu. [from Xunzi =AC]
  Confucius hurried exited, Zilu hurried and exited.

- 即便生出二甘蔗 (佛本行集经) [隋] MC
  jibian sheng-chu er ganzhe [From Fobenxing = late MC]
  then emerge-out two sugarcane
  ‘Thus emerged two sugarcanes.’

• Because the unaccusative predicate does not assign Acc to its object, the expletive There [which signals the EPP requirement] helps form a Case chain (a la Safir 1982)]. Otherwise, the object would need to raise to occupy the subject position. In both cases, an Experiencer is excluded from the subject position. Instead, it must be realized as a PP (An accident happened to them, John’s father died on him, etc.).
  - This assumes that the unaccusatives like die, arrive, happen do not assign Case even in the presence of an experiencer argument. The limited good cases in (11) are acceptable, because these ‘uncausativized’ experiencer sentences, unlike the existential-type, do assign Acc in the presence of 2 arguments per Burzio’s generalization.

• The possibility of (27b) and other similar intransitives in MnC shows that T is – EPP and suggests that the object may be assigned/checked by an Inherent Case (such as Partitive Case, re. Belletii 1988). This leaves the subject position free for the Experiencer argument, which may then receive Nominative Case there.

• The availability of an inherent Case also gives rise to the Affectee constructions. Since the Inherent Case is Dative, we predict that the Affectee argument is normally animate. An inanimate outer object is excluded from the DOC format, but must occur with ba (and carries Accusative case).
(24) a. 张三把橘子剥了皮。 *张三剥了橘子皮。  
Zhangsan ba juzi bo-le pi  *Zhangsan bo-le zuji pi  
Zhangsan BA orange peel-LE skin  
Zhangsan peeled the orange.

b. 李四把纸门踢了一个洞。 * 李四踢了纸门一个洞。  
Lisi ba zhimen ti-le yi-ge dong  * Lisi ti-le zhimen yi-ge dong  
Lisi BA paper-door kick-LE one-CL whole  
Zhangsan kicked a hole in the paper door.

c. 他们简直把下流当有趣。  
* 他们简直当下流有趣。  
* tamen jianzhi dang xialiu youqu  
  (cf. OK tamen dang wo shagua)  
  they practically BA vulgarity treat-as humor  
  They virtually take vulgarity for humor.

d. 他转眼间把那一篮苹果吃了八个。  
* ta zhuanyanjian ba na yi-lan pingguo chi-le ba-ge.  
  he instantly BA that one-basket apple eat-LE 8-CL  
  He instantly ate 8 out of the basket of apples.

6. Summary

- Chinese exhibits a fuller set of syntactic structures that are projections of two general argument structure paradigms (the unaccusative and the unergative series).
- Chinese exhibits examples of polysemy that provide good evidence for lexical decomposition and Davidsonian event structure. (A decomposed structure is a structure with high analyticity.
- Chinese exhibits limitations on the range of simple give-type verbs (but require V-gei type or fuller periphrastic structures), exhibiting high analyticity.
- The lack of EPP → the existence of ‘unaccusative transitives’ (assuming also availability of the partitive case).
- The ability of inherent case (Dative) gives rise to the unergative DOCs.