

Chinese Activity Constructions: Light Verb Syntax and Adnominalisation:

Mandarin Chinese has a nominal element *de* (的) known as adnominaliser or structural particle (結構助詞) which is commonly used to express possession and modification in the noun phrase (Paul (2005, 2012, 2019)), and it has been argued that *de* lexicalizes different functional heads in the nominal domain where possession (POSS) and modification (Mod) are hierarchically arranged along with quantificational and indexical categories such as demonstratives, numerals, quantifiers and classifiers (Aoun and Li (2003:140), Del Gobbo (2003:48), Cheng and Sybesma (2015:1520)):

1) Possessive Demonstrative Number Quantifier Classifier Modifier Noun

Furthermore, Mandarin Chinese regularly employs adnominaliser *de* to construct nominal phrases in Activity constructions where the subject of the Activity verb is the Actor and the object is a nominal phrase headed by *de* containing the Actor and the Activity in a pseudo-possessive construction (Actor *de* Activity < Possessor *de* Possessum):

2) 他 當 他 的 老師
ta dang ta de laoshi
he do he DE teacher

‘He is being a teacher (literally ‘he is playing his role as a teacher’).’

(Huang (2008:226), Tang (2011:149))

As the object (e.g. 他的老師 *ta de laoshi* in 2)) denotes abstract activity (here ‘him being a teacher’) rather than possession (‘his teacher’), the head noun (老師 *laoshi* in 2)) does not denote a specific person or thing but an abstract activity, which has led some to argue that the Activity phrase here is a case of clausal nominalisation in Chinese where a clause denoting Activity is nominalised by *de* (Huang (2008:225), Hu (2016:435)). Furthermore, it is generally possible to use the nominal phrase headed by *de* as the subject of Activity verbs. The example in 2) can be rephrased as follows:

3) 他 的 老師 當 得 好
ta de laoshi dang de hao
he DE teacher do COMP good

‘He is being a good teacher.’ (Huang (2008:225))

While in Mandarin Chinese the nominal phrase headed by *de* can occur in either subject (3) or object position (2) of Activity verbs, southern dialects of Chinese which use g-forms of the adnominaliser do not permit the nominal phrase denoting Activity to occur in subject position (4b), even though the same nominal phrase can occur in object position (4a), which points to an important difference between dialectal forms of the Chinese adnominaliser (*de/ge*) (Tang (2008, 2009, 2010, 2011)):

4a) 佢 做 佢 嘅 老師
keoi zou keoi ge lousi
he do he GE teacher

‘He is being a teacher.’

4b) *佢 嘅 老師 做 得 好
keoi ge lousi zou dak hou
he GE teacher be COMP good

‘He is being a good teacher.’ (Cantonese) (Tang (2008:75, 2009: 241-242, 2011:150))

These discrepancies between adnominalisers *de* and *ge* point to a genuine difference between northern and southern dialects of Chinese since Activity phrases nominalised by g-forms in southern dialects generally do not occur in the subject position of Activity constructions (5d-f), even though they are widely attested in the object position (5a-c), as confirmed in Chinese dialectal surveys (Tang (2009)):

5a) 渠 當 渠 個 老師 (Shaodong dialect (Xiang))
keoi dang keoi ge laoshi
he do he GE teacher

- 5b) 伊 當 伊 個 老師 (Taiwanese Min)
 yi dang yi ge laoshi
 he do he GE teacher
- 5c) 渠 當 渠 個 先生 (Wenzhou dialect (Southern Wu))
 keoi dang keoi ge xiansheng
 he do he GE teacher
 ‘He is being a teacher.’ (adapted from Tang (2009:242))
- 5d) *渠 個 老師 當 得 好 (Shaodong dialect (Xiang))
 keoi ge laoshi dang de hao
 he GE teacher do COMP good
- 5e) *伊 個 老師 當 甲 好 (Taiwanese Min)
 yi ge laoshi dang ga hao
 he GE teacher do COMP good
- 5f) *渠 個 先生 當 好 險 (Wenzhou dialect (Southern Wu))
 keoi ge xiansheng dang hao xian
 he GE teacher do good PART
 ‘He is being a good teacher.’ (Tang (2009:241))¹

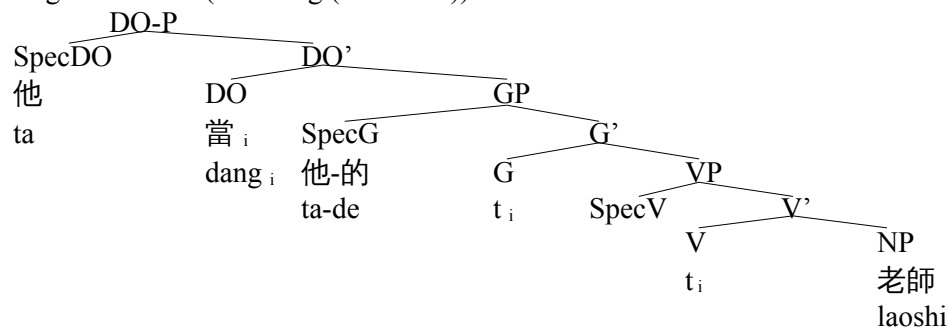
In sum, while it is acceptable in all Chinese dialects to use adnominalisers *de* and *ge* to nominalise Activity in the object position of Activity verbs (2, 4a, 5a-c), *de* but not *ge* can also head the Activity phrase in the subject position of the same Activity verbs (3, 4b, 5d-f). Adnominaliser *ge* seems to be more marked than *de* as the former can only nominalise the Activity phrase in the object position of Activity constructions (4a-b, 5a-f) while the latter can do so in both object and subject positions (2-3).

There are two structural minimal pairs of interest here: the subject and object asymmetry in the use of *ge* as the nominaliser of Activity phrases (4a-b, 5a-f) and the contrast between *de* and *ge* as the nominal head of Activity phrases in subject position (3, 4b). In order to account for this microvariation between *de* and *ge*, Tang (2008, 2009, 2010, 2011) proposes a nominalisation parameter based on Huang’s (2008) formal analysis of Chinese Activity Constructions which projects a Light Verb projection DO for Activity verbs (cf Hale and Keyser (1993, 2002)). Huang (2008:226-232) argues that Light Verb DO selects a nominalised gerund phrase (GP) headed by adnominaliser *de* which selects a verbal complement denoting Activity, and when the verb in GP undergoes head movement to DO via the head of GP (G), this derives the canonical word order where the Actor and Activity phrase co-occur as the subject and object of the Activity verb respectively:

¹ There are alternative structures in these dialects where subject Activity phrases can be headed not by the adnominaliser (*ge*) but by functors derived from lexical nouns that denote the instrument with which the Activity is carried out e.g. Cantonese:

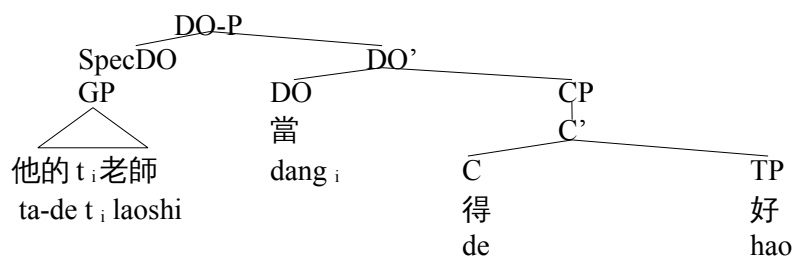
- 1) 佢 手 籃球 打 得 好
 keoi sau laamkau da dak hou
 he hand basketball play COMP good
 ‘He plays basketball well.’
- 2) 佢 脚 波 踢 得 好
 keoi geot bo tek dak hou
 he foot ball kick COMP good
 ‘He plays football well.’ (Tang (2009:242))

- 6) 他 當 他 的 老師
 ta dang ta de laoshi
 he do he DE teacher
 'He is being a teacher.' (cf Huang (2008:230))



Moreover, Huang (2008 :230-232) argues that when the matrix Actor argument (他 *ta* in 6)) is deleted, it is possible for the verbless Activity GP (他的 *t_i* 老師 *ta de t_i laoshi* in 6)) to undergo remnant movement to the specifier of DO (SpecDO-P), hence deriving the subject and object alternation of the Activity phrase (2-3). Furthermore, this leaves room for the Activity verb to select a different complement such as the adverbial phrase 得好 *dehao* 'good, well' (Huang (2008:230-232)).²

- 7) 他 的 老師 當 得 好
 ta de laoshi dang de hao
 he DE teacher do COMP good
 'He is being a good teacher.' (Huang (2008:231))

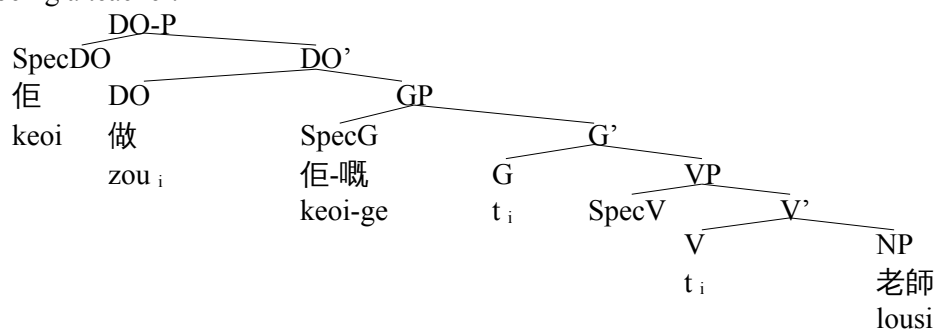


Adopting Huang's derivational model, Tang (2008, 2009) proposes a nominalization parameter where the markedness of Cantonese *ge* is accounted for in terms of selectional properties, since it is argued that while Mandarin *de* can select clausal complements (8a) (Si (2002)), Cantonese *ge* cannot (8b), which is taken to support a nominalization parameter where *de* but not *ge* permits verb head movement from GP to DO via G and hence account for why *de* but not *ge* can nominalise Activity phrases in subject position (8c-d) (Tang (2008:76-77, 2009:243-244)):

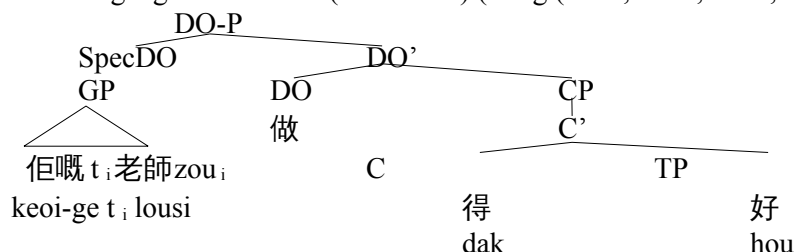
- 8a) 張三 的 曾 在 美國 留學
 Zhangsan de ceng zai meiguo liuxue
 Zhangsan DE once at America study.abroad
 'Zhangsan's studying in the US in the past' (Si (2002:35))
- 8b) *張三 嘅 曾經 响 美國 留學
 Zeongsaam ge cangging heong meigwok lauhok
 Zeongsaam GE once at America study.abroad
 'Zeongsaam's studying in the US in the past' (Tang (2008:77))

² Chinese regularly uses non-thematic complements to express adverbial notions such as duration, frequency and extent (Li (1990:7-10)) which, in accordance with Projection Principles such as Baker's UTAH, are merged below all thematic arguments of the verb (Lin (2001)).

- 8c) 佢 做 佢 嘅 老師
 keoi zou keoi ge lousi
 he be he GE teacher
 'He is being a teacher.'



- 8d) *佢 嘅 老師 做 得 好
 keoi ge lousi zou dak hou
 he GE teacher be COMP good
 'He is being a good teacher.' (Cantonese) (Tang (2008, 2009, 2010, 2011))



There are numerous problems in Huang and Tang's analyses. First of all, the categorial and syntactic status of adnominaliser *de* (6) and by extension *ge* (8c) is unclear since Huang's (2008:230) analysis hinges on the hypothesis that *de* is cliticised onto the Actor argument in SpecGP (6) which permits head movement of the embedded verb to DO via G (當 *dang*_i ... *t*_i in 6), 做 *zou*_i ... *t*_i in 8c)). However, this clitic analysis of *de* is counterintuitive to the conventional analysis of *de/ge* as nominal(ising) heads of the Activity GP (1) (Tang (2006), Li (2008)), in which case *de/ge* (G) should block head movement of the embedded verb to DO by principles of locality and minimality (Rizzi (1990)). Secondly, the subject and object alternation of the Activity phrase (7, 8d) is not independently motivated since no explanation is actually given for the deletion of the Actor argument in SpecDO-P and the subsequent remnant movement of the Activity phrase, which seems to be an *ad-hoc* circular argument for accounting for the empirical data.³ Finally, and most critically, it is unclear how Tang's nominalization parameter can account for the minimal contrast between using *de* (7) and *ge* (8d) in the Activity phrase in subject position, since even if *de* and *ge* were both cliticised onto the Actor argument in SpecGP and hence permitted V-to-G-to-DO movement, it is unclear how and why *ge* but not *de* would block such head movement without positing extra and unnecessary stipulations. The dialectal microvariation between *de* and *ge* as seen in the subject-object asymmetry in the nominalisation of Chinese Activity phrases is a real empirical phenomenon which remains to be accounted for adequately, and the formal and empirical properties of Chinese adnominalisers (*de/ge*) and Activity constructions are presently explored.

This paper proposes a new formal analysis of Chinese Activity constructions which falls out from the subject and object asymmetry in the dialectal forms of the adnominaliser (*de/ge*), namely the fact that

³ Professor Jim Wood (p.c.) has suggested to me that this alternation may be on a par with passivisation where the subject argument is suppressed and the object argument is moved to the subject position for Case-assignment (Burzio (1986)). However, while the subject/object alternation of the Activity phrase is schematically similar to the Case-driven raising of the object in passivisation, there is not an independent principle such as Case to derive it (cf Chomsky (1981)), which leaves it as yet unexplained.

while both *de* and *ge* can occur in the object position of Activity verbs (2, 4a), only *de* (3) and not *ge* (4b) can occur in the subject position of such verbs, which lies at the heart of the microparametric variation in Chinese dialects. There are three sections in this paper: section 1 proposes modifications to Huang and Tang's analyses by eliminating the *ad-hoc* remnant movement of the Activity phrase to SpecDO-P which is not only unnecessary but also violates traditional Projection Principles which assume a one-to-one correspondence between thematic arguments and A(argument)-positions (Hu (2016:437), cf Chomsky (1981:36), Stowell (1981:112)). Rather, it is argued that Actor and Activity are merged in two distinct A-positions where Actor is merged higher than Activity in line with traditional thematic hierarchies (Baker (1985, 1988)). Since Actor is the external argument in Activity constructions (Hale and Keyser (1993:77-84, 2002:88-103)), Actor and Activity can be argued to be merged in the specifier positions of Ramchand's (2008) InitiateP and ProcessP respectively, which conforms to the event structure of Activity where SpecInitiateP and SpecProcessP hold the agent and the theme respectively (Ramchand (2008:52ff)). The canonical base structure of Chinese Activity constructions, therefore, consists of Actor and Activity as two independent arguments, which provides a common derivational model (Initiate + Process) for examining the microparametric variation between adnominalisers *de* and *ge*. Section 2 reconsiders these microparametric differences in light of the new event structure where Actor and Activity are merged in different A-positions (SpecInitiateP and SpecProcessP respectively), and the subject and object asymmetry of *de/ge* in heading the Activity phrase can be remodelled as such: both *de* and *ge* can head the Activity phrase (SpecProcessP) if there is an Actor argument (SpecInitiateP) above it, and if there is no such Actor argument (SpecInitiateP), only *de* and not *ge* can head the Activity phrase (SpecProcessP) i.e. *ge* can head the Activity phrase (SpecProcessP) iff the Actor argument is projected (SpecInitiateP), which indicates a fascinating inextricable link between the Actor argument (SpecInitiateP) and the Activity phrase (SpecProcessP). The projection of the Actor argument seems to impose selectional restrictions on the nominalising head of the Activity phrase (*de/*ge*), which suggests that the Actor argument may be base-generated in the Activity phrase (SpecProcessP) and raised to its surface matrix A-position (SpecInitiateP) via some kind of A(argument)-copying as seen in the coreference between the subject of Activity constructions and the external argument of the Activity phrase (他_i 當他_i 的老師 *ta_i dang ta_i de laoshi* (2) / 佢_i 做佢_i 嘅老師 *keoi_i zou keoi_i ge lousi* 'he is being a teacher' (4a)). In the absence of the matrix Actor argument, on the other hand, there is a fundamental difference in the Activity phrase which can only be nominalised by *de* and not by *ge* (他的老師當得好 *ta de laoshi dang de hao* (3) / *佢嘅老師做得好 *keoi ge lousi zou dak hou* 'he is being a good teacher' (4b)), and this can be correlated with the etymological origins of *de* and *ge* as *de* is widely taken to derive from phrase-final nominaliser *di* (底) in nominal linking contexts (Feng (1990), Jiang (1999), cf den Dikken and Singhapreecha (2004)) whereas *ge* is derived from the general classifier *ge* (個/固) which may be incompatible with nouns denoting abstract Activity since classifiers typically have count, individualising and delimiting properties that naturally select concrete and countable nouns (Bisang and Li (2012), Zhang (2013)). The microvariation between *de* and *ge* in Activity phrases can hence be reconsidered in light of a biclausal structure where the matrix Actor argument (SpecInitiateP) is extracted from the Activity phrase (SpecProcessP) which must hence contain an embedded clause mirroring the matrix clause and is hence a case of clausal nominalization. In the absence of the Actor argument, the Activity phrase can be argued to contain not a clausal but a nominal complement which is subject to the selectional differences between *de* and *ge*, the latter of which may be incompatible with lexical nouns denoting abstract Activity due to its de-classifier origins. Section 3 concludes by examining this biclausal structure of Chinese Activity constructions (Actor and Activity merged in SpecInitiateP and SpecProcessP respectively), which conforms to Lin's (2001) Light Verb syntax which argues for a rich inventory of Light Verbs in Chinese that serve as argument-introducing heads (cf Huang (1994, 1997)). Furthermore, the correlation between the matrix Actor argument and the internal structure of the nominalised Activity phrase indicates that while the Activity argument may be thematically constant in being merged in the same A-position (SpecProcessP), it can have a different internal structure in containing either a nominal or clausal

complement, which differs from traditional distinctions between result and process nominalisations (Grimshaw (1990)).

Section 1: Chinese Activity constructions: Actor + Activity:

As shown in the introduction, all Chinese dialects have Activity constructions where the Actor and Activity occur in the subject and object positions of the Activity verb respectively (2, 4a), which seem to indicate two distinct A-positions for Actor and Activity, as repeated here:

9a) 他 當 他 的 老師
ta dang ta de laoshi
he do he DE teacher (Mandarin)

9b) 佢 做 佢 嘅 老師
keoi zou keoi ge lousi
he do he GE teacher (Cantonese)

‘He is being a teacher.’ (Huang (2008:226), Tang (2011:149))

While Huang (2008) seeks to unify Chinese Activity constructions with Activity constructions in other languages such as English and Japanese denominal constructions by postulating a Light Verb projection DO which introduces the Actor as its sole argument (SpecDO-P) and triggers head movement of the embedded verb in the GP complement, his analysis fails on two counts: 1) the postulation of a nominal Activity phrase (GP) as the complement to DO seems to be a categorial mistake since Light Verbs are merged above verbal projections in the clausal hierarchy and should hence select a verbal complement (Chomsky (1993), Hale and Keyser (1993, 2002), Cinque (1999)) 2) the subject and object alternation of the Activity phrase is not independently motivated as it is supposed to occur by deletion of the Actor argument in SpecDO-P and remnant raising of the Activity phrase to the same A-position (see footnote 2), which is shown here again (cf 6-8):

10a) 他 當 他 的 老師
ta dang ta de laoshi
he do he DE teacher (Mandarin)

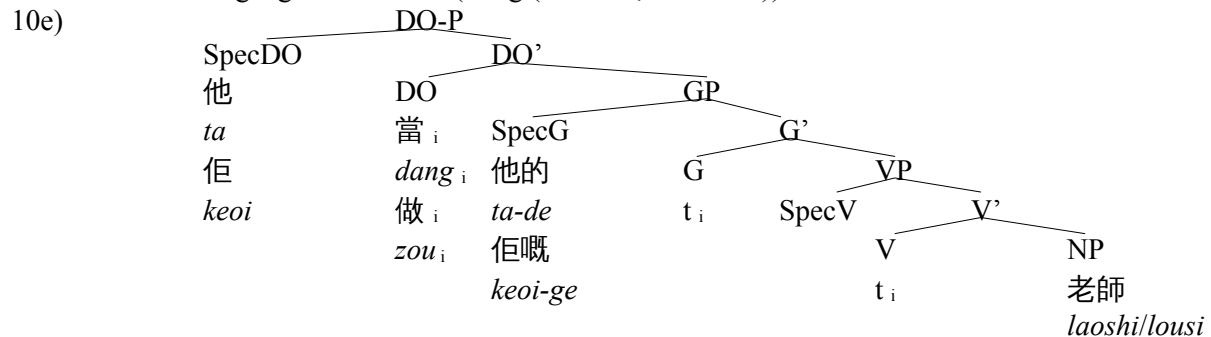
10b) 佢 做 佢 嘅 老師
keoi zou keoi ge lousi
he do he GE teacher (Cantonese)

‘He is being a teacher.’ (Huang (2008:225-226), Tang (2011))

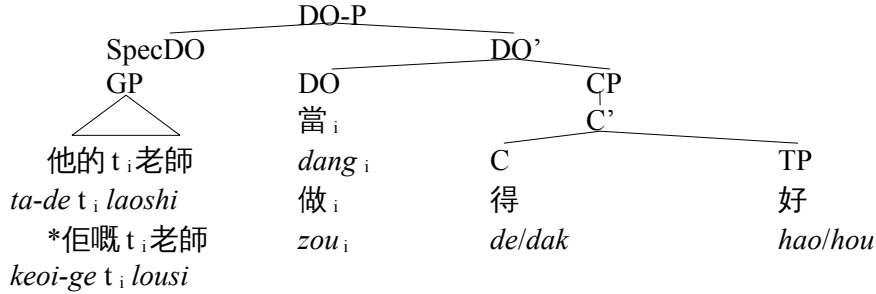
10c) 他 的 老師 當 得 好
ta de laoshi dang de hao
he DE teacher do COMP good (Mandarin)

10d) *佢 嘅 老師 做 得 好
keoi ge lousi zou dak hou
he ge teacher do COMP good (Cantonese)

‘He is being a good teacher.’ (Tang (2008:75, 2011:150))



10f)



As shown in 10f), Huang (2008:231-232) argues that the Actor argument (他 *ta*/佢 *keoi* in 10e)) is deleted and the verbless Activity GP undergoes remnant movement (他的 *t_i* 老師 *ta de t_i laoshi*/*佢嘅 *t_i* 老師 *keoi ge t_i lousi* in 10f)) to SpecDO-P, which makes it possible for Light Verb DO to select a different complement such as adverbial complement phrase 得好 *de hao/dak hou* 'good, well' (10f) (see footnote 1). Furthermore, the raised Activity phrase can only be nominalised by *de* and not by *ge* (他的老師 *ta de laoshi*/*佢嘅老師 *keoi ge lousi* in 10f)), which Tang (2008 :76-77, 2009 :243-244) seeks to account for with his nominalization parameter that states that only *de* and not *ge* permits the embedded verb to move to DO via G (*t_i* in 10e)). In addition to the problem of how *de* and *ge* might block V-to-G-to-DO head movement, it is unclear how Tang's nominalization parameter differentiates between the subject and object positions of the Activity phrase, since the derivation predicts that remnant movement of the Activity phrase is possible if it is headed by *de* but impossible if it is headed by *ge*, which is left unexplained. Furthermore, there is evidence that Actor and Activity may in fact be merged in two distinct A-positions, since it is possible to have both Actor and Activity co-occur with non-thematic complements such as adverbial clause 得好 *dehao* 'good, well', which renders the deletion of the Actor and the remnant movement of the Activity phrase to SpecDO-P unnecessary as they could be base-generated in two different A-positions which dominate non-thematic complements such as the adverbial clause (see footnote 2):

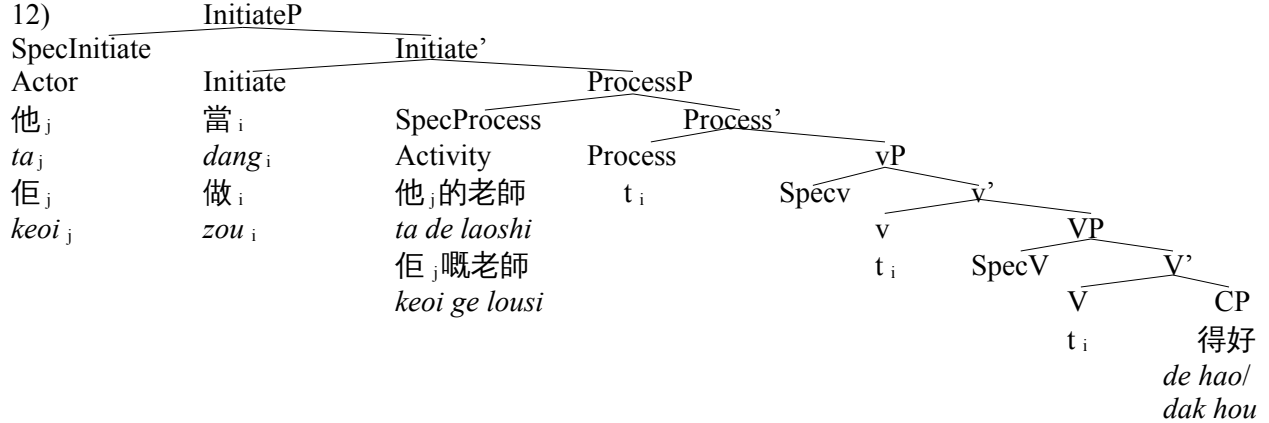
- 11a) 他 當 他 的 老師 當 得 好
 ta dang ta de laoshi dang de hao
 he do he DE teacher do COMP good (Mandarin)
- 11b) 佢 做 佢 嘅 老師 做 得 好
 keoi zou keoi ge lousi zou dak hou
 he do he GE teacher do COMP good (Cantonese)
- 'He is being a good teacher.'⁴

It may hence be possible to argue that Chinese Activity constructions consist of two separate and independent arguments (Actor, Activity) merged in two distinct A-positions, which not only bypasses the minimality/locality issues in how the embedded verb can move to DO via G if G is lexically filled by *de/ge* but is also consistent with conventional Projection Principles whereby Actor should be merged higher than Activity due to thematic prominence (Baker (1985, 1988), Dowty (1991)). Within a formal event structure where the agent who initiates the action is merged higher than the theme being initiated, it

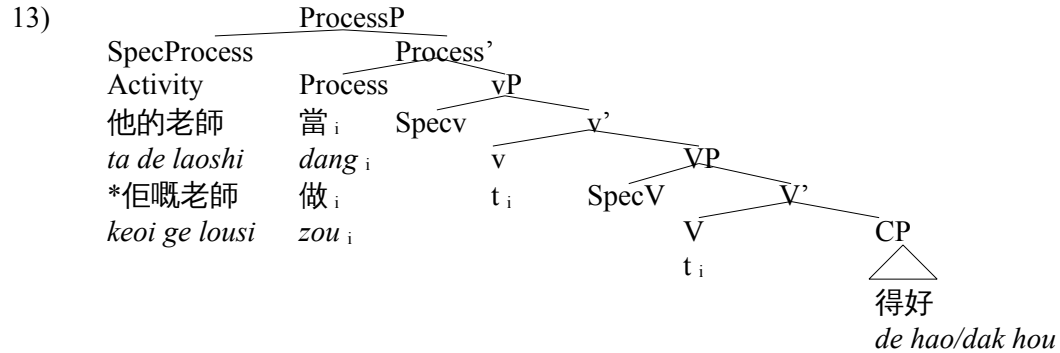
⁴ It has been remarked to me by other native speakers that examples like 11a-b) sound a little stilted and should be marked by ?. Nonetheless, it remains the case that it is possible to express Actor and Activity together with an adverbial complement, as seen in the following examples where the Activity phrase is simplified by omitting the possessor (= Actor) of the phrase:

- i) 他 當 老師 當 得 好
 ta dang laoshi dang de hao
 he do teacher do COMP good
- ii) 佢 做 老師 做 得 好
 keoi zou lousi zou dak hou
 he do teacher do COMP good
- 'He is being a good teacher.' (Mei (1978))

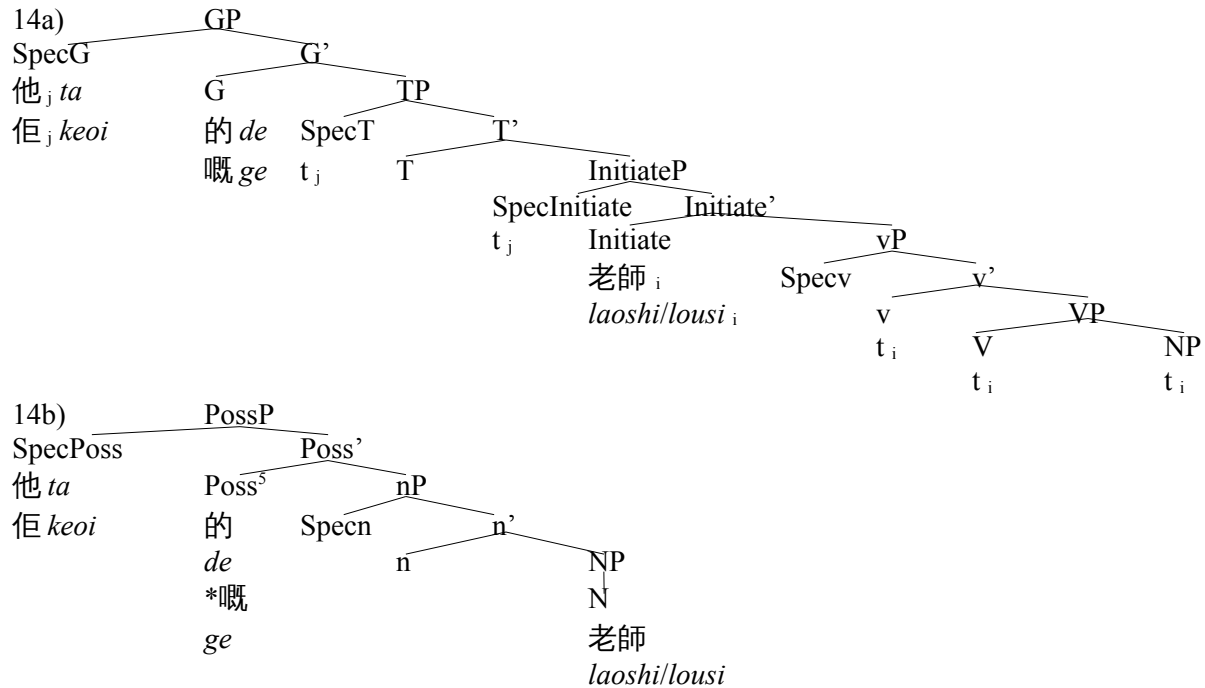
can be argued that Actor and Activity are merged in the specifier positions of Ramchand's (2008:39-42) InitiateP and ProcessP respectively, as represented below:



In 12), there are two Light Verb projections (Initiate, Process) which trigger verb movement (當 *dang_i* / 做 *zou_i*... t_i) and introduce two arguments which, in a bottom-up derivation, consist of Activity (SpecProcessP) and Actor (SpecInitiateP). In line with the Spec-Head A(rgument)-licensing of Light Verbs (Larson (1988)), it can be argued that the Actor argument is copied and raised from the specifier of the Activity phrase below (他 *ta_j* / 佢 *keoi_j*), which entails that the Activity phrase contains a clausal complement in which the Actor argument is base-generated by being introduced by the same functional head (InitiateP) in the embedded clause. The derivation of the canonical word order of Chinese Activity constructions where both Actor and Activity are expressed is hence biclausal and the Activity phrase here is a case of clausal nominalisation. In the absence of an Actor argument as seen in examples where the Activity phrase occurs as the subject of the Activity verb, Activity is the only argument (SpecProcessP) which similarly triggers verb head movement (V-to-Process), as shown below:



In comparison to the previous structure (12), only *de* and not *ge* can head the Activity phase (他的老師 *ta de laoshi*/*佢嘅老師 *keoi ge lousi* in 13)), which seems to indicate an interesting connection between the matrix Actor argument in SpecInitiateP and the Activity phrase in SpecProcessP since in the absence of the former the latter can only be headed by *de* and not by *ge* (13). This entails that the projection of the matrix Actor argument (SpecInitiateP) renders possible the nominalisation of the Activity phrase (SpecProcessP) by *de* and, more importantly, by *ge*. Furthermore, the internal structure of the Activity phrase seems not only sensitive to the selectional properties of the adnominaliser (*de*/**ge*) but also to the projection of the matrix Actor argument, which suggests that the Activity phrase in 13) is not a clausal nominalization as in 12) but a nominal possessive phrase containing a lexical noun denoting Activity. These two structures are represented below:

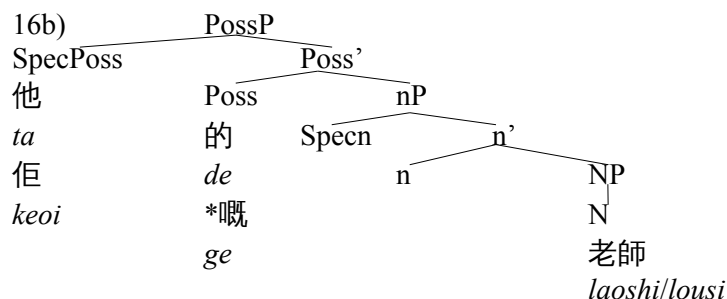


The two types of Activity constructions hence consist of two different types of nominalisation, namely clausal nominalization (14a) in the case where the matrix Actor argument is projected (12) and a nominal possessive phrase (14b) if the matrix Actor argument is not projected (13), which correlates with the microvariation between adnominalisers *de* and *ge* in heading the Activity phrase in subject position (13). In sum, while both *de* and *ge* can nominalise a clause by selecting a clausal complement (14a), only *de* and not *ge* can select a nominal complement denoting Activity (14b), which shows that adnominalisers can have selectional restrictions on the lexical noun, even if these do not apply to their clausal complements (14a). This microvariation is examined in the next section where the etymology and selectional properties of *de* and *ge* are considered.

Section 2: Chinese adnominalisers *de* and *ge* : Activity Phrase:

The previous section proposed a biclausal structure for Chinese Activity constructions where the Activity phrase (SpecProcessP) is dominated by the Actor argument (SpecInitiateP) (12) which is derived via head movement of the Activity verb (V-to-Process-to-Initiate). Furthermore, the matrix Actor argument is argued to be copied and raised from the Activity phrase which contains an embedded clause in which Actor is base-generated (14a). When the matrix Actor argument is not projected (13), the Activity phrase (SpecProcessP) becomes the sole argument in subject position where it shows a different type of nominalisation, namely a possessor noun phrase containing a nominal complement denoting Activity which can only be headed by *de* and not by *ge* (14b). The two types of Activity constructions are represented here again:

⁵ Huang's (2008) labelling of the nominal head of clausal nominalizations as G(erund) corresponds to the various D-projections in the nominal domain which also introduce arguments in their specifiers: in 14a) Actor is base-generated in the embedded SpecInitiateP and moved to SpecGP while in 14b) G corresponds to Poss which introduces the possessor to the noun phrase (Longobardi (2001), Longobardi and Silvestri (2013)).



The selectional differences between adnominalisers *de* and *ge* in selecting a noun denoting Activity (16b) can be derived from their etymological and historical origins: adnominaliser *de* is historically derived from phrase-final nominaliser *di* (底) which has been argued to originate from Classical Chinese *zhe* (者) which is similarly phrase-final (Liu (2008), Aldridge (2009), Yap et al (2011)) and the adnominalising functions of *de* have been shown to derive from appositional constructions where phrase-final *di* is juxtaposed with a coreferential noun phrase which can be reanalysed as a single noun phrase where *di* is reanalysed as a phrase-medial nominal linker anticipating modern Chinese *de*:

- 17) 昨 來 底 後生
 zuo lai di housheng
 yesterday come DI youth

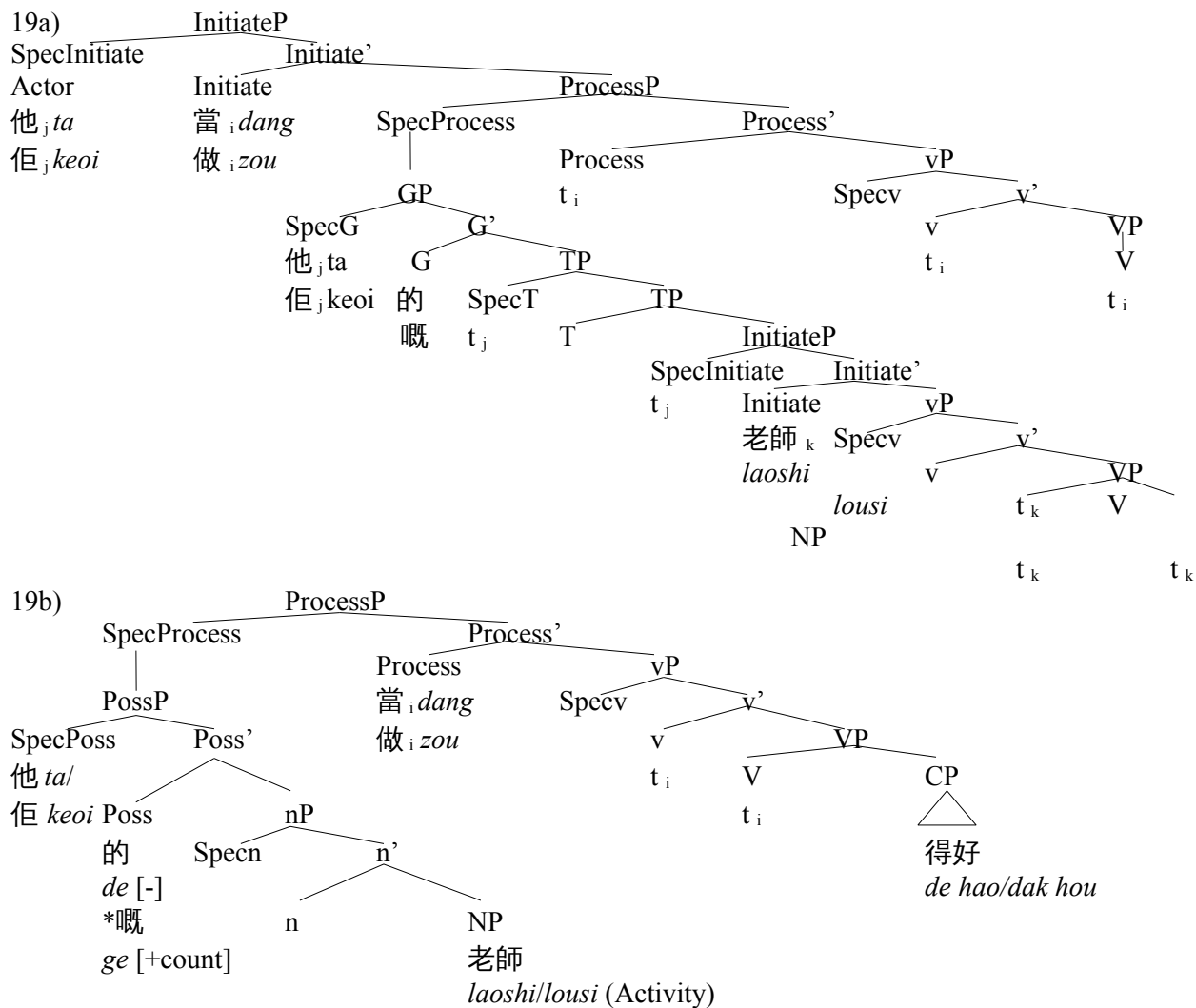
‘the one who came yesterday, the youth’ > ‘the youth who came yesterday’ (祖堂集)

Adnominaliser *ge*, on the other hand, is derived from the general classifier *ge* (個/固) which is typically used for counting and quantification and hence inherently delimits its nominal complement (Bisang and Li (2012), Zhang (2013)). There are hence selectional differences between *de* and *ge* since while the former is attested with abstract nouns denoting skill/ability (17a-b), the latter regularly selects concrete countable nouns which differ from abstract nouns (17c-e) (Cao (1995), Zhao (1999), Shi (2012), Li (2016)):

- 18a) 自己 的 鐗 與 槍 舞 得 好
 ziji de jian yu qiang wu de hao
 self DE arms and spear wield COMP good
 ‘He wields his arm and spears well’ (literally ‘his skills in using arms and spear are good’)
 (隋唐演義)
- 18b) 他 的 棋子 雖然 下 得 極 高
 ta de qizi suiran xia de ji gao
 he DE chess though play COMP very good
 ‘although he plays chess extremely well’ (二十年目睹之怪現狀)
- 18c) 好 個 聰明 人
 hao ge congming ren
 good GE clever person
 ‘A good clever person’ (敦煌變文集)
- 18d) 堂堂 好 個 丈夫-兒
 tangtang hao ge zhangfu-er
 indeed good GE man-DIM
 ‘good men indeed’ (敦煌變文集)
- 18e) 後面 個 僧 祇 對 看
 houmian ge seng zhi dui kan
 behind GE monk only face look

‘the monk behind only looks in the face’ (景德傳燈錄)

While *ge* selects countable and delimited nominal complements (人 ‘person’ (18c), 丈夫兒 ‘man’ (18d), 僧 ‘monk’ (18e)), *de* selects nouns that can be interpreted as abstract skill and activity e.g. 自己鑊與槍舞得好 ‘his wielding of arms and spears is good’ (18a), 他的棋子下得極高 ‘his chess playing skills are very expert’ (18b). There are hence selectional and collocational differences between *de* and *ge* which apply to their nominal complements, and while it is possible to use *de* as the head of Activity phrases containing lexical nouns denoting abstract Activity (e.g. 鑊與槍 ‘arms and spear-wielding’ (18a), 棋子 ‘chess-playing’ (18b)), *ge* selects countable and delimited nouns which are incompatible with denoting abstract Activity. These differences seem to have persisted into dialectal forms of the adnominaliser *de* and *ge* which show similar discrepancies in heading Activity phrases in subject position where the adnominaliser selects nominal complements (15b, 16b), but in terms of clausal nominalization these selectional restrictions seem to be non-applicable as both *de* and *ge* can head Activity phrases in object position where they contain an embedded clause (15a, 16a). The semantic markedness of *ge*, therefore, can be traced to its classifier origins, which can be given formal representation as a feature [+count] as shown below:



Adnominalisers *de* and *ge*, therefore, seem to have different selectional properties [+count] on the lexical noun which affect their nominal selection of Activity. The next and final section concludes by comparing these two types of Chinese Activity constructions which seem to centre on the Activity phrase whose

internal structure (nominal/clausal nominalization) gives rise to microvariation in the selection of adnominalisers (*de/ge*) as heads of the Activity phrase.

Section 3: Chinese Activity Constructions: Light Verb Syntax and Nominalization:

This paper has proposed and defended a biclausal and bi-argumental analysis of Chinese Activity Constructions which are argued to consist of two arguments (Actor and Activity) based on the canonical structure where Actor and Activity are expressed overtly as the subject and object of the Activity verb respectively, and the Actor argument is argued to be copied and raised from the embedded clause in the Activity phrase (19a) which is hence a case of clausal nominalisation of the Activity phrase in object position. The selectional properties and differences of the adnominalisers (*de/*ge*) in heading the Activity phrase become evident when the Activity phrase is the sole argument containing a nominal complement (19b), and here *ge* can be argued to be more marked than *de* as it imposes delimitedness ([+count]) on its nominal complement due to its classifier origins (18c-e). The internal structure of the Activity phrase (nominal/clausal nominalization), therefore, seems to correlate with the Light Verb projections (Initiate + Process) in the matrix clause, which is different from well-known examples of denominal Activity constructions such as English and Japanese –*suru* which are commonly derived via head movement of the object noun to Light Verb DO (Hale and Keyser (1993)). Furthermore, the Light Verb projections (Initiate + Process) which underlie the event structure of Chinese Activity constructions (Actor + Activity) conforms to the typology of Chinese as a ‘neo-Davidsonian language’ (Huang (1997)) where there is argued to be a rich inventory of Light Verb projections which introduce unique thematic arguments (Lin (2001)). Moreover, the categorial ambiguity of the nominalised Activity phrase shows that while Chinese lacks derivational morphology, it is possible to trace the category (nominal/clausal) of the complement of the adnominaliser (*de/ge*) in accordance with the selectional restrictions of the adnominaliser, namely *ge*, whose featural content ([+count]) makes it incompatible with nominal complements denoting abstract Activity. The derivation of nominalisation in Chinese, therefore, differs from nominalised structures in Western languages which have been shown to denote different types of nominals (result/event) in accordance with their internal structure (Grimshaw (1990:45ff)), since while Activity is a unique thematic argument merged in a fixed A-position (SpecProcessP), the internal structure of the nominalised Activity phrase can vary depending on whether there is a matrix A-position for Actor (SpecInitiateP), which seems to be a unique structural property of Chinese Activity Constructions.

References:

- Aldridge, E. (2009): ‘Old Chinese determiner *zhe* as a determiner’, in Crisma, P. and Longobardi, G. (eds), *Historical Syntax and Linguistic Theory*, Oxford: Oxford University Press, pp. 233-248.
- Aoun, J. and Li, A. (2003): *Essays on the Representational and Derivational Nature of Grammar: The Diversity of Wh-Constructions*. Cambridge, MA/London: MIT Press.
- Baker, M. (1985): ‘The Mirror Principle and Morphosyntactic Explanation’. *Linguistic Inquiry* 16:373-416.
- Baker, M. (1988): *Incorporation: A theory of grammatical function changing*. University of Chicago Press.
- Bisang, W. and Li, X-P. (2012): ‘Classifiers in Sinitic languages’. *Lingua* 122:335-355.
- Burzio, L. (1986): *Italian Syntax: A Government-Binding Approach*. Dordrecht/Boston/Lancaster/Tokyo: D. Reidel Publishing Company.
- Cao, G-S. (1995): *Jindai Hanyu Zhuci* (近代漢語助詞) [Particles in Modern Chinese]. Shangwuyin Shuguan.
- Cheng, L. and Sybesma, R. (2015): ‘Mandarin’ in Kiss, T. and Alexiadou, A. (eds), *Syntax- Theory and Analysis: An International handbook of Linguistics and Communication Sciences, Volume 3*, Mouton de Gruyter, pp. 1518-1558.
- Chomsky, N. (1981): *Lectures on Government and Binding*. Dordrecht-Holland/Cinnaminson, USA: Foris Publications.

- Chomsky, N. (1993): 'A minimalist program for linguistic theory', in Hale, K. and Keyser, S. J. (eds), *View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, Massachusetts/London, England: MIT Press, p. 1-52.
- Cinque, G. (1999): *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press.
- Del Gobbo, F. (2003): *Appositives at the Interface*. PhD dissertation, University of California, Irvine.
- Den Dikken, M. and Singhapreecha, P. (2004): 'Complex noun phrases and linkers'. *Syntax* 7(1):1-54.
- Dowty, D. (1991): 'Thematic Proto-Roles and Argument Selection'. *Language* 67(3):547-619.
- Grimshaw, J. (1990): *Argument structure*. Cambridge, MA: MIT Press.
- Huang, C-T. (2008): 'Cong 'ta de laoshi dang de hao' tanqi (從他的老師當得好談起) [On 'ta de laoshi dangde hao' and related problems]. *Yuyan Kexue* (語言科學) [Linguistic Sciences] 3 :225-241.
- Hale, K. and Keyser, S-J. (1993): 'On Argument Structure and the Lexical Expression of Syntactic Relations', in Hale K. and Keyser S-J. (eds), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, MA: MIT Press, pp. 53-109.
- Hale, K. and Keyser S-J. (2002): *Prolegomenon to a Theory of Argument Structure*. Cambridge, MA: MIT Press.
- Huang, C-T. (1994): 'Verb movement and some syntax-semantics mismatches in Chinese'. *Chinese Languages and Linguistics* 2:587-613.
- Huang, C-T. (1997): 'On lexical structure and syntactic projection'. *Chinese Languages and Linguistics* 3:45-89.
- Jiang, L-S. (1999): 'Chusuoci de lingge biaoji yongfa yu jiegou zhuci "di" de youlai' (處所詞的領格標記用法與結構助詞“底”的由來) [The genitive uses of locative words and the origins of the adnominalising structural particle *di*]. *Zhongguo Yuwen* (中國語文) 2:83-93.
- Larson, R. (1988): 'On the double object construction'. *Linguistic Inquiry* 19:335-391.
- Longobardi, G. (2001): 'The Structure of DPs: some principles, parameters and problems', in Baltin, M. and Collins, C. (eds), *The Handbook of Contemporary Syntactic Theory*, Blackwell, pp. 562-603.
- Longobardi, G. and Silvestri, G. (2013): 'The Structure of NPs: Some Insights on Case, Empty Categories and Poverty of Stimulus', in Luraghi, S. (ed), *The Bloomsbury Companion to Syntax*, pp. 88-117.
- Li, A. (2008): 'Duanyu jiegou yu yulei biaoji: 'de' shi zhongxinyu?' (短語結構與語類標記：'的'是中心語?) [Phrase Structures and Categorical Labeling: *de* as a head?]. MS, University of Southern California.
- Li, X-J. (2016): 'Hanyu liangci "ge" de yuyi yanhua moshi' (漢語量詞“個”的語義演化模式) [The semantic change of Chinese classifier "ge"]. *Yuyan Kexue* (語言科學) 15(2):150-164.
- Lin, J. (2001): *Light Verb Syntax and the Theory of Phrase Structure*. PhD dissertation, University of California, Irvine.
- Liu, M-Z (2008): *Hanyu jiegou zhuci 'de' de lishi yanbian yanjiu* [A study of historical evolution of Chinese structural particle *DE*]. Beijing: Yuwen Press.
- Longobardi, G. (2001): 'The structure of DPs: some principles, parameters and problems', in Baltin, M. and Collins, C. (eds), *The Handbook of Contemporary Syntactic Theory*, Blackwell, pp. 562-603.
- Longobardi, G. and Silvestri, G. (2013): 'The structure of NPs: some insights on case, empty categories, and poverty of stimulus', in Luraghi, S. and Parodi, C. (eds), *The Bloomsbury Companion to Syntax*, London: Bloomsbury Publishing Place, pp. 88-117.
- Mei, G. (1978): 'Guoyu yufa de dongcizu buyu' (國語語法的動詞組補語) [VP-complements in Mandarin Grammar], in *Qu Wanli xiansheng qi zhi rongqing lunwen ji* (屈萬裡先生七秩榮慶論文集). Taipei: Lianjing chubanshe.
- Paul, W. (2005): 'Adjectival modification in Mandarin Chinese and related issues'. *Linguistics* 43(4): 757-793.
- Paul, W. (2012): 'Why Chinese *de* is not like French *de*. A critical analysis of the predication approach to nominal modification'. *Studies in Chinese Linguistics* 33(3):183-210.

- Paul, W. (2019): 'The insubordinate subordinator *de* in Mandarin Chinese: Second Take', in Tang, S-W. (ed), *Hanyu de de yanjiu*, Beijing: Beijing University Press.
- Simpson, A. and Wu, Z. (2002): 'From D to T – determiner incorporation and the creation of tense.' *Journal of East Asian Linguistics* 11:169-202.
- Shi, S-Z. (2002): 'Liangci, zhishi daici he jiegou zhuci de guanxi' (量詞，指示代詞和結構助詞的關係) [The relationships between classifiers, demonstrative pronouns and adnominalising structural particles]. *Fangyan* (方言) [Dialects] 2:117-126.
- Si, F-Z. (2002): 'Dongci de mingcihua he mingwuhua' (動詞的名詞化和名物化) [The nominalisation and noun-making of verbs]. *Yuyan jiaoxue yu yanjiu* (語言教學與研究) 2.
- Sio, J. (2011): 'The Cantonese *ge3*', in Yap, F-H, Grunow-Harsta, K. and Wrona, J. (eds), *Nominalization in Asian Languages: diachronic and typological perspectives*, Amsterdam/Philadelphia: John Benjamins, pp. 125-146.
- Stowell, T. (1981): *Origins of Phrase structure*. PhD dissertation, Massachusetts Institute of Technology.
- Tang, S-W. (2006): 'Yi 'de' wei zhongxin yu de yixie wenti' (以'的'為中心語的一些問題) [Some problems to do with 'de' as head]. *Dangdai yuyanxue* (當代語言學) [Contemporary Linguistics] 8(3):205-212.
- Tang, S-W. (2008): 'Xingyi cuopei' yu mingwuhua de canshu fenxi' (形意錯配與名物化的參數分析) [On 'syntax-semantics mismatches' and a parametric analysis of nominalisation in Chinese dialects]. *Hanyu Xuebao* (漢語學報) [Chinese Linguistics] 24(4):72-79.
- Tang, S-W. (2009): 'Ta-de laoshi dang de hao' ji hanyu fangyan de mingwuhua (他的老師當得好及漢語方言的名物化) [Ta-de laoshi dang-de hao and nominalisation in Chinese dialects]. *Yuyan Kexue* (語言科學) [Linguistic Sciences] 8(3):239-247.
- Tang, S-W. (2010): '“Xinyi cuopei” yu Hanying de chayi' (“形意錯配”與漢英的差異) [On 'syntax-semantics mismatches' and the differences between Chinese and English]. *Yuyan Jiaoxue Yu Yanjiu* (語言教學與研究) 2010(3):51-56.
- Tang, S-W (2011): 'On gerundive nominalization in Mandarin and Cantonese', in Yap, F-H, Grunow-Harsta, K. and Wrona, J. (eds), *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, Amsterdam/Philadelphia: John Benjamins, pp. 147-160.
- Wang, H-Z. (2016): '“de” zi jiegou yu guanxi congju' (“的”字結構與關係從句) [The structure of “de” and linkers]. *New Horizons in the Study of Chinese: Dialectology, Grammar and Philology*, Chinese University of Hong Kong pp. 233-246.
- Yap, F. and Wang, J. (2011): 'From light noun to nominalizer and more : The grammaticalization of *zhe* and *suo* in Old and Middle Chinese', in Yap, F., Grunow-Harsta, K. and Wrona, J. (eds), *Nominalization in Asian Languages: Diachronic and typological perspectives*. Amsterdam/Philadelphia: John Benjamins Publishing Company, pp. 61-108.
- Zhang, N. (2013): *Classifier Structures in Mandarin Chinese*. Berlin : Mouton De Gruyter.
- Zhao, R-X. (1999) : 'Shuo “ge”' (說“個”) [A study of “ge”]. *Yuyan Jiaoxue Yu Yanjiu* (語言教學與研究) 1999(2):36-52.