Free Alternation?
A Study on Grammatical Packaging of Excessive Predication in Mandarin Chinese[*]

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The paper explores an interesting case where two distinct patterns of excessive predication are apt to be mistaken as a free grammatical alternation without a semantic change. The patterns involve the use of an excessive marker *si* 'die', in predicating an extreme emotion, as in *Wo xianmu si ta de haoyun le* 'I am envious of his good luck to death.' vs. *Ta de haoyun xianmu si wo le* 'His good luck made me envious of him to death.' Different from traditional approaches to the seeming form-meaning mismatch, this paper proposes that the two highly correlated expressions be viewed as two distinct "constructions" defined in the notion of Construction Grammar (Kay & Fillmore 1999, Goldberg 1995, 2006): Excessive Degree Construction (EDC) vs. Excessive Impact Construction (EIC). The two constructions arise from two types of grammatical packaging in response to two different semantic perspectives. The degree-measuring EDC profiles an Experiencer-to-Stimulus relation, conforming to the default pattern of stative predication; the impact-depicting EIC profiles an Affector-to-Affectee relation, projecting a more dynamic, eventive scenario where a victim undergoes an affective impact. Illustrated with live examples from web corpora, the two constructions are further contrasted with a thorough discussion of their grammatical and semantic correlates. The case under study demonstrates how conceptual alternation can result in constructional alternation, whereby the surface word order change manifests a change in semantic relation. The study ultimately probes into the possible range of syntax-semantics interactions realized in Mandarin.

Key words: Excessive Construction, Construction Grammar, emotion predicate, thematic relation, grammatical packaging

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1. Introduction

1.1 The canonical way of expressing emotion

Emotion is one of the basic human experiences encoded in various linguistic systems (Wierzbicka 1996, 1999, Langacker 1999). Two core argument roles are commonly recognized for emotional predication in previous literature: the Experiencer, a sentient being who perceives and experiences a certain emotion, and the Stimulus, a source entity to which the emotion is directed (Talmy 1985, 2000, Dowty 1991, Jackendoff 1990, 2007, Levin 1993, among others). Emotion predicates may vary in taking the Experiencer or the Stimulus as subject, demonstrated by the general contrast between the *fear*/*like* verbs and the *frighten*/*please* verbs. The two lexicalization patterns are exemplified in Talmy (2000:98):

(1) a. Stimulus as subject: *That frightens me.*
     b. Experiencer as subject: *I fear that.*

Mandarin emotion verbs also exhibit such a dichotomy: either the Experiencer or the Stimulus may take the initial position as grammatical subject, in an intransitive or transitive pattern (M. Liu 2002, M. Liu & Hong 2008, M. Liu, Hu & Huang 2008, M. Liu 2009, M. Liu & Hu 2010):[1]

(2) Experiencer as subject:
     a. intransitive
         我　　很　　高興/快樂/氣/煩
         wo　hen　gaoxing/kuaile/qi/fan
         1SG　DEG　happy/glad/angry/annoyed
         'I am happy/glad/angry/annoyed.'

[1] The data in this paper are labeled mainly following the Leipzig Glossing Rules. The abbreviations include: 1PL: first person plural, 1SG: first person singular, 2PL: second person plural, 2SG: second person singular, 3PL: third person plural, 3SG: third person singular, ASP: aspectual marker, BA: patient marker in disposals, BEI: agent marker in passives, CL: classifier, CONJ: conjunctive, COP: copular, DEG: degree adverb, DEM: demonstrative, DUR: durative, EMPH: emphatic adverb, EXP: experiential, FOC: focus, GEN: genitive, MOD: modality, NEG: negative, NM: name, PHASE: phase marker, PRF: perfect, PRO: progressive, REL: relative(izer), SFP: sentence final particle, ZAI: the locative preposition.

    b.   transitive

我   很   欣賞/喜歡/怕   他
wo   *hen*   *xinshang/xihuan/pa*   *ta*
1SG   DEG admire/like/fear   3SG
'I admire/like/fear him.'

(3) Stimulus as subject:

    a.   intransitive

這   本   書   很   枯燥/無聊/有趣
zhe *ben* *shu* *hen* *kuzao/wuliao/youqu*
DEM CL   book DEG dull/boring/interesting
'The book is dull/boring/interesting.'

    b.   transitive

這   本   書   很   吸引/感動/激勵   我
zhe *ben* *shu* *hen* *xiyin/gandong/jili*   *wo*
DEM CL   book DEG attract/touch/encourage 1SG
'The book attracts/touches/encourages me.'

It is clear that Mandarin emotion verbs also lexicalize a specific participant as the subject. Switching the order of arguments would normally lead to a semantic change:

(4) a.   我   很   怕   他
         wo   *hen* *pa*   *ta*
         1SG DEG fear 3SG
         'I fear him.'

    b.   他   很   怕   我
         ta   *hen* *pa*   *wo*
         3SG DEG fear 1SG
         'He fears me.'

1.2 Alternation of argument roles

Given that emotion verbs subcategorize fixed roles in fixed positions, it is quite intriguing to see the following set of corpus data extracted directly from Google, where the core arguments of the same verb *xiang* 想 'miss' appear to shift their surface positions without seemingly shifting their semantic roles:

(5) a. **我**真的想死大家了，一定要到台灣好好補償大家。(Google 2010/05/12)
wo zhende xiang-si dajia le, *yiding yao dao taiwan hao hao buchang dajia*
1SG really miss-die everyone PRF must need arrive Taiwan well make-up everyone
'I really miss you guys so much. If I have a chance, I'll go to Taiwan and make it up to you.'

  b. 兄弟，你真是想死**我**了。(Google 2010/05/12)
xiongdi ni zhenshi xiang-si wo le
dude 2SG really miss-die 1SG PRF
'Hey dude, I really miss you badly.'

Who is exactly the sentient being that sensed the emotion of missing in both sentences? According to the brief context, it is the 1st person singular *wo* 我 'I' who sensed the emotion of missing in both examples. But the two mentions of *wo* 我 'I' occupy two opposite positions. In (5a), *wo* 我 'I' takes the initial, preverbal position, observing the default, Experiencer-as-subject pattern as illustrated above in (2). But surprisingly enough, the same sentient being *wo* 'I' appears in the postverbal object position in sentence (b). Apparently, with the addition of an excessive marker *si* 死 'to death' the owner of emotion (the one who undergoes the emotion) can alternate its position with the target of emotion (the cause of the emotion), while remaining their relative roles. To give more illustrations from corpus data, the following pairs of sentences are chosen to further exemplify the positional alternation:

(6) a. 那時少女的**我**迷死他了 現在卻蠻討厭他的 (Google 2010/05/12)
na shi shaonü de wo mi-si ta le xianzai que man taoyan ta de
DEM time girl REL1SG crazy-die 3SG PRF now but quite dislike 3SG SFP
'As a teenage girl, I was crazy about him to death. But now I dislike him.'

  b. 高中成爲校隊的他曾迷死**不少女同學**！(Google 2010/05/12)
gaozhong chengwei xiaodui de ta ceng mi-si bu shao nü tongxue
high.school become school.team DE 3SG once crazy-die not.a.few female students
'Being a school team member in high school, he made many girls crazy about him.'

(7) a. 我羨慕死妳了啦！是我朝思暮想的大黃 (Google 2012/10/04)
wo xianmu-si ni le la shi wo zhao-si-mu-xiang de dahuang
1SG envy-die 2SG PRF SFP COP 1SG morning-think-evening-think REL NM
'I envy you to death. It's Big Huang, whom I miss all the time!'

b. 這樣的好身材是想要羨慕死我喔！(Google 2012/10/04)
zheyang de hao shencai shi xiang yao xianmu-si wo o
such REL nice figure COP want want envy-die 1SG SFP
'Such a nice figure makes me envious to death!'

(8) a. 回家後我爸就說他擔心死我了打給我我都沒有接 (Google 2010/05/12)
hui jia hou wo ba jiu shuo ta danxin-si wo le da gei wo wo dou mei-you jie
come home after 1SG dad then say 3SG worry-die 1SG PRF call give 1SG 1SG all did.not answer
'After I came home, my dad told me he worried about me to death because I didn't answer the phone when he called.'

b. 死丫頭，你去哪了，怎麼現在才回來，你擔心死我了，知不知道！ (Google 2010/05/12)
si yatou ni qu na le zenme xianzai cai hui lai ni danxin-si wo le zhi bu zhidao
dead girl 2SG go where SFP why now then come.back 2SG worry-die 1SG PRF know NEG know
'Wicked girl, where on earth did you go? Why did you come back just now? You worried me to death, do you know that?'

The above examples serve to show that it is quite contextually obvious to determine who bears the excessive emotion, even though the sentences are potentially ambiguous, given the flexible way of ordering the arguments. It can be seen clearly in these pairs of data that the emotion-owner in (a) sentences all occur in the preverbal position, while in all (b) sentences, the emotion-owner occurs in the postverbal position. It seems that when expressing a strong emotion with an excessive adverb such as *si* 死 'to death', the positions of the two core arguments, Owner-of-emotion and Target-of-emotion, can be shifted without seemingly changing their respective roles. To highlight the alternation, we chose to represent the contrast with the following simplified *minimal pair*:

(9) a. 我　羨慕死　他　的　好運　了
wo　xianmu-si　ta　de　haoyun　le
1SG　envy-die　3SG　GEN　good.luck　PRF
'I envy his good luck to death.'

b.　他　　的　　好運　　　羨慕死　　我　　了
　　ta　　*de*　　*haoyun*　　*xianmu-si*　　*wo*　　*le*
　　3SG　GEN　good.luck　envy-die　　1SG　PRF
　　'His good luck made me envious of him to death.'

At the first glance, it appears that the two distinct patterns demonstrate a positional switch of arguments without switching their semantic roles, as schematized below:

(10)　Positional shift between Owner-of-emotion and Target-of-emotion
　　a.　[Owner-of-emotionNP]　　V-*si*　　[Target-of-emotionNP]　*le*

　　b.　[Target-of-emotionNP]　　V-*si*　　[Owner-of-emotionNP]　*le*

If the swapping is mistaken as a "free" alternation without semantic consequences, it would then inevitably pose a fundamental challenge to most linguistic theories, which maintain that syntactic shift is meant to express semantic shift. Take Mandarin word order for example. A word order change is normally accompanied by a change of thematic roles (e.g. *Wo da ta* 我打他 'I hit him' vs. *Ta da wo* 他打我 'He hit me'). If the two varied syntactic forms, exemplified in (9) and schematized in (10), have an unvaried meaning, then it also puts the theory of Construction Grammar under question, since the canonical definition of "construction" is a unique mapping of form with meaning, but here two varied forms are seemingly mapped to the same meaning, incongruent with the basic one-to-one correspondence of form and meaning. However, what needs to be clarified first is whether the alternation is truly free of semantic consequences.

What is intriguing about the particular alternation under study is that it appears to require no additional marking and the thematic relation seems to be preserved. But is it truly the case? Are there any semantic or pragmatic consequences associated with the syntactic change? More specifically, does the positional shift of arguments trigger any sort of functional shift? If yes, what is the functional variation? The paper takes on the challenge and investigates the form-meaning associations realized in the targeted constructions for expressing an excessive emotion. It probes into the functional motivation for syntactic alternation, with respect to the links between grammatical and thematic roles (Dowty 1991, Van Valin & LaPolla 1997, Levin & Rappaport Hovav 2005). It tries to identify the underlying conceptual basis as well as communicative intent correlated with the surface linguistic phenomena. Ultimately, it shows how the way we construe the world affects the way we use language (Fillmore & Atkins 1992, Goldberg 2006).

1.3 Related studies

The above-mentioned alternation with an excessive marker is traditionally taken to be related to the verb-resultative construction,[2] as it conforms to the typical pattern of a consecutive V-R sequence. The main predicate (V1) is followed consistently by a stative verb *si* 死 (V2), originally meaning 'die' and being used metaphorically here to depict an excessive degree (Thompson 1973:370), 'as a hyperbole in the form of an intensive complement' (Chao 1968:451). In previous studies, a central issue for heated debates is the potential ambiguity arising from the matching between the grammatical and logical subject of V1 as well as the semantic host of V2, illustrated by the frequently cited example (Y. F. Li 1995:256, ex. (1)):

(11) 桃桃　　追　　累　　了　　友友　　了
　　　Taotao　zhui　lei　le　youyou　le
　　　NM　　chase　tired　ASP　NM　　PRF
　　　Reading 1: 'Taotao chased Youyou and as a result Taotao got tired.'
　　　Reading 2: 'Taotao chased Youyou and as a result Youyou got tired.'

The sentence may conceive two possible readings: either *Taotao* 桃桃 or *Youyou* 友友 got tired. In either reading, the grammatical and logical subjects of V1 *zhui* 追 'chase' stay the same, i.e. *Taotao* 桃桃, but the resultative expressed by V2 *lei* 累 'tired' can be attributed to either the syntactic subject (*Taotao* 桃桃) or the object (*Youyou* 友友). The first reading (translation (a)) is subject-oriented, describing the grammatical subject *Taotao*'s resultative state; the second reading (translation (b)) is object-oriented, describing the resulative state of the object *Youyou* (Huang 2008, Shibagaki 2010).

The current study is concerned about a slightly different type of ambiguity that requires the presence of an excessive result. As illustrated below, an emotion verb, such as *xiang* 想 'miss', is typically used with an excessive result (Pan 1998:5, ex. (24)):

(12) 張三　　　想　　死　　我　　了
　　　Zhangsan　xiang　si　wo　le
　　　NM　　　miss　die　1SG　PRF
　　　Reading 1: 'Zhangsan misses me to death.'
　　　Reading 2: 'I miss Zhangsan to death.'

This kind of ambiguity differs from the previous one in that the identity of the logical subject of V1 *xiang* 想 'miss' may be ambiguous, being either the grammatical subject *Zhangsan* 張三 or the object *wo* 我 'I'. In any case, the semantic host of V2 *si* 死 'die' goes with the logical subject of V1 *xiang* 想 'miss.' In other words, the semantic hosts of V1 and V2 remain identical, although it may appear as the syntactic subject or the object.

Various proposals from different theoretical perspectives have been made to account for the remarkable properties of resultative verb compounds, including lexical rules and argument structure (e.g. Thompson 1973, Y. F. Li 1990, 1995, 1999, Pan 1998, Her 2004, 2007) and complex predicates (Cheng & Huang 1994), among others. Recently, Huang (2008) approached this issue from the theoretical framework of Construction Grammar and comprehensively classified Chinese resultative verb compounds into four major types based on two criteria: 1) whether the grammatical subject is identical to the logical subject of V1, and 2) whether V2 is subject- or object-oriented.

According to defining criteria in Huang (2008), the two varied constructional patterns under study, as exemplified in (9) and schematized in (10), correspond to two distinct types. Under the seemingly identical surface form "NP1 V-*si* NP2 *le*", they differ in two respects: 1) the grammatical subject is the same as the logical subject of V1 in (9a), but different in (9b); 2) (9a) is subject-oriented and (9b) is object-oriented. The differences between the two constructional patterns are summarized in the following table.

Table 1: Similarities and Dissimilarities of Construction A and Construction B

constructions syntactic and semantic features	Construction A Owner-of-emotion**NP1** **V-*si*** Target-of-emotion**NP2**	Construction B Target-of-emotion**NP1** **V-*si*** Owner-of-emotion**NP2**
surface form	NP1 V-*si* NP2 *le*	
grammatical subject	NP1	
logical subject of V1	NP1	NP2
V1: grammatical subject = logical subject	Yes	No
V2: subject- or object-oriented	subject-oriented	object-oriented

Based on Huang's analysis, it is quite evident that, despite their surface structural resemblance, the alternating constructions (10a-b) actually represent two different form-meaning associations in line with other V-R combinations in Mandarin. A number of recent studies have also looked at the semantic range of such formal variations (Ji 2000, Hou 2005, Y. D. Li 2005, Chang 2008, H. Y. Liu 2008). However, most of the works

focused on the choices of excessive markers. Ji (2000) touched upon the puzzle why varied utterances may mean the same so that *Xiang si ni le* 想死你了 and *Xiang si wo le* 想死我了 may both mean 'I missed you to death'. It drew light on the lexical choices of the excessive marker. H. Y. Liu (2008) tried to give a thorough and unified analysis of the Excessive Construction, defined as NP X-C$_{excess}$ *le*, across three different excessive markers, i.e. *si* 死 'die', *fan* 翻 'over-turning', and *bao* 爆 'exploded' (e.g., *Wo lei si/fan/bao le* 我累死/翻/爆了 'I am exhausted to death.'). She suggested that all excessive constructions can be viewed as causative in nature. Again, Huang (2008) points out that two distinct types of construction are involved, and H. Y. Liu (2008) helps to identify the NP V-*si* pattern as a unique Excessive Construction. But a gap still needs to be filled, that is, why the alternating constructions are even made possible in the first place.

1.4 Goal and scope of the paper

What is still left unanswered is this specific question: what exactly motivates the formal alternation as captured above. Why the argument positions can be swapped and what exactly is the distinction between them? A functional explanation is needed to account for the intended semantic distinction accompanied with the shift of arguments. To answer these questions, we shall probe into the syntactic, semantic and discourse characteristics manifested in the respective construction and explore the functional shift or meaning change associated with the alternation. Eventually, we shall show how conceptual framework for information packaging may influence grammatical patterning and how a constructional approach (cf. Goldberg 1995, 2006) may help tackle the issue. By detailing the form-meaning correlations pertaining to the alternation, the study is able to show how syntactic structure is utilized to respond to semantic and discourse considerations, through cognitively plausible manipulations.

In the following, it will be shown that the alternating forms in fact project two different perspectives of excessive emotion, corresponding to two distinct and well-defined constructions (§2.1). Each construction will then be discussed with its syntactic and semantic constraints on the key components (§2.2), including the semantic roles of the nominal arguments (§2.2.1), the participating verbs in each construction (§2.2.2), the excessive-degree markers (§2.2.3), collocational associations featuring aspectual properties (§2.2.4), the stative vs. eventive distinction (§2.2.5), and finally the subjectivity projected in the alternation (§2.2.6). Section 3 will then extend the issue to related phenomena that call for a re-examination of thematic structure, and §4 will give a formal representation of the constructional account proposed in the paper. Section 5 concludes the study by pointing out how conceptualization of semantic relation may affect grammatical patterning.

2. Formal and functional characteristics of the two constructions

As noted in the previous section, the constructions targeted in the present paper share certain common features with the verb-resultative construction in general, yet they should each be viewed as a unique constructional unit with unique syntactic, semantic and discourse characteristics.

### 2.1 Two distinct form-meaning pairing constructions

At first sight, the constructional patterns under study may be taken as formally identical, sharing the surface form, 'NP V-*si* NP *le*', although they involve apparently alternating thematic roles. It would be tempting to treat them as pertaining to one single construction, were formal distinction the only criterion.[3] However, as already mentioned, 'construction' is defined in light of Construction Grammar as a form-meaning pairing entity. The two possible readings presented in the following example suggest that there are two possible form-meaning pairings:

(13)　超強大胃王羨慕死厭食症患者　(Google 2010/5/12)
　　　chao qiang daweiwang xianmu-si yanshizheng huanzhe
　　　super strong big.eater envy-die anorexia patient
　　　Reading 1: 'Big eaters envy anorexia patients to death.'
　　　Reading 2: 'Big eaters make anorexia patients envy to death.'

Besides contextually more decipherable pairs such as those exemplified in (6) to (8), the above example serves to show that the absence of contextual information renders two equally possible interpretations, as spelled out in readings 1 and 2. In what way can one single form of excessive predication be linked with two completely opposite meanings? It is suggested that there may be two distinct perspectives involved that project two sets of thematic relation and manifest two different ways of conceptualizing an excessive emotion. Specifically, an excessive emotion can be viewed either as a gradable state sensed by an Experiencer towards a Stimulus, or a rather eventive impact caused by an Affector to an Affectee. In other words, "excessiveness" can be taken as excessive "degree" measured about an experience or excessive "impact" forced onto a victim. The two different views, excessive degree vs. excessive impact, would correspondingly map two sets of participant roles onto the core arguments as specified below:

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[3]　This was brought up by one of the reviewers that urged the authors to define clearly what is meant by 'construction'.

(14) Excessive Degree: Theme to Goal

$$NP_1 \qquad V\text{-}si \qquad NP_2 \qquad le$$

Experiencer   Stimulus
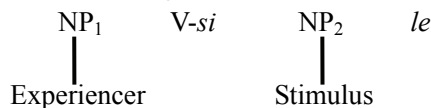
(15) Excessive Impact: Causer to Causee

$$NP_1 \qquad V\text{-}si \qquad NP_2 \qquad le$$

Affector   Affectee
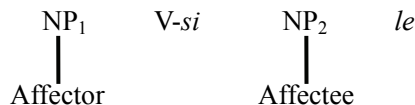
It is exactly this "re-alignment" between form and meaning that underlies the observed alternation. To best capture such meaning-form "re-assigning" phenomenon, the present study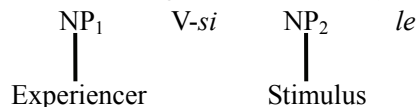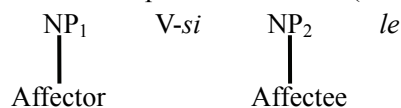 adopts the theoretical framework of Construction Grammar (e.g. Kay & Fillmore 1999, Goldberg 1995, 2006), in which 'construction' is defined as the fundamental building block of grammar that maps a unique form with a unique meaning (Goldberg 2003:219). This definition draws on both syntactic and semantic grounds. It is not the form itself, nor the meaning alone, but the association of the two, that makes up a construction. Given that the two different semantic readings in (13), highlighting two different sets of participant roles as specified in (14) and (15), are associated respectively with the surface form 'NP V-*si* NP *le*', it is proposed that they be treated as two distinct form-meaning associations, defined as two unique constructions in Construction Grammar terms. They are named respectively as Excessive Degree Construction (henceforth EDC) and Excessive Impact Construction (henceforth EIC). This analysis is in line with Huang (2008), suggesting that two separate constructions need to be distinguished, but it goes a step further by spelling out the source of semantic distinction whereby two different ways of conceptualizing excessiveness are manifested with two different kinds of thematic relation. The proposed constructions with their respective form-meaning associations are tentatively sketched as below:

(16) Two proposed Constructions:

     a. Excessive Degree Construction (EDC)

$$NP_1 \qquad V\text{-}si \qquad NP_2 \qquad le$$

Experiencer   Stimulus

     b. Excessive Impact Construction (EIC)

$$NP_1 \qquad V\text{-}si \qquad NP_2 \qquad le$$

Affector   Affectee

In the following sections, grammatical and semantic characteristics of each construction will be further explored, including the semantic roles of the nominal arguments, the range of participating verbs, the function of excessive-degree markers, and observations of collocational associations. More detailed formal characterizations of the two proposed constructions will be given in §4.

2.2 Characteristics of the proposed constructions

2.2.1 The semantic roles

The diagrams in (16) indicate that the two constructions differ mainly in their projected semantic relations. With an Experiencer-headed verb such as *xianmu* 'envy', the Excessive Degree Construction (EDC) encodes the typical Experiencer-to-Stimulus relation with an excessive degree marker modifying the experiential state. On the other hand, the Excessive Impact Construction (EIC) takes on a more dynamic perspective, emphasizing the forceful impact of an Affector onto the Affected, changing the stative relation into a causative[4] relation that may be more eventive in nature. Further evidence from corpus observation will be given in the subsequent sections to show that the two constructions are indeed thematically distinct.

The first notable observation is that the thematic difference may bear some significance in the selection of verbs. Despite a few overlapping verbs, certain verbs are only allowed in a specific construction. Specifically, it is found that verbs of perceptual effect (e.g. *suan* 酸 'sour' and *tian* 甜 'sweet') or even physical action (e.g. *xie* 寫 'write', *pao* 跑 'run' and *chi* 吃 'eat') can only participate in the causative EIC, but not the experiential EDC:

(17) a. 不過這上面的草莓真是酸死我了可能還不到草莓季節吧
(Google 2012/09/20)
buguo zhe shangmian de caomei zhenshi suan-si wo le keneng hai bu dao caomei jijie ba
but DEM top REL strawberry really sour-die 1SG PRF maybe yet NEG reach strawberry season SFP
'But the strawberry on the top was so sour that it almost killed me. Probably it's not yet strawberry season.'

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4 One might consider the transitive-impact construction conveying a covert semantic component CAUSE, as suggested by Chinfa Lien (p.c.). Cause is also the most salient element in H. Y. Liu's 2008 definition of Excessive Construction.

b. 這篇文章可真是寫死我了！除了難寫，還是難寫…(Google 2012/09/20)
zhe pian wenzhang ke zhenshi xie-si wo le chule nan xie haishi nanxie
DEM CL article EMPH really write-die 1SG PRF besides hard write still hard write
'This article was so difficult to write that it almost put me to death. Besides being difficult to write, it is still difficult to write.'

It is clear that these verbs of perceptual effect or physical action cannot occur in the Experiencer-headed construction EDC, as shown below:

(18) a. *我真是酸死這上面的草莓了
wo zhenshi suan-si zhe shangmian de caomei le
1SG really sour-die DEM top GEN strawberry PRF
'*I feel so sour to death over the strawberries on the top.'

b. *我可真是寫死這篇文章了！
wo ke zhenshi xie-si zhe pian wenzhang le
1SG EMPH really write-die DEM CL article PRF
'*I was writing this article to death.'

The distributional asymmetry suggests that the cause-effect pattern in EIC is more accessible to non-emotional verbs, such as the intransitive sensual verb *suan* 酸 'sour' and the transitive active verb *xie* 寫 'write'. This may be attributed to the fact that EIC is causative in nature, modeled upon the cause-effect relation of excessive impact and provides a surface template that may constructionally coerce an affective reading on object. EDC, on the other hand, is stative in nature, expressing an emotional state in gradable terms and requires an Experiencer to be the subject. It is therefore thematically incompatible with a Stimulus-headed verb such as *suan* 酸 'sour', or a dynamic action verb such as *xie* 寫 'write'. The two constructions may attract different sets of verbs since they are distinct in thematic roles and event types. This will be further discussed below with a closer look at the range of their participating verbs.

2.2.2 The participating verbs

As briefly mentioned above, the verbs participating in the two constructions are not exactly the same, despite a few overlapping ones. Previous studies on the so-called causative-inchoative alternation have also paid attention to the types of verbs allowed (e.g. Ji 2000, Hou 2005, Chang 2008, H. Y. Liu 2008). It is found that only a limited set of verbs can participate in the causative-transtive vs. inchoative-intransitive alternation, as illustrated below:

(19) a. Causative: 這　件　事　快　笑死　我　了
          zhe jian shi kuai xiao-si wo le
          DEM CL matter nearly laugh-die 1SG PRF
          'This almost made me laugh to death.'

     b. Inchoative: 我　快　笑死　了
          wo kuai xiao-si le
          1SG nearly laugh-die PRF
          'I almost laughed to death.'

The major verb classes found in the alternation include perception verbs (e.g. *suan* 酸 'sour' and *tian* 甜 'sweet'), psych-verbs (e.g. *xia* 嚇 'scare/frightened' and *wuliao* 無聊 'bored'), and action verbs (*xie* 寫 'write', *pao* 跑 'run' and *chi* 吃 'eat'). As already shown in (17) and (18) above, these verbs can only appear in the impact-depicting EIC, which aligns with the causative pattern in (19a), but cannot be used in the degree-modifying counterpart EDC:

(20) *我　快　笑死　這　件　事　了
     wo kuai xiao-si zhe jian shi le
     1SG nearly laugh-die DEM CL matter PRF
     (Intended meaning) 'I was laughing about this matter to death.'

Such distributional incompatibility is seldom dealt with in previous studies. But, by proposing a constructional distinction in thematic roles and event types, the current study is able to account for the distributional skewing of non-emotional verbs as they are only found in EIC but not in EDC. Non-emotional verbs exemplified above are by definition verbs that require a subject other than Experiencer of emtoion, and hence they are grammatically and semantically incompatible with the Experiencer-oriented EDC. But given the causative nature of EIC, these verbs may be constructionally coerced into a causative scenario whereby the preverbal subject depicts the cause of effect and the postverbal object depicts the affected party. In other words, it is plausible for non-emotional predicates to acquire a constructionally-imposed causative reading, and thus take on the Affector-oriented pattern in EIC.

Another concern of the participating verbs is the common range of verbs that may be shared by both constructions. Based on a close examination of corpus data from Google,[5] it is confirmed that the participating verbs shared by both constructions are

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[5] Given the colloquial nature of the alternating construction, the richest authentic data can be found on Goggle, where informal, colloquial usages are available.

indeed restricted in type and number. We conducted a search on Google database on 2010/05/12 and found that the participating verbs in both constructions are predominantly emotion verbs, including *xiang* 想[6] / *xiangnian* 想念 'to miss someone,' *mi* 迷 'to be crazy about,' *xianmu* 羨慕 'to be jealous of' and *danxin* 擔心 'to worry about', as illustrated by the following data taken directly from Google (2010/05/12):

(21) *xiang/xiangnian* 想/想念 'to miss someone'
 a. EDC [Experiencer to Stimulus]
 我真的**想死**大家了，有機會一定要到台灣好好補償大家。
 *wo zhende **xiang-si** dajia le, you jihui yiding yao dao taiwan hao hao buchang dajia*
 1SG really miss-die everyone PRF have chance must need to Taiwan well make-up everyone
 'I missed you guys to death. If I have a chance, I'll go to Taiwan to make it up to you all.'
 b. EIC [Affector to Affectee]
 兄弟，你真是**想死**我了
 xiongdi, ni zhenshi xiang-si wo le
 dude 2SG really miss-die 1SG PRF
 'Hey dude, you really made me miss you to death.'

(22) *mi-si* 迷 'to be fascinated with/crazy about'
 a. EDC [Experiencer to Stimulus]
 那時少女的我**迷死**他了，現在卻蠻討厭他的
 *na shi shaonü de wo **mi-si** ta le, xianzai que man taoyan ta de*
 that time girl DE 1SG crazy-die 3SG LE now but quite dislike 3SG SFP
 'As a teenage girl, I was crazy about him to death. But now I quite dislike him.'
 b. EIC [Affector to Affectee]
 高中成爲校隊的他曾**迷死**不少女同學！
 *gaozhong chengwei xiaodui de ta ceng **mi-si** bu shao nü tongxue*
 high-school become school-team DE 3SG once crazy-die not-a-few female students
 'Being a school team member in high school, he made quite a few girls crazy about him to death.'

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[6] Notice that although *xiang* 想 'to think about sth.' or 'to miss sb.' is polysemous in Chinese, it can only be interpreted as an emotion verb 'to miss someone' rather than a cognitive verb 'to ponder on something.'

(23) *xianmu* 羨慕 'to be envious of'
    a. EDC [Experiencer to Stimulus]
       將來回台後所有朋友親戚都羨慕死你
       jianglai hui tai hou suoyou pengyou qinqi dou xianmu-si ni
       future back Taiwan after all friends relatives all envy-die 2SG
       'When you return to Taiwan in the future, all your friends and relatives are going to envy you to death.'

    b. EIC [Affector to Affectee]
       妳一整個羨慕死我啊！
       ni yi-zheng-ge xianmu-si wo a
       2SG totally envy-die 1SG SFP
       'You totally made me envy you to death!'

(24) *danxin* 擔心 'to worry about'
    a. EDC [Experiencer to Stimulus]
       回家後我爸就說他擔心死我了，打給我 我都沒接
       hui jia hou wo ba jiu shuo ta danxin-si wo le da gei wo wo dou mei jie
       come home after 1SG dad then say 3SG worry-die 1SG PRF call give 1SG 1SG all did-not answer
       'After I came home, my dad told me he worried about me to death because I didn't answer the phone when he called.'

    b. EIC [Affector to Affectee]
       死丫頭，你去哪了，怎麼現在才回來，你擔心死我了，知不知道！
       si yatou ni qu na le zenme xianzai cai hui lai ni danxin-si wo le zhi bu zhidao
       dead girl 2SG go where SFP why now then come.back 2SG worry-die 1SG PRF know NEG know
       'Wicked girl, where on earth did you go? How come you come back only now? You worried me to death, do you know that?'

It is quite obvious that these emotion verbs are mainly transitive, Experiencer-as-subject verbs that normally take the Experiencer in the canonical subject position and the Stimulus in the object position, but not vice versa:

(25) a. Experiencer as subject

我	真是	羨慕/擔心	你	的	好運
wo	*zhenshi*	*xianmu/danxin*	*ni*	*de*	*haoyun*
1SG	really	envy/worry	you	GEN	good.luck

       'I really envy/worry about your good luck.'

b.   Stimulus as subject

*你	的	好運	真是	羨慕/擔心	我
*ni	de	haoyun	zhenshi	xianmu/danxin	wo
you	GEN	good.luck	really	envy/worry	1SG

'*Your good luck really envies/worries me.'

However, interestingly indeed, when these emotional verbs are combined with an excessive marker to form the V-*si* sequence, the arguments can then be switched without outlawing either option. The previously illustrated contrast in (9) above is recaptured here:

(26)   a.   Excessive state with Experiencer as subject:

我	真是	羨慕死	妳	的	好運	了
wo	zhenshi	xianmu-si	ni	de	haoyun	le
1SG	really	envy-die	2SG	GEN	good.luck	PRF

'I really envy your good luck to death.'

b.   Excessive impact with Affector as subject:

妳	的	好運	真是	羨慕死	我	了
ni	de	haoyun	zhenshi	xianmu-si	wo	le
2SG	GEN	good.luck	really	envy-die	1SG	PRF

'Your good luck really made me envious to death.'

What's more amazing is that with an excessive marker, even intransitive emotional predicates may show a similar alternation:

(27)   a.   Excessive Degree

我	高興死	了
wo	gaoxingsi	le
1SG	glad-die	PRF

'I am excessively joyful.'

b.   Excessive Impact

高興死	我	了
gaoxingsi	wo	le
glad-die	1SG	PRF

'I'm totally exuberated.'

Apparently the degree vs. impact alternation is shared only by emotion predicates that normally take an Experiencer as subject. And only with the addition of the excessive marker can the emotional experience be conceptualized as a more dynamic and impactive

situation that is causative in nature. The notion of excessiveness is accordingly shifted from coding an excessive degree to an excessive impact. In either case, the crucial prerequisite is the addition of an excessive marker. It is the 'magic power' of the excessive marker that makes the alternation possible. The following section is then dedicated to discussing the function of the excessive marker.

2.2.3 The excessive marker

As recaptured above, the key element in the excessive alternation is the excessive marker immediately following the verb. Without the marker, no positional shift would be allowed as clearly illustrated in the previous section. Among all the excessive markers, the most commonly used candidate is the grammaticalized stative verb *si* 死 'die' (cf. Hong 2004, H. Y. Liu 2008), though occasionally other mono-syllabic words meaning the same as 'die', such as *bi* 斃, can also be found in the construction.

It has also been observed and investigated as to why only the grammaticalized stative verb *si* 死 'die' (or similar-meaning mono-syllabic words) may occur in the alternation, but not other degree markers such as *hen* 很 'very' or *ji* 極 'extremely' (cf. Ji 2000, Hong 2004, H. Y. Liu 2008)? First of all, the excessive marker has to be postverbal, conforming to the verb-resulative pattern that may allow either a degree/manner or a resultative/effect reading. Besides the requirement of a postverbal element, a more significant constraint, in fact, is that the marker itself has to be verbal in origin. Excessive markers found in the alternation are highly limited to metaphorically derived verbal predicates because only verbs require arguments and subcategorize event structure that may trigger alternating ways of argument placement. Given the two criteria, the postverbal excessive markers allowed in the alternation all come from resultative stative verbs. Besides the most commonly used *si* 死 'die', other candidates include the rather archaic form *sha* 煞 'killed,' and more contemporary forms such as *fan* 翻 'over-turning,' *bao* 爆 'exploded,' and *bi* 斃 'die suddenly'. These verb-derived infrequent excessive markers tend to co-occur with a quite restricted set of monosyllabic verbs preceding them,[7] and they are by far less productive than *si* 死 'die'. The data below are from Google 2012/10/4:

(28) a. 嘉北營養午餐羨煞英女童
       jiabei yingyang wucan xiansha ying nütong
       NM nutritious lunch envy-kill British girl
       'The nutritious lunch at Jiabei makes the British girl envious to death.'

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[7] For a detailed discussion of the three excessive markers, *si* 死 'die,' *fan* 翻 'over-turning,' and *bao* 爆 'exploded,' please see H. Y. Liu (2008).

b. 光是備料、量尺寸、搬竹子、挑竹子、
guang shi bei liao liang chicun ban zhuzi tiao zhuzi
merely COP prepare material measure size move bamboo choose bamboo
鋸竹子、遞料就快忙翻大家了。
ju zhuzi di liao jiu kuai mangfan dajia le
saw bamboo pass material then nearly buzy-overturn everyone PRF
'Preparing materials, measuring size, moving, choosing and sawing bamboo, and passing the materials almost make everyone overturned.'

c. 今天真的是累爆我了
jintian zhende shi leibao wo le
today really COP tire-exploded 1SG PRF
'I'm really tired to death today.'

d. 天氣熱斃人了
tianqi rebi ren le
weather hot-die people PRF
'The weather really makes people feel hot to death.'

Aside from the above verb-based markers of excessiveness, a pure, lexically inherent degree marker such as *ji* 極 'extremely' does not select any participant and is thus unlikely to trigger a thematic change in participant roles:

(29) 我　　羨慕　極　　　了　　≠　　*羨慕　極　　　我　　了
wo　xianmu　ji　　le　　≠　　xianmu　ji　　wo　le
1SG　envy　extremely　PRF　　　envy　extremely　1SG　PRF
(Intended meanings in both) 'I am extremely envious.'

The reason why only excessive markers with a verbal root can trigger the alternation lies in the argument-taking nature of a verb. Although grammaticalized as an excessive modifier, the stative verb *si* 死 'die' is more flexible than other lexically specified degree adverbs in allowing an argument to follow in the postverbal position. This has a great deal to do with the canonical V-R sequence in Mandarin resultative construction. On the other hand, to be qualified as an excessive marker, the stative predicate *si* 死 'die' has to undergo some degree of metaphorization and cannot be used literally to refer to the state of being physically dead. Given the criteria of having a monosyllabic verbal root and being metaphorically derivable, only a limited set of stative predicates can be qualified and utilized as the excessive marker in the alternation. As made clear above, these few metaphorically-derived makers all pertain semantically to some sort of 'excessive' extent, such as *si* 死 'dying', *fan* 翻 'over-turning,' *bao* 爆 'exploding,'

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and *bi* 斃 'dying suddenly'. As verbs, they all denote a drastically violent change and thus semantically transferrable to denote an 'excessive' degree or impact. It has to be noted that to have an excessive alternation, these markers can no longer be used with their literal senses that refer to the realistic, physical state of violence. This is why the alternation does not apply to actional verbs of physical force that allows a literal reading of *si* 死 'dead' in the following verb-resultative construction:

(30) 我   打死   他   了   ≠   他   打死   我   了
      wo *da-si*   *ta* *le*   *ta* *da-si*   *wo* *le*
      1SG beat-die 3SG PRF   3SG beat-die 1SG PRF
      'I beat him to death.'   'He beat me to death.'

2.2.4 Semantic transitivity

While excessive marking is essential in the alternation, a further distinction can be made with respect to the use of two highly transitive markers: the so-called disposal marker *ba* 把 and the passive marker *bei* 被. It is observed that both markers are compatible with the causative EIC, but not with the stative EDC. This indicates that high semantic transitivity is conceived when an excessive impact is being projected between the Affector and Affectee. Data below are taken from Google (2012/10/03):

(31) a. 最後鞦韆上的那一吻快把我羨慕死啦
          zuihou qiuqian shang de na yi wen kuai ba wo xianmu-si la
          last swing up REL DEM one kiss nearly BA 1SG envy-die SFP
          'Finally, the kiss on the swing nearly made me envious to death.'
      b. 這樣你真的是會被眾人羨慕死耶
          zheyang ni zhende shi hui bei zhongren xianmu-si ye
          so 2SG really COP MOD BEI everyone envy-die SFP
          'In this way, you would truly be envied to death by everyone.'

The disposal marker *ba* 把 normally takes an agent-like subject that deliberately acts and a patient-object that undergoes some extent of change (Li & Thompson 1981). The use of *ba* 把 in (31a) suggests that the two arguments in this overtly marked construction resemble the semantic roles between an actor-agent and an undergoer-patient, which is exactly the distinct thematic perspective projected in EIC. In a passive excessive construction as (31b), the passive marker *bei* 被 signals an involuntary, excessive effect on the part of the patient-subject, the Affectee, whose excessive change is being predicated in EIC.

2.2.5 Aspectual properties

In terms of aspectual properties, the perfect marker *le* 了 is frequently used in the alternation, as can be seen from its constant presence in the preceding examples (21)-(24), (26)-(28). Other aspectual markers, such as the progressive-*zai* 在, durative-*zhe* 著, and experiential-*guo* 過, hardly co-occur with excessive predication. The following made-up examples help to demonstrate the rare use of these aspectual markers in excessive constructions:

(32)　a. *?我　　在　　　羨慕死　你　↔　?你　　在　　　羨慕死　我
　　　　　wo　zai　　xianmu-si　ni　　　　*ni　　zai　　xianmu-si　wo*
　　　　　1SG　PROG　envy-die　2SG　　　　2SG　PROG　envy-die　1SG
　　　　　(Intended meaning) 'I am envying you to death.'

　　　　b. *?我　　羨慕死　著　　你　↔　?你　　羨慕死　著　　我
　　　　　wo　xianmu-si　zhe　　ni　　　　*ni　　xianmu-si　zhe　　wo*
　　　　　1SG　envy-die　DUR　2SG　　　　2SG　envy-die　DUR　1SG
　　　　　(Intended meaning) 'I keep envying you to death.'

　　　　c. *?我　　羨慕死　過　　你　↔　?你　　羨慕死　過　　我
　　　　　wo　xianmu-si　guo　　ni　　　　*ni　　xianmu-si　guo　　wo*
　　　　　1SG　envy-die　EXP　2SG　　　　2SG　envy-die　EXP　1SG
　　　　　(Intended meaning) 'I have the experience of envying you to death.'

The frequent use of the perfect marker LE in excessive constructions indicates that in either EDC or EIC, a newly derived situation is being predicated since the marker LE normally signals a currently relevant state, be it a newly actualized event or change of state (Li & Thompson 1981). The degree-measuring EDC encodes a currently relevant experiential state in an excessive extent, while the impact-depicting EIC encodes a currently relevant event with an excessive impact from an agent-like affector to a patient-like affectee. The two constructions bear another significant difference in event type, as will be further discussed below.

2.2.6 Stative vs. eventive

The proposed EDC and EIC project two different thematic relations anchored in different event types. The Experiencer-to-Stimulus relation is stative in nature, while the Affector-to-Affectee relation is eventive in nature. Collocational features pertaining to the stative vs. eventive distinction can be identified by a closer examination of the corpus data. It is observed that instances of EIC depicting an eventive impact tend to collocate with a temporally specified noun or adverb. In principle, events are temporally

situated at a specific time point. That is why it is common to see temporal specifiers co-occur with EIC. In the examples below (Google 2010/05/12), temporal specifiers such as *jintian* 今天 'today' and *natian* 那天 'that day' are found in utterances of EIC:

(33) 你今天真的是嚇死我了。以後不會喝就不要喝好不好？
      ni jintian zhende shi xia-si wo le yihou bu hui he jiu bu yao he hao bu hao
      2SG today really FOC frighten-die 1SG PRF future NEG MOD drink then NEG MOD drink alright NEG alright
      'You really freaked me out <u>today</u>. Can you refrain from drinking if you get drunk easily?'

(34) 那天真是騎死我了
      na tian zhenshi qi-si wo le
      DEM day really ride-die 1SG PRF
      '<u>That day</u>, the biking really exhausted me to death.'

Other temporal adverbs, such as *gangcai* 剛才 'just now', *mashang* 馬上 'right away', *zuijin* 最近 'recently' and aspectual indicators such as *ceng* 曾 and *cengjing* 曾經 'once' were also found in examples of EIC (Google 2010/05/12):

(35) 剛才可真是擔心死我了
      gangcai ke zhenshi danxin-si wo le
      just.now EMPH really worry-die 1SG PRF
      'I was nearly worried to death <u>just now</u>.'

(36) 嚐一口，馬上嚇死你！
      chang yi kou mashang xia-si ni
      taste one bite immediately frighten-die 2SG
      'Taste it! <u>Immediately</u> you'll be amazed to death!'

(37) 做母親的人可能都已經忘記了自己也曾經氣死老媽
      zuo muqin de ren keneng dou yijing wangji le ziji ye cengjing qi-si laoma
      do mother REL person maybe all already forget ASP self too once angry-die old.mom
      'The mothers may have already forgotten that they themselves had <u>once</u> angered their moms to death.'

In addition to temporal expressions, corpus data also show that EIC is compatible with the adverbial adjunct encoding Means or Instrument, "*yong* 用 + NP", as well as the telic verb *qu* 去 'go', which indicates intended motion or a purposeful action:

(38) 你要用時尚折磨死自己
ni yao yong shishang zhemo-si ziji
2SG want use fashion torture-die self
'You want to torture yourself to death with fashion.'

(39) 改造一個全新的自己，再去迷死"你"！
gaizao yi ge quanxin de ziji zai qu mi-si ni
transform one CL total.new REL self then to fascinate-die 2SG
'(I'll) make myself totally renewed, and fascinate you to death.'

The use of the instrumental "用 *yong* + NP" and the telic verb *qu* 去 'go' can be taken as signaling the speaker's volitionality in carrying out an intended action. This made it even clearer that the proposed EIC involves an affective and telic event.

2.2.7 Information structure and thematic relation

As one of the reviewers indicated, given that Chinese is a topic-prominent language (Li & Thompson 1981), both constructions under study can be taken as manifestations of the topic-comment information structure. It is quite true that at the discourse level, both excessive constructions share the topic-comment template and the discourse topic plays an important role in shaping the information structure of an utterance. It is also true that each topic-comment expression may encode a particular thematic relation among its participants. Information structure and thematic relation may go hand in hand in defining a construction just as pragmatic and semantic functions may complement each other in language use. While recognizing the topic-comment structure as the underlying information of the construction at the discourse level, the present study further inquires about the semantic role encoded in the topic and its thematic relation to other elements in the construction:

(40) Discourse topic and thematic roles
Discourse level:　　　　　　　　　　　 Topic

Semantic level:　Experiencer in EDC　　vs.　　Affector in EIC

While the sentence below exemplifies a topic-comment structure in terms of information layout, it also encodes an affective impact in terms of semantic relation:

(41) 中國真有錢啊，羨慕死美國了！(Google 2012/10/4)
zhongguo zhen you qian a xianmu-si meiguo le
China really have money SFP envy-die America PRF
'China is truly rich, which made USA excessively envious.'

The above example also shows that the bearer of emotion is not limited to human arguments. Inanimate entities may also take on the role as the sentient being through metaphorization or personification. Moreover, while the bearer of emotion is predominantly 1st person singular "I", there is no apparent restriction on person or number as shown in the examples below (Google 2012/10/3):

(42) 1st person Experiencer
  a. 朋友出國了，我羨慕死他了
     pengyou chuguo le wo xianmusi ta le
     friend abroad PRF 1SG envy-die 3SG PRF
     'My friend has gone aboard. I'm envious of him to death.'
  b. 佩岑姐，我們羨慕死你了
     peicen jie women xianmusi ni le
     NM sister 1PL envy-die 2SG PRF
     'Peicen, we envy you to death.'

(43) 2nd person Experiencer
  a. 你會覺得你羨慕死了他的 Beautiful life。
     ni hui juede ni xianmu-si le ta de Beautiful life
     2SG MOD feel 2SG envy-die ASP 3SG GEN beautiful.life
     'You'll think you're envious of his beautiful life to death.'
  b. 我跟小楓的合照羨慕吧 妳們羨慕死好了
     wo gen xiaofeng de hezhao xianmu ba nimen xianmu-si hao le
     1SG CONJ NM GEN photo envy SFP 2PL envy-die well PRF
     'This is the photo I took with Xiaofeng. Aren't you envious? Aren't you envious to death?'

(44) 3rd person Experiencer
  a. 他羨慕死溫格的執教環境了
     ta xianmu-si wenge de zhijiao huanjing le
     3SG envy-die NM NOM teaching environment PRF
     'He's envious of the environment where Wenge teaches to death.'

    b.   出去溜達一圈後回來吃早飯，他們羨慕死我了
        chuqu liuda yi quan hou huilai chi zaofan tamen xianmu-si wo le
        out wander one CL after return eat breakfast 3PL envy-die 1SG PRF
        '(I) went out and then come back for breakfast. They envy me to death.'

All three persons are also used to encode an affected sentient being (Google 2012/10/3):

(45)   1st person Affectee
    a.   深邃的五官羨慕死我了啦！
        shensui de wuguan xianmu-si wo le la
        deep REL face envy-die 1SG PRF SFP
        'Her beautiful face made me envious to death.'
    b.   這一段話可真是羨慕死我們了！
        zhe yi duan hua ke zhenshi xianmu-si women le
        DEM one CL speech EMPH really envy-die 1PL PRF
        'This speech made us envious to death.'

(46)   2nd person Affectee
    a.   運氣就是這麼好，羨慕死你
        yunqi jiushi zheme hao xianmu-si ni
        luck exactly so good envy-die 2SG
        '(Someone) is just so lucky, making you envious to death.'
    b.   我放十天假哦，羨慕死你們
        wo fang shi tian jia o xianmusi nimen
        1SG have ten day holiday SFP envy-die 2PL
        'I have ten days of holiday. Aren't you envious to death?'

(47)   3rd person Affectee
    a.   熱死他，我吃著冰棍看著他，羨慕死他
        re-si ta wo chi zhe binggun kan zhe ta xianmu-si ta
        hot-die 3SG 1SG eat DUR ice.stick look.at DUR 3SG envy-die 3SG
        '(It) makes him extremely hot. I watch him while having the ice stick, and that makes him envious to death.'
    b.   讓他們看吧！羨慕死他們！
        rang tamen kan ba xianmu-si tamen
        let 3PL watch SFP envy-die 3PL
        'Let them watch. Let them envy to death.'

Although there is no restriction on person and number, it is noteworthy, however, that the first person pronoun *wo* 我 'I' is most predominant in both constructions, which suggests a strong subjectivity in excessive predication (cf. Lai 2007:2, Xu 2004:1). The data below are collected on a different date (Google 2010/5/12):

(48) a. <u>我</u>迷死李小龍了。
          wo mi si lixiaolong le
          1SG fascinate die Lee.Bruce PRF
          'I'm crazy about Bruce Lee.'

      b. 你氣死<u>我</u>了…居然敢說這兩個字
          ni qi si wo le juran gan shuo zhe liang ge zi
          2SG angry die 1SG PRF unexpectedly dare say DEM two CL word
          'You made me angry to death. How dare you spoke these two words!'

2.3 Interim summary

This section presents the major syntactic, semantic, and pragmatic characteristics of the two excessive constructions proposed in this paper. It has been shown that while sharing identical surface form, the two constructions project two distinct thematic relations with different event types: the stative Experiencer-to-Stimulus relation vs. the causative Affector-to-Affectee relation. Following the definition of "construction" in Construction Grammar (e.g. Kay & Fillmore 1999, Goldberg 1995, 2006), the two constructions are defined as two distinct form-meaning pairing units: Excessive Degree Construction (EDC) vs. Excessive Impact Construction (EIC). Evidence from various collocational observations are given to illustrate the constructional distinction, including the asymmetrical distribution of participating verbs, aspectual marking, temporal specifiers and telic-marking elements. While packaged with the underlying topic-comment information structure, the two constructions profile varied semantic relations. In the following section, the thematic distinction will be further extended and related to other important phenomena in Mandarin to demonstrate the functional differences between the two alternating constructions.

3. Ways of conceptualization: excessive degree vs. excessive impact

3.1 Multiple semantic relations

The current proposal of two distinct excessive constructions highlighting two distinct thematic relations may find its allies in previous studies. The constructional correlation

between syntactically and semantically related pairs has been the focus in a series of works by Lu (1990, 1991). The famous examples are quoted below (Lu 1991:1):

(49) a. 台　　上　　坐　著　　主席團
　　　　　tai　shang　zuo　zhe　　zhuxituan
　　　　　stage　above　sit　DUR　Committee Board
　　　　　'On the stage sits the Committee Board.'

　　　b. 主席團　　　　　坐　在　台　　上
　　　　　zhuxituan　　　zuo　zai　tai　shang
　　　　　Committee.Board　sit　ZAI　stage　above
　　　　　'The Committee Board sits on the stage.'

The two sentences share the same verb with the same sets of arguments, but hold distinct syntactic and semantic relations. They represent an alternating pair that interacts with verbal semantics in capturing the varied ways of linguistic encodings. Lu (2004: 414) clearly pointed out that there may be multiple semantic relations in the same set of words. Thus, the following sentences with a seemingly identical surface structure actually encode two distinct kinds of semantic relation:

(50) a. 十　個　人　　吃　了　一　鍋　飯 (ibid: ex. (1a))
　　　　　shi　ge　ren　　chi　le　yi　guo　fan
　　　　　ten　CL　person　eat　ASP　one　pot　rice
　　　　　'Ten persons ate one pot of rice.'

　　　b. 一　鍋　飯　吃　了　十　個　人 (ibid: ex. (1b))
　　　　　yi　guo　fan　chi　le　shi　ge　ren
　　　　　one　pot　rice　eat　ASP　ten　CL　person
　　　　　'One pot of rice is enough for ten people to eat.'

According to Lu (2004:414-415), example (a) predicates the typical action-based 'Agent-Patient' relation, but example (b) asserts a different semantic structure in that it highlights a quantitative Container-Containee relation that focuses on the container amount (the subject), the way of containing (the verb), and the containee amount (the object).

Further evidence of the semantic distinction in the two examples concerns their functional compatibility with additional markers. Lien (2009:50) provides keen observations about the selective use of the aspect marker *le* 了, the phase marker *wan* 完, the disposal marker *ba* 把, the passive marker *bei* 被 and manner adverbs such as *mantiaosilidi* 慢條斯理地 'leisurely, unhurriedly', as shown below respectively:

(51) a. 十　個　人　　吃　完　　　了　一　鍋　飯
      shi ge ren   chi wan   le   yi   guo fan
      ten CL person eat PHASE ASP one pot rice
      'Ten persons finished eating a pot of rice.'

  b. *一　鍋　飯　吃　完　　　了　　十　個　人
      yi guo fan chi wan   le   shi ge ren
      one pot rice eat PHASE ASP ten CL person
      (Intended meaning) 'One pot of rice was finished eating by 10 persons.'

(52) a. 十　個　人　　把　一　鍋　飯　吃　了
      shi ge ren   ba   yi   guo fan chi le
      ten CL person BA   one pot rice eat PRF
      'Ten persons ate a pot of rice.'

  b. *一　鍋　飯　把　十　個　人　　吃　了
      yi guo fan ba   shi ge ren   chi le
      one pot rice BA   ten CL person eat PRF
      (Intended meaning) 'One pot of rice fed 10 people.'

(53) a. *十　個　人　　被　一　鍋　飯　吃　了
      shi ge ren   bei yi   guo fan chi le
      ten CL person BEI one pot rice eat PRF
      (Intended meaning) 'One pot of rice was eaten by ten persons.'

  b. 一　鍋　飯　被　十　個　人　　吃　了
      yi guo fan bei shi ge ren   chi le
      one pot rice BEI ten CL person eat PRF
      'One pot of rice was eaten by ten persons.'

(54) a. 十　個　人　　慢條斯理地　吃　了　一　鍋　飯
      shi ge ren   mantiaosilidi chi le   yi   guo fan
      ten CL person leisurely   eat ASP one pot rice
      'Ten persons leisurely ate a pot of rice.'

  b. *一　鍋　飯　慢條斯理地　吃　了　十　個　人
      yi guo fan mantiaosilidi chi le   shi ge ren
      one pot rice leisurely   eat ASP ten CL person
      (Intended meaning) 'A pot of rice was leisurely eaten by 10 people.'

These examples show that the additional markers are only compatible with one sentence in each pair. The distributional asymmetry revealed in the above minimal pairs clearly indicates that the alternating constructions differ in their semantic constructs. Specifically,

the (a) sentences encode an eventive relation (Agent-Patient), reporting an actual instance of eating, while the (b) sentences encode a quantitative relation (Container-Amount), conveying something like 'One pot of rice is enough for ten persons to eat'.

The notion of 'multiple semantic relations' echoes in a way the semantic theory proposed in Jackendoff (1990:126) wherein two independent tiers of conceptual relation are postulated: the thematic tier (motion and location) and the action tier (actor-patient relation). The same set of arguments may thus be viewed as having multiple semantic relations at two separate levels, profiling two different sets of conceptual roles:

(55) a. *Sue hit Fred*.   (ibid, ex. (7a))
          Theme   Goal   (thematic tier)
          Actor   Patient   (action tier)

      b. *Pete threw the ball*.   (ibid, ex. (7b))
          Source   Theme   (thematic tier)
          Actor   Patient   (action tier)

The above examples help to illustrate that there is "different combination of thematic and actional roles…[and] mere annotation of syntactic structure is inadequate" (ibid: 127). Jackendoff (1990) pointed out an important insight that under the same syntactic structure, there may exist more than one parallel but independent conceptual tier of argument relation.

A similar insight can be found in Iwata (2005, 2008) regarding the so-called locative alternation with 'spray' verbs in English. To account for the semantic differences between the alternating forms, a lexical-constructional analysis is given that differentiates two distinct constructional meanings anchored in two levels of schematic representation (Iwata 2008:1, ex. (1)):

(56) a. Jack sprayed paint onto the wall.
      b. Jack sprayed the wall with paint.

It has been well-established that the two sentences have different interpretations: sentence (a) expresses a 'change of location' and sentence (b) 'change of state'. Since the verb stays the same, a purely lexical approach seems to be insufficient to account for the difference. Hence a constructional approach has been proposed that takes the (a) type as Caused-motion Construction and the (b) type as Causative Construction plus *with*-adjunct (Goldberg 1995:179). Modifying the original constructional proposal, Iwata (2008) gave a lexical-constructional solution, in which different levels of schematicity are identified. According to Iwata's analysis, there is a higher-order schema with

abstraction in the caused-motion construction and a lower-order schema with abstraction pertaining to 'verb-class-specific' vs. 'verb-specific' constructions. (Iwata 2008:37, Fig. 8). As an attempt to refine constructional account, it is suggested that a distinct construction should be analyzed and defined in relation to the participating verbs or verb classes.

The above studies help to make clear the importance of 'multiple semantic relations' projected in alternating constructions that link different semantic roles in separate conceptual tiers. The possible range of conceptual relation then has a great deal to do with the particular verb or verb class participating in the alternating constructions. In the same vein, the excessive alternation under study is taken to be manifestations of two distinct conceptual relations that are 'verb-class' specific. In the following sections, a detailed lexical-constructional analysis of the V-*si* alternation will be given with a further discussion of the set of verbs occurring in the alternation. To be more specific, the two proposed constructions EDC and EIC are linked with two distinct conceptual tiers, i.e. an *attributive* tier and an *affective* tier with respective roles.

3.2 Alternation: mapping of semantic relation to syntactic structure

What is clear from the studies summarized in the preceding section is that semantic structure may be multi-layered. It varies from tier to tier, depending on the conceptual framework chosen to depict the event. In the same line of analysis, the two alternating constructions are viewed as profiling two different perspectives of excessive emotion, mapped with two different ways of positioning the arguments. As a result, the shift of grammatical constituents signals a shift of thematic roles. At the thematic or *attributive* tier, an excessive emotion is predicated as a stative, gradable relation between the Experiencer-theme and the Stimulus-goal, encoded in the Excessive Degree Construction. At the action or *affective* tier, an excessive emotion is viewed as a total impact imposed by an agent-like Affector unto a patient-like Affectee, formally encoded in the Excessive Impact Construction. The two layers of semantic relation can be represented as follows:

(57)   a.   **Attributive Predication (Thematic tier)**:
        Theme   V-Degree   Goal
          | |
        Experiencer   Stimulus

        我   羨慕-死   他   了
        wo   *xianmu-si*   *ta*   *le*
        1SG   envy-die   3SG   PRF
        'I am envious of him to death.'

b. **Affective Predication (Action tier)**:

Agent   V-Impact   Patient

| |

Affector   Affectee

他	羨慕-死	我	了
ta	*xianmu-si*	*wo*	*le*
3SG	envy-die	1SG	PRF

'He made me envious to death.'

As noted before, the example above may be potentially ambiguous. The ambiguity itself is a clear indicator that there are two conceivable ways of conveying an excessive emotion, as either a degree-measurable stative experience or an impact-imposing event.

3.3 Semantic compatibility with participating verbs

As noted by Iwata (2005, 2008), constructions are bound with specific verbs or verb classes. The proposed constructions of excessive predication are indeed bound with the particular class of emotion verbs in Mandarin, as shown previously in §2.2.2. The verbs participating in the alternating construction are typically Experiencer-subject transitive predicates, such as verbs *xianmu* 羨慕 'envy', *xiang* 想 'miss' and *danxin* 擔心, although a simplified, one-argument version of excessive predication is also found with intransitive predicates such as *le* 樂 'delighted' and *gaoxing* 高興 'pleased'. What is striking though is that some near-synonyms of the participating verbs are less frequently used in the alternation. For example, 嫉妒 'being jealous', a near-synonym of *xianmu* 羨慕 'envy' is less preferred in the impact-imposing EIC:

(58) a.
我	嫉妒死	他	的	好運	了
wo	*jidu-si*	*ta*	*de*	*haoyun*	*le*
1SG	jealous-die	3SG	GEN	good.luck	PRF

'I am jealous of his good luck to death.'

b. ?
他	的	好運	嫉妒死	我	了
ta	*de*	*haoyun*	*jidu-si*	*wo*	*le*
3SG	GEN	good.luck	jealous-die	1SG	PRF

'His good luck had me jealous to death.'

To account for this verbal preference, verbs of emotion seem to have to be further classified with finer semantic distinction. In Jackendoff's 2007 analysis, Experiencer-Subject (ES) verbs are divided into two subgroups: verbs of inherent meaning (e.g. {I'm

just plain *bored*.}) and verbs of directed meaning (e.g. {?*I'm just plain *interested*.}). The distinction between inherent vs. directed meaning corresponds to the distinction between internally-caused vs. externally-caused verbs in an earlier work in M. Liu (2002). Inherent meaning or Inherently-caused verbs may occur without an overt cause, while directed or externally caused verbs are lexically specified with a cause. This can be illustrated with the near-synonym pair of Mandarin *gaoxing* 高興 'pleased' vs. *kuaile* 快樂 'happy' (cf. M. Liu 2002, Tsai et al. 1996):

(59)   a.   Externally caused with directed meaning allowing a cause:

      我　　 很　　 高興　　 你　　 來　　 了
      wo　 *hen*　 *gaoxing*　 *ni*　 *lai*　 *le*
      1SG　 DEG　 pleased　 2SG　 come　 PRF
      'I'm pleased that you came.'

     b.   Inherently caused with inherent meaning without a cause

      ?*我　　 很　　 快樂　　 你　　 來　　 了
      wo　 *hen*　 *kuaile*　 *ni*　 *lai*　 *le*
      1SG　 DEG　 happy　 2SG　 come　 PRF
      'I'm happy that you came.'

It is clear that only verbs with directed meaning, termed as externally caused (M. Liu 2002) or change of state verbs (Tsai et al. 1996) allows a clausal complement specifying an external cause. A close examination of Google data (2010/05/12) also support the observation that Experiencer-subject verbs of directed meaning, such as *gaoxing* 高興 'pleased' and *xianmu* 羨慕 'envy', are more frequently found in EIC than verbs of inherent meaning or internally-caused verbs such as *kuaile* 快樂 'happy' and *jidu* 嫉妒 'jealous'. This finding complies nicely with the proposed semantic distinction between the two constructions. Verbs of inherent emotion are not lexically specified with a cause and are hence less compatible with the causative EIC that projects a caused impact. But verbs of directed emotion that is lexically specified with an external cause may be readily projected into the causative EIC. The constructional distinction between the stative EDC and the causative EIC goes hand in hand with the lexical distinction between the inherent and the directed emotion verbs. The marking of 'cause' seems to be a salient feature that is relevant to both lexical and constructional encoding of emotion.

3.4 Conversion of proto-roles

The observed correspondence between grammatical pattern and semantic structure can also be viewed with the Proto-role theory proposed in Dowty (1991). The two

alternating constructions may be graded on the continuum with the two opposing proto-roles: Proto-Agent (Actor) vs. Proto-Patient (Undergoer). The animate core argument — the sentient being bearing an emotion — is depicted as a sensible Experiencer taking a more active role in the degree-attributive construction EDC, but it is turned into a patient-like victim undergoing an excessive change in the impact-affective construction EIC. This contrast can be made clear when compared with a parallel use of the active verb *pao* 跑 'run' in the one-argument version of excessive predication, as shown below:

(60) Experiencer vs. Affectee

Experiencer-Actor					Affectee-Undergoer			
我	羨慕/跑	死	了	↔	羨慕/跑	死	我	了
wo	*xianmu*/*pao*	*si*	*le*		*xianmu*/*pao*	*si*	*wo*	*le*
1SG	envy/run	die	PRF		envy/run	die	1SG	PRF

'I am envious to death/I've been running to death.'

As the examples show, not only the canonical emotion verb *xianmu* 羨慕 'envy' can occur in the argument-swapping alternation, but the typical action verb *pao* 跑 'run' is also allowed. The correlation of the two verbs in the above usage indicates that there is an underlining similarity between emotional affect and physical impact. As has been observed in M. Liu (2002), there are two possible ways of conceptualizing an emotional event, patterning with the stative relation of an Experiencer towards a Target, or with the causative relation between a Causer and Causee, as illustrated respectively below:

(61) a. Experiencer-towards-Target pattern:

我	羨慕/擔心	他
wo	*xianmu*/*danxin*	*ta*
1SG	envy/worry	3SG

'I envy/worry about him.'

b. Causer-to-Causee causative pattern:

他	讓	我	羨慕/擔心
ta	*rang*	*wo*	*xianmu*/*danxin*
3SG	cause	1SG	envy/worry

'He made me envious/worried.'

The Experiencer-towards-Target pattern provides the default source structure for predicating emotional experiences with degree modification. The causative pattern highlighting a Causer-Causee relation provides the conceptual ground for an excessive emotion being coded as a causative relation between Affector and Affectee.

As for an simple action verb such as *pao* 跑 'run', when participating in the degree-attributive EDC, the action 'running' seems to be backgrounded. That is why an additional adjunct modifying the running event such as *san tian* 三天 'three days' is not allowed with the construction (*wo pao si le santian *我跑死了三天 'I've been running to death for three days.'), nor a noun phrase denoting the area of running such as *xuexiao* 學校 'school' or *caochang* 操場 'exercise field' can be added (*wo pao si le xuexiao/caochang *我跑死了學校/操場 'I ran to the school/field to death.'). It is instead the excessive 'extent' of the running that is being profiled in EDC. In the affective-impact construction EIC, the object following *pao si* 跑死 'run-dead' refers to the affectee undergoing the excessive impact from the running event. In this causative relation, a causer or affector causing the excessive impact can be specified and thus a nominal cause such as *zheduanlu* 這段路 'this journey' or even a clausal cause *lailaihuihui ban huzhao* 來來回回辦護照 'applying for a passport back and forth' can be used as the subject:

(62) a. 這段路/來來回回辦護照 真是跑死我了
        zheduan lu/lailaihuihui ban huzhao zhen shi pao-si wo le
        DEM journey/back and forth apply for passport truly run-die 1SG PRF
        'This journey/the process of applying for the passport exhausted me to death.'

     b. *我真是跑死了這段路/來來回回辦護照
        wo zhenshi pao-si le zheduan lu/lailaihuihui ban huzhao
        1SG truly run-die PRF DEM journey/back and forth apply for passport
        (Intended meaning) 'I was running-exhausted to death by this journey/ the process of applying for the passport.'

At first sight, it may be counter-intuitive for a one-place activity verb *pao* 跑 'run' to participate in the Excessive Impact Construction as in (62a). However, given the causative nature of the construction, the sequence *pao-si* 跑死 'run-die', conforming to the verb-resultative sequence, is conceivable to have an excessive-impact reading while highlighting a cause and the excessive impact resulted form the event of running. However, the same V-R combination is not allowed in the EDC counterpart as shown in (62b). Apparently, an action verb subcategorizing one single argument is semantically incompatible with the constructional meaning of a transitive EDC that highlights a gradable extent in a theme-goal relation.

In sum, given all the above-discussed distributional evidences, the alternating constructions are viewed as predicating two different semantic structures, profiling two distinct sets of thematic roles with distinct event types, manifesting two form-meaning pairing constructs that can be best captured in constructional terms. Below is a detailed formal representation of the two constructions.

4. The constructional account

From the above discussions on semantic-to-syntactic differences, we see that the alternating constructions demonstrate distinct thematic relations anchored in different event types with different selectional preferences of participating verbs. From the perspective of Construction Grammar (Goldberg 1995, 2006, Iwata 2005), the two constructions, EDC and EIC, are defined as two unique form-meaning mapping entities in the following terms:

(63)   The Excessive Degree Construction (EDC)
  a.   Form: NP1   V   Degree$_{excess}$-*si*   (NP2)

  b.   Meaning: An Experiencer [NP1] experiences an emotional or physio-logical state [V] of an excessive extent [Degree$_{excess}$-*si*] towards a Target [NP2], which may or may not be overtly marked.

  c.   Constructional representation:

    e.g. 我   羨慕死 (他   的   好運)   了
       wo   xianmu-si   ta   de   haoyun   le
       1SG envy-die 3SG GEN good.luck PRF
       'I am envious (of his good luck) to death.'

Sem	EXCESSIVE-Degree	< Theme	Goal	Degree >
	|	|	|	⋮
R: attribute	xianmu	< Experiencer	Target	>
	|	|	|	⋮
Syn	V.	SUBJ	(OBJ)	Compl.

  d.   Associated verbs:
    -   transitive Experiencer-subject (ES) verbs (e.g. *xianmu* 羨慕 'envy', *jidu* 嫉妒 'be jealous', *danxin* 擔心 'worry', *qi* 氣 'angry', *pa* 怕 'afraid', *xiang* 想 'miss', *mi* 迷 'fascinated')
    -   intransitive stative verbs (e.g. *gaoxing* 高興 'pleased', *kuaile* 快樂

‘happy’, *fan* 煩 ‘annoyed’, *nanguo* 難過 ‘sad’, *wuliao* 無聊 ‘bored or boring’)

- gradable physiological predicates (e.g. *lei* 累 ‘tired’, *mang* 忙 ‘busy’, *ke* 渴 ‘thirsty’, *e* 餓 ‘hungry’, *tong* 痛 ‘ached’, *yang* 癢 ‘itchy’)

- Simple intransitive action verbs (e.g. *pao* 跑 ‘run’, *zou* 走 ‘walk’, *xiao* 笑 ‘laugh’)

(64) The Excessive-Impact Construction (EIC)

a. Form: (NP1) V Impact$_{excess}$-*si* NP2

b. Meaning: An Affectee [NP2] undergoes an excessive impact [Impact$_{excess}$-*si*] resulted from the event [V] caused by an Affector [NP1], which may not be overtly present.

c. Constructional representation:

e.g. (他   的   好運)   羨慕死   我   了
  (*ta*   *de*   *haoyun*)   *xianmu-si*   *wo*   *le*
   3SG GEN good.luck envy-die 1SG PRF
   ‘(His good luck) made me envious to death.’

Sem	EXCESSIVE-Impact	< Affector	Affectee	Impact >
		|	|	⋮
R: means	xianmu	< Stimulus	Experiencer	⋮ >
		|	|	⋮
Syn	V.	(SUBJ)	OBJ	Compl.

d. Associated verb classes:
- (predominately) directed or externally-caused transitive emotion verbs (e.g. *xianmu* 羨慕 ‘envy’, *danxin* 擔心 ‘worry’, *qi* 氣 ‘angry’, *pa* 怕 ‘afraid’, *xiang* 想 ‘miss’, *mi* 迷 ‘fascinated’)
- directed or externally-caused intransitive emotion verbs (e.g. *gaoxing* 高興 ‘delighted’, *fan* 煩 ‘annoyed’, *nanguo* 難過 ‘sad’)
- gradable physiological predicates (e.g. *lei* 累 ‘tired’, *mang* 忙 ‘busy’, *ke* 渴 ‘thirsty’, *e* 餓 ‘hungry’, *tong* 痛 ‘ached’, *yang* 癢 ‘itchy’)
- gradable sensory predicates (e.g. *suan* 酸 ‘sour’, *tian* 甜 ‘sweet’, *ku* 苦 ‘bitter’, *la* 辣 ‘spicy’, *xian* 鹹 ‘salty’)
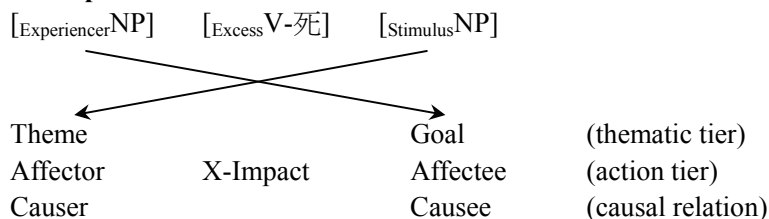- Simple intransitive action verbs (e.g. *pao* 跑 ‘run’, *zou* 走 ‘walk’, *xiao* 笑 ‘laugh’)

The distinct semantic relations expressed with different participant roles bear a significant influence on event types. EDC is stative in nature, while EIC is more eventive. This distinction in event type correlates with an important observation in Jackendoff (1990: 140). It is observed that many English Experiencer-subject verbs are ambiguous in terms of whether they are *stative* or *eventive*. Such a distinction in event type is neither lexically nor syntactically easy to distinguish in English. In other words, the stative vs. eventive distinction is not formally encoded in English, but inferable only with additional information on tense and aspect (ibid, ex. (43)):

(65)   a.   Thunder frightens Bill.   (stative)
       b.   Harry (deliberately) frightened Bill.   (eventive)

In Mandarin, however, this distinction is formally distinguished and encoded in the two proposed constructions. As shown in §2.2.5, collocational features may reveal the eventive nature of the Excessive Impact Construction, as it is found to co-occur with 1) temporal nouns, 2) temporal adverbs, 3) means/instrument complement "*yong* 用 +NP", and 4) the telic verb *qu* 去 'go to' to express temporally situated events with a telic effect.

As to the concept of excessiveness, the use of the Mandarin verb *si* 死 'die' to refer to excessive degree or impact reveals an interesting correlation between the two constructions. Via human cognitive mechanism, an extreme degree or total effect may be conceived as equivalent to a complete overturn or change of state from life to death. The overturning change is also manifested in the thematic change whereby the experience of an emotional state is turned to be an affected undergoer. The sentient initiator of the excessive experience becomes the receiver of the excessive impact with the swapping of argument positions. Thus, the argument swapping reflects and enables the change of themataic roles. The alternating patterns represent the grammatical encoding of the conceptual convergence of semantic roles at three possible tiers:

(66)   **Conceptual Conversion of semantic roles**
       [$_{\text{Experiencer}}$NP]   [$_{\text{Excess}}$V-死]   [$_{\text{Stimulus}}$NP]

       Theme   Goal   (thematic tier)
       Affector   X-Impact   Affectee   (action tier)
       Causer   Causee   (causal relation)

An excessive sensation can be conceived as involving three different sets of thematic roles at the three correlated but separate semantic levels. The conceptual transfer of excessiveness can also be represented as follows:

(67) Conceptual transfer of excessiveness with the use of *si* 'die'

EDC	→	**EIC**
extreme degree	→	total impact

The contrast above also helps to show that each construction is associated with a particular way of depicting excessiveness. Once a verb is considered to be conceptually compatible with the particular perspective of thematic relation in predicating the particular view of excessive extent, it may then participate in the corresponding construction. Besides the frequently found emotion predicates, other classes of verbs may enter the constructions as long as they are semantically capable of acquiring the associated meaning through constructional coercion (cf. M. Liu 2005).

5. Conclusion

This study attempts to account for the constructional alternation of two highly correlated constructions in excessive predication that shows an unusual swapping of arguments. Assuming that multiple forms of syntactic encoding may correspond to multiple views of semantic structure, the alternation is analyzed as involving two unique form-meaning mapping constructions, defined in the sense of Construction Grammar (Goldberg 1995, 2006). The two constructions are respectively named as Excessive Degree Construction (EDC) and Excessive Impact Construction (EIC), representing two distinct form-meaning associations that profile two distinct semantic perspectives in predicating an excessive emotion. The degree-attributing EDC encode the stative relation of an Experience towards a Stimulus target, while the impact-depicting EIC takes the bearer of emotion as an Affectee in a causative relation. The two alternating views motivate two alternating forms of argument expression, resulting in the seemingly 'free' swapping of arguments. The swapping is not free of consequences at all. Instead, it is an overt way of signaling different thematic relations anchored in different event types. The semantic distinction proposed is further illustrated and supported by a wide range of collocational and distributional evidence, including participating verbs, temporal, aspectual, and adverbial adjuncts, as well as previous findings on thematic variation and event type distinction.

From a cognitive semantic perspective, the varied ways of expressing an excessive degree vs. impact distinction correlate with the way how scalar 'excessiveness' can be

turned into an affective change. An excessive sensation can be viewed as an impacting force that imposes a complete change on the affected party, triggering a role change from a sentient Experiencer/Actor to a patient-like Affectee/Undergoer. The conceptual alternation is fully manifested in the semantically triggered word order change accompanied with the constructional alternation. Since constructional change signals thematic change, a further question for future studies of Mandarin grammar may be: what is the possible range of conceptual manipulation allowed in Mandarin to express certain semantic-to-syntactic alternation? More specifically, what kinds of formal distinctions may be used to encode what kinds of semantic variations in thematic relation as well as situational highlights.

By exploring the unique alternating patterns in Mandarin where a shift of argument position signals a shift of semantic roles pertaining to the projected thematic relations and event types, this study shows how conceptualization may influence grammatical patterning and how syntactic forms are utilized to respond to semantic structures. It ultimately contributes to our understanding of the possible range of syntax-semantics interactions realized in the grammar of Mandarin.

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形式自由變換？
漢語極致語意的構式轉換

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　　本文探論兩個表面結構相似的極致句式，將看似自由變換論元的兩種表達方式視爲兩個獨立的構式：「極致程度」（'我羨慕死他的好運了'）與「極致衝擊」（'他的好運羨慕死我了'）。本文採用構式語法來定義兩種形式和語意的搭配組合，認爲兩者反映不同的語意角色關係及事件類型，並進一步論證各構式獨特的語法、語意屬性。本研究指出認知視角、語意關係、和語法形式息息相關，互爲表裡，對漢語語法語意的互動現象有深入剖析。

關鍵詞：極致結構，構式語法，情緒動詞，語意關係，語法表徵