



Shibagaki, Ryosuke (2011) Secondary predication in Chinese, Japanese, Mongolian and Korean. PhD thesis, SOAS (School of Oriental and African Studies).

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Secondary Predication in Chinese, Japanese, Mongolian and Korean

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Thesis submitted for the degree of PhD in Linguistics

2011

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Acknowledgements

In the first place, I would like to thank to Professor Peter Sells, the main supervisor of this thesis. He not only guided the development thesis, but also influenced my philosophy in linguistics; he supervised me through the days of my MA and PhD in SOAS, for four years, and this is the period of time when I developed my views of linguistics. I am certain that in the future I will always conduct my research following what I learned from him.

I am also grateful to Professor Andrew Spencer of the University of Essex and Dr Jaehoon Yeon of SOAS, who were the examiners of this thesis. Their comments were absolutely detailed and crucial, which polished this thesis to a great extent.

The data of this thesis have been contributed by a number of native speakers of Chinese, Japanese, Mongolian and Korean, including such linguists as Dr Guntsetseg Dolgor (Mongolian) and Dr Shin-Sook Kim (Korean), who provided to me significant theoretical suggestions as well as the data.

I have benefitted from discussions with other influential linguists: Professor Hideki Kishimoto, Professor Andrew Simps, Professor One-Soon Her, Professor Toru Ishii, Associate Professor Masatoshi Koizumi and Professor Yoko Fujii.

My final thanks go to my parents, Tetsuo and Hiroko Shibagaki. Without their personal and financial support, I would have not finished this PhD programme, needless to say.

It is almost impossible to express my appreciation with words, but I would like to emphasise that I have fortunately been supported by so many people, and somehow managed to write this thesis. Thank you.

Abstract

The thesis offers an account of the secondary predication (resultatives and depictives) in four languages such as Chinese (Chapter 2), Japanese (Chapter 3), Mongolian (Chapter 4) and Korean (Chapter 5), in the domains of semantics and syntax.

In the Chinese chapter, I categorise all the V-V compound constructions into nine sub-types, based on their argument structures, and then extracted the ones which truly make use of secondary-predication strategy. The analysis focuses upon the issues of linking and causation of the secondary predication construction. In the Japanese chapter, I show a series of thorough tests to define the properties of genuine resultative and depictive secondary predicates in Japanese. The analysis starts from lexical semantics and express the syntactic features in the end. I also discuss about the properties of the morphemes *-ni* (resultative marker) and *-de* (depictive marker). Mongolian secondary predication has not well researched in the previous literature. The data I raised reveal that Mongolian does not have the true resultative secondary predication, but do have the depictive construction. I claim that the Mongolian “resultatives” have a full TP adjunct clause structure unlike those of English (small clause complement structure). Korean chapter shows that both stative and eventive resultatives represent the TP type adjunct structure, much like the case of Mongolian. Korean depictive construction also has the full TP type structure. The comparison between the Korean resultatives and depictives tells the property of the morpheme *-key*.

Some data in each chapter are fully new (they cannot be found in any previous literature). I believe that those new data and the analysis of them contribute to the understanding of the secondary predication in the areas of semantics and syntax.

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Chapter 1. Introduction

Predication is a concept which has been immensely difficult for linguists to define. A complete predication is thought to provide a proper proposition, which has been discussed since the time of Aristotle in the domains of philosophy and linguistics. This thesis observes predication from the linguistic point of view, where predication is regarded as a relation which connects a subject with a predicate. There is a split whether predication represents a meaning-based relation or structure-based relation in the domain of linguistics. In this thesis I follow the proposals by Williams (1980) and Rothstein (1983), and assume that predication represents a structure-based (syntactic) relation.

The fact that a clause requires a subject and a predicate indicates that predication is a necessary element in a sentence. However, it seems that it is not always the case. Unlike the case of primary predication which is a necessary element of a sentence, secondary predication is generally an unnecessary element to provide a grammatical sentence. Consider the examples of predications.

- (1) a. The meat is raw.
- b. John ate the meat raw.

(1a) represents the case of primary predication, where *the meat* receives its theta role only from *raw*. (1b) represents the case of secondary predication, where *the meat* receives its theta roles from *raw* as well as *ate*. From the syntactic point of view, when an argument receives its theta role only from one predicate, the predicate functions as a primary predicate. When a predicate offers a theta role to an argument which receives another theta role from another predicate, then the predicate functions as a secondary predicate. Furthermore, true secondary predication does not involve tense and aspect, whilst primary predication does. In this thesis, I offer an account of secondary predication of four different languages, Chinese, Japanese, Mongolian and Korean, in the areas of syntax and semantics.

Secondary predicates have two subtypes, resultatives and depictives. Here, I lay out English resultatives in (2) and their subtype “subject-oriented resultative” in (3), and then describe depictives in (4) and (5). In the examples, secondary predicates are italicised and the arguments modified by the secondary predicates are underlined.

- (2) [Object-oriented Resultatives]
- a. John shot the dog *dead*.
- b. John shot the dog *to death*.
- c. He painted the fence *a vivid shade of blue*. (Matsui and Kageyama, 2009)
- d. The joggers ran the pavement *thin*. (Carrier and Randall, 1992)

(2a-c) represent the canonical resultative construction, where, the linking is always object-oriented as Simpson (1983) stated in her Direct Object Restriction (DOR). In this type, the secondary event is clearly brought about by the primary one, and thus I will use the term “direct causation” to describe the relation between the two events of canonical resultatives, later in this thesis. As in (2a,b,c), in English the resultative predicates can morphologically be realized with adjective, prepositional phrase or noun phrase. (2d) represents an intransitive resultative, where the object is licensed by the secondary predicate.

Next, I will show the “subject-oriented resultatives” in (3).

- (3) [Consequence Depictive **OR** Goal/Path sentence in English] (SUBJ-oriented)
- a. The wise men followed the star *out of Bethlehem*.
 - b. The sailors managed to catch a breeze and ride it *clear out of the rock*.
 - c. He followed Lassie *free of his captors*. (a-c; Wechsler 1997)
 - d. He danced mazurkas *across the room*.
 - e. John swam laps to *exhaustion*.
 - f. The children played leapfrog *across the park*. (d-e; Verspoor 1997)

(3a-f) have been considered as “subject-oriented resultative” by Wechsler (1997) and Verspoor (1997). There is an ongoing debate as to whether these sentences are true resultatives or mere Goal/Path sentences. Since Wechsler (1997) and Verspoor (1997) introduced sentences like (3a) as subject-oriented transitive resultatives, some linguists including Rappaport Hovav and Levin (2001) and Goldberg and Jackendoff (2004) agreed with Wechsler and Verspoor and admitted that the “restriction on the internal argument” (proposed by Levin and Rappaport Hovav 1995 and Kageyama 1996), that only internal arguments can be semantically modified by the resultative secondary predicate, was wrong. On the other hand, others like Kageyama (2003), Rothstein (2004), and Mateu (2005) disagreed with Wechsler and Verspoor, and insisted on retaining the restriction on the internal argument. Their counterargument against Wechsler and Verspoor is that genuine resultatives should not allow the phrase *all the way* right before the resultative predicate, since the resultative predicate denotes a terminative point but not a whole process

- (4) [Canonical Resultative]
- a. John shot Mary to death.
 - b. *John shot Mary **all the way** to death.
- [“Subject-oriented” Resultative]
- c. The wise men followed the star out of Bethlehem.
 - d. The wise men followed the star **all the way** out of Bethlehem.

Kageyama (2003) argues that (4a) is the canonical resultative construction, where *all the way* cannot be inserted in front of the secondary predicate *to death*, as shown in (4b). On the other hand, (4c) allows *all the way* to precede the “secondary predicate” *out of Bethlehem*, as shown in (d). This suggests that (4c) is a mere goal/path sentence, like *John went to school*, which allows

the insertion of all the way as *John went all the way to school*. However, I think that if the main verb *shot* in (4c) is replaced with *punched*, the grammaticality of the sentence rises, compared to (4d).

(5) ?John punched Mary all the way to death.

I am not going to debate whether the sentences (3a-f) represent true resultatives or not any more in this chapter. However, if the italicised words in (3a-f) were secondary predicates, then I would call them as “consequence depictives”; e.g. there are two events in (3a), and the secondary event takes place only after the first event occurs. Thus there is a causative relationship between the primary and secondary events. However, there is no external causer; the causer is internal (the Actor performs an action possibly without volition and the resultant state occurs to the Actor itself). In fact, the primary event in (3a) could easily cause not only the state of staying out of Bethlehem but also many other different types of secondary events, such as becoming unhappy, hungry, tired, and so on. In this respect the extent of causation in (3a) is relatively weak, and thus I will use the term “indirect causation” to describe it later in this thesis. Consequence depictives may or may not exist in English, but do exist and are productive in Mandarin Chinese as well as some other languages including Thai. The linking pattern in this type is always subject-oriented.

Next I will show the subject-oriented depictives.

(6) [Subject-oriented Depictives]

a. John ate the oyster *naked*.

b. He came home *breathless*.

c. He came home *out of breath*.

d. He left the hospital *a shade of his former self*.

(Rothstein, 2006)

The examples in (6) represent the subject-oriented depictives. In depictives, the state described by the depictive predicate takes place before the action denoted by the main verb takes place, unlike the case of resultatives and consequence depictives: e.g. in (6a), John had been naked when he ate the oyster. As in (6), morphologically, English allows adjective, prepositional phrase and noun phrase to be a depictive predicate.

(7) [Object-oriented Depictives]

a. John ate the oyster *raw/alive/uncooked*.

b. John sold the book *used*.

In (7), the depictive secondary predicates link to the objects. In English unlike some other languages whether a depictive secondary predicate links to subject or object fully depends upon the context.

As to the typological studies of depictives, there is a substantial work by Himmelmann and Schultze-Berndt (eds.) (2005). They had a critical survey of classification of depictives and

adverbials; they discussed not only depictive secondary predicates but also other adverbials such as manner adverbs (*John **angrily** read the review*) and so-called weak free adjuncts (***Standing on a chair**, John can touch the ceiling*), stating that from a crosslinguistic point of view it is necessary to posit an overarching category, participant-oriented adjunct, which subsumes all of these construction types. In fact, they investigated participant-oriented adjuncts in a variety of languages, especially lesser-known languages.

This thesis explores the syntactic structure of secondary predication on Chinese, Japanese and Korean in which secondary predications have been researched well, and on Mongolian in which there is few work on them. Though my focus is on secondary predicates, I will discuss the other participant-oriented adverbials and subordinate clauses, whenever possible.

In the rest of the chapters, I will investigate the secondary predicates in Chinese (Ch.2), Japanese (Ch.3), Mongolian (Ch.4) and Korean (Ch.5). In each chapter I describe the language facts carefully, and analyse them syntactically and semantically. Chapter 6 concludes the thesis.

Chapter 2

Secondary Predication in Chinese

1. Introduction

This section looks at the derivation of the Modern Mandarin resultatives. First, the history of Chinese dialects will be introduced, focusing upon disyllabification. This will later suggest that the resultative construction in Modern Mandarin Chinese has been developed from the one in Middle Chinese, and thus implies that Chinese resultative construction may have the underlying syntactic structure similar to the English one. The observation of the disyllabification also explains why Chinese internally-caused change-of-state predicates are different from those of English. This will be discussed in detail in section 5. As for the data of this chapter, I consulted a number of native Mandarin (non-)linguists from Beijing, Nanjing, Hong Kong, and Taiwan.

In Modern Mandarin Chinese disyllabic words are much more numerous than monosyllabic words. The table (1) shows the research by Lü (1961) on the first 3000 common words in Standard Chinese.

(1) The proportion of disyllabic words in Modern Chinese by Lü (1961)¹

	Total	Disyllabic words	Percentage
Nouns	1621	1379	85%
Adjectives	451	311	69%
Verbs	941	573	61%

The table (1) by Lü shows that more than 75% of the first 3000 common words are disyllabic. On this point, Hu (1981) stated that, overall, around 80% of Modern Chinese words were disyllabic. However, interestingly, the proportion of disyllabic words in Old/Middle Chinese was distinctively different from that in Modern Mandarin Chinese. According to Guo (1997), disyllabic words counted approximately 20% of the whole lexicon before 200 B.C. Although there never was a stage where the Chinese lexicon was purely monosyllabic, Guo stated that the methods for creating disyllabic words were in the embryonic stage in the period from the 1100 B.C. to 700 B.C. and were actually established between 700 B.C. and 200 B.C. (Guo, 1997).

As for disyllabification, there seem to be a couple of motivations. Her (2010) explains that one of the most widely-accepted hypotheses is that disyllabification took place due to the

¹ In Chinese the syntactic category of “adjective” is mysterious; some of them are more like intransitive verbs and others are more like nominals. Here, I simply introduce what Lü (1961) illustrated as it is.

simplification of the phonological system over the history of Chinese; that is, reduction in the sound variety caused an increasing number of homonyms. The addition of syllables was an effective way to preserve sufficient numbers of distinctive sound forms in the lexicon.

Wang, L. (1990) listed several phenomena of phonological simplification.

- (2)
 - a. All of the three stop consonants at coda position-[p], [t], and [k]-disappeared.
 - b. The distinctive features “voiced” and “voiceless” are neutralised, and, as a result, the set of voiced consonants all merged with their corresponding voiceless counterparts, for example, [b] became [p], and [d] became [t].
 - c. During the translation from Old to Middle Chinese, the long entering tone (*chang ru*) merged with falling tone.
 - d. The 35 consonants used as initials in middle Chinese were reduced to 20 in modern Chinese.
 - e. As for the finals, 16 sound categories (*yun she*) were reduced to 12. (Wang, 1990)

These phenomena in fact resulted in a serious increase of homonyms. Shi (2002) illustrated the number of the characters of syllable “yi” in Modern Chinese as in (3); there are 168 characters which have the syllable “yi”, and 88 out of the 168 characters possess precisely the same phonological representation.

- (3) The number of the characters of syllable “yi” in Modern Chinese by Shi (2002)

Tonal contours	level	raising	falling-raising	falling	Total
Number of words	21	38	21	88	168

In order to avoid and improve misleading utterances in conversation, Mandarin Chinese has selected disyllabification, whereas other dialects (especially southern ones) took different ways to reduce homonyms. Generally speaking, Southern dialects preserved more phonological properties of Old and Middle Chinese than the Northern ones (Li, X. et al. 1995). For example, Cantonese (mainly spoken in the Southern mainland China and Hong Kong) has 11 types of tones and 59 types of finals (Li, X. et al. 1995), while Mandarin Chinese currently has only 4 tones plus a neutral and 39 finals. Thus, many disyllabic words in Mandarin Chinese correspond to monosyllabic ones in Cantonese. Examples are shown in (4), quoted from Li, X. et al. (1995).

- (4)

Cantonese		=	Standard Chinese		
<i>xie</i>	蟹	=	<i>pang-xie</i>	螃蟹	“crab”
<i>yan</i>	眼	=	<i>yan-jing</i>	眼睛	“eye”
<i>ming</i>	明	=	<i>ming-bai</i>	明白	“understand”
<i>wei</i>	味	=	<i>wei-dao</i>	味道	“taste”

Li, X. et al. (1995) also noted that Cantonese lacks many suffixes of Modern Mandarin Chinese which primarily function to make a monosyllabic word disyllabic, such as the nominal suffixes – *zi*, *-er* and *-tou*. This again suggests that Cantonese has more phonological devices to distinguish lexical forms and thus does not need as many disyllabic words as Standard Chinese.

Moving onto the Chinese resultative constructions, I introduce some data from Middle Chinese and Modern Shanghainese (spoken in Shanghai) as evidence that the derivation of Modern Mandarin resultatives indeed came from those of Middle Chinese. Sentences (5) and (6) are the examples of the resultative construction in Middle Chinese. Secondary predicates are in bold font.

- (5) 喚江郎覺 (Shi shuo xin yu, Jiajue, A.D. 425,
Huan Jiang-lang jue quoted from Shi (2002))
 call Jiang-lang awake
 “Call Jiang-lang awake.”
- (6) 制街衡平直² (Shi shuo xin yu, Yan yu, A.D. 500,
Zhi jieheng ping-zhi quoted from Shi (2002))
 build street flat-straight
 “(He) built streets flat and straight.”

(5) and (6) represent the canonical resultative construction. They contain the primary and secondary events in each sentence; (5): “Call Jiang-lang, as a result Jiang-lang became awake”, (6): “He built the streets, as a result the streets became flat and straight.” In each sentence, the verb and resultative predicate are split; the object intervenes between the verb and resultative predicate. Thus, each sentence has a structure: “(SUBJECT) + VERB + OBJECT + RESULTATIVE PREDICATE (S-V-O-R)”. This structure is exactly identical with the English resultative construction which also takes “S-V-O-R”. Sybesma (1999) claims that the resultative construction of Modern Mandarin Chinese is derived from the one of Middle Chinese by merging the main verb with the resultative predicate, firstly because the semantic property of the resultatives in Middle Chinese fully corresponds with that in Modern Chinese, and secondly because the merging of the main verb and the secondary predicate can be well supported by the overall trend of disyllabification. This historical analysis supports the syntactic structures of the Modern Mandarin resultatives deduced from the theoretical domain by Huang (2006) and many

² Generally, it is extremely difficult to make a word with more than two syllables for phonological reasons in Chinese. So when secondary predicate is realised as a separate lexical item as in (6) in Middle Chinese, it is possible to have a two-character secondary predicate. In modern Chinese, a secondary predicate merges to a main verb to give a compound verb. That is, the compound verb as a whole should consist of two characters; the main verb must be one character and secondary predicate one character.

others, where the internal argument and resultative predicate syntactically form a small clause inside VP like the English resultatives.

The fact above in turn suggests that in some Southern dialects, which has not adopted the disyllabification in their history of language, the original form (the style of Middle Chinese, as in S-V-O-R, unlike the Modern Mandarin's S-V-R-O) of the resultative construction should be preserved. (7a,b) are from Shanghai dialect (South-east mainland China).

(7) a. 燒伊酥

shao yi su

toast it crisp

“Toast it crispy.”

b. 曬伊干

shai yi gan

shine-upon it dry

“Expose (to sunshine) it dry.”

(Huang, B.1996)

As the phonological systems are more complicated than those of the Northern dialects, the southern dialects have fewer disyllabic words compared with the Northern dialects. Huang (1996) explains that in the resultative construction of many Southern dialects the reanalysis of V and R has not yet occurred or is half way to a completion point, and V and R in these Southern dialects can still be separated by object, adverb or negative, reminiscent of the separable resultative structure in Middle Chinese. In the end of the thesis (after the analyses of Mongolian and Japanese secondary predicates), I will illustrate the typological features and tendency of secondary predicates, where I will state that there exists a clear division between the SVO and SOV languages and in the sense above Chinese indeed carries the typical resultative properties of the SVO languages, though on surface Chinese resultatives look different from those of the typical SVO languages.

2. Categorisation of Secondary Predicates: Canonical Resultative and Consequence Depictive

In the first part of this section, I provide examples of secondary predicates in English and Mandarin on consequence-depictives (SUBJ-oriented) and resultatives (OBJ-oriented), which adopt an intransitive verb/adjective for their secondary predicate. In the second half, I present an account of the linking issue on “resultative” compound predicates in Mandarin Chinese, building on the LFG/LMT work of Her (2007), who assumed that the argument structures of each predicate merge to give a composite structure, which determines whether a resultative sentence is

semantically causative or not, and from which the arguments link to grammatical functions. I argue here that the facts require a more articulated semantics, for unlike Her's analysis, the determination of causativity and the linking of the arguments of the two predicates is fully an issue of semantics; specifically, I argue that there are two types of secondary predicates in terms of their semantics, namely those with internally- and externally-caused changes of state (see Levin and Rappaport Hovav: 1995, McKoon and Macfarland: 2000), which are respectively "indirect-causative" and "direct-causative"; causativity should be categorised into three types, non-causative, indirect-causative, and direct causative. I further argue that the argument undergoing internally-caused change always links to Actor and that the one undergoing externally-caused change (a truly "affected" argument) always links to Undergoer.

Here, I lay out two types of "secondary predicate" with Mandarin ones. In the examples, secondary predicates are italicised and the arguments modified by the secondary predicates are underlined.

Mandarin Chinese can also exhibit the two types of secondary predicates shown in (7), using intransitive verbs or adjectives.³ Examples are given in (8), where the causation and linking of each type will be briefly explained. They will be theoretically analysed later.

- (8) [Two Types of Secondary Predicates in Mandarin]
 [Consequence Depictive] (SUBJ-oriented)
- a. John *chi-ni* *le* *mantou*
 John eat-bored PFV bun
 "John ate the bun and became bored with doing so."

³ As for the variety of so-called secondary predicates, it is well known that there are some other variants such as spurious resultative and subject- and object-oriented depictives. I briefly introduce these data here, as I do not analyse these constructions in this thesis. In addition, it is doubtful whether Chinese has true depictives, for the grammaticality of (ii) and (iii) are only marginal. In some other languages including English, spurious and depictive secondary predicates are adjectival, while as can be seen below, they are adverbial in Chinese; *-de* stands for an adverbial marker.

- (i) [Spurious Resultative] (OBJ-oriented)
 ?Ta *song-song-de* zha le tiao bian zi
 she loosely braid PFV pigtail
 "She put her hair into a pigtail loosely."
- (ii) [Depictives] (SUBJ-oriented)
 ??/*John *pa-pa-de* pao le
 John shyly run PFV
 "John shyly ran."
- (iii). [Depictive] (OBJ-oriented)
 ??/*John *re-hu-hu-de* chi le mantou
 John hotly eat PFV bun
 "John ate the bun hot."

- b. *Wo chuan-guan le zhe shuang xie* (Li, 1990)
 I wear-accustomed PFV this kind shoe
 “I wore these shoes and became accustomed to them.”
- c. *Siao baobao ku-lei le*
 little baby cry-tired PFV
 “The little baby cried (a lot) and became tired.”
- [Resultative] (OBJ-oriented)
- d. *John da-po le bo-li*
 John hit-broken PFV glasses
 “John hit the glass broken.”
- e. *Lisi peng-shang le Zhangsan* (Huang, 2006)
 Lisi bump-injured PFV Zhangsan
 “Lisi bumped into Zhangsan and Zhangsan got injured.”
- f. *Mengjiangnü ku-dao le wanli-changcheng* (Huang, 2006)
 Mengjiangnü cry-fall PFV Great-Wall
 “Mengjiangnü cried the Great Wall to ruins.”

(8a-c) exemplify the consequence depictive in Chinese. (8a) consists of two events; the primary one can be interpreted as *John ate the bun*, and the secondary one *John became bored*. The secondary event takes place only after the primary event occurs; if you ask “Why is John bored with eating buns?”, then the answer has to be “Because he ate them (a lot of them)”. So there is a causative relation between the primary and secondary events; the secondary event is brought about by the first one. However, *John* of (8a) does not need to have volition to become bored of eating buns. Moreover, the event of eating could cause various types of caused events such as being happy, unhappy, full, sick and so on, unlike the case of the typical resultative construction. Therefore, this type should be called “consequence-depictive”, since two descriptive events take place one after another under the weak causative relationship. I call this subject *John* “the internal causer” because the entity itself, which performs an action without volition, ends up in a resultant situation denoted by the secondary predicate. This argument can be applied to (8b,c) as well. The consequence depictive construction is always subject-oriented and productive in Mandarin Chinese. As can be seen in (8c), the intransitive type also exists.

(8d-f) represent cases of the canonical resultative, which is always object-oriented. The secondary event is clearly brought about by the primary event; the possible caused events are semantically restricted compared with the case of the consequence depictive: in (8d) the resultant state has to be something closely associated with the meaning of hitting, unlike the cases of the consequence depictives. The subject *John* plays the role of external causer.

3. Some Properties of Mandarin Secondary Predicates

In terms of linking and causation, Mandarin secondary predicates can be categorised into three types, consequence depictives, resultatives and inverse-linking resultatives, which were previously discussed in the category of “resultatives” by, most notably, Li (1995, 1999) and Her (2007). Linking stands for whether the secondary predicate modifies the subject (SUBJ-oriented) or the object (OBJ-oriented). Causative means “the bringing about of one state of affairs directly by another state of affairs, usually an event or action” (Van Valin & LaPolla, 1997). The linking pattern and the issue of causation are explained in section 3.1 and 3.2 following the accounts of Li (1995), and in section 3.3 I will illustrate some linguistic tests to show that Mandarin object-oriented resultatives, such as canonical resultative and inverse-linking resultative, share the cross-linguistic properties of “resultative”, whereas the consequence depictive does not.

3.1 Linking Patterns

Examples of the three constructions with a true secondary predicate are given below.

- (9) *John chi-ni le mantou* <consequence depictive>
 John eat-bored PFV bun
 “John ate the bun and became bored with doing so.”
- (10) *John niu-gan le maojin* <resultative>
 John wring-dry PFV towel
 “John wrung the towel, which caused the towel to become dry.”
- (11) *Zhe zhong yao chi-si le John* <inverse-linking resultative>
 this kind medicine eat-die PFV John
 “The taking of this kind of medicine (by John) caused John to die.”

(9) represents the consequence depictive type, where the secondary predicate *ni* ‘bored’ modifies the subject *John* (SUBJ-oriented). On the other hand in (10) the secondary predicate *gan* ‘dry’ modifies the object *maojin* ‘towel’ (OBJ-oriented). In both (9) and (10), those are the only possible interpretations; in any context, it is impossible to have the OBJ-oriented reading for (9) or SUBJ-oriented reading for (10).⁴ Interestingly, (11) is grammatical, where, among the two arguments *John* and *zhe zhong yao* ‘this kind of medicine’, *John* is the proto-subject entity EATER, yet which maps to the object, and *zhe zhong yao* ‘this kind of medicine’ is the proto-

⁴ In some dialects of Mandarin Chinese, it is possible to use *ni* ‘bored’ in the inverse linking type. I will mention this issue later in this thesis.

- (14) a. *John ba maojin niu-gan le* (cf (10))
 John BA towel wring-dry PFV
 “John wrung the towel dry.”
- b. *Maojin bei John niu-gan le*
 towel BEI John wring-dry PFV
 “The towel has been wrung dry by John.”
- (15) a. *Zhe zhong yao ba John chi-si le* (cf (11))
 this kind medicine BA John eat-dead PFV
 “The eating of this kind of medicine caused John to die.”
- b. *John bei zhe zhong yao chi-si le*⁷
 John BEI this kind medicine eat-dead PFV
 “John was caused to die by the eating of this kind of medicine.”

3.3 Tests and Diagnoses on Mandarin Resultatives

In this subsection, I will illustrate two tests, aspectual test and pseudo-clefting, in order to observe whether Chinese secondary predicates share the semantic and syntactic properties with those of other languages.

First, the aspectual structure of the canonical depictives are cross-linguistically activity or achievement types, which follows the fact that the canonical depictives are compatible with *for 10 minutes* phrase but not with *in 10 minutes* phrase. In the examples below, both *in* and *for ten minutes* phrases are inserted into the three types of VV-compound sentences (9), (10) and (11).

- (16) [*in and for 10 minutes* Tests with the Consequence-depictive Sentence (9)]
- a. *John zai shi fen-zhong nei (jiu) chi-ni le mantou*
 John LOC ten minute within just eat-bored PFV bun
 “John ate the bun and became bored with doing so in 10 minutes.”
- b. ??*John chi-ni le mantou shi fen-zhong*
 John eat-bored PFV bun 10 minutes
 “John ate the bun and became bored with doing so for 10 minutes.”

⁷ I am not sure whether BA is the genuine passive trigger or not; in (9b) the thematically more prominent Actor links to SUBJ, and the less prominent Undergoer links to OBJ. This phenomenon contradicts the proposal on the passive construction by Jackendoff (1992). In Mandarin, the BA construction may only be a device that changes the positions of SUBJ and OBJ of an active sentence. In any case, (5)/(9) is at least causative.

- (17) [*in and for 10 minutes* Tests with the Resultative Sentence (10)]
- a. *John zai shi fen-zhong nei (jiu) niu-gan le maojin*
 John LOC ten minute within just wring-dry PFV towel
 “John wrung the towel, which caused the towel to become dry in 10 minutes.”
- b. **John niu-gan le maojin shi fen-zhong*
 John wring-dry PFV towel 10 minutes
 “John wrung the towel, which caused the towel to become dry for 10 minutes.”
- (18) [*in and for 10 minutes* Tests with the Inverse-linking Resultative Sentence (11)]
- a. *Zhe zhong yao zai shi fen-zhong nei (jiu) chi-si le John*
 this kind medicine LOC ten minute within just eat-die PFV John
 “The eating of this kind of medicine (by John) caused John to die in 10 minutes.”
- b. **Zhe zhong yao chi-si le John shi fen-zhong*
 this kind medicine eat-die PFV John 10 minutes
 “The eating of this kind of medicine (by John) caused John to die for 10 minutes.”

(16) shows that the Chinese consequence-depictive construction is at least compatible with *zai shi fen-zhong nei (jiu)* ‘in 10 minutes’ phrase, which is atypical of the canonical depictives. As for the *shi fen-zhong* ‘for 10 minutes’ test, I have received different judgements from my consultants; though most of them judged (16b) as ungrammatical, some accepted it in the interpretation ‘John ate the bun, and was bored with doing so for 10 minutes’, suggesting that the state denoted by the depictive predicate lasted for 10 minutes.

(17) shows that the Chinese resultative construction like (10) represents the true resultative construction in terms of its aspectual structure; the test in (17) indicates the aspectual structure of (10) is the accomplishment type, which is a significant feature of resultatives. (10) is compatible with *zai shi fen-zhong nei (jiu)* ‘in 10 minutes’, but not with *shi fen-zhong* ‘for 10 minutes’.

(18) shows that the so-called inverse-linking resultative construction like (11) represents the true resultative construction in terms of its aspectual structure. As to (18a), because an entity/thing does not generally DO something, the sentence seems slightly strange. However, the grammaticality of (18a) is much higher than that of (18b). (18b) is in any sense ungrammatical.

Second, the pseudo-cleft construction reveals the contents of VP. In English, depictive and resultative predicates are both inside VP. In the examples below, I apply the pseudo-cleft operation onto the three types of VV-compound sentences (9), (10) and (11).

- (19) [Pseudo-cleft Construction with the Consequence-depictive Sentence (9)]
- a. *John zuo de (shi) shi [VP chi-ni mantou]*
 John do GEN thing COP eat-bored bun
 “What John did was eat the bun and become bored (with doing so).”

- b. *John zuo ni de (shi) shi [VP chi mantou]*
 John do bored GEN thing COP eat bun
 “What John did bored was eat the bun.”

(20) [Pseudo-cleft Construction with the Resultative Sentence (10)]

- a. *John zuo de (shi) shi [VP niu-gan maojin]*
 John do GEN thing COP wring-dry towel
 “What John did was wring the towel dry.”

- b. **John zuo gan de (shi) shi [VP niu maojin]*
 John do dry GEN thing COP wring towel
 “What John did dry was wring the towel.”

(21) [Pseudo-cleft Construction with the Inverse-linking Resultative Sentence (11)]

- a. ?*Zhe zhong yao zuo de (shi) shi [VP chi-si John]*
 this kind medicine do GEN thing COP eat-die John
 “What the eating of this kind of medicine did was cause John to die.”

- b. **Zhe zhong yao zuo si de (shi) shi [VP chi John]*
 this kind medicine do die GEN thing COP eat John
 “What the eating of this kind of medicine did to die was cause John.”

In (19a), the phrase *chi-ni mantou* ‘eat-bored bun’ is regarded as VP, where as in (19b) *ni* ‘bored’ is taken out from the VP. As a result, both (19a) and (19b) are grammatical, which in turn suggests that there can be two syntactic positions for the consequence-depictive secondary predicate; ones inside and outside VP. This result distinguishes Chinese consequence depictives from English canonical depictives, but implies that the possible syntactic positions for Chinese consequence-depictive predicate and Japanese subject-oriented depictives are the same.

In (20a) the phrase *niu-gan maojin* ‘wring-dry towel’ is regarded as VP, while in (20b) *gan* ‘dry’ is taken out from the VP and not regarded as an element of VP. As a result, (20a) is grammatical but (20b) is not. This result shows that the Chinese resultative predicate stays strictly inside VP, which is common in the canonical resultatives of many languages.

In (21a) the phrase *chi-si John* ‘eat-die John’ is regarded as VP, while in (21b) *si* ‘die’ is taken out from the VP and not regarded as an element of VP. As a result (21a) is grammatical, but (21b) is not. This result shows that the secondary predicate of the inverse-linking resultative construction like (11) stays only inside VP, which is a typical feature of canonical resultative.

As a brief summary of this subsection, it seems that the consequence depictive like (9) represents neither a canonical depictive construction nor a canonical resultative construction, and should therefore be analysed as its own category. On the other hand, the canonical resultative (10) and inverse-linking resultative (11) represent true resultative constructions.

4. Previous Analyses

This section reviews previous analyses of Mandarin secondary predicates, resultatives and V-V compounds. The terminology, such as secondary predicates, resultatives and V-V compounds, seem to be mixed and used inappropriately in the previous literature. This is likely to be because they did not capture the real characteristics of each type. Li (1990) was the first remarkable paper on this topic, which has been revised and improved by many linguists including, most notably, Li (1995), Li (1999), Huang (2006), Her (2007), Shen (2007) and Shibata, Sudo and Yashima (2009). I will introduce the important arguments and also show the weak points of each analysis. In particular, by reanalysing Shen (2007) in 4.3, I will sort out the three terminology above by explaining all types of Chinese V-V compound constructions.

4.1 Review of Li (1995) and Her (2007)

Li (1995) focused upon the argument-function linking of the Mandarin “resultative construction”, which was later extended by Her (2007) within the framework of Lexical Mapping Theory (LMT). In their analyses, the three constructions (9), (10), and (11) are the outcomes, generated by merging argument structures of V_1 (main verb) and V_2 (secondary predicate); V_1 carries two argument roles since it is the transitive, while V_2 carries a single argument role since it is an intransitive verb. The composition of argument structures is illustrated in (22).

$$(22) \quad V_1 \langle x, y \rangle + V_2 \langle z \rangle \rightarrow \begin{array}{l} \text{a. } V_1\text{-}V_2 \langle x, y\text{-}z \rangle \\ \text{b. } V_1\text{-}V_2 \langle x\text{-}z, y \rangle \end{array}$$

Thus, the single role of V_2 merges with either of the two roles of V_1 , which produces two outcomes as in (22a) and (22b). However, as already shown in (11), there are also the inverse linking resultatives, which theoretically doubles the outcomes of (22). Examples are given in (23) to (26), which correspond to (9) to (12), respectively.

$$(23) \quad \begin{array}{l} \textit{John} \quad \textit{chi-ni} \quad \textit{le} \quad \textit{mantou} \quad \langle \textit{consequence depictive} \rangle \\ \text{John} \quad \text{eat-bored} \quad \text{PFV} \quad \text{bun} \\ \text{“John ate the bun and John became bored with doing so.”} \\ \begin{array}{cc} \langle x\text{-}z & y \rangle \\ \downarrow & \downarrow \\ \text{S} & \text{O} \\ \text{John} & \text{bun} \end{array} \end{array}$$

- (24) *John niu-gan le maojin* <resultative>
 John wring-dry PFV towel
 “John wrung the towel, which made the towel dry.”
- | | |
|------|-------|
| <x | y-z> |
| ↓ | ↓ |
| S | O |
| John | towel |

- (25) *Zhe zhong yao chi-si le John* <inverse-linking resultative>
 this kind medicine eat-die PFV John
 “The taking of this kind of medicine (by John) caused John to become dead.”
- | | |
|----------|------|
| <x-z | y> |
| ↙ ↘ | |
| S | O |
| medicine | John |

- (26) *#Zhangyu chi-si le John* <non-existent>
 Octopus eat-die PFV John
 Int. “John ate the octopus and it (the octopus) died. [SUBJ-oriented]”
- | | |
|---------|------|
| <x | y-z> |
| ↙ ↘ | |
| S | O |
| octopus | John |

In order to explain the linking and causation of the four examples above, Li (1995) introduced three principles, which are laid out in (27), (28), and (29).

- (27) Causative hierarchy
 Causative roles, or c-roles, are assigned directly to syntactic positions according to the causative hierarchy, i.e., the more prominent Cause to the more prominent subject, and less prominent Affectee to the less prominent object. (Li, 1995)
- (28) Causative role (C-role) Assignment Conditions:⁸
- a. The argument in the subject position receives the c-role Cause from a resultative compound if it receives a theta role only from V₁.
 - b. The argument in the object position receives Affectee from a resultative compound if it receives a theta role at least from V₂. (Li, 1995)

⁸ As Her (2007) also stated, Li (1995) seemed to take it for granted that Cause and Affectee are the only two roles, and thus the hierarchy is simply Cause > Affectee, although he did not give an explicit list of c-roles.

- (29) Well-formedness Condition on Mapping Argument Structure to Syntax by Li(1995)
Theta roles can be assigned contrary to the thematic hierarchy if the arguments receiving them are assigned c-roles in ways compatible with the causative hierarchy.

These principles well explain the grammaticality and causativity of the examples (9), (10), (11) and (12). For example, according to the principle shown in (28), (9)/(23) is non-causative; two theta-roles are assigned on SUBJ. (16)/(24) is causative; one theta-role is assigned on SUBJ. In (17)/(25), the subject *zhe zhong yao* ‘this kind of drug’ receives a theta role only from V_1 , and thus c-roles are assigned to the arguments which are prior to thematic roles; the subject successfully receives c-role Cause; according to the principle shown in (29), in spite of the violation of thematic hierarchy, the inverse linking is grammatical. However, in (12)/(26) the subject receives theta roles from both V_1 and V_2 ; there are no c-roles assigned to the arguments. Thus, the inverse linking violates thematic hierarchy and no c-roles are involved. The ungrammaticality of (12)/(26) can also be explained well.

This explanation, however, contains some problems. Her (2007) indicated some of them⁹; first, Li’s (1995) c-role assignment conditions are specific to the resultative compounding and do not follow from the use of independently-motivated principles within the derivational framework adopted; second, given that causativity is one of the most important properties distinguishing the proto-subject from the proto-object (Dowty, 1991) and thus affects argument-function linking, it should be integrated into the argument structures of resultative compounds.

Extending Li’s (1995) proposal, Her (2007) adopted the notion of “suppression” and a revised version of Causativity Assignment. Suppression in LFG refers to an argument role which receives no mapping but semantically exists (cf. Bresnan, 2001). In a transitive resultative construction, the single role from V_2 needs to be combined with either of the roles of V_1 ; either subject or object has two theta roles. However, those two roles, one from V_1 and the other from V_2 , cannot be syntactically activated to map onto a grammatical function, because that operation would violate the strict one-to-one linking principle. Therefore, one of the two roles has to be suppressed. This in turn implies that the composition of roles, shown in (22), needs to be amended to account for the suppressed arguments. Suppression is indicated by a single cross-out.

- (30) $V_1 \langle x, y \rangle + V_2 \langle z \rangle \rightarrow$ a. $V_1-V_2 \langle x, y-z \rangle$
b. $V_1-V_2 \langle x, \cancel{y}-z \rangle$
c. $V_1-V_2 \langle x-\cancel{z}, y \rangle$
d. $V_1-V_2 \langle \cancel{x}-z, y \rangle$

By having suppression with one of the two arguments in (22a) and (22b), there potentially appear four types of argument structures for Mandarin resultatives. (30d) is the a-structure of

⁹ Her’s (2007) original claim contained another argument on theta-criterion. However, since it is well known that the definition of theta-criterion has been softened to some extent, the argument does not seem to be effective any more. Thus this argument is not introduced here.

(11)/(25), where *x* is suppressed. The remaining (unsuppressed) ‘*y*’ and ‘*z*’ are both patient/theme roles and thus hierarchically equivalent in terms of theta role. However, in fact there exists only one mapping pattern; *y* must be mapped to subject and *z* to object; ‘*y*-OBJ and *z*-SUBJ’ is ungrammatical. In order to explain this situation, Her (2007) provided four potential *a*-structures further articulated by introducing a Causativity Assignment principle, which is based on a universal default hypothesis (Li, 1999) that causative roles are assigned when a resultative construction is formed, and leads to the three types of resultatives in (9), (10) and (11).

(31) Causativity Assignment in Resultative Compounding:

An unsuppressed role from V_2 receives [af] *iff* an unsuppressed role from V_1 exists to receive [caus]. (Her, 2007)

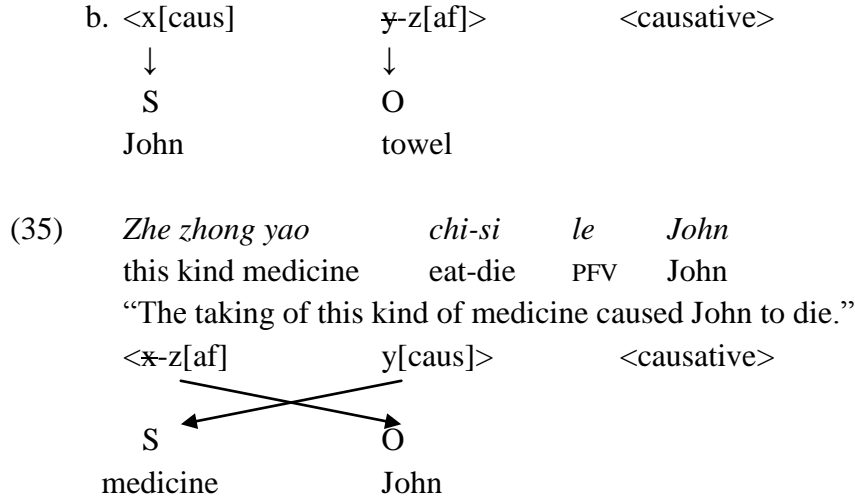
(31) means that within a causative resultative compound, the most natural place for [af] (affectee) must be associated with ‘*z*’, the only role required from V_2 . Hence, the principle (25) gives the prominence to ‘*y*’ when ‘*x*’ is suppressed. The *a*-structures in (24) are now revised with the proposal (31). This is illustrated in (32).

- (32) $V_1 \langle x, y \rangle + V_2 \langle z \rangle \rightarrow$ (i) $V_1-V_2 \langle x, y-z \rangle$
 (ii) $V_1-V_2 \langle x[\text{caus}], y-z[\text{af}] \rangle$
 (iii) $V_1-V_2 \langle x-z, y \rangle$
 (iv) $V_1-V_2 \langle \cancel{x}-z[\text{af}], y[\text{caus}] \rangle$

In (33) to (35), examples (9), (10) and (11) are re-analysed with the *a*-structures (32).

- (33) *John chi-ni le mantou*
 John eat-bored PFV bun
 “John ate the bun and he became bored with doing so.”
 $\langle x-z \quad y \rangle \quad \langle \text{non-causative} \rangle$
 $\downarrow \quad \downarrow$
 S O
 John bun

- (34) *John niu-gan le maojin*
 John wring-dry PFV towel
 “John wrung the towel, which made the towel dry.”
 a. $\langle x \quad y-z \rangle \quad \langle \text{non-causative} \rangle$
 $\downarrow \quad \downarrow$
 S O
 John towel



As can be seen in (33) to (35), these four types represent all possible readings. In (35), *x* is the EATER *John*, and *y* is the EATEE *medicine*, where *x* is suppressed. In this a-structure, *y* receives [caus] and links to subject, and the other argument *John* links to object. This theory also accounts for the reading of (12)/(26), which is inverse-linking & SUBJ-oriented, does not exist; just the inverse-linking & SUBJ-oriented a-structure would be <x[af], y-z[caus]>, which cannot occur when followed the rule proposed by Her (2007), because theoretically ‘y-z’ has to be [af]. However, against the fact that (10)/(34) is causative, this theory enables the reading of (34a). Her (2007) explains that the two a-structures of (34a) and (34b), <x, y-z> and <x, y-z>, respectively, share an identical argument-function linking and thus relate to the same reading of the sentence (34); in (34a) ‘z’ from V₂ is suppressed and thus the a-structure receives no causativity; yet (34b) is causative with x[caus] and z[af]; his account thus correctly predicts that the reading of (34) can be causative.

The previous analyses by Li (1995) and Her (2007) are observationally adequate in that they account for the issue of grammaticality and causativity in all three readings of (9), (10), and (11). Moreover, they successfully accounted for the appearance of causativity when V₁ and V₂ merge to give a “resultative” compound, though there is no causative predicate. However, there are some problems with these analyses. First, in Her’s (2007) account, the causativity is only an independent stipulation from LCS, though his account is within the framework of LMT/LFG; there is no place to describe causation in a simple/regular LFG a-structure. Thus, the causative/non-causative stipulation has to be amended and better represented within the overall analysis. Second, Her (2007) made the criticism that Li’s c-role argument (1995) was only specific to the resultative construction, but Her’s analysis, shown in (31), is specific to the resultative construction. The reason that their analyses are specific to only the resultatives seems to be because their analyses do not capture the real semantics of causativity. In both Li and Her, the causer is regarded as an entity; it is thought to be either a subject or an object in a resultative sentence. However, as can be seen at least in (11), the causer looks like an event, which brings about another resultative event. This point of view of causation will be further discussed in

section 4.1. Third, most importantly, Her's analysis does not account for the facts in (36), where the arguments of (11) are reversed.

- (36) **John chi-si le zhe zhong yao* <non-existent>
 John eat-die PFV this kind medicine
 Int. "John ate this kind of medicine and died."

Her's analysis implies that (36) should be grammatical with the non-causative subject-oriented reading, but in fact (36) is ungrammatical. The expected argument-function linking from Her's theory for (36) is given in (37).

- (37) [Expected argument-function linking of (36) with Her's (2007) account]
 <x-z y> <non-causative>
 ↓ ↓
 S O
 John this kind of drug

According to his analysis, the a-structure of (36) becomes <x-z, y>, firstly because z must be semantically linked with the subject *John* but not with the object *zhe zhong yao* 'this kind of medicine'; simply, *John* can die but *the medicine* cannot, and secondly because the proto-subject *John* stays in the subject position (there is no inverse-linking); z must be suppressed rather than x. This argument-function linking pattern leads to the grammatical non-causative reading as in (33), and its intended interpretation would be *John ate this kind of drug and died*. However, (36) is not grammatically acceptable.

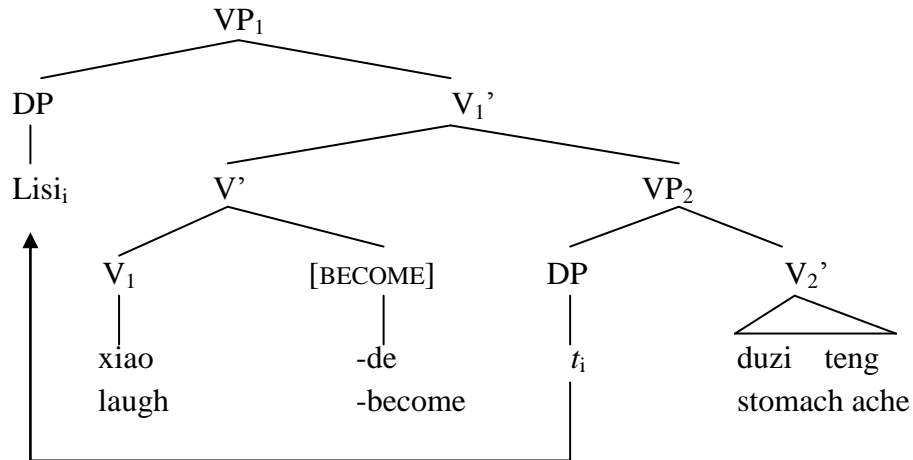
Another fundamental weak point of the previous analyses derives from capturing the concept of causation as either causative or non-causative. That is, a consequence-depictive type as in (9) should not be construed as a mere non-causative construction, because there are two events in (9), and the occurrence of the secondary one fully relies on the occurrence of the primary one; the situation in (9) is totally different that in a sentence like *John is a student and Mary is a teacher*, where two the events are completely independent and both are without doubt non-causative. In sections 4 and 5, I will introduce the concept of indirect causation in order to offer an accurate analysis of the consequence depictives and internally-caused change of state.

4.2 Review of Huang (2006)

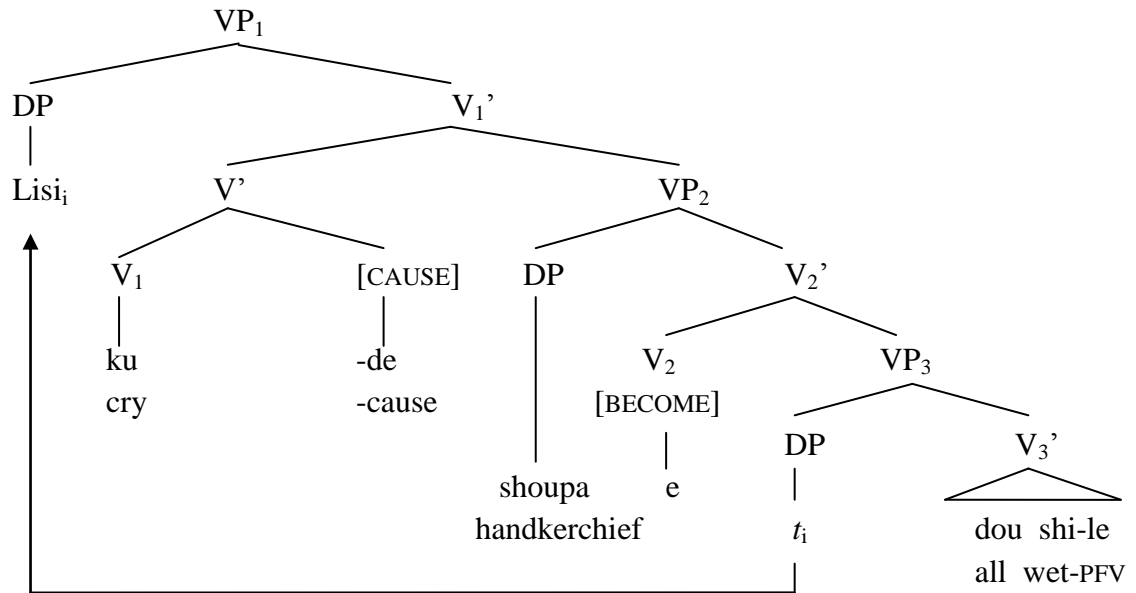
Huang (2006) discussed two peculiar properties of Mandarin Chinese resultative constructions which posed problems for a general theory of argument structure and parametric theory: (a) the existence of unergative objectless resultatives, and (b) the possibility for both unaccusatives and

unergatives to be causativised. In order to answer these problems, he proposed the syntactic structures (38) and (39) for the unergative and transitive type resultatives.

(38) [Huang's (2006) Syntactic Structure for the Unergative Resultative]



(39) [Huang's (2006) Syntactic Structure for the Transitive Resultative]



The structures in (38) and (39) contain *-de* 'get' (here as light verbs BECOME or CAUSE). He states that these structures can be applied to the compound resultatives as well, where the light verbs are phonetically null. This in turn implies that the transitive subject oriented "resultatives", the ones whose V₂ expresses an action, achievement, aspectual information or V₁'s evaluation rather than a change of state predicate, and the canonical object oriented resultatives all carry the same

syntactic structure of (39). On this point, several linguists including Shibata, Sudo and Yashima (2009) argued against Huang (2006) with some convincing data and their syntactic structures, which will be introduced in section 4.3. I will also show my counter argument against Huang, using the proposal of Shibata et. al. (2009) and data of Shen (2007) in section 4.4.

Huang (2006) also stated that Chinese resultatives did not respect Simpson's (1983) Direct Object Restriction (DOR), showing some example sentences of unergative resultative. The DOR is introduced in (40), and Huang's counter examples against DOR are shown in (41).

(40) The DOR (Simpson, 1983)
In a resultative construction, the result is predicated of an object, not the subject.

(41) [Huang's (2006) Counter Examples against the DOR]

a. *Lisi tiao-lei le*

Lisi dance-tired PFV

“Lisi danced [himself] tired.”

b. *Lisi xiao-feng le*

Lisi laugh-crazy PFV

“Lisi laughed [himself] crazy.”

c. *Zhangsan chi-bao le fan le*

Zhangsan eat-full PFV rice INC

“Zhangsan ate rice and became full.”

d. *Zhangsan zhan-sheng le Lisi*

Zhangsan fight-win PFV Lisi

“Zhangsan fought and won over Lisi.”

(Lü, 1987)

In (41a,b) the V_1 is unergative, but not unaccusative. Huang insists that the subjects of (41a,b) are not base-generated in the object position, but still link with the secondary predicates. Thus, the DOR is violated. In (41c) there is even an object argument *fan* ‘rice’, but the secondary predicate only links to the subject *Zhangsan*. This is again a violation of the DOR. (41d) is originally raised by Lü (1987). Huang (2006) quoted the example to show another piece of evidence which violates the DOR, since (41d) is a subject-oriented sentence. In order to explain these example sentences, he used “Minimal Distance Principle (MDP) on resultative predication” which was proposed by Huang (1992). The proposal is the updated version of the MDP

(Rosenbaum, 1967) by simplifying and reducing the disjunctive Force Recipient Principle (FRP) by Rappaport Hovav and Levin (2001).¹⁰

- (42) [The MDP on Resultative Predication]
 In a resultative construction, the Result XP is predicated on the closest prominent argument.

He explains “when both the subject and a prominent object are present, the prominent object is closer to the Result XP, but in the absence of a prominent object, the subject is the closest” (Huang, 2006).

However, there seem to be several problems in Huang’s statements. First of all, all the examples in (41), which Huang raised to prove that Chinese resultatives do not obey the DOR, are not “resultative”; at least not in the sense that Simpson (1983) meant. In (41a,b), the main verbs *tiao* ‘dance’ and *laugh* ‘crazy’ could be associated with many semantically different types of V₂, which is atypical of the genuine resultative. These examples may well be understood as the intransitive consequence-depictive construction. The reason why the V₂ links to the subject is that the subject is the only argument in each sentence and is the only choice for the V₂ to link to.

Huang (2006) seems to have raised the sentence (41c) in order to deny the expected counter-argument on (41a,b) shown in the previous paragraph; (41c) contains an object, but still holds the subject-oriented linking pattern. However, Shibata, Sudo and Yashima (2009) argue that *chi-bao-fan* ‘eat-full-rice’ of (41c) is an idiomatic expression and behaves as a single predicate (not as resultative V-V compound), and thus the DOR is irrelevant. This analysis will be introduced in 4.3 which summarises all their analyses.

Finally, as for (41d), Huang’s (2006) proposal in (42) does not explain this example sentence well. According to him, when the subject and prominent object are present, the V₂ has to link to the object. In (41d), the object *Lisi* is likely to be the prominent object but does not link with V₂. Assuming that the object *Lisi* was not the prominent object, then the example (43) below could become a new problem with his proposal (42).

- (43) *Zhangsan zhan-bai le Lisi* (Lü, 1987)
 Zhangsan fight-lose PFV Lisi
 “Zhangsan fought and Lisi lost.”

(43) is a minimal pair with (41d), where the only difference comes from the V₂; in (41d) the V₂ is *sheng* ‘win’, while in (43) the V₂ is *bai* ‘lose’. Interestingly, the only possible interpretation of (41d) is the subject oriented one, whereas the only possible reading of (43) is the object oriented one. Huang’s (2006) proposal in (42) clearly collapses in these examples.

¹⁰ I will discuss the definition Force Recipient Principle later in (91) in detail. The principle basically suggests that Result is predicated on the Force Recipient argument. And if there is no Force Recipient argument, Result is predicated on subject.

4.3 Review of Shibata et. al. (2009)

Shibata, Sudo and Yashima (2009) claimed that Simpson’s (1983) DOR was effective to explain Chinese resultatives, as opposed to Huang’s (2006) statement. They insisted that, although the subject-oriented “resultatives” do not obey the DOR, they are in fact not resultatives in the sense that V_2 , which is assumed to be a resultative predicate, did not implement secondary predication or describe a resultative predicate. This argument basically supports my argument which is shown in sections 2 and 4.4. In order to prove that the so-called subject-oriented resultatives are not true resultatives, they showed two tests. The first test is illustrated in (44).

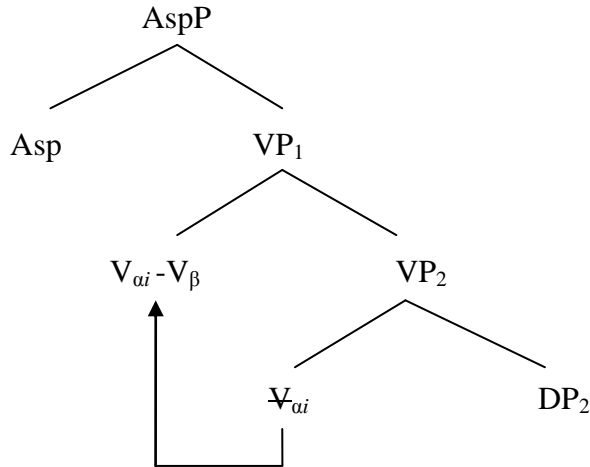
(44) [Inserting V_2 into V-O Idioms]

a. *Ta kai-guan le yeche*
 he drive-accustomed PFV night car
 “He got accustomed to staying up all night.”

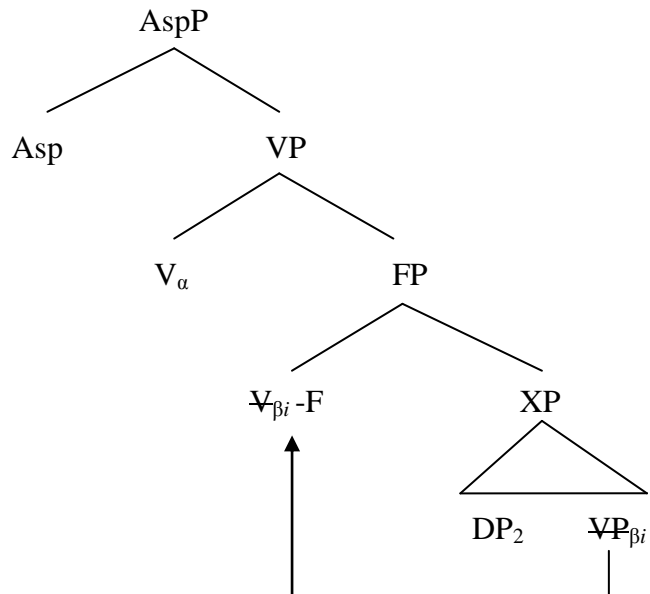
b. *Nei ge yisheng chi-ni le hushi de doufu*
 that CL doctor eat-bored PFV nurse GEN tofu
you kaishi chi bingren de doufu le
 again start eat patient GEN tofu ASP
 “Since that doctor got bored with flirting with nurses, he started to flirt with patients.”

In (44a,b) V_1 and DP_2 (object) form an idiomatic VP: *kai yeche* ‘stay up all night’ (lit. drive a night car) and *chi doufu* ‘flirt with’ (lit. eat tofu). When *guan* ‘accustomed’ and *ni* ‘bored’ are inserted between V_1 and DP_2 , they retain their idiomatic meanings despite the fact that the VP idioms are discontinuous on the surface. The grammaticality of (44a,b) suggests these V_1 - V_2 compounds have a structure in which V_1 and DP_2 underlyingly form a constituent. Shibata, Sudo and Yashima (2009) therefore stated that so-called subject-oriented resultatives of the kind above are not true resultatives but rather have a complementation structure where V_2 is a transitive psych verb sitting in the matrix verb position, while object oriented resultatives have ordinary resultative structures where V_2 is a secondary predicate describing a resultant state. The syntactic structures proposed by them for the so-called subject-oriented resultatives and canonical object-oriented resultatives are illustrated in (45) and (46). The structures (45) and (46) are re-interpreted in the labels; V_α and V_β are originally V_1 and V_2 respectively.

- (45) [Syntactic Structure of Subject-oriented Resultatives by Shibata, Sudo & Yashima]
John chi-ni le mantou <(=9) Subject-oriented resultative>
 John eat-bored PFV bun
 “John ate the bun and became bored with doing so.”



- (46) [Syntactic Structure of Object-oriented Resultatives by Shibata, Sudo & Yashima]
John niu-gan le maojin <(=10) Object-oriented resultative>
 John wring-dry PFV towel
 “John wrung the towel, which caused the towel to become dry.”



The analysis in (45) intuitively captures the syntactic characteristics of idioms shown in (44a,b). Shibata, Sudo and Yashima (2009) suggested that V_β represents a psych verb, but the V_β of (44a,b) can be non-psych verbs as well; for example, those which express the terminative

aspect such as *wan* ‘finish’, *jin* ‘end’, *guang* ‘expire/finish’ and so on, or the evaluative adjectives such as *cuo/cha* ‘wrong’, *duo* ‘a lot’, *shao* ‘little’, *zao* ‘quick’, *wan* ‘late’, *long* ‘chang’, *duan* ‘short’, *hao* ‘good’ and so on (see section 4.4 (50g), (51g)). At this stage, I am not sure whether these V_β which provide the information of the entire event occupy the same position as the psych verbs. Another suspicious point in their analysis appears in the structure of (45).¹¹ In (45), there are two verb phrases VP_α and VP_β . Theoretically speaking, nothing blocks modifying the VP_β with an adverb. If an adverb modifies the VP_β , then after the movement the surface word order ends up S- V_α - V_β -*le*-Adv-O. However this word order is impossible; an adverb cannot appear between *le* ‘PFV’ and the object. Final problematic point comes from the theoretical side of the structure. In (45) when V_α moves to the head of VP_1 to merge with V_β to give a compound verb, the head of the whole verb is theoretically V_β , which is strange; I assume that the head of the compound verb V_α - V_β is the first/main verb V_α . Having said that, I agree with their syntactic structures in (45) in that the V_α and DP_2 form an underlying constituent for the subject-oriented “resultative” compounds.

Shibata, Sudo and Yashima (2009) also applied the pseudo-cleft construction onto Huang’s (2006) “transitive subject-oriented” type (41c) to show that the object cannot be extracted from the VP as in (47a). (47b) shows that internal modification onto the object of (41c) fails. These tests show that *chi-bao-fan* ‘eat-full-rice’ is a fully fixed expression and behaves not as a complex predicate but as a single predicate in the sentence. In other words, the VP does not involve secondary predication and the DOR is again irrelevant, unlike Huang’s (2006) analysis.

(47) [Pseudo-cleft Construction with (41c) by Shibata, Sudo and Yashima (2009)]

a. **Zhangsan chi-bao de shi fan*
 Zhangsan eat-full GEN COP rice
 “What Zhangsan ate full is rice.”

b. **Zhangsan chi-bao le na-wan/dun-fan*
 Zhangsan eat-full PFV that-CL-rice
 “Zhangsan ate that bowl of rice full”

Furthermore, Shibata, Sudo and Yashima (2009) as well as Guo (1995) noted that *chi-bao-fan* ‘eat-full rice’ (and *he-zui-jiu* ‘drink-drunk-alcohol’) are idiomatic in nature, and thus neither V_2 nor the object can be replaced with other expressions. Examples are given in (48) and (49), cited from Shibata, Sudo and Yashima (2009).

(48) [Object Replacement in *chi-bao-fan* ‘eat-full-rice’]

?/**Zhangsan chi-bao-le mian/ mianbao/ jiaozi*
 Zhangsan eat-full-PFV noodle/ bread/ dumpling
 “Zhangsan ate noodles/ bread/ dumplings and got full.”

(Shibata et. al. 2009)

¹¹ This point is suggested by One-Soon Her.

- (49) [V₂ Replacement in *chi-bao-fan* ‘eat-full-rice’]
 *Zhangsan *chi*-{*kun/ si/ feng/ bing*}-*le* *fan*
 Zhangsan eat-{sleepy/ dead/ crazy/ sick}-PFV rice
 “Zhangsan ate rice (and become) sleepy/ dead/ crazy/ sick.” (Shibata et. al. 2009)

However, to what extent the expression *chi-bao-fan* ‘eat-full-rice’ is fixed remains doubtful, because in the expression *chi-bao-fan* ‘eat-full-rice’ it is possible to replace the object *fan* ‘rice’ or the V₂ *bao* ‘bored’ with some other lexical items. Consider examples (50a,b).

- (50) a. [Object Replacement in *chi-bao-fan* ‘eat-full-rice’]
John *chi-bao* *le* *mantou*
 John eat-bore PFV bun
 “John ate the bun and became bored with doing so.”

- b. [V₂ Replacement in *chi-bao-fan* ‘eat-full-rice’]
Zhangsan *chi*-{*guan/ ni*}-*le* *fan*
 Zhangsan eat-{accustomed/ berod}-PFV rice
 “Zhangsan ate rice (and become) accustomed/ bored.”

In (50a), the object *fan* ‘rice’ is replaced with *mantou* ‘bun’. This sentence is fully grammatical. In (50b), the V₂ *bao* ‘bored’ is replaced with *guan* ‘accustomed’ or *ni* ‘bored’. These replacements are also grammatically successful. This replacement test implies that the expression *chi-bao-fan* ‘eat-full-rice’ is not so fixed. I cannot conclude whether the expression is idiomatic or not at this point,

To summarise this section, I agree with Shibata, Sudo and Yashima’s (2009) proposal that the so-called subject-oriented “resultatives” were not true resultatives and their V₁ and DP₂ form an underlying constituent. However, the status of V₂ of the subject-oriented V-V compounds need to be categorised more articulately, and some idiom chunks they raised do not look so fixed and may need a reanalysis.

4.4 Review of Shen (2007)

Shen (2007) contributed to the study of Chinese resultatives by gathering a number of corpus-based data. He observed 1866 example sentences from “Han Yu Dong Ci: Jie Guo Bu Yu Da Pei Ci Dian (Chinese verb: Resultative complement collocations dictionary); Bei Jing Ya Yan Xue Yuan Chu Ban She (Bei Jing University, Institute of Language, Publisher), 1987”. He seems to have analysed all possible types of V-V compound sentences and categorised them into seven groups, following Li’s (1990) description on the subcategorisation of a-structure. Li’s (1990) subcategorisation of a-structure is shown in (51), where the optionality of (2) or (2’) is due to the

transitivity of the verb. Then Shen's (2007) categorisation of V-V compounds is illustrated in (52). (53a-f) are the example sentences for each a-structure of (52a-f).

(51) [Li's (1990) a-structure]

- a. a-structure of V_1 : $\langle 1, (2)' \rangle$
 b. a-structure of V_2 : $\langle 1', (2)' \rangle$

(52) [Shen's (2007) Categorisation of V-V compounds]¹²

Example	V_1-V_2 a-structure	Linking
a. 'hit-broken'	$\langle 1, 2 \rangle + \langle 1' \rangle \rightarrow \langle 1, 2-1' \rangle$	Object oriented
b. 'dance-annoyed'	$\langle 1 \rangle + \langle 1' \rangle \rightarrow \langle 1, 1' \rangle$	Object oriented
c. 'dance-annoyed'	$\langle 1 \rangle + \langle 1' \rangle \rightarrow \langle 1-1' \rangle$	Subject oriented
d. 'eat-bored'	$\langle 1, 2 \rangle + \langle 1' \rangle \rightarrow \langle 1-1', 2 \rangle$	Subject oriented
e. 'play.chess-lose.in'	$\langle 1, 2 \rangle + \langle 1', 2' \rangle \rightarrow \langle 1-1', 2-2' \rangle$	Subject oriented
f. 'play-forget'	$\langle 1 \rangle + \langle 1', 2' \rangle \rightarrow \langle 1-1', 2' \rangle$	Subject oriented
g. 'wake.up-late'	<i>impossible to assess (aspectual/evaluative constructions)</i>	

(53) [Example sentences for each type of (44a-f)]

- a. *John da-po le bo-li* <Resultative>
 John hit-broken PFV glasses
 "John hit the glass broken."
- b. *Xiaochou tiao-fan le wo* (Li, 1990)
 clown dance-bored PFV I
 "The clown danced, which caused me to become annoyed(bored)."
- c. *Xiaochou tiao-fan le* (Li, 1990)
 clown dance-bored PFV
 "The clown danced and became bored."
- d. *John chi-ni le mantou* <Consequence-depictive>
 John eat-bore PFV bun
 "John ate the bun and became bored with doing so."

¹² In (52), I followed Shen's (2007) description as it was. It seems to me that (52e,f) are not really subject oriented. The V_2 in these examples is transitives and requires/links to both subject and object arguments. For this reason, I do not think they are the real resultatives; i.e. the V_2 does not denote the resultative state. These types resemble Japanese V-V compound verbs, where the V_2 is always transitive. They are not regarded as a resultative construction either.

- e. *Baoyu xia-shu le qi* (Shen, 2007)
 Baoyu play(chess)-lose.in PFV chess
 “Baoyu played and lost in chess.”
- f. *Ta wan-wang le zijide zhize* (Li, 1990)
 he play-forget PFV self’s responsibility for work
 “He played (too much), so that he forgot his responsibility for work.”
- g. *Wo Yinwei qi-wan le, suoyi mei ganshang qiche* (Shen, 2007)
 I because wake.up-late PFV so NEG be.in.time bus
 “Because I woke up late, (so) I was not in time for the bus.”

According to Shen (2007), these are the all kinds of Chinese V-V compounds. However, not all of the V_2 in (52)/(53) represent secondary predicates. Dividing the V_2 into secondary predicates and non-secondary predicates is important, because they have different types of event structures and mechanisms of linking to arguments. Here I will reanalyse all seven types in respect to whether the V_2 of each type plays a role of secondary predicate.

In (52a)/(53a), V_1 represents the two-place predicate and V_2 the one-place predicate (change-of-state predicate). The subject of the compound verb is the subject of V_1 , and the object of the compound verb is the subject of V_2 . This is the most typical Chinese V-V compound and accounts for 40% (745 out of the 1,866 examples), which is usually referred to as (canonical) resultative. The V_2 of this type clearly denotes the resultant state and thus plays the role of secondary predicate.

In (52b)/(53b), both V_1 and V_2 are one-place predicates, where the subject of the compound verb is the subject of V_1 , and the object of the compound verb is the subject of V_2 . According to Shen (2007), this type accounts for 3% (6 out of the 1,866 examples). Li (1990) as well as Shen (2007) regards this type as a resultative construction. However, I will show that the syntactic category of the V_2 of this type can be divided into further two types, such as change of state predicates and unergatives. Consider example (54).

- (54) [Two subtypes in (52b)/(53b)]
- a. [V_2 = change of state predicate]
Xiaochou tiao-fan le wo (Li, 1990)
 clown dance-bored PFV I
 “The clown danced, which caused me to become annoyed(bored).”
- b. [V_2 = unergative verb]
Daiyu ku-zou le henduo keren (Li, 1990)
 Daiyu cry-run PFV many customer
 “Daiyu cried (too much/loud), many customers ran (out of the shop/restaurant).”

(54a) represents a true resultative construction, for the V_2 is a change of state predicate denoting the resultant state. This type carries all the typical syntactic and semantic properties of the canonical object-oriented resultative. On the other hand, although Shen (2007) categorised (54a) and (54b) in the same group, (54b) looks slightly different from (54a) in that the V_2 is not a stative predicate but an unergative verb which denotes an action. Moreover, their syntactic characteristics are different. Pseudo-cleft constructions with (54a,b) are shown in (55a,b).

- (55) [Pseudo-cleft Construction with (46a,b)]
- a. *Xiaochou tiao-fan de shi wo*
 clown dance-annoyed GEN COP I
 “What the clown danced annoyed is me (I became annoyed).”
- b. **Daiyu ku-zou de shi henduo keren*
 Daiyu cry-run GEN COP many customer
 Lit. “What Daiyu cry run is many customers.”

As already seen in 3.3, object-oriented resultatives in Chinese allow the object argument in the focus position with the pseudo-cleft operation. (55a) is grammatical, which shows that (54a) carries the canonical syntactic structure of the resultatives. (55b) is ungrammatical, which shows that the (54b) has a different VP-internal structure from that of the canonical resultative construction. This type is likely to express two independent events taking place one after another. Thus, the V_2 of (54a) plays a role of secondary predicate, but that of (54b) does not. In addition, (54b) seems to correspond to Japanese “non-volitional sentential causation” proposed by Hara, Kim, Sakai and Tamura (2010), where in between the two events of a causative relation, some kind of internal event must exist; the primary event does not directly bring about the secondary event; the Actor entity of the secondary event must feel something from the occurrence of the primary event, and that some feelings by the Actor of the secondary event motivates the Actor to perform the secondary event. For example in (54b) *henduo keren* ‘many customers’ should have firstly felt that the place they were in was too noisy or uncomfortable, which motivated them to run out of the place. This situation is totally different from the canonical resultative events such as *shoot-dead*, *hit-broken* and *hammer-flat*, and consequence-depictive events such as *eat-full*, *dance-tired* and *sing-hoarse*; in these resultative and consequence-depictive events, there are no intermediate events; there is no room or time for the Actor of the secondary event to feel or think something right after the primary event but before the secondary event.

In (52c)/(53c), the V_1 represents an intransitive verb and V_2 the change-of-state predicate. The subject of the compound verb is the subject of both V_1 and V_2 . In this type, the secondary predicate always has to link to the subject, since it is the only argument in the sentence. According to Shen (2007), this type accounts for 8.6% (161 out of the 1,866 examples). The V_2 of this type represents a true secondary predicate. This type can be called the intransitive consequence-depictive construction.

In (52d)/(53d), this is the (transitive) consequence-depictive construction, where V_1 is a transitive verb and V_2 is a one-place predicate (change-of-state predicate). The subject of the compound verb is the subject of V_1 and V_2 . According to Shen (2007), this type accounts for 7.9% (149 out of the 1,866 examples). The V_2 of this type also represents a true secondary predicate.

In (52e)/(53e), both V_1 and V_2 are transitive verbs, where the subject of the compound verb is the subject of both V_1 and V_2 , and the object of the compound verb is the object of both V_1 and V_2 . This type corresponds to the most canonical Japanese V-V compound construction. According to Shen (2007), the V_2 of this type is limited to only *shu* ‘lose.in’, *ying* ‘win.in’, *hui* ‘be able to do’ and *deng* ‘understand’. The amount of the example sentences of this type counts 0.8% (16 out of the 1,866 examples) (Shen, 2007). He explains that there is no causal relation between the events of V_1 and V_2 . Furthermore, the aspectual structure of the whole compound verb is an achievement type rather than the accomplishment one. In this type, V_2 does not represent a secondary predicate. The reason that this type resembles the most canonical Japanese V-V compounds is that they both adopt the transitive-transitive formation. In Japanese at least, the resultative construction and V-V compound verbs are analysed separately in both syntactic and semantic points of view, which is another reason that I do not analyse this type in Chinese in the same way as the true resultatives and consequence-depictives.

In (52f)/(53f), V_1 represents an unergative verb and V_2 a transitive verb. Although Shen (2007) did not find even one example sentence of this type in his corpus (0 out of the 1,866 example sentences), Li (1990) raised a couple of examples as in (53f). In this type, the V_2 is not a stative verb but a transitive verb; the V_2 does not represent a secondary predicate. This type can be construed as a conditional sentence in other languages with such conjunctives as *because*, *since*, *as*, *so that*, etc.

Finally, (52g)/(53g) represents a “complement replation” (Shen, 2007). In this type, V_2 expresses either the ending aspect such as *wan* ‘finish’, *jin* ‘end’, *guang* ‘expire/finish’ and so on, or the evaluative adjectives such as *cuo/cha* ‘wrong’, *duo* ‘a lot’, *shao* ‘little’, *zao* ‘quick’, *wan* ‘late’, *long* ‘chang’, *duan* ‘short’, *hao* ‘good’ and so on. This type does not contain any causal relation. The V_2 does not modify argument; e.g. in the compound verb *qi-wan* ‘wake-late’ of (52g)/(53g), the exact nuance of the sentence is that *I woke up, which was late*, where ‘late’ evaluates the whole action denoted by V_1 , and V_2 does not modify any arguments. Applying the idiom test shown in (44) onto this type of V-V compound also shows that the V_2 does not occupy the canonical secondary predicate position, rather it occupies the same position as that of so-called subject-oriented “resultatives”. Examples are shown in (56).

(56) [Inserting V_2 into V-O Idioms]

- a. *Ta kai*-{*wan/ jin/ cuo / hao*} *le yeche*
 he drive- {finish/ end/ wrong/ good} PFV night.car
 “He finished/ had enough of staying up all night. / It was wrong/ good that he stayed up all night.”

- b. *Nei ge yisheng chi-{wan/jin/cuo/hao} le hushi de doufu*
 that CL doctor eat-{finish/end/wrong/good} PFV nurse GEN tofu
 “That doctor finished/ had enough of flirting with nurses./ It was wrong/ good that
 the doctor flirted with nurses.”

(56a,b) prove that V_2 of this kind can intervene the V_1 - DP_2 idiom; V_1 and DP_2 form an underlying constituent and V_2 stays above V_1 .

In conclusion, first, the term “V-V compound” applies to all kinds of $V_1 + V_2$; V_1 can be intransitive or transitive, and V_2 can be intransitive, transitive or change-of-state predicate. The term resultative was often used to mean all the “V-V compound”, but it should be used to mean the examples such as (52a) and (54a). There is a type called consequence depictive, which represents the examples such as (52d). (52c) belongs to either the resultative or consequence depictive; when the V_2 is an internally-caused change of state predicate, it represents the consequence depictive; when the V_2 is an externally-caused change of state predicate, it represents the resultative. This distinction will be explained when the internally- and externally-caused change of state predicates are introduced in the next section. The term secondary predicate means the V_2 of (52a,c,d) and (54a). Second, as for the linking issue, when the V_1 is intransitive, the linking is simple; the V_2 has to link to the subject which is the only argument in the sentence, as in (52c). As for the true secondary predicates with the transitive V_1 such as (52a,d) and (54a), there seems to be a consistent linking pattern, which will be investigated in sections 6 and 7. All the other types, such as (52e,f,g) and (54b), are not resultative or consequence depictive and do not abide my analysis of secondary predicates.

5. LCSs

The Lexical Conceptual Structure (LCS) consists of semantic predicates and their arguments/complements, and analyses the internal structure of syntactic predicates and their relations. LCS is not a fully unified model allowing variation in representation. In this paper I adopt Kageyama’s (1996) theory of LCS as a basis of my theory of LCS, which will be adjusted at several points. Examples of LCSs are illustrated in (57), where x , y and z are variables.

- (57) [Eventuality Types in LCS Representation]
 a. Autonomous state
 $[_{STATE} x \text{ BE AT } z]$
 b. Change
 i. Transition from one state to another¹³

¹³ Unlike Kageyama (2007), I do not make a distinction between $[_{EVENT} x \text{ BECOME } [_{STATE} x \text{ BE AT-}z]]$ and $[_{EVENT} \text{ BECOME } [_{STATE} x \text{ BE AT-}z]]$ to differentiate “transition from one state to another” from

McKoon & Macfarland (2000) for internally- and externally-caused ones). In (58), I will firstly illustrate the conventional analysis of the so-called stative predicate with an example sentence *John is afraid*. Then in (59) my account of the same sentence is described.

- (58) [Previous Interpretation of *John is afraid*]
 [STATE *John* BE AT *afraid*]

However, I suggest a different LCS for *John is afraid*. This is illustrated in (64).

- (59) [My LCS of *John is afraid*]
 [EVENT [...] CONTROL-dir/CAUSE-ind [EVENT BECOME [STATE *John* BE AT *afraid*]]].

(59) means an (null) event brings about the secondary event *being afraid*. This is simply because there has to be an event if someone is afraid; the unexpressed primary event can be the case of CONTROL-dir like *somebody did/said/showed something to John*, or the case of CAUSE-ind like *John saw/experienced something*. The adjective *afraid* must always contain this kind of causing event, otherwise nobody can be afraid. This is totally different from sentences with *clever* or *a teacher*.

- (60) a. *Mary is clever*. [STATE *Mary* BE AT *clever*]
 b. *Mary is a teacher*. [STATE *Mary* BE AT *teacher*]

In (60), the AdjP *clever* and NP *teacher* give the information of attribute or nature to the argument *Mary*. Generally, these situations (60a, b) cannot be brought about by an event; that is, they describe the real autonomous state (57a).¹⁷ Thus, I categorise adjectivals into three types in terms of their eventuality types, such as autonomous-state predicate, internally-caused change of state predicate, and externally-caused change of state predicate. Each type consists of different types of LCS, which is summarised in (61). The key point in (61) stays in the LCS of the internally-caused change of state predicate (61b), for Levin and Rappaport Hovav (1995) argued that the internally-caused change of state predicate, unlike the externally-caused change of state predicate, has a simple LCS structure like [EVENT BECOME [STATE X BE AT-z]]. However, I suggest that the LCS of internally-caused change of state predicate, at least in Mandarin Chinese, has a complex structure (i.e., there are two events: Process and State). This will be later explained more accurately with some concrete examples in section 6.

- (61) a. [Autonomous-state Predicate]
 [STATE X BE AT-z]

¹⁷ Whether a predicate denotes an attribute or nature entirely depends on a language. For instance, *clever* might be construed as a temporal notion in some languages.

- b. [Internally-caused Change of State Predicate]
[_{EVENT} [...] CAUSE-ind [_{EVENT} BECOME [_{STATE} x BE AT-z]]]

- c. [Externally-caused Change of State Predicate]
[_{EVENT} [...] CONTROL-dir [_{EVENT} BECOME [_{STATE} x BE AT-z]]]

6. Analysis with More Articulated Semantics

While the previous analyses tried to give a syntactic solution to the linking pattern and causation of Mandarin “resultatives”, it seems that the fact requires a semantic-based analysis to explain the linking and causation issues of Mandarin secondary predicates. Here I argue that it is the secondary predicate itself which generates the indirect- or direct-causative information in the sentence, as long as the main verb is non-causative.¹⁸ This section particularly investigates the nature of the secondary predicates themselves.

Shibagaki (2009, 2010) proposed that there were two types of Mandarin secondary predicates in terms of their semantics, namely those with *either* internally- or externally-caused changes of state. Here I claim that those two types of change-of-state predicates correspond to indirect-causative and direct-causative, respectively. The internally-caused change of state by definition describes an event of internal causation, where a person makes an action too much without volition and he ends up in a particular state, although a sentence with an internally caused change of state predicate corresponds to the conventional “non-causative resultative” in Mandarin and is thus incompatible with BA (affected object) / BEI (passive) constructions when the main verb is non-causative.^{19,20} So there is a clear relation between the primary and secondary events; the secondary event takes place only after the primary event occurs; the internally-caused change of state predicate generates the information of indirect causation when it is used on its own with an argument or as a part of a compound verb with a non-causative main verb. On the other hand, the externally-caused change of state represents the notion of direct causation in any case. In section 7, I will further argue that the argument undergoing internally-caused change always links to Actor and the one undergoing externally-caused change (a truly “affected” argument) always links to Undergoer. Examples of internally- and externally-caused change of state predicates are laid out in (62). The bracketed words are likely to carry both

¹⁸ When the main verb is causative, V₂ (secondary predicate) always only links to object. This will be discussed later at the end of section 6.

¹⁹ Shen (2007) also deals the subject-oriented resultative sentence as a causative construction. His subject-oriented resultative sentences carry the internally-caused change of state predicates as their secondary predicates.

²⁰ As for BA (affected object) and BEI (passive) tests, I understand that they differentiate the direct causative from the indirect or non-causative; that is, in terms of LCS, they differentiate CONTROL from CAUSE or other non-causative semantic predicates.

semantic templates for some/many speakers; that is to say, the bracketed words are considered by those speakers as both internally- and externally-caused change of state predicates.²¹

- (62) [Examples of internally- and externally-caused change of state]²²
- a. [Internally-caused change of state] <indirect-causative>
bing, bao, le, yun, fafeng, sha, ni, (lei)
 sick, full, happy, dizzy, crazy, silly, bored, tired
- b. [Externally-caused change of state]²³ <direct-causative>
po/huai, bian/ping, gan, si, man, pang, dao, shang, shi
 broken, flat, dry, dead, full, fat, fall, injured, wet
xing, fan, chu, zui, (lei)
 awake, annoyed(bored), out, drunk, tired

The list of the words in the internally-caused change of state in (62a) may look bizarre or at least different from the ones of English. Indeed the internal ones listed by Levin and Rappaport Hovav (1995) were *grow, bloom, breeze* and so on. The reason is that for example *grow* in Chinese consists of two Chinese characters 成長. These two characters form a VV compound construction; the first character 成, which means ‘become’, represents V₁, and the second 長, which means ‘tall/long’, represents V₂. Thus, this second character 長 ‘long’ is an internally-caused change of state predicate. So *grow* itself forms a VV compound, and does not belong to the internally- or externally-caused change of state. In the Modern Mandarin Chinese, most unaccusative verbs seem to be expressed as a VV compound word.

The distinction between these two types of predicates can be observed even when they are not a part of the “resultative” VV compound construction. Firstly, in terms of meaning, the internal ones in (62a) tend to describe situations which are reversible within a relatively short period of time without external force, whereas the external ones in (62b) are likely to express non-reversible situations. This is language specific information; in a different language, the corresponding word/concept to Mandarin *pang* ‘fat’ (external/non-reversible) may be construed

²¹ There is a slight dialect and idiolect difference as to whether a secondary predicate belongs to internally- and/or externally-caused change of state predicates. See the more discussion in section 7.

²² There are three bracketed words *ni* ‘bored’, *zui* ‘drunk’, and *lei* ‘tired’. Whether these words belong to the internally- or externally-caused change of state or to both seems to differ among dialects. This issue will be discussed in detail in section 7, 8. Here I only say that the majority of words belong to either the internally- or externally-caused change of state.

²³ As for *zui* ‘drunk’, it is possible to have a seemingly internal interpretation in the phrase *he-zui-jiu* ‘drink-drunk-alcohol’. However, this phrase is likely to be the only way to use *zui* ‘drunk’ as the internally-caused change of state predicate. Shibata, Sudo and Yashima (2009) pointed out that the phrase was a fixed idiomatic expression and therefore should be regarded as a single predicate rather than a complex V-V compound. Apart from the usage of *he-zui-jiu* ‘drink-drunk-alcohol’, *zui* ‘drunk’ always behaves as an externally-caused change of state predicate.

as an internal/reversible one. Secondly, the “*zhe* (ASP) test” clearly distinguishes the internal types from the external ones; the aspect marker *zhe* is better attached to the internal ones than the external ones. Examples are given in (63) and (64).

(63) [*zhe* with internally-caused state]

a. *wo (hai) bao *(zhe)*
 I still full ASP
 “I’m still full.”

b. *wo (hai) bing *(zhe)*
 I still sick ASP
 “I’m still sick.”

(64) [*hai* ‘still’ with externally-caused state]

a. **bo-li (hai) po zhe*
 glass still broken ASP
 Int. “The glasses are still broken.”

b. **ta (hai) pang zhe*
 he still fat ASP
 Int. “He is still fat.”

The LCSs of the internally- and externally-caused change of state predicates are already shown in (61b, c). They both contain two events; one as unexpressed Process which brings about the secondary event, and the other as the secondary event which is the overtly expressed State. (61b, c) are repeated in (65).

(65) b. [Internally-caused Change of State Predicate (= (61b))]

[_{EVENT} [...] CAUSE-ind [_{EVENT} BECOME [_{STATE} X BE AT-z]]]

c. [Externally-caused Change of State Predicate (= (66c))]

[_{EVENT} [...] CONTROL-dir [_{EVENT} BECOME [_{STATE} X BE AT-z]]]

Whether these two types of predicates truly carry two events such as Process and State can be examined with the “*almost* test” (Pustejovsky, 1991). According to him, the adverb *almost* can modify both Process and State. Non-causatives, such as simple activity, autonomous state, etc., carry either Process or State, whereas causatives including the indirect and direct causatives carry both Process and State. The semantic structure of *almost* modification is illustrated in (71).

(66) [The semantic structure of the “almost test” of Pustejovsky (1991)]

a. [non-causatives]

Process/State

eat(x)

P/S[almost]

eat(x)

b. [causatives (indirect- and direct-causatives)]

Transition

Process

State

break(x,y)

broken(y)

T

T

P[almost]

S

P

S[almost]

break(x,y)

broken(y)

break(x,y)

broken(y)

(66) explains that non-causatives with *almost* generate only one interpretation, while causatives, including indirect- and direct-causatives, generate two interpretations with *almost*.

Mandarin secondary predicates (i.e., the internally- and externally-caused change of state predicates) compose the LCSs of (61b, c), for the “almost test” in Chinese proves that the LCSs of these predicates carry two events: the primary (Process) and secondary (State) events. In Chinese, *cha-dian* ‘almost’ means “almost make an action or become a state”. Inserting *cha-dian* ‘almost’ into a sentence with an internally- or externally-caused change of state predicate generates ambiguity in both cases. Examples are given in (67) and (68). In the examples, the primary actions (Process), which could indirectly or directly bring about a resultant situation, are not overtly expressed in the sentences. Thus the interpretations for these actions are the ones which can be typically imagined by native speakers.

(67) [*cha-dian* ‘almost’ with internally-caused change of state]

Ta *cha-dian* bing le

ta almost sick ASP

a. “He was nearly forced to work too hard and would become sick.”

b. “He was forced to work too hard and nearly become sick.”

(67a) expresses that *cha-dian* ‘almost’ modifies the null action event (Process), while (67b) shows *cha-dian* ‘almost’ can modify the state part (State) as well. Thus, the internally-caused change of state indeed consists of Process and State, and is therefore not a non-causative predicate, for non-causatives consist of either Process or State and do not generate ambiguity when *cha-dian* ‘almost’ is inserted.

(68) [*cha-dian* ‘almost’ with externally-caused change of state]

bo-li *cha-dian* po le

glass almost broken ASP

a. “The glass was nearly hit and would have become broken.”

b. “The glass was hit and nearly became broken.”

(68) shows that the externally-caused change of state also consists of Process and State as can be seen in the two interpretations (a) and (b); again it is not a non-causative predicate.

From the theoretical point of view, the LCSs (61b, c) well explain the lexical structure of Chinese compound verbs. In Chinese consequence-depictives and resultatives, the main verb and secondary predicate form a compound verb, where the main verb can be non-causative, such as *chi* ‘eat’. As shown in (57c) the LCSs of a non-causative Activity form [EVENT X ACT] (intransitive) or [EVENT X ACT ON-y] (transitive), which does not contain CAUSE or CONTROL. If internally- or externally-caused change of state predicates formed a conventional stative LCS like [STATE X BE AT-z] and did not carry CAUSE or CONTROL at all as Levin and Rappaport Hovav (1995) suggested, consequence depictives and resultatives cannot form a grammatical LCS. This is shown in (69), using the consequence-depictive sentence (3) as an example. (3) is repeated here.

- (3) *John chi-ni le mantou <consequence depictive>*
 John eat-bored PFV bun
 “John ate the bun and John became bored with doing so.”

- (69) [Hypothesis: Internally-Caused Change of State as [STATE X BE AT-z]]
 [EVENT X ACT ON-y] ??? [STATE X BE AT-z]
 from *chi* ‘eat’ from *ni* ‘bored’

In (69), the event of eating is expressed as [EVENT X ACT ON-y], and the event of being bored is illustrated as [STATE X BE AT-z]. Thus, the semantic predicate, which connects the primary and secondary events, does not exist in the LCS of (69).²⁴ (69) is ill-formed. I claim that this issue should be dealt within the frame work of lexical analysis. That is, the semantic connective CONTROL/CAUSE should not occur constructionally, but lexically. The LCSs I proposed in (61b, c) for the Chinese secondary predicates already carry CONTROL/CAUSE and only lack the overt expression of the primary event (Process). The [...] of (61b, c) can well be filled with the Action denoted by the main verb. Consider example (70).

- (70) [Composing two events in *John chi-ni le mantou*]
 [EVENT X ACT ON-y] + [EVENT [...] CAUSE-ind [EVENT BECOME [STATE X BE AT-z]]]
 ↑ ↓ ↑
 from *chi* ‘eat’ from *ni* ‘bored’ (internal)
 [EVENT [EVENT X ACT ON-y] CAUSE-ind [EVENT BECOME [STATE X BE AT-z]]]

²⁴ Linguists of the GB/Minimalist programme may well argue that causation appears constructionally (see Hale and Keyser (1993) in English, and Huang (1997) in Mandarin about when “CAUSE” appears).

The key additional fact now is that predicates which are purely statives (Autonomous State (57a)) and not change-of-state such as *jiu*³ ‘long (of time)’ are ungrammatical as secondary predicates in any complex resultative predicates. This would follow if they have simple LCSs like [STATE X BE AT-z], in contrast to the LCSs of internally- or externally-caused change of state predicates, and if CAUSE/CONTROL in resultatives is always contributed by the secondary predicate. Thus, as in (71), as long as the main verb is non-causative, the autonomous state predicates cannot be used as a secondary predicate; it is impossible to form a complex verb such as “(non-caus-V) + (Autonomous State)”, because there is no semantic connective between the two events. When the main verb is a causative verb, it is possible to form a complex verb like “(caus-V) + (Autonomous State)”, because the main verb carries “[x ACT ON-y] CAUSE-ind/CONTROL-dir [BECOME [...]]”, which connects the two events well, and the autonomous state only fills up the [...].

- (71) [*jiu* ‘long’ (Autonomous State) [STATE X BE AT-z] as a secondary predicate]
 [EVENT X ACT ON-y] ??? [STATE X BE AT-z]
 ↑ ↑
 from main verb from autonomous state (e.g., *jiu* ‘long’)

7. Theoretical Analysis of Linking and Causation

The LCSs of the three types of the Mandarin secondary predicates (3), (4), and (5) are given in (72), (73), and (74), respectively.

- (72) *John chi-ni le mantou* <consequence depictive>
 John eat-bored PFV bun
 “John ate the bun and John became bored with doing so.”
 [EVENT [EVENT X ACT ON-y] CAUSE-ind [EVENT BECOME [STATE X BE AT-z]]]
- (73) *John niu-gan le maojin* <resultative>
 John wring-dry PFV towel
 “John wrung the towel, which made the towel dry.”
 [EVENT [EVENT X ACT ON-y] CONTROL-dir [EVENT BECOME [STATE y BE AT-z]]]
- (74) *Zhe zhong yao chi-si le John* <inverse-linking resultative>
 this kind medicine eat-die PFV John
 “The taking of this kind of drug (by John) caused John to die.”
 [EVENT [EVENT X ACT ON-y] CONTROL-dir [EVENT BECOME [STATE X BE AT-z]]]

The primary data are shown in (72, 73, 74), with schematic LCSs to represent argument structures as in section 5.2. Examples with internally-caused predicates are shown as [EVENT [EVENT x ACT ON-y] CAUSE-ind [EVENT BECOME [STATE x BE AT-z]]]. This structure represents indirect-causative. Those with external causation are given as [EVENT [EVENT x ACT ON-y] CONTROL-dir [EVENT BECOME [STATE x/y BE AT-z]]]. This structure represents direct-causative. In order to explain the mechanism of mapping in this model, I propose a condition of the mapping in causative construction.

- (75) [Direct Causative Assignment Condition]
 In all direct causatives the affected argument (the α under [EVENT BECOME [STATE α BE AT-z]]) takes precedence in linking to object.

By definition, affected argument only exists in direct causatives (the LCS with CONTROL-dir). (75) means that the α of [[...] CONTROL-dir [EVENT BECOME [STATE α BE AT-z]]] has primacy for linking; it links to the object in active clauses, with the other core argument linking to the subject, even though the argument has no subject proto-properties. For example, (72) is indirect-causative, since *ni* ‘bored’ is an internally-caused change of state. Thus, the proto-Agent *John* canonically maps to the subject, and the hierarchically less prominent argument *bun* maps to the object. The primary and secondary events are related by CAUSE-ind, since it is indirect-causative. Thus, the LCS of (72) can be represented as [EVENT [EVENT *John* ACT ON-bun] CAUSE-ind [EVENT BECOME [STATE *John* BE AT-bored]]].

(73) is direct-causative because *gan* ‘dry’ is an externally-caused change of state, where *maojin* ‘towel’ is the affected argument. This argument *maojin* ‘towel’ has the primacy to link to the object as in (75), and the other argument *John* has to map to subject, since the subject position is the only choice left (the object position is already occupied by *maojin* ‘towel’). The primary and secondary events are related by CONTROL-dir. Again, schematically, the LCS of (73) can be represented as [EVENT [EVENT *John* ACT ON-towel] CONTROL-dir [EVENT BECOME [STATE towel BE AT-dry]]].

(74) is also direct-causative since *si* ‘die/dead’ is an externally-caused change of state, where the affected argument is *John*. This argument *John* has the primacy to link to the object as in (75), and thus the other argument *zhe zhong yao* ‘this kind of medicine’ has to map to the subject. The primary and secondary events are related by CONTROL-dir. Thus, the LCS of (74) can be construed as [EVENT [EVENT *John* ACT ON-this kind of drug] CONTROL-dir [EVENT BECOME [STATE *John* BE AT-dead]]].

(76) is the sentence made from (3)/(74) by exchanging the two arguments with each other. The ungrammaticality of (76) can be explained as below.

- (76) **John chi-si le zhe zhong yao*
 John eat-die PFV this kind medicine
 “John took this kind of medicine which caused John to die.”

(76) is ungrammatical. The reason is that the secondary predicate *si* ‘die’ represents the externally-caused change of state in Mandarin. This information is a part of the encoded lexical entries. Hence, not *zhe zhong yao* ‘this kind of medicine’ but *John* must be the affected argument which has the primacy for linking to the object, but *John* is actually mapped to the subject. This is why (76) is ungrammatical.

The patterns are slightly obscured by (77), an example that Li (1995) and Her (2007) used, where the argument of *lei* ‘tired’ can link to SUBJ or OBJ. This is because *lei* ‘tired’ in Chinese is one of the few secondary predicates that can allow for interpretations of internally- or externally-caused change. The prediction is that (77a) represents indirect causative and (77b) direct causative.²⁵

- (77) *John zhui-lei le Lee*
 John chase-tired PFV Lee
- a. “John chased Lee and (John) got tired.” <Consequence-depictive>
 b. “John chased Lee, which made him (Lee) tired.” <Resultative>

Levin & Rappaport Hovav (1995) explained that the great majority of change of state verbs carries only one semantic template. This suggests that a secondary predicate carries the information of either an internally- or externally-caused change of state, but not both of them. Levin & Rappaport Hovav stated *burn* in English is the only exception they found, which seems to take both of two semantic templates. In Thai, the exceptional predicate carrying both internal and external ones is *taay* ‘dead’, which can be used as both consequence-depictive and as resultative. In Mandarin Chinese, *burn* is an internally-caused state which only gives an indirect-causative interpretation to the sentence, and *si* ‘dead’ belongs to an externally-caused change of state. Hence, the question of which change of state predicate belongs to which predicate group is a language specific matter. As for the exceptional predicates which carry two semantic templates, native speakers tend to show different judgements in acceptability. In this respect, *lei* ‘tired’ is without doubt one of the few predicates which carry both semantic templates of the internally- and externally-caused states. I asked thirty-five native speakers of Mandarin Chinese for a judgement of (77). Twenty-one respondents selected (77a) as the only grammatically acceptable variant; five, (77b); and nine, both (77a, b). However, the data do not radically affect the claim that I am making; the relevant observation only means that the word *lei* ‘tired’ is categorised as an internally-caused change of state predicate for twenty-one native speakers, as an externally-caused change of state predicate for five native speakers, and as both for nine speakers. I think a

²⁵ As is well known, (77) has a third interpretation: the inverse-linking resultatives. The occurrence of the third interpretation seems to be explained with the classification of main verbs, which is beyond the scope of this thesis.

language may very well allow variation in the categorisation of information about “internal and external”.²⁶

8. Concluding Remarks

So-called resultatives can be observed in many languages, allowing several sub-types.²⁷ Section 2 saw the varieties of V-V compounds in Mandarin Chinese, and concluded that there were consequence-depictives and canonical resultatives which adopt a true secondary-predicate scheme; other types such as spurious resultatives and canonical depictives are either adverbials or simply non-existent.

The theoretical analysis of the Chinese secondary predicate was illustrated in sections 3 to 8, with a focus on linking and causation; there are two classes of secondary predicates such as internally- and externally-caused change of state, where the former generates indirect causation and the latter direct causation. It was also argued that the semantic structures of both internally- and externally-caused change of state predicates consist of two events such as Process and State, unlike pure non-causative predicates. This analysis accounts for not only why there are three different linking patterns, namely subject-oriented, object-oriented and inverse-linking, but also why autonomous state predicates cannot be used as a secondary predicate; none of the previous literature have so far discussed about the predicates (intransitives or adjectives), which cannot appear in the V₂ position. The explanation of the autonomous state predicates was successfully done with the lexical conceptual structures. The lexical analysis I offered, where the meaning of causation is entirely contributed from the secondary predicates, shows the linking rule of Chinese secondary predicates and explains the ungrammaticality of (24), which previous syntactic accounts were not able to explain well at all. In section 8, to complete the linking patterns, I introduced the Force Recipient Principle, which Huang (2006) described “by its name somewhat slippery”. I noted that the core idea of the FRP seemed to be useful to explain the Chinese secondary predication, but may need some amendments since it does not well fit the case of Chinese (unlike English).

Section 4.4 “Review and Weak Points of Shen (2007)” was also one of the highlights of this whole chapter, where I reanalysed seemingly all types of V-V compounds in Chinese. In the previous literature, almost all Chinese V-V compounds were regarded and called “resultative”.

²⁶ Her (2010) well explains the theory of lexical diffusion using the Mandarin VO construction, which involves the historical sound change in the first place and later extended to the grammatical variation and change. His theory seems to explain why there is a dialect/idiolect difference in the installation of lexical entries of secondary predicates.

²⁷ There are perhaps other types of “resultatives”/“secondary predicates” in addition to those that I showed in section 2: e.g., the SUBJ-oriented spurious resultative in Japanese and “backwards resultatives” in Kimaragang Dusun (Kroeger, 2004). These types do not exist in English or in Chinese.

However, as I introduced the data in (1) of section 1, roughly 60% of the verbs adopt the V-V compound form. Thus I do not think that all the V-V compounds, in other words 60% of the verbs of a language, adopt a unified mechanism, although the surface form of all those verbs looks like the same (a mere V-V compound structure). In 4.4, I showed that the categorisation of these varieties of V-V compounds in terms of the combination of the argument structures of V_1 and V_2 , and then noted that only a couple of types of the V-V compound verbs use the true secondary predicate scheme. The others carry completely different syntactic and semantic properties from the true secondary predicate types. Thus I believe that this thesis is the first ever article which categorised all types of V-V compounds in terms of their argument structures. This, for sure, means that the mechanism of the famous tricky sentence *John zhui-lei le Lee* ‘John cased Lee tired’ (with three different interpretations) is fully revealed.

My account of the Chinese V-V compounds seems to explain the dialect/idiolect difference as well. Although the linking pattern is generally common among dialects and idiolects of Chinese, there are slight differences. This is because, in those dialects, for instance, an internally-caused change of state predicate is construed as an externally caused change of state, or vice versa.

The proposals in this chapter do not include any theories or proposals with respect to (Chinese) resultative-special; the analysis does not require specific conditions or rules which are only available for resultatives or V-V compounds. The only one syntactic rule I showed in (75) was a general restriction to all the causatives of all languages. Thus, I expect that such an analysis (particularly of the classification of causation) would be able to be applied onto varieties of topics in the domain of Chinese syntax and lexical semantics.

Chapter 3

Secondary Predication in Japanese

1. Introduction

This chapter investigates secondary predicates in Japanese. Secondary predicates are cross-linguistically the ones which appear in the resultative and depictive constructions. As already discussed in chapter 1 and 2, English has all types of resultatives and depictives (examples of English secondary predicates are repeated in (1)-(4)). Mandarin Chinese allows (1) subject-oriented resultatives (consequence depictives or Goal sentences) and (2) object-oriented resultatives, but do not allow any types of depictives such as (3) and (4) in English. Japanese seems to allow the types (2), (3) and (4), but not (1).

- (1) [Subject-oriented Resultatives (consequence-depictives OR Goal sentences)]
 - a. The wise men followed the star *out of Bethlehem*.
 - b. The sailors managed to catch a breeze and ride it *clear out of the rock*.

- (2) [Object-oriented Resultatives]
 - a. John shot the dog *dead*.
 - b. John shot the dog *to death*.

- (3) [Subject-oriented Depictives]
 - a. John ate the oyster *naked*.
 - b. He came home *breathless*.

- (4) [Object-oriented Depictives]
 - a. John ate the oyster *raw/alive/uncooked*.
 - b. John sold the book *used*.

Japanese object-oriented resultative, subject-oriented depictive and object-oriented depictive examples are laid out in (5) - (8). As in (5) and (6) there are two types of resultatives in Japanese in terms of their morphemes.

- (5) [Japanese Object-oriented *-ni* Resultative]

<i>Taroo-ga</i>	<i>kutu-o</i>	<i>pikapika-ni</i>	<i>migai-ta</i>
Taroo-NOM	shoe-ACC	shine-ni	polish-PST

“Taro polished the shoes into a shine.”

- (6) [Japanese Object-oriented *-ku* Resultative]
Taroo-ga kabe-o aka-ku nut-ta
 Taroo-NOM wall-ACC red-ku paint-PST
 “Taro painted the wall red.”
- (7) [Japanese Object-oriented Depictive]
Taroo-ga niku-o nama-de tabe-ta
 Taroo-NOM meat-ACC raw-de eat-PST
 “Taro ate the meat raw.”
- (8) [Japanese Subject-oriented Depictive]
Taroo-ga niku-o hadaka-de tabe-ta
 Taroo-NOM meat-ACC naked-de eat-PST
 “Taro ate the meat naked.”

The crucial difference between the strategies of secondary predicates in English/Chinese and Japanese is that English/Chinese does not make use of any morphemes, but Japanese does. In Japanese, there are morphologically three types of secondary predicates, in (a) *-ni* as in (5), (b) *-de* as in (7) and (8), and (c) *-ku* as in (6). Okutsu (2007) analysed these three morphemes as below; (a) *-ni* consists of ‘*n*’ and ‘*i*’, where ‘*n*’ is a morphologically different form of the Japanese copular ‘*d*’, and ‘*i*’ is a suffix which makes the whole word an adverb; that is, NP-*ni* as a secondary predicate is syntactically an adverb and does not contain tense; (b) *-de* consists of ‘*d*’ and ‘*-te*’, where ‘*d*’ is the copular, and *-te* is gerund which makes the whole word/phrase/clause an adverbial one; that is NP-*de* as a secondary predicate is an adverb and does not contain tense, as opposed to Asada’s (2009) analysis; (c) *-ku* is an adverbial suffix (adjective form of *-ku* is *-i*). Thus, Japanese secondary predicates are on the surface adverbials, but carry an argument structure and therefore play the role of a genuine predicate. Importantly, the secondary predicates NP-*ni* and NP-*ku* appear only in the resultative construction, and the secondary predicate NP-*de* in the depictive construction. The table below illustrates which secondary predicate appears in which constructions.

Table 1. Secondary predicates and where they appear

	<i>-ni</i>	<i>-de</i>	<i>-ku</i>
Resultatives (SUBJ-oriented)	✓ (only intrans.)	×	✓ (only intrans. & colour/shape terms)
Resultatives (OBJ-oriented)	✓	×	✓ (only colour/shape terms)
Depictives (SUBJ-oriented)	×	✓	×
Depictives (OBJ-oriented)	×	✓	×

2. Tests for Resultatives

This section illustrates several tests which determine the characteristics of resultatives. For each test I will mostly use only one example sentence, which is one of the most canonical sentences of the Japanese resultative construction.

- (9) [A Canonical Japanese Resultative]
Taroo-ga kutu-o pikapika-ni migai-ta
 Taroo-NOM shoe-ACC shine-ni polish-PST
 “Taro polished the shoes into a shine.”

The sentence (9) is an object-oriented *-ni* resultative. This sentence seems to be used in the previous literature most frequently as an example of the Japanese resultative construction. After showing the several tests with (9) in this section, I will apply them to the cases of (5) and (6) to diagnose whether or not they represent real resultatives, in section 3.

2.1 Telic/Atelic Adverb Insertion: ‘in/for 10 Minutes’

The aspectual structure of the resultative construction is examined here. As many linguists including Dowty (1979) have stated, by definition telic verbs or events can be called resultatives. Examples (10) and (11) illustrate the *10pun-de* ‘in 10 minutes’ and *10pun-kan* ‘for 10 minutes’ tests. The former is compatible with telic events, but the latter is not. Japanese resultatives also seem to be telic and are expected to be compatible with ‘in 10 minutes’ but not ‘for 10 minutes’. Both ‘in 10 minutes’ and ‘for 10 minutes’ phrases are inserted in (9).

- (10) [‘in 10 Minutes’ Test]
Taroo-ga kutu-o 10 pun-de pikapika-ni migai-ta
 Taroo-NOM shoe-ACC 10 minutes-in shine-ni polish-PST
 “Taro polished the shoes into a shine in 10 minutes.”

- (11) [‘for 10 Minutes’ Test]
 **Taroo-ga kutu-o 10 pun-kan pikapika-ni migai-ta*
 Taroo-NOM shoe-ACC 10 minutes-for shine-ni polish-PST
 Int. “Taro polished the shoes into a shine for 10 minutes.”

As shown in (10), the canonical resultative (9) is compatible with the phrase ‘in 10 minutes’. On the other hand, (11) illustrates that inserting the phrase ‘for 10 minutes’ brings the ungrammaticality to the grammatical sentence (9). (10) and (11) indicate that the Japanese resultative construction is truly the accomplishment type.

Importantly, this characteristic does not fully depend upon the aspectual type of the main verb. That is, when the main verb is a non-accomplishment type as well as the accomplishment type, the resultative construction as a whole is the accomplishment type. Washio (1997) explained this phenomenon in Japanese with the example sentence (9); the main verb *migai-ta* ‘polished’ of (9) is the activity type of verb, which does not necessarily denote the ending point, unlike the typical accomplishment verb *war-u* ‘break-PRES’.

- (12) *boku-wa kono kabin-o san-kai-mo migai-ta no-ni,*
 I-TOP this vase-ACC 3-times-even polish-PST even if
mattaku kirei-ni nar-anakat-ta
 at all clean become-NOT-PST
 “I polished this vase three times, but it did not become clean.” (Washio, 1997)
- (13) **boku-wa kono kabin-o san-kai-mo wat-ta no-ni,*
 I-TOP this vase-ACC 3-times-even break-PST even if
hibi-sae hair-anakat-ta
 crack-even become-NOT-PST
 Int. “I broke this vase three times, but it did not even crack.” (Washio, 1997)

Washio (1997) explains that in (12) the sentence does not imply that the vase became shiny three times; *migai-ta* ‘polished’ of (9)/(12) is indeed an activity verb. On the other hand, (13) is ungrammatical, because the latter clause semantically contradicts to the resultative state of the former clause; *wat-ta* ‘broke’ is an accomplishment verb. This can be further analysed with the ‘for 10 minutes’ test. The example (11), which illustrated the ungrammaticality of the canonical resultative with the ‘for 10 minutes’ phrase, is repeated here.

- (14) [Activity verb with ‘for 10 minutes’]
Taroo-ga kutu-o 10 pun-kan migai-ta
 Taroo-NOM shoe-ACC 10 minutes-for polish-PST
 “Taro polished the shoes into a shine for 10 minutes.”
- (11) [Canonical resultative with ‘for 10 minutes’]
**Taroo-ga kutu-o 10 pun-kan pikapika-ni migai-ta*
 Taroo-NOM shoe-ACC 10 minutes-for shine-ni polish-PST
 Int. “Taro polished the shoes into a shine for 10 minutes.”

The sentence (14) is grammatical, since *migai-ta* ‘polished’ is not an accomplishment verb. (11) can be derived from (14) by adding the resultative predicate *pikapika-ni* ‘shiny’. The contrast between (14) and (11) shows that adding a resultative predicate changes the aspectual structure of the sentence.

2.2 *Onaziyoo* ‘in the same way’ Replacement

The resultative predicate is not a manner adverb but clearly represents a state, though the morpheme *-ni* of the resultative predicate *pikapika-ni* ‘shiny’ in (9) indicates it is an adverb. In (15), *attoyuuma-ni* ‘within a moment’, which is a typical Japanese manner adverb, is inserted in (9). (9) is repeated here.

- (9) [A canonical Japanese Resultative]
Taroo-ga kutu-o pikapika-ni migai-ta
 Taroo-NOM shoe-ACC shine-ni polish-PST
 “Taro polished the shoes into a shine.”
- (15) a. *Taroo-ga kutu-o attoyuuma-ni pikapika-ni migai-ta*
 Taroo-NOM shoe-ACC a moment-ni(Adv) shine-ni(Adv) polish-PST
 “Taro polished the shoes into a shine within a moment.”
- b. *kutu-ga pikapika-da*
 shoe-NOM shine-PRES(Adj)
 “The shoes are shiny.”
- c. **kutu-ga attoyuuma-da*
 shoe-NOM a moment-PRES(Adj)
 Int. “The shoes are a moment.”

In (15a), the manner adverb *attoyuuma-ni* ‘within a moment’ is inserted in (9). This sentence is grammatical. (15b) shows that the object of (15a) *kutu* ‘shoes’ can be predicated with the resultative predicate *pikapika-ni* ‘shiny’, where the resultative predicate of (15a) is morphologically modified and is a nominal adjective which contains a tense element. Thus (15b) can be schematically analysed as a stative event with an LCS of [shoes BE AT-*shiny*]. On the other hand, (15c) shows that the subject of (15a) *kutu* ‘shoes’ cannot be predicated with the adverb *attoyuuma-ni* ‘within a moment’.

Whether a resultative predicate is truly different from a manner adverb can be further tested. (16) and (17) illustrate the test of *onaziyoo-ni* ‘in the same way’ replacement, where sentences (a) and (b) are uttered in a single context. *Onaziyoo-ni* ‘in the same way’ is a manner verb in Japanese, and the replacement should be successful when the replaced element is a manner adverb, otherwise it fails.

- (16) [Manner Adverb Replacement Test for *attoyuuma-ni* ‘within a moment’]
- a. *Taroo-ga kutu-o attoyuuma-ni migai-ta*
 Taroo-NOM shoe-ACC a moment(Adv) polish-PST
 “Taro polished the shoes within a moment.”
- b. *Ziroo-mo kutu-o onaziyoo-ni migai-ta*
 Ziroo-also shoe-ACC in the same way polish-PST
 “Ziro also polished the shoes in the same way (=within a moment).”
- (17) [Manner Adverb Replacement Test for *pikapika-ni* (polished)]
- a. *Taroo-ga kutu-o pikapika-ni migai-ta*
 Taroo-NOM shoe-ACC shine-ni(Adv) polish-PST
 “Taro polished the shoes into a brilliant shine.”
- b. #*Ziroo-mo kutu-o onaziyoo-ni migai-ta*
 Ziroo-also shoe-ACC in the same way polish-PST
 “Ziro also polished the shoes in the same way (≠ into a brilliant shine).”

In (16), the adverb *attoyuuma-ni* ‘within a moment’ is replaced with the manner adverb *onaziyoo-ni* ‘in the same way’, and the replacement is successful; in (16b), *onaziyoo-ni* ‘in the same way’ stands for *attoyuuma-ni* ‘within a moment’ of (16a). In (17), the resultative predicate *pikapika-ni* ‘shiny’ is replaced with the manner adverb *onaziyoo-ni* ‘in the same way’. This replacement is unsuccessful; although the sentence (17b) is grammatical, *onaziyoo-ni* ‘in the same way’ of (17b) cannot stand for *pikapika-ni* ‘shiny’ of (17a); it only gives the information about how *Taro* polished the shoes: e.g. by moving his hands quickly/slowly or by using his feet as well as hands, in a serious/not-serious manner, etc. Thus the resultative predicate *pikapika-ni* ‘shiny’ is not a manner adverb.

2.3 Morphological Distinction between Resultative and Manner Adverb

There is a morphological difference between a resultative predicate and manner adverb. While resultative predicates consist of a nominal element (mostly mimetics) and the morpheme *-ni*, manner adverbs are truly derived of “nominal adjectives”; the adjectival form of a resultative predicate *X-ni* is either *X-no* or *X-na*, whereas that of a manner adverb is *X-na* only.²⁸

²⁸ A mimetic word represents a copy of behaviour, appearance or sound of somebody or something. In Japanese, phonologically speaking, mimetics generally forms [C₁V₁C₂V₂]-[C₁V₁C₂V₂] structure: e.g. *pika-pika* ‘shiny’, *kati-kati* ‘very hard’ and so on.

- | | | |
|------|--|---|
| (18) | Resultative Predicate
<i>pikapika-ni</i> (shiny) | its Adjectival Form
<i>pikapika-no</i> , ? <i>pikapika-na</i> |
| (19) | Manner Adverbs | their Adjectival Forms |
| | a. <i>kirei-ni</i> (beautifully) | * <i>kirei-no</i> , <i>kirei-na</i> |
| | b. <i>yasuraka-ni</i> (peacefully) | * <i>yasuraka-no</i> , <i>yasuraka-na</i> |
| | c. <i>kasuka-ni</i> (slightly) | * <i>kasuka-no</i> , <i>kasuka-na</i> |
| | d. <i>rippa-ni</i> (splendidly) | * <i>rippa-no</i> , <i>rippa-na</i> |

Uehara (1998) stated about the adjectival forms that, when the notion of a word expresses a non-dividable symbolic concept, the word can bear the morpheme *-no*, whereas the notion of a word represents a dividable concept, it can bear the morpheme *-na*. Examples are given in (20).

- | | |
|------|---|
| (20) | a. <i>heiwa-no</i> <i>sisya</i>
peace-no delegate
“peace delegate” |
| | b. <i>heiwa-na</i> <i>sisya</i>
peace-na delegate
“peaceful delegate” |

(20a) shows that when *heiwa* ‘peace’ is followed by *-no*, it represents a non-gradable and symbolic state. On the other hand, when *heiwa* ‘peace’ is followed by *-na*, it means a gradable state. The difference can be easily checked linguistically; as shown in (21), in both Japanese and English, the former does not allow *aruteedo* ‘to some extent’ to precede the whole phrase because *heiwa-no* ‘peace’ is not a gradable concept, whilst the latter allows *aruteedo* ‘to some extent’ to precede it because *heiwa-na* ‘peaceful’ is a dividable concept. This suggests that the Japanese *-ni* resultative predicates potentially denote both gradable and non-gradable concepts, but manner adverbs denote only the gradable concept but not the non-gradable one.

- | | |
|------|--|
| (21) | a. * <i>aruteedo</i> <i>heiwa-no</i> <i>sisya</i>
to some extent peace-no delegate
Int. “to some extent peace delegate” |
| | b. <i>aruteedo</i> <i>heiwa-na</i> <i>sisya</i>
to some extent peace-na delegate
Int. “to some extent peaceful delegate” |

2.4 Nominalisation of VP

The nominalisation test in the context of resultatives is first discussed by Takamine (2007). She argues that weak resultatives undergo nominalisation with the *-ni* morpheme replaced with *-e*, while the spurious resultatives do not.²⁹ However, there seems to be a crucial misunderstanding in Takamine (2007). The example sentences Takamine used as weak resultatives are not resultatives but “(resultant) adverbial” sentences (Kageyama, 1996), which indeed undergo the VP-nominalisation process. She did not test the real (weak) resultative sentence such as (9) with VP-nominalisation. I will here show that the (weak) resultative in (9) does not undergo VP-nominalisation. Therefore, the fact is that none of the so-called resultatives such as the weak, (strong) and spurious ones, allow the VP-nominalisation process. I will explain the reason that this test distinguishes the “resultatives” from other adverbials. There seem to be two kinds of *-ni* in Japanese; one represents the postposition, which corresponds to the English preposition ‘to’, while the other is the one I call as “resultative marker”, which is used in the resultative construction and contains the meaning/aspect of copular, unlike the postposition *-ni* ‘to’.³⁰ The resultative predicate has to connect with the resultative marker *-ni*, because by definition it needs the meaning of copular. And it seems impossible to connect the resultative predicate with the postposition *-ni* ‘to’. In the VP-nominalisation construction, the morpheme/postposition *-e* ‘to’ only composes a postpositional phrase, and does not have the meaning of copular. This is why, when the resultative predicate appears in the VP-nominalisation construction with *-e*, it becomes ungrammatical. So, as opposed to the proposal by Takamine (2007), I will regard the ungrammaticality in the nominalisation test as a sign of real resultative construction. Takamine’s example sentences will be introduced and explained in section 3.3. The VP-nominalisation with the Japanese canonical resultative sentence (9) is illustrated in (22), where the example (9) is repeated in (22a). (23) describes the cases of VP-nominalisation with the sentences which contain clear oblique *-ni* phrases.

- (22) [VP-nominalisation with the Canonical Resultative]
 a. *Taroo-ga kutu-o pikapika-ni/*-e migai-ta* (=9)
 Taroo-NOM shoe-ACC shine-ni/-to polish-PST
 “Taro polished the shoes into a shine.”

²⁹ “Weak” and “spurious” (and “strong”) resultatives will be discussed later. They are the terms introduced by Washio (1997). Japanese allows the weak and spurious types. My example sentence in (9), which represents the most canonical resultative sentence in Japanese, is the weak resultative sentence.

³⁰ As mentioned earlier, the ‘n’ of *-ni* shows the meaning of copular, while ‘i’ of *-ni* plays the pure syntactic role, which says the lexical item with it is in construction with another verb.

- b. **Taroo-no kutu-no pikapika-e-no migaki-kata*
 Taroo-GEN shoe-GEN shine-to-GEN polish-way
 Int. “Taro’s way of polishing shoes into a shine”
- (23) [VP-nominalisation with Oblique *-ni* Arguments]
- a. *Taroo-ga daigaku-ni/-e it-ta*
 Taroo-NOM university-to/-to go-PST
 “Taro went to the university.”
- a’. *Taroo-no daigaku-e-no iki-kata*
 Taroo-GEN university-to-GEN go-way
 “Taro’s way of going to the university”
- b. *Taroo-ga Mary-ni²-e kuruma-o baikyaku-si-ta*
 Taroo-NOM Mary-to/-to car-ACC sell-do-PST
 “Taro sold the car to Mary.”
- b’. *Taroo-no Mary-e-no kuruma-no baikyaku-no-si-kata*
 Taroo-GEN Mary-to-GEN car-GEN sell-GEN-do-way
 “Taro’s way of selling (the) car(s) to Mary” (Takamine, 2007)

Here, the contrast between (22) and (23) is clear. The resultative *-ni* cannot be replaced with *-e* ‘to’ as in (22a), but GOAL *-ni* ‘to’ of (23a,b) can be replaced with *-e* ‘to’. My analysis in (22) and (23) seems to be intuitive and even self-evident as well; the resultative *-ni* in (22a)/(9) cannot be replaced with *-e*, but the *-ni* of (23a,b) can be both replaced with *-e* without nominalisation.

2.5 Complement vs. Adjunct

The syntactic behaviour of the resultative construction has well been analysed in many languages, and the common assumption is that the resultative predicate is a complement of V rather than an adjunct (Rothstein: 1983, Roberts: 1988, Rapoport: 1993, among many others). One piece of evidence comes from the number of resultative predicates a sentence can take; it is strictly limited to one (Rothstein: 1983, and Tenny: 1994). An example in English is shown below.

- (24) a. John polished the mirror clean.
 b. John polished the mirror into a brilliant shine.
 c. *John polished the mirror clean into a brilliant shine.

(24a, b) show that *clean* and *into a brilliant shine* can play the role of a resultative in the sentence *John polished the mirror*. However, (24c) suggests that they cannot occur together in a sentence, unlike adjuncts. Japanese shows the same behaviour as English.

- (25) a. *Taroo-ga kutu-o pikapika-ni migai-ta*
 Taroo-NOM shoe-ACC shine-ni polish-PST
 “Taro polished the shoes into a shine.”
- b. *Taroo-ga kutu-o turuturu-ni migai-ta*
 Taroo-NOM shoe-ACC slippery-ni polish-PST
 “Taro polished the shoes into a shine.”
- c. **Taroo-ga kutu-o pikapika-ni turuturu-ni migai-ta*
 Taroo-NOM shoe-ACC shine-ni slippery-ni polish-PST
 “Taro polished the shoes into a shine.”

(25a, b) show that *pikapika-ni* ‘shiny’ and *turuturu-ni* ‘slippery’ can play the role of a resultative. However, (25c) suggests that those resultative predicates cannot occur together in a sentence. This will be later mentioned again in the section of depictives (4.2.4.), where I will show that depictives are adjuncts and two depictive predicates can occur in a sentence unlike the case of resultatives.

Using English wh-questions, Rothstein (1983) and Rapoport (1993) stated that resultative predicates are the complement element inside VP like the predicate of a small clause.

- (26) a. John boiled the egg hard.
 b. How hard did John boil the egg?

(26a, b) show that the resultative predicate *hard* can be the target of wh-question. This is a typical property of a complement inside VP.

Japanese resultative predicates also have the same characteristics as English.

- (27) a. *Taroo-wa sono kutu-o pikapika-ni migai-ta*
 Taroo-TOP the shoe-ACC shine-ni polish-PST
 “How shiny did Taro polish the shoes?”
- b. *Taroo-wa sono kutu-o dorekurai pikapika-ni migai-ta no?*
 Taroo-TOP the shoe-ACC how shine-ni polish-PST Q
 “How shiny did Taro polish the shoes?”

(27b) shows the Japanese resultative predicate can be the target of wh-question, which again suggests that it is the complement element inside VP and thus behave like the predicate of a small clause. This test is one of the crucial ones to distinguish a resultative from a depictive. The test for a depictive will be shown later in section 5.4.

2.6 Pseudo-cleft and ‘do so’ Replacement

Roberts (1988) showed that in English the resultative predicate stayed inside VP with syntactic tests such as pseudo-cleft, ‘do so’ replacement, tough movement and VP preposing, which are all well-known tests to detect what a VP contains. Below, those four tests by Roberts will be shown with a canonical English resultative sentence (28).

(28) [A Canonical English Resultative]
John hammered the metal flat.

(29) [Pseudo-cleft]
a. What John did was [hammer the metal flat].
b. *What John did flat [was hammer the metal].

[‘do so’ Replacement]
c. John hammered the metal flat and Mary also did so.
d. *John hammered the metal flat and Mary also did so flat.

[Tough movement]
e. Hammer the metal flat though John may...
f. *Hammer the metal though John may flat...

[VP preposing]
g. John wanted to hammer the metal flat - and hammer the metal flat he did.
h. *John wanted to hammer the metal flat - and hammer the metal he did flat.

It seems that the resultative predicate in Japanese also stays inside VP. Though all those tests by Roberts (1988) cannot be applied to Japanese resultatives because of language differences, the pseudo-cleft and ‘do so’ replacement tests seem to work well in Japanese. The Japanese resultative sentence (9) is repeated in (30a).

- (30) [A Canonical Japanese Resultative]
- a. *Taroo-ga kutu-o pikapika-ni migai-ta*
 Taroo-NOM shoe-ACC shine-ni polish-PST
 “Taro polished the shoes into a shine.”
- [Pseudo-cleft]
- b. *Taroo-ga si-ta-no-wa [kutu-o pikapika-ni miga-ku] koto-da*
 Taroo-NOM do-PAST-one-TOP shoe-ACC shine-ni polish-PRES thing-COP
 “What Taro did is polish the shoes into a shine.”
- c. **Taroo-ga pikapika-ni si-ta-no-wa [kutu-o migaku] koto-da*
 Taroo-NOM shine-ni do-PST-one-TOP shoe-ACC polish-PRES thing-COP
 Int. “What Taro did into a shine is polish the shoes.”

(30b,c) show that the resultative predicate *pikapika-ni* ‘shiny’ indeed stays inside VP. This is nothing to do with the word order; the resultative predicate appears between the object and verb in (30a)/(9), which is a standard word order, whilst it is also completely grammatical to have the resultative predicate before the object, as in (31a).

- (31) [*soo suru* ‘do so’ Replacement; (31a,b,c) are uttered in a single context.]
- a. *Taroo-ga pikapika-ni kutu-o migai-ta*
 Taroo-NOM shine-ni shoe-ACC polish-PST
 “Taro polished the shoes into a shine.”
- b. *Ziroo-mo soo si-ta*
 Ziroo-also so do-PST
 “Ziro also did so.”
- c. **Saburoo-mo pikapika-ni soo si-ta*
 Saburoo-also shine-ni so do-PST
 Int. “Saburo also did so into a shine.”

(31b, c) show the same result as (30). The replacement with ‘do so’ can only be applied to the VP. In (31a), the resultative predicate, object and verb are all replaced with *soo si-ta* ‘did so’, which is a grammatical replacement. However, in (31b), only the object and verb are replaced with *soo si-ta* ‘did so’ and the resultative predicate was left out, and the sentence is ungrammatical. Thus the Japanese resultative predicate stays inside VP.

2.7 Overt Notional Subject of Resultative Predicate

Here, I will insert a notional subject of the resultative predicate into the canonical resultative sentence. The aim of this test is that, if a “resultative” sentence takes the bi-clausal structure, then the sentence may well allow this additional NP as the embedded subject of the sentence. The test in English and Japanese are illustrated below.

- (32) [Additional Notional Subject of Resultative Predicate in English]
 a. *John hammered the metal [**(its/the) form** flat].
 b. *John polished his shoes [**(their/the) surface** shiny].
- (33) [Additional Notional Subject of Resultative Predicate in Japanese]
**Taroo-ga kutu-o [hyoomen-ga pikapika-ni] migai-ta*
 Taroo-NOM shoe-ACC surface-NOM shine-ni polish-PST
 “Taro polished the shoes so that its surface became shiny.”
 Lit. “Taro polished the shoes (its) surface into a shine.”

Neither English nor Japanese allow the additional NP onto the resultative sentence. Guéron & Hoekstra (1995) explained the ungrammaticality of English sentence (32a,b) as lack of T in the English secondary predicates, for the subject of a verb must always be licensed by a local T-head. The case of Japanese in (33) is ungrammatical with the same reason; nothing licenses the nominative case to *hyoomen* ‘surface’. On this point, I will later show that Korean and Mongolian in fact allow these “resultative” sentences with the additional NP in Chapter 4 and 5.

The test above indicates that the resultative phrases in English or Japanese at least do not form an embedded TP clause, but rather something smaller than TP; namely a small clause with an accusative NP as its notional subject.

- (34) [Provisional Resultative Structure in English and Japanese]
 SUBJ [_{SM} NP-ACC Result.Pred] V

In fact, when a verbal element is added to the resultative phrase the sentence with the additional argument as the embedded subject becomes grammatical. Below, *naru yooni* ‘become in.the.way’ is added to the Japanese resultative phrase, and the whole sentence with the additional embedded subject is fully grammatical. This is because the clause “resultative” clause is now a proper TP clause, which may well allow its subject; the local T head can assign the nominative case to the embedded subject, unlike the case of (33).

- (35) [*naru yoo-ni* ‘become way-ni’ with (33)]
Taroo-ga kutu-o [_{TP}*hyoomen-ga pikapika-ni naru yoo-ni*]
 Taroo-NOM shoe-ACC surface-NOM shine-ni become way-ni
migai-ta
 polish-PST
 “Taro polished the shoes in the way (its) surface becomes shiny.”

2.8 Antonym Pairs are not Possible

It is impossible to replace a resultative predicate with its antonym counterpart. This is because the resultative state is the one which is tightly associated with the semantic notion of the verb, and therefore its semantic variation is highly limited. Some English examples are shown in (36).

- (36) a. The joggers ran the pavement thin/*thick.
 b. John wiped the table clean/*dirty.
 c. John shot the dog dead/*alive.

For example, in (36b), having dirty as a resultative predicate causes ungrammaticality, though it is possible to create a situation/context that as a result of wiping something becomes dirty.

Japanese resultatives also have the same characteristic as the English ones. In (37) only *pikapika-ni* ‘shiny’ is grammatical but not the others.

- (37) *Taroo-ga kutu-o pikapika-ni/*dorodoro-ni/*kitana-ku migai-ta*
 Taroo-NOM shoe-ACC shine-ni/muddy-ni/dirtily polish-PST
 Int. “Taro polished the shoes into a shine/muddy/dirtily.”

This test distinguishes the genuine resultative construction from fake ones (cf. section 3.3).

3. Analysis of Resultatives

This section contains two subsections. 3.1 investigates the Japanese subject-oriented resultatives, and 3.2 the Japanese object-oriented resultatives. Each subsection consists of two parts, such as *-ni* and *-ku* resultatives: 3.1.1 subject-oriented *-ni* resultatives, 3.1.2 subject-oriented *-ku* resultatives, 3.2.1 object-oriented *-ni* resultatives, 3.2.2 object-oriented *-ku* resultatives. Importantly, *-de* resultatives do not exist; that is, subject-oriented *-de* resultatives and object-oriented *-de* resultatives do not exist as shown in the table 1 of page 4.

I will apply all the tests of section 2 to the two types (*-ni* and *-ku*) of resultatives and show they are truly resultatives. At the end of the section (section 3.3) I will also observe fake

resultatives. In the previous literature there have been many examples dealt as “resultative”, but some of them do not seem to be the genuine resultatives.

3.1 Subject-oriented Resultatives

In Japanese, subject-oriented resultatives seem to be limited to the intransitive ones; there is no subject-oriented resultative with a transitive main verb. This means that the subject argument is semantically restricted to the internal argument; in Japanese at least, there is no external argument (subject of a transitive or unergative intransitive verb) linked with the resultative predicate. Levin and Rappaport Hovav (1995) and Kageyama (1996) explained this phenomenon with their proposals “Direct Object Restriction” (Levin and Rappaport Hovav, 1995) and “Internal Argument Hypothesis” (Kageyama, 1996) that the resultative predicate can only link to the internal argument cross-linguistically. Some examples for Japanese subject-oriented resultatives are given in (38).

- (38) a. *Taroo-ga hetoheto-ni tukare-ta* (=5a) SUBJ-ori. *-ni* resultatives)
 Taroo-NOM exhausted-ni get.tired-PST
 “Taro got exhausted.”
- b. *taoru-ga karakara-ni kawai-ta* (=5a) SUBJ-ori. *-ni* resultative)
 Towel-NOM very dry-ni dry- PST
 “The towel dried.”
- c. *ringo-ga aka-ku ure-ta* (=5c) SUBJ-ori. *-ku* resultative)
 Apple-NOM red-ku ripen-PST
 “The apple ripened red.”
- d. *huku-ga kuro-ku yogore-ta* (=5c) SUBJ-ori. *-ku* resultative)
 clothes-NOM black-ku become.dirty-PST
 “The clothes became dirty, as a result they were black.”

3.1.1 Subject-oriented *-ni* Resultatives

(38a, b) are the subject-oriented *-ni* resultatives, which corresponds to (5a) of the table 1 (page 4). The typical character of this type is that the meaning of the main verb and resultative predicate are closely related. Several examples of the combinations between a main verb and resultative predicate for this type are shown in (39).

(39)	[Combinations of a Main Verb & Resultative Predicate as SUBJ-ori. <i>-ni</i> Res.]	
	Resultative Predicate (<i>-ni</i>)	Main Verb (intr.)
a.	<i>hetoheto-ni</i> “exhausted”	<i>tukare-ru</i> “get.tired-PRES”
b.	<i>karakara-ni</i> “very dry”	<i>kansoo-su-ru</i> “dry-do-PRES”
c.	<i>katikati-ni</i> “very hard”	<i>koo-ru</i> “freeze-PRES”
d.	<i>garigari-ni</i> “very thin”	<i>yase-ru</i> “diet-PRES”
e.	<i>gudenguden-ni</i> “very drunk”	<i>yo-u</i> “get.drunk-PRES”
f.	<i>paripari-ni</i> “very crispy”	<i>yake-ru</i> “get.grilled-PRES”
g.	<i>aka-ni</i> “red”	<i>soma-ru</i> “dye”

As in (39), the meanings between the main verb and resultative predicate in the Subject-oriented *-ni* resultatives are closely related and, but importantly there is no redundancy in these two meanings. In this type of resultative, the meaning of a resultative predicate gives further detailed information about the state denoted by the main verb. More concretely, the state denoted by a resultative predicate often represents the extreme extent of the state denoted by the main verb.

The sentences (38a, b) are truly “resultative predicate”, though the morpheme *-ni* of the resultative predicates indicates they are not verbs or adjectives but adverbs. The first reason is that the aspectual structure of a subject-oriented *-ni* resultative is the accomplishment type. In this type of resultative construction, the main verb is restricted to the accomplishment type. This is not the case in other types of resultatives, as already shown in section 2.1. When the main verb

is an accomplishment verb, adding a resultative secondary predicate does not change the aspectual structure of the whole sentence. Examples (40) and (41) illustrate the *10pun-de* ‘in 10 minutes’ and *10pun-kan* ‘for 10 minutes’ tests of section 2.1 with the sentences (38a, b).

- (40) [‘in 10 minutes’ Test with (35a, b)]
- a. *Taroo-ga 10 pun-de hetoheto-ni tukare-ta*
 Taroo-NOM 10 minutes-in exhausted-ni get.tired-PST
 “Taro got exhausted in 10 minutes.”
- b. *taoru-ga 10 pun-de karakara-ni kawai-ta*
 Towel-NOM 10 minutes-in very dry-ni dry-PST
 “The towel dried in 10 minutes.”
- (41) [‘for 10 minutes’ Test with (35a, b)]
- a. **Taroo-ga 10 pun-kan hetoheto-ni tukare-ta*
 Taroo-NOM 10 minutes-for exhausted-ni get.tired-PST
 “Taro got exhausted for 10minutes.”
- b. **Taoru-ga 10 pun-kan karakara-ni kawai-ta*
 Towel-NOM 10 minutes-for very dry-ni dry-PST
 “The towel dried for 10 minutes.”

(40a,b) show that the Japanese subject-oriented *-ni* resultatives are compatible with the phrase ‘in 10 minutes’. (41a,b) illustrate that inserting the phrase ‘for 10 minutes’ brings the ungrammaticality to the grammatical sentences (38a,b). This test suggests that the subject-oriented *-ni* resultatives are the accomplishment type.

Second, the resultative predicates *hetoheto-ni* ‘exhausted’ and *karakara-ni* ‘very dry’ are not manner adverbs but clearly provide stative information, which compose an event with the subject argument. As seen in section 2.2, a manner adverb *attoyuuma-ni* ‘within a moment’ is inserted in (38a).

- (42) [from (38a)]
- a. *Taroo-ga attoyuma-ni hetoheto-ni tukare-ta*
 Taroo-NOM a moment(Adv) exhausted-ni(Adv) get.tired-PST
 “Taro extremely got exhausted within a moment.”
- b. *Taroo-ga hetoheto-da*
 Taroo-NOM exhausted-PRES(Adj)
 “Taro is exhausted.”

- c. **Taroo-ga attoyuma-da*
 Taro-NOM a moment-PRES(Adj)
 Lit. “Taro is a moment.”

In (42a), the manner adverb *attoyuma-ni* ‘within a moment’ is inserted in (42a). This sentence is grammatical. (42b) shows that the subject of (42a) *Taroo* can be predicated with the resultative predicate *hetoheto-ni* ‘exhausted’, where the resultative predicate of (42a) is morphologically modified and is a nominal adjective which contains a tense element. Thus (42b) can be schematically analysed as a stative event of [BE *exhausted*(Taro)]. (43c) shows that the subject of (42a) *Taroo* cannot be predicated with the manner adverb *attoyuma-ni* ‘within a moment’.

As already shown in section 2.2, whether a resultative predicate is truly different from a manner adverb can be further tested. (43) and (44) illustrate the test of *onaziyoo-ni* ‘in the same way’ replacement, where (a) and (b) sentences are uttered in a single context.

(43) [Manner Adverb Replacement Test for *attoyuma-ni* (within a moment)]

- a. *Taroo-ga attoyuma-ni tukare-ta*
 Taro-NOM a moment(Adv) get.tired-PST
 “Taro got exhausted within a moment.”
- b. *Ziroo-mo onaziyoo-ni tukare-ta*
 Ziroo-also in the same way get.tired-PST
 “Ziroo also got exhausted in the same way (=within a moment).”

(44) [Manner Adverb Replacement Test for *hetoheto-ni* (exhausted)]

- a. *Taroo-ga hetoheto-ni tukare-ta*
 Taro-NOM exhausted-ni(Adv) get.tired-PST
 “Taro extremely got exhausted.”
- b. #*Ziroo-mo onaziyoo-ni tukare-ta*
 Ziroo-also in the same way get.tired-PST
 “Ziroo also got exhausted in the same way (≠ exhausted).”

In (43), the adverb *attoyuma-ni* ‘within a moment’ is replaced with the manner adverb *onaziyoo-ni* ‘in the same way’, and the replacement is successful; in (43b), *onaziyoo-ni* ‘in the same way’ stands for *attoyuma-ni* ‘within a moment’ of (43a). In (44a), the resultative predicate *hetoheto-ni* ‘exhausted’ is replaced with the manner adverb *onaziyoo-ni* ‘in the same way’. This replacement is unsuccessful; although the sentence (44b) is grammatical, *onaziyoo-ni* ‘in the same way’ of (44b) cannot mean *hetoheto-ni* ‘exhausted’ of (44a). Thus, the resultative predicate in the subject-oriented *-ni* resultative construction is not a manner adverb.

Third, there are resultative predicates which can be used only in the subject-oriented *-ni* resultatives³¹. The morphological difference between a resultative predicate and manner adverb, which was seen in section 2.3, can be found in this type as well. This is shown in (45) and (46).

- | | | |
|------|--------------------------------------|---|
| (45) | Resultative predicates | their Adjectival form(s) |
| | a. <i>gudenguden-ni</i> (very drunk) | <i>gudenguden-no</i> , ??/* <i>gudenguden-na</i> |
| | b. <i>hetoheto-ni</i> (exhausted) | <i>hetoheto-no</i> , ??/* <i>hetoheto-na</i> |
| | c. <i>karakara-ni</i> (very dry) | <i>karakara-no</i> , ??/* <i>karakara-na</i> |
| | d. <i>garigari-ni</i> (very thin) | <i>garigari-no</i> , ??/* <i>garigari-na</i> |
| | | |
| (46) | Manner Adverbs | their Adjectival Form(s) |
| | a. <i>kirei-ni</i> (beautifully) | * <i>kirei-no</i> , <i>kirei-na</i> |
| | b. <i>yasuraka-ni</i> (peacefully) | * <i>yasuraka-no</i> , <i>yasuraka-na</i> |
| | c. <i>kasuka-ni</i> (slightly) | * <i>kasuka-no</i> , <i>kasuka-na</i> |
| | d. <i>rippa-ni</i> (splendidly) | * <i>rippa-no</i> , <i>rippa-na</i> |

(45) shows that the resultative predicates for the subject-oriented *-ni* resultative construction can take only *-no* form when they modify nouns.³² On the other hand, manner adverbs cannot take the *-no* form but the *-na* one. This test shows that subject-oriented *-ni* resultative predicates are not manner adverbs, but are a nominal mimetic with the morpheme *-ni*. The difference between the *-no* and *-na* marked lexical items will be discussed in section 3.3.

Fourth, the morpheme *-ni* of the subject-oriented resultatives cannot be replaced with *-e* ‘to’. This is because the *-ni* of the subject-oriented resultatives is not a GOAL marker like English ‘to’ while *-e*, which is glossed as ‘to’, is a GOAL marker, as already discussed in section 2.4.

- (47) [-*ni* to *-e* Conversion is not Possible with Subject-oriented Resultatives]
- | | | | |
|----|-----------------------|------------------------|------------------|
| a. | <i>Taroo-ga</i> | <i>hetoheto-ni/*-e</i> | <i>tukare-ta</i> |
| | Taroo-NOM | exhausted-ni/-to | get.tired-PST |
| | “Taro got exhausted.” | | |
| | | | |
| b. | <i>taoru-ga</i> | <i>karakara-ni/*-e</i> | <i>kawai-ta</i> |
| | Towel-NOM | very dry-ni/-to | dry-PST |
| | “The towel dried.” | | |

³¹ These resultative predicates, which are unique to the subject-oriented *-ni* resultatives, can be used in the object-oriented resultatives when the original intransitive verbs are causativised by adding the causative morpheme *-ase*. I do not count this case since it is a morphological causative construction and not a resultative one.

³² As to the *-na* forms in (45), I put “??/*”. The grammaticality of the *-na* forms of the subject-oriented *-ni* resultative predicate is clearly lower than that of the object-oriented *-ni* resultative predicate (see 3.1.2).

Thus, consequently, Takamine's (2007) VP-nominalisation test also fails with the subject-oriented resultatives. This operation is possible with the *-ni* of GOAL. The examples are given in (47), where VP-nominalisation is illustrated in (a',b').

(48) [Takamine's (2007) VP-nominalisation with Subject-oriented Resultatives]

a. *Taroo-ga hetoheto-ni tukare-ta*
 Taroo-NOM exhausted-ni/-to get.tired-PST
 "Taro got exhausted."

a'. **Taroo-no hetoheto-e-no tukare-kata*
 Taroo-GEN exhausted-to-GEN get.tired-way
 Int. "Taro's way to get exhausted."

b. *taoru-ga karakara-ni kawai-ta*
 Towel-NOM very dry-ni/-to dry-PST
 "The towel dried."

b'. **taoru-no karakara-e-no kawaiki-kata*
 Towel-GEN very dry-to-GEN dry-way
 Int. "the way to dry a towel very dry"

Fifth, the syntactic characteristics of the subject-oriented *-ni* resultative construction is examined, following the tests of section 2.4. There will be two tests to show that the resultative predicate of the subject-oriented *-ni* resultative construction is not an adjunct but a complement of V. (49) shows that the subject-oriented *-ni* resultatives can take only one resultative predicate but not two.

(49) a. *taoru-ga karakara-ni kawai-ta*
 Towel-NOM very dry-ni dry-PST
 "The towel dried extremely."

b. ?*taoru-ga karikari-ni kawai-ta*
 Towel-NOM very crispy-ni dry-PST
 "The towel dried crispily."

c. ??*taoru-ga karakara-ni karikari-ni kawai-ta*
 Towel-NOM very dry-ni very crispy-ni dry-PST
 Int. "The towel dried in a dry and crispy way."

(49a) is from (38b), which is a canonical subject-oriented *-ni* resultative construction. The sentence (49b) is grammatical to me; I agree this sentence is not perfectly grammatical because the phrase *karakara-ni kansoosuru* ‘very.dry-ni dry’ of (49a) is in a way idiomatic, and the verb ‘dry’ does not normally take other secondary predicates than *karakara-ni* ‘very dry’. However, I do not think many native speakers judge (49b) as fully ungrammatical, at least colloquially. Assuming that (49a, b) are both grammatical, (49c) must be judged as clearly ungrammatical. That is, this is an evidence that in the subject-oriented *-ni* resultative construction, the resultative predicate behaves as a complement rather than an adjunct.

The second test for the syntactic behaviour of the subject-oriented *-ni* resultatives is wh-question. In (50), *dorekurai* ‘how’ is inserted to modify the resultative predicates in the canonical resultatives (38a, b).

- (50) a. ?*Taroo-wa dorekurai hetoheto-ni tukare-ta no?*
 Taroo-TOP how exhausted-ni get.tired-PST Q
 “How exhausted did Taro get?”
- b. *taoru-wa dorekurai karakara-ni kawai-ta no?*
 Towel-TOP how very dry-ni dry-PST Q
 “How dry did the towel?”

Because of the lexical choice, (50a) is unfortunately not the most natural sentence. However, compared with depictive predicates (section 4.4) which cannot be the target of wh-question at all, this sentence (50a) may well be regarded grammatically acceptable. (50a,b) suggest that the resultative predicate of the subject-oriented-*ni* resultatives can be the target of wh-question and is therefore a complement.

Finally, it is impossible to have the antonym-counterpart of the subject-oriented resultative predicate. That is, I cannot find a set of a main verb and an antonym-counterpart of a resultative predicate which can combine semantically; the combination is always semantically nonsense. The reason seems to be because, as I mentioned earlier, the meanings of a main verb and a subject-oriented resultative predicate have to be overlapped, which in turn means that the main verb clearly denotes concrete information about the ending/resultative state. Thus, it is not possible to find a main verb, which shows a overlap in meaning with the antonym-counterpart of a subject-oriented resultative predicate. This is shown in (51), where the antonym counterpart of each resultative predicate is inserted in the canonical resultatives (38).

- (51) a. *Taroo-ga hetoheto-ni/*pinpin-ni tukare-ta*
 Taroo-NOM exhausted-ni/energetic-ni get.tired-PST
 “Taro got tired tiredly/*energetically.”

- b. *taoru-ga* *karakara-ni/*bisyobisyo-ni* *kawai-ta*
 Towel-NOM very dry-ni/very wet dry-PST
 “The towel dried very dry/*very wet.”

(51a, b) show that in this type of resultative construction, only one of the antonym pairs can be used as a secondary predicate. As shown in 2.6, this is a typical feature of the resultative construction, which distinguishes it from the depictive construction (section 4.6).

3.1.2 Subject-oriented *-ku* Resultatives

The second type of the Japanese subject-oriented resultative construction is its *-ku* version (type (5c) of table 1 (p4)). As mentioned earlier, *-ku* is an adverbial morpheme, which always corresponds to *i*-adjective: e.g. *ooki-i* ‘big(Adj)’ → *ooki-ku* ‘big(Adv)’, *aka-i* ‘red(Adj)’ → *aka-ku* ‘red(Adv)’. The example sentences (38c, d) are repeated in (52).

- (52) [Subject-oriented *-ku* Resultatives]
- c. *ringo-ga* *aka-ku* *ure-ta* (=38c)
 apple-NOM red(adv) ripen-PST
 “The apple ripened red.”
- d. *huku-ga* *kuro-ku* *yogore-ta* (=38d)
 clothes-NOM black(adv) become.dirty-PST
 “The clothes became dirty, as a result they were black.”

Interestingly, the resultative secondary predicate of this type seems to be limited to colour/shape terms only.³³ In Japanese, colour terms of two syllables bear the morphemes *-ku* and *-ni*, and those of one syllable with *-iro* ‘colour’ can also bear *-ni* as well as *-ku*. All other colour terms cannot bear *-ku*; they can only bear *-ni*. Thus the number of the resultative predicate in the subject-oriented *-ku* resultatives is highly restricted; indeed, there are likely to be only six words; such as *aka-ku* ‘red’, *ao-ku* ‘blue’, *siro-ku* ‘white’, *kuro-ku* ‘black’, *ki-iro-ku* ‘yellow-colour’ and *cha-iro-ku* ‘brown-colour’.³⁴ As for the shape terms, I could find only two of them such as *maru-ku* ‘round’ and *sikaku-ku* ‘square-ku’.

³³ In the previous literature there are many *-ku* resultative predicates of non-colour terms, such as *komakaku* ‘fine(small)’, *hosoku* ‘thin’, and so on. I will explain that these are not resultative predicates in section 3.3 “Fake Resultatives”.

³⁴ As explained, *ki-iro* ‘yellow-colour’ and *cha-iro* ‘brown-colour’ can bear both *-ni* and *-ku*. However, *-ni* is more natural than *-ku*; especially for *cha-iro* ‘brown-colour’. Even if some native speakers judge *ki-iro-ku* ‘yellow’ and *cha-iro-ku* ‘brown’ as ungrammatical forms, it does not affect the argument of this thesis; it simply means that for those people there are only four *-ku* resultative predicates in Japanese.

Unlike the case of the subject-oriented *-ni* resultatives, the meaning of a main verb is not very close to the meaning of the resultative predicate of this subject-oriented *-ku* resultatives, though there has to be a semantic association in between them. Some examples of the combination of a main verb and resultative predicate in this type are listed in (53).

- (53) [Combinations of a Main Verb & Resultative Predicate in SUBJ-ori. *-ku* Res.]
- | | Resultative Predicate (-ku) | Main Verb (intr.) |
|----|------------------------------------|--|
| a. | <i>aka-ku</i>
“red-ku” | <i>ure-ru</i>
“ripen-PRES” |
| b. | <i>kuro-ku</i>
“black-ku” | <i>yogore-ru</i>
“become.dirty-PRES” |
| c. | <i>siro-ku</i>
“white-ku” | <i>nigo-ru</i>
“become.muddy-PRES” |
| d. | <i>ki-iro-ku</i>
“yellow-ku” | <i>irozuk-u</i>
“become.a.colour-PRES” |
| e. | <i>ao-ku</i>
“blue-ku” | <i>hensyoku-su-ru</i>
“change.colour-do-PRES” |
| f. | <i>maru-ku</i>
“round-ku” | <i>ki-ru</i>
“cut-PRES” |

Some combinations above are less flexible (more idiomatic) than others because of the knowledge of the real world; for example, in (53a) only *aka-ku* ‘red’ can be used with *ure-ru* ‘ripen’, because a fruit normally becomes red when it ripens. However, examples like (53d) allows any colour terms instead of ‘yellow-colour’; it is totally grammatical to replace the word *ki-iro-ku* ‘yellow’ to *aka-ku* ‘red’, *ao-ku* ‘blue’ and so on.

Here, some characteristics of the subject-oriented *-ku* resultatives will be shown, following the tests of section 2. First, *10 pun-de* ‘in 10 minutes’ and *10 pun-kan* ‘for 10 minutes’ are inserted in (52c, d).

- (54) [‘in 10 minutes test’ on Subject-oriented *-ku* Resultatives]
- a. [from (35c)]
- | | | | |
|--|------------------|---------------|---------------|
| <i>ringo-ga</i> | 10 pun-de | <i>aka-ku</i> | <i>ure-ta</i> |
| apple-NOM | 10 minutes-in | red-ku | ripen-PST |
| “The apple ripened red in 10 minutes.” | | | |

- b. [from (35d)]
huku-ga 10 pun-de kuro-ku yogore-ta
 clothes-NOM 10 minutes-in black-ku become.dirty-PST
 “The clothes became dirty as a result they were black, in 10minutes.”
- (55) [‘for 10 minutes’ test on Subject-oriented *-ku* Resultatives]
 a. [from (52c)]
 **ringo-ga 10 pun-kan aka-ku ure-ta*
 apple-NOM 10 minutes-for red-ku ripen-PST
 Int. “The apple ripened red for 10 minutes.”
- b. [from (52d)]
 **huku-ga 10 pun-kan kuro-ku yogore-ta*
 clothes-NOM 10 minutes-for black-ku become.dirty-PST
 Int. “The clothes became dirty as a result they were black, for 10 minutes.”

(54) and (55) show that the subject-oriented *-ku* resultatives are compatible with ‘in 10 minutes’ but not ‘for 10 minutes’. This means that the subject-oriented *-ku* resultatives are telic, which is a cross-linguistic feature of the resultative construction.

Second, *onaziyoo* ‘in the same way’ replacement is tested. As introduced in 2.2, *onaziyoo* ‘in the same way’ is a manner adverb. (56a, b) are uttered in a single context.

- (56) [*onaziyoo* ‘in the same way’ replacement]
 a. *ringo-ga aka-ku ure-ta*
 apple-NOM red-ku ripen-PST
 “The apple ripened red.”
- b. #*mikan-mo onaziyoo-ni ureta-ta*
 orange-also in the same way(adv) ripen-PST
 “The orange also ripened in the same way (\neq red).”

(56b) is a grammatical sentence, but *onaziyoo* ‘in the same way’ does not mean anything unless there is an understood context; that is, the manner adverb *onaziyoo* ‘in the same way’ of (56b) does not stand for *akaku* ‘red’ of (56a). The unsuccessful replacement with a manner adverb suggests that the resultative predicate *akaku* ‘red’ is not a manner adverb.

Third, it is impossible to have more than two resultative predicates in a sentence in the subject-oriented *-ku* resultative construction.

- (57) a. *happa-ga aka-ku irozui-ta*
 leaf-NOM red-ku change.colour-PST
 “Leaves turned red.”
- b. *happa-ga kiiro-ku irozui-ta*
 leaf-NOM yellow-ku change.colour-PST
 “Leaves turned yellow.”
- c. **happa-ga aka-ku kiiroku irozui-ta*
 leaf-NOM red-ku yellow(adv) change.colour-PST
 “Leaves turned red yellow.”
- d. *happa-ga [aka ya kiiro]-ni irozui-ta*
 leaf-NOM red(N) and yellow(N)-ni change.colour-PST
 “Leaves turned red and yellow.”

(57a,b) show that both *akaku* ‘red’ and *kiiroku* ‘yellow’ can be a resultative predicate with the subject *happa* ‘leaf’ and the verb *irozuita* ‘change colour’. (57c) shows that these resultative predicates cannot co-occur in a sentence. This is not because of the lexical choice. In Japanese, (57d) is a fully natural sentence, where the colour terms ‘red’ and ‘yellow’ are coordinated and the morpheme *-ni* is attached to the whole noun phrase. Thus the ungrammaticality of (57c) is the issue of syntax. The *-ku* resultative predicate is a complement of VP but not an adjunct, so that there can be only one resultative predicate in a sentence.

Finally, (58) below illustrates that the resultative predicates of the subject-oriented *-ku* resultatives can be the target of wh-question. As already mentioned in 2.4, this also shows that they are the complement of V rather than an adjunct.

- (58) [Wh-questions on (52c, d)]
- a. *ringo-wa dorekurai aka-ku ure-ta no?*
 apple-TOM how red-ku ripen-PST Q
 “How red did the apple ripen?”
- b. *huku-wa dorekurai kuro-ku yogore-ta no?*
 clothes-TOM how black-ku become.dirty-PST Q
 “How black did the clothes became?”

So far in this 3.1 we have seen that Japanese indeed has subject-oriented resultatives; there are two types such as *-ni* and *-ku* ones, which passed all the available tests shown in the section 2. In the next subsection 3.2, I will focus on the object-oriented resultatives.

3.2 Object-oriented Resultatives

This subsection investigates the object-oriented resultatives in Japanese. As shown in the table 1 (p4), there are two types of object-oriented resultatives in terms of morphology: object-oriented *-ni* (2a) and *-ku* (2c) resultatives. However, *-de* (2b) cannot be used as a morpheme of a resultative predicate. Examples of each type are illustrated in (59).

- (59) a. *Taroo-ga gurasu-o konagona-ni wat-ta* (OBJ-ori. *-ni* Res.)
 Taroo-NOM glass-ACC pieces-ni break-PST
 “Taro broke the glass into pieces.”
- b. *Taroo-ga niku-o karikari-ni yai-ta* (OBJ-ori. *-ni* Res.)
 Taroo-NOM meat-ACC crisp-ni grill-PST
 “Taro grilled the meat crispy.”
- c. *Taroo-ga kabe-o aka-ku nut-ta* (OBJ-ori. *-ku* Res.)
 Taroo-NOM wall-ACC red paint-PST
 “Taro painted the wall red.”
- d. *Taroo-ga huku-o kuro-ku some-ta* (OBJ-ori. *-ku* Res.)
 Taroo-NOM clothes-ACC black dye-PST
 “Taro dyed the clothes black.”

The semantic and syntactic characteristics of object-oriented *-ni* and *-ku* resultatives are described in the following subsections.

3.2.1 Object-oriented *-ni* Resultatives

In section 2, all the tests for resultatives were applied to the example sentence (9) which was a canonical object-oriented *-ni* resultative. So having the tests on other object-oriented *-ni* resultatives may slightly sound redundant, but for the sake of completeness I will briefly show all the tests again with the object-oriented *-ni* resultative sentences (59a, b).

First, the aspectual structure of this type is examined again. The adverbial phrases *10pun-de* ‘in 10 minutes’ and *10pun-kan* ‘for 10 minutes’ are inserted in (59a, b); the former is compatible with telic events, but the latter is not.

- (60) [‘in 10 Minutes’ Test on (59a, b)]
- a. *Taroo-ga gurasu-o 10 pun-de konagona-ni wa-ta*
 Taroo-NOM glass-ACC 10 minutes-in pieces-ni break-PST
 “Taro broke the glass into pieces in 10 minutes.”
- b. *Taroo-ga niku-o 10 pun-de karikari-ni yai-ta*
 Taroo-NOM meat-ACC 10 minutes-in crispy-ni grill-PST
 “Taro grilled the meat crispy in 10 minutes.”
- (61) [‘for 10 Minutes’ Test on (59a, b)]
- a. **Taroo-ga gurasu-o 10 pun-kan konagona-ni wa-ta*
 Taroo-NOM glass-ACC 10 minutes-for pieces-ni break-PST
 “Taro broke the glass into pieces for 10 minutes.”
- b. *Taroo-ga niku-o 10 pun-kan karikari-ni yai-ta*
 Taroo-NOM meat-ACC 10 minutes-for crispy-ni grill-PST
 “Taro grilled the meat crispy for 10 minutes.”

(60) and (61) show that object-oriented *-ni* resultatives are compatible with ‘in 10minutes’ but not ‘for 10 minutes’; the Japanese resultative construction is truly the accomplishment type.

Second, unlike the manner adverb *attoyuuma-ni* ‘within a moment’, the resultative predicate of this type can be predicated with the object argument.

- (62) a. *Taroo-ga gurasu-o attoyuuma-ni konagona-ni wat-ta*
 Taroo-NOM glass-ACC a moment-ni(Adv) pieces-ni break-PAST
 “Taro broke the glass into pieces within a moment.”
- b. *gurasu-ga konagona-da*
 glass-NOM pieces-PRES(Adj)
 “The glass is pieces.”
- c. **gurasu-ga attoyuuma-da*
 glass-NOM a moment-PRES(Adj)
 Int. “The glass is a moment.”

In (62a), the manner adverb *attoyuuma-ni* ‘within a moment’ is inserted in (59a). This sentence is grammatical. (62b) shows that the object of (62a) *gurasu* ‘glass’ can be predicated with the resultative predicate *konagona-ni* ‘into pieces’. On the other hand, (62c) shows that the object of (62a) *gurasu* ‘glass’ cannot be predicated with the adverb *attoyuuma-ni* ‘within a moment’. Resultative predicates of this type denote a state rather than a manner.

As another adverbial test, the *onaziyoo-ni* ‘in the same way’ replacement is applied onto (59a, b), where the two sentences (a,b) in each example are uttered in a single context.

(63) [Manner Adverb Replacement Test for *konagona-ni* (polished)]

a. *Taroo-ga gurasu-o konagona-ni wat-ta*
 Taroo-NOM glass-ACC pieces-ni(Adv) break-PST
 “Taro broke the glass into pieces.”

b. #*Ziroo-mo gurasu-o onaziyoo-ni wat-ta*
 Ziroo-also glass-ACC in the same way break-PST
 “Ziro also broke the glass in the same way (\neq into pieces).”

(64) [Manner Adverb Replacement Test for *karikari-ni* (crispy)]

a. *Taroo-ga niku-o karikari-ni yai-ta*
 Taroo-NOM meat-ACC crisp-ni grill-PST
 “Taro grilled the meat crispy.”

b. #*Ziroo-mo niku-o onaziyoo-ni yai-ta*
 Ziroo-also meat-ACC in the same way grill-PST
 “Ziro grilled the meat in the same way (\neq crispy).”

(63b) and (64b) are both grammatical. However, *onaziyoo-ni* ‘in the same way’ does not stand for the resultative predicates of (63a) and (64a); e.g. in (63b) *onaziyoo-ni* ‘in the same way’ means how *Taro* broke the glasses.

Third, there is a morphological difference between a resultative predicate and manner adverb. As seen in section 2.3, adjectival form of a resultative predicate *X-ni* is either *X-no* or *X-na*, whereas that of a manner adverb is *X-na* only. Examples are given in (65). Compare (65) with (19).

(65)	Resultative Predicate	its Adjectival Form	
	<i>pikapika-ni</i> (shiny)	<i>pikapika-no,</i> <i>?pikapika-na</i>	(=(18))
	<i>konagona-ni</i> (into pieces)	<i>konagona-no,</i> <i>?konagona-na</i>	
	<i>karikari-ni</i> (crispy)	<i>karikari-no,</i> <i>?karikari-na</i>	
	<i>dorodoro-ni</i> (muddy)	<i>dorodoro-no,</i> <i>?dorodoro-na</i>	
	<i>makkuro-ni</i> (truly black)	<i>makkuro-no,</i> <i>*makkuro-na</i>	
	<i>mapputatu-ni</i> (equal two pieces)	<i>mapputatu-no,</i> <i>*mapputatu-na</i>	

Fourth, *-ni* to *-e* ‘to’ conversion and VP-nominalisation are shown in (67). The morpheme *-ni* cannot be replaced with ‘to’, and the VP-nominalisation operation also fails, unlike the canonical

goal *-ni* cases. The test in (67) implies that the morpheme *-ni* of the object-oriented resultative construction is not a GOAL marker.

- (67) [-*ni* to *-e* Conversion and VP-nominalisation]
- a. *Taroo-ga gurasu-o konagona-ni/*-e wat-ta*
 Taroo-NOM glass-ACC pieces-*ni*/*-to* break-PST
 “Taro broke the glass into pieces.”
- a'. **Taroo-no gurasu-no konagona-e-no wari-kata*
 Taroo-GEN glass-GEN pieces-*to*-GEN break-way
 Int. “Taro’s way of breaking glasses into pieces”
- b. *Taroo-ga niku-o karikari-ni/*-e yai-ta*
 Taroo-NOM meat-ACC crisp-*ni*/*-to* grill-PST
 “Taro grilled the meat crispy.”
- b'. **Taroo-no niku-no karikari-e-no yaki-kata*
 Taroo-GEN meat-GEN crisp-*to*-GEN grill-way
 Int. “Taro’s way of grilling meat crispy”

Fifth, two syntactic tests will be applied to (59a, b) to recheck that the resultative predicate of the object oriented *-ni* resultatives is a complement of V rather than an adjunct. The first syntactic test shows how many resultative predicates can occur in a sentence.

- (68) a. *Taroo-ga gurasu-o konagona-ni wat-ta*
 Taroo-NOM glass-ACC pieces-*ni* break-PST
 “Taro broke the glass into pieces.”
- b. *Taroo-ga gurasu-o mapputatu-ni wat-ta*
 Taroo-NOM glass-ACC equal.two.pieces-*ni* break-PST
 “Taro broke the glass into equal two pieces.”
- c. **Taroo-ga gurasu-o konagona-ni mapputatu-ni wat-ta*
 Taroo-NOM glass-ACC pieces-*ni* equal two pieces-*ni* break-PST
 Int. “Taro broke the glass into pieces into equal two pieces.”

(68a, b) show that *konagona-ni* ‘pieces’ and *mapputatu-ni* ‘into equal two pieces’ can play the role of a resultative. However, (68c) suggests that those resultative predicates cannot occur together in a sentence. The second syntactic test shows the resultative predicate of the object-

oriented *-ni* resultatives can be the target of wh-question, which is a typical property of a complement inside VP.

- (69) a. *Taroo-wa gurasu-o konagona-ni kudai-ta*³⁵
 Taroo-TOP glass-ACC pieces-ni break-PST
 “Taro broke the glass into pieces.”
- b. *Taroo-wa gurasu-o dorekurai konagona-ni kudai-ta no?*
 Taroo-TOP glass-ACC how pieces-ni break-PST Q
 “To what extent of pieces did Taro break the glass?”
- (70) a. *Taroo-wa niku-o karikari-ni yai-ta*
 Taroo-TOP meat-ACC crispy-ni grill-PST
 “Taro grilled the meat crispy.”
- b. *Taroo-wa niku-o dorekurai karikari-ni yai-ta no?*
 Taroo-TOP meat-ACC how crispy-ni grill-PST Q
 “How crispy did Taro grill?”

(69) and (70) show the Japanese resultative predicate can be the target of wh-question; it is the complement element inside VP and thus behaves like the predicate of a small clause.

Sixth, the pseudo-cleft and ‘do so’ replacement tests are applied to the object-oriented *-ni* resultatives, which shows that the resultative predicate of this type also stays inside VP, as in (71b,c). (59a) is repeated in (71a).

- (71) a. [Canonical Object-oriented *-ni* Resultative (= (59a))]
Taroo-ga gurasu-o konagona-ni wat-ta
 Taroo-NOM glass-ACC pieces-ni break-PST
 “Taro broke the glass into pieces.”
- [Pseudo-cleft]
- b. *Taroo-ga si-ta-no-wa [gurasu-o konagona-ni waru] koto-da*
 Taroo-NOM do-PAST-one-TOP glass-ACC pieces-ni break thing-PRES
 “What Taro did is break the glass into pieces.”
- c. **Taroo-ga konagona-ni si-ta-no-wa [gurasu-o waru] koto-da*
 Taroo-NOM pieces-ni do-PAST-one-TOP glass-ACC break thing-PRES
 “What Taro did into pieces is break the glass.”

³⁵ In (69a), the main verb of (59a) *wa-ta* ‘broke’ is changed *kudai-ta* ‘broke’. This is due to the naturalness in relation to the *how* phrase; even with *wat-ta* ‘broke’, (69a) is fully grammatical.

(72) illustrates the *soo suru* ‘do so’ replacement test, where three sentences (a,b,c) are uttered in a single context.

- (72) [*soo suru* ‘do so’ Replacement]
- a. *Taroo-ga karikari-ni niku-o yai-ta*
 Taroo-NOM crisp-ni meat-ACC grill-PST
 “Taro grilled the meat crispy.”
- b. *Ziroo-mo soo si-ta*
 Ziroo-also so do-PAST
 “Ziro also did so.”
- c. **Saburoo-mo karikari-ni soo si-ta*
 Saburoo-also crisp-ni so do-PST
 Int. “Saburo also did so into a crisp.”

The replacement with ‘do so’ can only be applied to the VP. In (72b), the resultative predicate, object and verb are all replaced with *soo si-ta* ‘did so’, which is a grammatical replacement. However, in the ungrammatical (72c), only the object and verb are replaced with *soo si-ta* ‘did so’, and the resultative predicate was left out. The Japanese resultative predicate stays inside VP.

Seventh, the notional nominative-marked subject of the resultative predicate is added to the canonical object-oriented *-ni* resultatives. Consider example (73).

- (73) [Additional Nominative-marked NP as Notional Subject of Resultative Predicate]
- a. **Taroo-ga gurasu-o [katati-ga konagona-ni] wat-ta*
 Taroo-NOM glass-ACC form-NOM pieces-ni break-PST
 “Taro broke the glass so that (its/the) form became into pieces.”
- a’. <(a) with *naru yoo-ni* ‘become in.the.way-ni’ >
- Taroo-ga gurasu-o [_{TP}katati-ga konagona-ni naru*
 Taroo-NOM glass-ACC form-NOM pieces-ni become
yoo-ni] wat-ta
 way-ni break-PST
 “Taro broke the glass so that (its/the) form became into pieces.”
- b. **Taroo-ga niku-o [hyoomen-ga karikari-ni] yai-ta*
 Taroo-NOM meat-ACC surface-NOM crisp-ni grill-PST
 “Taro grilled the meat so that (its/the) surface became crispy.”

b'. <(b) with *naru yoo-ni* 'in.the.way-ni' >

<i>Taroo-ga</i>	<i>niku-o</i>	[_{TP} <i>hyoomen-ga</i>	<i>karikari-ni</i>	<i>naru</i>
Taroo-NOM	meat-ACC	surface-NOM	crisp-ni	become
<i>yoo-ni]</i>	<i>yai-ta</i>			
way-ni	grill-PST			

“Taro grilled the meat so that (its/the) surface became crispy.”

(73a,b) show that the canonical object-oriented *-ni* resultatives cannot take the additional nominative-marked NP as a notional subject of the resultative predicates. This is because the resultative predicate does not form a TP clause and the nominative case cannot be assigned to the additional NP successfully. Indeed, when *naru yoo-ni* ‘become way-ni’ is added to (73a,b), then the sentences become grammatical, which is shown in (a’,b’). In (73a’,b’) “NP-NOM become way-ni” forms a clear TP embedded clause, where the local T head successfully assigns the nominative case to the embedded subject NP. Therefore, the contrast between (73a,b) and (73a’,b’) suggests that the resultative predicate of the canonical object-oriented *-ni* resultatives in Japanese lacks the verbal element inside its clause/phrase, forming a smaller clause than TP, namely small clause.

Finally, in this object-oriented *-ni* resultative it is impossible to replace a resultative predicate with its antonym counterpart.

(74) *Taroo-ga niku-o karikari-ni/*betyobetyo-ni yai-ta*
 Taroo-NOM meat-ACC crisp-ni/wet(sticky)-ni grill-PST
 Int. “Taro grilled the meat crispy/wet(sticky).”

As mentioned in 2.8, this test distinguishes the canonical/genuine resultative construction from fake ones (cf. section 3.3).

3.2.2 Object-oriented *-ku* Resultatives

This subsection investigates the object-oriented *-ku* resultatives, which corresponds to (6c) of the table 1 (p4). Like the case of subject oriented *-ku* resultatives, the resultative predicate of this type is also limited to the colour and shape terms only; as explained in the subject-oriented *-ku* resultatives, there are only six words which can be the resultative predicate of this type: *aka-ku* ‘red’, *ao-ku* ‘blue’, *siro-ku* ‘white’, *kuro-ku* ‘black’, *ki-iro-ku* ‘yellow-colour’ and *cha-iro-ku* ‘brown-colour’.³⁶ (59c, d) are repeated here as the examples of canonical object-oriented *-ku* resultatives.

³⁶ Once again, non-colour terms as a resultative predicate will be examined in 3.3 “Fake Resultatives”.

- (75) c. *Taroo-ga kabe-o aka-ku nut-ta* (=59c)
 Taroo-NOM wall-ACC red-ku paint-PST
 “Taro painted the wall red.”
- d. *Taroo-ga huku-o kuro-ku some-ta* (=59d)
 Taroo-NOM clothes-ACC black-ku dye-PST
 “Taro dyed the clothes black.”

Some combinations of a resultative predicate and main verb are laid out in (76).

- (76) [Combinations of a Main Verb & Resultative Predicate in OBJ-ori. *-ku* Res.]
- | | Resultative predicate (-ku) | Main verb (trans.) |
|----|------------------------------------|---|
| a. | <i>aka-ku</i>
“red-ku” | <i>nu-ru</i>
“paint-PRES” |
| b. | <i>kuro-ku</i>
“black-ku” | <i>yogo-su</i>
“make something dirty-PRES” |
| c. | <i>siro-ku</i>
“white-ku” | <i>nigo-su</i>
“make something unclear-PRES” |
| d. | <i>sikaku-ku</i>
“square-ku” | <i>ki-ru</i>
“cut-PRES” |

Syntactic and semantic characteristics of object-oriented *-ku* resultatives are illustrated, following the tests of section 2. First, the time adverbials *10pun-de* ‘in 10 minutes’ and *10pun-kan* ‘for 10 minutes’ are inserted to (75c, d) in order to investigate whether (75c, d) are the accomplishment type or not.

- (77) [‘in 10 minutes test’ on Subject-oriented *-ku* Resultatives]
- a. [from (75c)]
- | | | | | |
|-----------------|---------------|-------------------------|---------------|---------------|
| <i>Taroo-ga</i> | <i>kabe-o</i> | <i>10 pun-de</i> | <i>aka-ku</i> | <i>nut-ta</i> |
| Taroo-NOM | wall-ACC | 10 minutes-in | red-ku | paint-PST |
- “Taro painted the wall red in 10 minutes.”
- b. [from (75d)]
- | | | | | |
|-----------------|---------------|-------------------------|----------------|----------------|
| <i>Taroo-ga</i> | <i>huku-o</i> | <i>10 pun-de</i> | <i>kuro-ku</i> | <i>some-ta</i> |
| Taroo-NOM | clothes-ACC | 10 minutes-in | black-ku | dye-PST |
- “Taro dyed the clothes black in 10 minutes.”

- (78) [‘for 10 minutes test’ on Subject-oriented *-ku* Resultatives]
- a. [from (75c)]
- | | | | | |
|-------------------------------------|----------|-------------------|---------------|---------------|
| ^{??} <i>Taroo-gakabe-o</i> | | 10 pun-kan | <i>aka-ku</i> | <i>nut-ta</i> |
| Taroo-NOM | wall-ACC | 10 minutes-in | red-ku | paint-PST |
- “Taro painted the wall red for 10 minutes.”
- b. [from (75d)]
- | | | | | |
|--------------------------------------|-------------|-------------------|----------------|----------------|
| ^{??} <i>Taroo-ga huku-o</i> | | 10 pun-kan | <i>kuro-ku</i> | <i>some-ta</i> |
| Taroo-NOM | clothes-ACC | 10 minutes-kan | black-ku | dye-PST |
- “Taro dyed the clothes black for 10 minutes.”

(77a, b) show that object-oriented *-ku* resultatives are compatible with ‘in 10 minutes’, while (78a, b) show they are not with ‘for 10 minutes’. That is, object-oriented *-ku* resultatives are the accomplishment type.

Second, whether or not a resultative predicate of this type is a manner adverb is examined with *attoyuuma* ‘within a moment’ insertion and *onaziyoo* ‘in the same way’ replacement tests. In (79), the manner adverb *attoyuuma* ‘within a moment’ is inserted in the canonical object-oriented *-ku* resultatives (75c, d).

- (79) [*Attoyuma* ‘within a moment’ insertion]
- a. [from (75c)]
- | | | | | |
|-----------------|---------------|----------------------------|---------------|---------------|
| <i>Taroo-ga</i> | <i>kabe-o</i> | <i>attoyuuma-ni</i> | <i>aka-ku</i> | <i>nut-ta</i> |
| Taroo-NOM | wall-ACC | a moment-within | red-ku | paint-PST |
- “Taro painted the wall red within a moment.”
- b. [from (75d)]
- | | | | | |
|-----------------|---------------|----------------------------|----------------|----------------|
| <i>Taroo-ga</i> | <i>huku-o</i> | <i>attoyuuma-ni</i> | <i>kuro-ku</i> | <i>some-ta</i> |
| Taroo-NOM | clothes-ACC | a moment-within | black-ku | dye-PST |
- “Taro dyed the clothes black within a moment.”

(79a, b) show that *attoyuuma-ni* ‘within a moment’ can be grammatically inserted in a canonical object-oriented *-ku* resultative. In both sentences, the adverbs ‘within a moment’ and ‘red/black’ are not playing the same role. This is shown in (80) and (81).

- (80) [Predication test on (79a)]
- a. *kabe-ga* *aka-i*
 wall-NOM red-PRES
 “The wall is red”

- b. **kabe-ga attoyuuma-da*
 wall-NOM a moment-PRES
 Int. “The wall is a moment.”
- (81) [Predication Test on (79b)]
- a. *huku-ga kuro-i*
 clothes-NOM black-PRES
 “The clothes are black.”
- b. *huku-ga attoyuuma-da*
 clothes-NOM black-PRES
 “The clothes are black.”

(80) and (81) illustrate that *attoyuuma* ‘within a moment’ cannot be predicated with the object argument unlike the colour terms; the colour terms indeed denote a stative information but the manner adverb *attoyuuma* ‘within a moment’ does not.

Next, *onaziyoo* ‘in the same way’ replacement of 2.2 is tested with the canonical object-oriented *-ku* resultatives (75c, d). In (82) and (83), (a) and (b) sentences are uttered in a single context.

- (82) [*Onaziyoo* ‘in the same way’ replacement with (75c)]
- a. [= (75c)]
Taroo-ga kabe-o aka-ku nut-ta
 Taroo-NOM wall-ACC red-ku paint-PST
 “Taro painted the wall red.”
- b. [(75c) with *onaziyoo* ‘in the same way’]
#Ziroo-mo kabe-o onaziyoo-ni nut-ta
 Ziroo-also wall-ACC in the same way paint-PST
 “Ziro also painted the wall in the same way (\neq red).”
- (83) [*Onaziyoo* ‘in the same way’ replacement with (75d)]
- a. *Taroo-ga huku-o kuro-ku some-ta*
 Taroo-NOM clothes-ACC black-ku dye-PST
 “Taro dyed the clothes black.”
- b. *#Ziroo-mo huku-o onaziyoo-ni some-ta*
 Ziroo-also clothes-ACC in the same way dye-PST
 “Ziro dyed the clothes in the same way (\neq black).”

(82b) and (83b) are both grammatical, but *onaziyoo-ni* ‘in the same way’ does not stand for ‘red/black’; the judgement is slightly difficult, but it does not seem to mean anything; in these (b) sentences, the colour terms are simply omitted and *onaziyoo-ni* ‘in the same way’ should stand for how *Taroo* of the (a) sentences painted, such as ‘with a brush’, ‘with his hands’ and so on. Only the unwritten context gives the content of *onaziyoo-ni* ‘in the same way’. This test shows the resultative predicate of this type is not a manner adverb.

Third, two tests will be illustrate to show that the resultative predicate of this type is not an adjunct but a complement. (84) describes that a sentence cannot have more than two resultative predicates in a sentence.

- (84) a. [= (75c)]
- | | | | | |
|-----------------|---------------|---------------|---------------|--|
| <i>Taroo-ga</i> | <i>kabe-o</i> | <i>aka-ku</i> | <i>nut-ta</i> | |
| Taroo-NOM | wall-ACC | red-ku | paint-PST | |
- “Taro painted the wall red.”
- b. *Taroo-ga* *kabe-o* *ao-ku* *nut-ta*
Taroo-NOM wall-ACC blue-ku paint-PST
- “Taro painted the wall blue.”
- c. **Taroo-ga* *kabe-o* *aka-ku* *ao-ku* *nut-ta*
Taroo-NOM wall-ACC red-ku blue-ku paint-PST
- “Taro painted the wall red blue.”
- d. *Taroo-ga* *kabe-o* [*aka* *ya* *ao*]-*ni* *nut-ta*
Taroo-NOM wall-ACC red and blue-ni paint-PST
- “Taro painted the wall red and blue.”

(84a, b) show that *aka-ku/ao-ku* ‘red/blue’ can be a resultative predicate in the sentence above. However, having both *aka-ku* ‘red’ and *ao-ku* ‘blue’ causes ungrammaticality as in (84c). The ungrammaticality is not the issue of semantics; (84d) shows that ‘red’ and ‘blue’ can be a resultative predicate when they form a noun phrase with *ya* ‘and’ and *-ni* is attached to the noun phrase.

The resultative predicate of this type can be the target of wh-question, which also proves the resultative predicate is not an adjunct but a complement of V. Look at (85) and (86).

- (85) a. *Taroo-wa* *kabe-o* *aka-ku* *nut-ta*
Taroo-TOP wall-ACC red-ku paint-PST
- “Taro painted the wall red.”

- b. *Taroo-wa kabe-o dorekurai aka-ku nut-ta no?*
 Taroo-TOP wall-ACC how red-ku paint-PST Q
 “How red did Taro paint the wall?”
- (86) a. *Taroo-wa huku-o kuro-ku some-ta*
 Taroo-TOP clothes-ACC black-ku dye-PAST
 “Taro dyed the clothes black.”
- b. *Taroo-ga huku-o dorekurai kuro-ku some-ta no?*
 Taroo-NOM clothes-ACC how black-ku dye-PST Q
 “How black did Taro dye the clothes?”

Fourth, pseudo-cleft and ‘do so’ replacement will be applied to the object-oriented *-ku* resultatives.

- (87) [Pseudo-cleft]
- a. *Taroo-ga si-ta-no-wa [kabe-o aka-ku nuru] koto-da*
 Taroo-NOM do-PAST-one-TOP wall-ACC red-ku paint thing-PRES
 “What Taro did is paint the wall red.”
- b. **Taroo-ga aka-ku si-ta-no-wa [kabe-o nuru] koto-da*
 Taroo-NOM red-ku do-PAST-TOP wall-ACC paint thing-PRES
 Int. “What Taro did red is paint the wall.”

(87a, b) show that the resultative predicate *pikapika-ni* ‘shiny’ indeed stays inside VP. (88) illustrates the *soo suru* ‘do so’ replacement, where sentences (a,b,c) are uttered in single context.

- (88) [*soo suru* ‘do so’ Replacement; (a,b,c) are in a single context.]
- a. *Taroo-ga aka-ku kabe-o nut-ta*
 Taroo-NOM red-ku wall-ACC paint-PST
 “Taro painted the wall red.”
- b. *Ziroo-mo soo si-ta*
 Ziroo-also so do-PST
 “Ziro also did so.”
- c. **Saburoo-mo aka-ku/ao-ku soo si-ta*
 Saburoo-also red-ku/blue-ku so do-PST
 Int. “Saburo also did so red/blue.”

The replacement with ‘do so’ can only be applied to the VP. In (79b), the resultative predicate, object and verb are all replaced with *soo si-ta* ‘did so’, which is a grammatical replacement. However, in (88c), only the object and verb are replaced with *soo si-ta* ‘did so’, and the resultative predicate is left out, which is why the sentence is ungrammatical. Thus the Japanese resultative predicate stays inside VP.

Finally, (89) shows the case of the additional nominative-marked NP as the notional subject of the *-ku* resultative predicate.

(89) [Additional Nominative-marked NP as Notional Subject of Resultative Predicate]

a. **Taroo-ga kabe-o [TP hyoomen-ga aka-ku] nut-ta*
 Taroo-NOM wall-ACC surface-NOM red-ku paint-PST
 Int. “Taro painted the wall, so that (its/the) surface became red.”

a'. *Taroo-ga kabe-o [TP hyoomen-ga aka-ku naru yoo-ni] nut-ta*
 Taroo-NOM wall-ACC surface-NOM red-ku become
 way-in paint-PST
 “Taro painted the wall red, so that (its/the) surface became red.”

b. **Taroo-ga huku-o [TP zentai-ga kuro-ku] some-ta*
 Taroo-NOM clothes-ACC whole-NOM black-ku dye-PST
 Int. “Taro dyed the clothes, so that the whole (clothes) became black.”

b'. *Taroo-ga huku-o [TP zentai-ga kuro-ku naru yoo-ni] some-ta*
 Taroo-NOM clothes-ACC whole-NOM black-ku become
 way-ni dye-PST
 “Taro dyed the clothes, so that the whole (clothes) became black.”

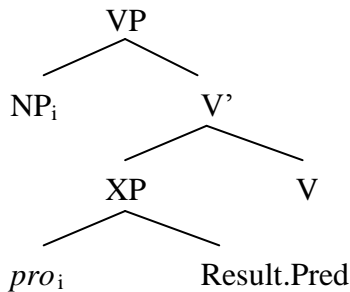
(89a,b) shows that nominative case cannot be assigned within the resultative clause. The ungrammaticality of (89a,b) is not due to the lexical choice or any semantic reasons. In fact, as can be seen in (89a',b'), when a verbal element *naru yoo-ni* ‘become way-ni’ is added to (89a,b), the sentences become grammatical. The clause with *naru yoo-ni* ‘become way-in’ looks to be a normal TP embedded clause, whose local T head successfully assigns the nominative case to its subject. Thus, the contrast between (89a,b) and (89a',b') suggests that the object-oriented *-ku* resultative predicate lacks the V as well as T element, forming a smaller clause than TP; namely a small clause.

3.3 Syntactic Structure of the Japanese Resultative

So far we have observed the syntactic and semantic properties of the Japanese resultative construction. Here in 3.3, I will show the syntactic structure of the Japanese resultative construction, reflecting the analysis in sections 3.1 and 3.2. The semantic properties of resultatives will be further investigated in section 4, where the properties of mimetic words are investigated as well.

In sections 3.1 and 3.2, I stated that the Japanese resultative construction has three properties such as inside VP, complement rather than adjunct and a small clause rather than a full TP clause. In addition, the object of the resultative construction seems to occupy the normal object position of a transitive verb, because the object argument receives its theta-role only from the main verb, which can be understood by the fact that in all resultative sentences in Japanese the resultative predicate is fully optional; it does not affect the subcategorisation of arguments unlike English intransitive resultatives. Therefore I assume the existence of *pro* as the notional subject of the resultative predicate (rather than a raising construction), which is controlled by the object argument. The syntactic structure of the Japanese resultative is illustrated in (90), which is generally identical to that proposed for the English resultative by Bowers (1997), but will be different from those of Mongolian and Korean (see chapter 4 and 5).

(90) [Syntactic Structure of Japanese Resultative Construction]



As mentioned earlier, one of the reasons that the resultative phrase forms a small clause is because they do not take additional nominative notional subject of the resultative predicate (see (33)).³⁷ Canonical resultative sentence and (33) are repeated in (91a,b). (91c,d) show the additional argument with the accusative case and *-mo/-dake* ‘-also/-only’, respectively. Interestingly, (91d) is fully grammatically acceptable.

³⁷ The small clause analysis was proposed by Hoekstra (1984), which is originally due to Stowell (1981).

- (91) a. [Canonical Resultative]
Taroo-ga kutu-o pikapika-ni migai-ta
 Taroo-NOM shoe-ACC shine-ni polish-PST
 Lit. “Taro polished the shoes into a shine.”
- b. [Additional Notional Subject of Resultative Predicate with NOM (= (33a))]
 **Taroo-ga kutu-o [_{sc}hyoomen-ga pikapika-ni] migai-ta*
 Taroo-NOM shoe-ACC surface-NOM shine-ni polish-PST
 Int. “Taro polished the shoes so that its surface became shiny.”
- c. [Additional Notional Subject of Resultative Predicate with ACC]
 **Taroo-ga kutu-o [_{sc}hyoomen-o pikapika-ni] migai-ta*
 Taroo-NOM shoe-ACC surface-ACC shine-ni polish-PST
 Int. “Taro polished the shoes so that its surface became shiny.”
- d. [Additional Notional Subject of Resultative Predicate with *-mo/-dake* ‘-also/-only’]
Taroo-ga kutu-o hyoomen-mo/-dake [_{sc}pikapika-ni] migai-ta
 Taroo-NOM shoe-ACC surface-also/-only shine-ni polish-PST
 “Taro polished the shoes so that (only) its surface (also) became shiny.”

The reason that (91b)/(33a) is ungrammatical is because there is no T head in the resultative phrase; nothing licences the nominative case marker. (91c) is also ungrammatical. The double *-o* ‘ACC’ constraint blocks the construction (91c). In Japanese it is impossible to have two accusative markers in a TP clause. This in fact indicates that the Japanese resultative phrase is indeed not a full TP clause but a small clause. (91d) is fully grammatical. The reason seems to be that the additional *-mo/-dake* ‘-also/-only’ marked noun is floating outside the resultative small clause as indicated in (91d). The key issue is that the accusative marked noun and the *-mo/-dake* ‘-also/-only’ marked noun must be in a part-whole relation. The nouns in a part-whole relation should by definition be able to be connected with the genitive case marker, like [NP₁-GEN NP₂-x] (“x” stands for a case marker, which varies, depending on where the phrase appears). In Japanese this genitive form can be always converted to [NP₁-x NP₂-mo/-dake]. Look at (92a).

- (92) a. [NP₁-no NP₂-ga/-o] ↔ [NP₁-ga/-o NP₂-mo/-dake]
 -GEN -NOM/-ACC -NOM/-ACC -also/-only
- b. [Equivalent to (91d)]
Taroo-ga kutu-no hyoomen-o [_{sc}pikapika-ni] migai-ta
 Taroo-NOM shoe-GEN surface-also/-only shine-ni polish-PST
 “Taro polished the shoes (its) surface into a shine.”

The NP₂-*mo/-dake* ‘NP₂-also/-only’ of (91d) is floating. Using this strategy, we can conclude that the *hyoomen-mo/-dake* ‘surface-also/-only’ of (91d), which corresponds to NP₂-*mo/-dake* ‘NP₂-also/-only’, is indeed outside the small clause, because as in (92b) the two arguments *kutu* ‘shoe’ and *hyoomen* ‘surface’ originally make a single constituent in the canonical object position, which is outside the resultative small clause.

3.4 Fake Resultatives

At the end of section 3, I will show fake resultatives. In the previous literature, there have been many “resultatives” which are not genuine resultatives. These fake resultatives can be found in both *-ni* and *-ku* forms. Fake resultatives are fake, because the fake resultative predicates are resultant/resultant manner/manner adverbs. Washio’s (1997) “spurious resultative” actually belongs to the resultant adverb. I will here describe the categorisation of adverbs briefly; some of the syntactic tests will be shown later with concrete examples rather than here.

To begin with the categorisation of adverbials, I will introduce Nitta’s (2002) “Adverbial Categorisation in Japanese”. Nitta categorised Japanese adverbial expressions into four groups such as a) resultant manner adverb, b) manner adverb, c) adverb of extent and d) sentential adverb. Kageyama (1996) indicated the categorisation of adverbs, which does not really fit the Nitta’s categorisation of adverbs, but Matsui and Kageyama (2007) seem to follow Nitta’s categorisation.³⁸ On top of the four adverbial categories above, Matsui and Kageyama (2007) use the term “resultant adverb”, which does not seem to fit either resultant manner adverb or manner adverb. From my point of view, I do agree with Nitta’s (2002) “adverb of extent (93c)” and “sentential adverb (93d)”. However, I do not agree with his “resultant manner adverb (93a)”, “manner adverb (93b)” and Matsui & Kageyama’s (2007) “resultant adverb”, which directly affect the issue of (fake) resultative construction. It seems that at least Nitta (2002) did not have any syntactic or semantic tests to categorise Japanese adverbial expressions; he categorised them in terms of (his) intuitive interpretations of them. First, I introduce Nitta’s (2002) categorisation of Japanese adverbial expressions in (93), and then move onto my categorisation of Japanese adverbial expressions with some syntactic and semantic tests.

- (93) [Categorisation of Japanese Adverbial Expressions (Nitta 2002)]
- a. [Resultant Manner Adverbs]
- | | | |
|-----------------------------------|-------------------------------------|-----------------------------|
| <i>kata-ku</i> ‘hard’ | <i>yawaraka-ku</i> ‘soft’ | <i>atu-ku</i> ‘thick’, |
| <i>usu-ku</i> ‘thin’, | <i>ooki-ku</i> ‘big-ku’, | <i>ciisa-ku</i> ‘small-ku’, |
| <i>komaka-ku</i> ‘small/fine-ku’, | <i>hosoku-ku</i> ‘thin/tight’, | <i>aka-ku</i> ‘red’, |
| <i>konagona-ni</i> ‘pieces-ni’, | <i>massiro-ni</i> ‘plain white-ni’, | |

³⁸ Kageyama (1996) called *utukusi-ku* ‘beautiful-ku’ “resultant manner adverb”. However, Matsui and Kageyama (2007) follows Nitta’s (2002) categorisation of adverbial, where *utukusi-ku* ‘beautiful-ku’ is not categorised as a resultant manner adverb but a manner adverb, as in (93b).

b. [Manner Adverbs]

<i>utukusi-ku</i> ‘beautiful-ku’,	<i>kitu-ku</i> ‘tight-ku’,	<i>tanosi-ku</i> ‘joyful-ku’,
<i>yasasi-ku</i> ‘kind’,	<i>sincyoo-ni</i> ‘careful’,	<i>teenee-ni</i> ‘polite’,
<i>sizuka-ni</i> ‘quite-ni’	<i>bukkiraboo-ni</i> ‘rough-ni’,	<i>hogaraka-ni</i> ‘mild-ni’

c. [Adverbs of Extent]

<i>osorosi-ku</i> ‘terrible-ku’,	<i>hido-ku</i> ‘horrible-ku’,	<i>sugo-ku</i> ‘very-ku’,
<i>icizirusi-ku</i> ‘distinctive-ni’,	<i>mooretu-ni</i> ‘extreme-ni’,	<i>hagesi-ku</i> ‘hard-ni’.
<i>tuyo-ku</i> ‘strong-ku’,	<i>karu-ku</i> ‘light-ku’,	<i>kasuka-ni</i> ‘slight-ni’,
<i>kyooretu-ni</i> ‘extreme-ni’,	<i>kyokutan-ni</i> ‘extreme-ni’,	<i>wazuka-ni</i> ‘a bit-ni’

d. [Sentential Adverbs]

<i>koounnimo</i> ‘fortunately’,	<i>akiraka-ni</i> ‘obvious-ni’,
<i>zannennimo</i> ‘dissappointingly’,	<i>odoroitakoto-ni</i> ‘surpriseing-ni’
<i>negawakuba</i> ‘hopefully’,	<i>hyottositara</i> ‘maybe’

(93) illustrates the Nitta’s categorisation. As I mentioned earlier, I agree with (93c) ‘adverb of extent’ and (93d) ‘sentential adverb’, and they do not affect the issue of the resultative construction at all; they do not appear in the genuine/fake resultative constructions introduced in any previous literature; they are not confusing. Thus I do not discuss about them any further. The problems of (93a,b) are as below; first, in (93a) only *aka-ku* ‘red’, *konagona-ni* ‘pieces-ni’ and *massiro-ni* ‘plain white-ni’ can be used as a true resultative predicate but all the others in (93a) cannot be; second, *utukusi-ku* ‘beautiful-ku’ and *kitu-ku* ‘tight-ku’ of (93b) have different syntactic and semantic properties from the others of (93b), which will be explained later in (94).

Hence, I present my classification of Japanese adverbial expressions in (101). I define “resultant adverb” as the one which semantically describes the state of an entity which the action denoted by the main verb brings about, but syntactically modify the main verb. From the semantic point of view, this type differs from the canonical resultative predicate in that they do not describe the ‘change’ of state (lack the element of INCHOATIVE aspect) and only describe the state which happens after the action of the main verbs is performed, while the canonical resultatives are the ones which describe the change of state; the resultative construction expresses the change of a state of an entity. Thus resultant adverbs fail in the predication test since they lack the INCHOATIVE aspect. Look at the examples of resultant adverb in (94).

- (94) [Resultant Adverbs]
- a. *zi-o* ***utukusi-ku*** *kai-ta*³⁹
 character-ACC beautiful-ku write-PST
 (i) “(pro) wrote characters so that they look beautiful.” (resultant adverb)
 OR
 (ii) “(pro) wrote characters in a beautiful manner” (simple manner adverb)
 Lit. “write characters beautiful(ly).”
- b. *tempura-ga* ***karat-to*** *agat-ta*
 tempura-NOM crispy-ADV deep.fry._{INTR}-PST
 “The tempura was deep-fried crispy.”

(94a,b) look like a resultative construction, but they are not; the lexical items in bold font are resultant adverbs. (94a) has two readings, where the first one represents the resultant adverb reading, while the second one the simple manner reading. In fact, they fail in the predication test as in (95); (95a,b) do not describe the situation of (94a,b). This is due to the lack of inchoative aspect in (94a,b); for example, in (94a) it is not the case that an ugly character became beautiful; it is the case that someone wrote a letter, and it looks beautiful. (94a,b) do not describe the change of state of an entity.

- (95) [Predication Test with Resultant Manner Adverbs]
- a. #*zi-o* ***utukusi-ku*** *nat-ta*
 character-ACC beautiful-ku become-PAST
 “The character became beautiful.”
- b. **tempura-ga* ***karat-to*** *nat-ta*
 tempura-NOM crispy-ADV become-PAST
 “The tempura became crispy.”

However, the resultant adverbs do not describe the manner of an action; they are not a kind of manner adverbs. Japanese Manner adverbs can bear the conversion shown in (96), where the main verb is nominalised by adding *-kata* ‘-way’.

- (96) [Nominalisation with *-kata* ‘-way’ for Manner Adverb Test]
 NP₁-NOM NP₂-ACC X-ku V-past → (NP₂-GEN) V-way-NOM X-PRES

Manner adverb test with the resultant adverbial sentences (94a,b) are illustrated in (97).

³⁹ An adverb may belong to more than one type of adverb. I will mention it in (101).

- (97) [Manner Adverbial Test]
- a. <from (94a)>
#zi-no *kaki-kata-ga* *utukusi-i*⁴⁰
 character-GEN write-way-NOM beautiful-PRES
 “The way of writing character is beautiful.”
- b. **tempura-no* *age-kata-ga* *karat(-to)-da*
 tempura-NOM deep.fry-way-NOM crispy-ADV-COP
 “The way of deep-frying the tempura was crispy.”

(97) shows that (94a,b) cannot bear the nominalisation of (96). That is, (94a,b) are not manner adverbial sentences.

I mentioned in (95) that resultant adverbs cannot be a resultative predicate. Matsui and Kageyama (2009) also discussed this point, although they did not categorise adverbs as I do and simply followed Nitta’s (2002) categorisation. They argued that there is a class of adjectives which cannot be a resultative predicate: e.g. *utukusi-ku* ‘beautiful’, *kakkoyo-ku* ‘smart/good-looking’, *kirei-ni* ‘beautiful/clean’, etc. These words like *utukusi-ku* ‘beautiful-ku’ describe a state which does not have constant standard of judgement/assessment unlike the resultative predicate; their standard can vary depending on the individual’s subjective opinion.

Next, I define that the “resultant manner adverb” looks to describe a (resultant) state of an entity semantically, but in fact describes the way how an action of the main verb is performed. Examples are given in (98).

- (98) [Resultant Manner Adverbs]
- a. *Taroo-ga* *ninjin-o* *tiisa-ku/ooki-ku/komaka-ku* *kit-ta*
 Taroo-NOM carrot-ACC small-ku/big-ku/fine-ku cut-PST
 “Taro cut the carrots into small/big/fine pieces.”
 Lit. “Taro cut the carrots small/big/fine.”
- b. *Taroo-ga* *tamago-o* *yawaraka-ku/kata-ku* *yude-ta*
 Taroo-NOM egg-ACC soft-ku/hard-ku boil-PST
 “Taro boiled the eggs soft/hard.”
- c. *Taroo-ga* *surume-o* *hoso-ku/huto-ku* *sai-ta*
 Taroo-NOM dry.squid-ACC thin(narrow)-ku/wide-ku tear-PST
 “Taro tore the dried squid thin/wide.”

⁴⁰ (97a) is grammatical, but semantically strange, as *utukusi-i* ‘beautiful-PRES’ can only have a manner interpretation (see (94a (ii)) related to the ‘way’ of writing, but crucially not to the resultant state of the characters.

- d. *Taroo-ga niku-o atu-ku/usu-ku kit-ta*
 Taroo-NOM meat-ACC thick-ku/thin-ku cut-PST
 “Taro cut the meat thick/thin.”

The reason that these sentences in (98) look like a true resultative is that they look to pass the predication test as in (99). However, the sentences in (99) do not describe the resultant state of the sentences in (98), though they are all grammatical.

(99) [Predication Test]

a. [from (98a)]

#*ninzin-ga tiisa-ku/ooki-ku/komaka-ku nat-ta*
 carrot-NOM small-ku/big-ku/fine-ku become-PST
 Lit. “The carrot became small/big/fine.”

b. [from (98b)]

#*tamago-ga yawaraka-ku/kata-ku nat-ta*
 egg-NOM soft-ku/hard-ku become-PST
 Lit. “The egg became soft/hard.”

c. [from (98c)]

#*surume-ga hoso-ku/huto-ku nat-ta*
 dry.squid-NOM thin(narrow)-ku/wide-ku tear-PST
 Lit. “The dry squid became thin/wide.”

d. [from (98d)]

#*niku-ga atu-ku/usu-ku nat-ta*
 meat-NOM thick-ku/thin-ku become-PST
 “The meat became thick/thin.”

For example, (99b) does not indicate the resultant state shown in (98b); the proposition “Taro boiled the egg soft/hard” means that the boiled egg is relative soft/hard as a boiled egg, and does not mean that the egg became soft/hard by boiling it: a soft boiled egg is surely harder than the non-boiled egg. And (99c) means *the dry squid became thin/wide*. However, this cannot be a result of (98c); by tearing a piece of dry squid, it is impossible to widen it. Thus unlike the canonical resultatives, resultant manner adverbs do not semantically describe the (resultant) state of the object argument.

Since resultant manner adverbs are manner adverbs, they pass the manner adverbial test of (96), as in (100). (100e’,f’) describe the cases of genuine resultatives.

- (100) a. [from (98a)]
(ninjin-no) *kiri-kata-ga* ***tüisa-i/ooki-i/komaka-i***
 carrot-GEN cut-way-NOM small-PRES/big-PRES/fine-PRES
 “The way of cutting (the carrot) is small/big/fine.”
- b. [from (98b)]
(tamago-no) *yude-kata-ga* ***yawaraka-i/kata-i***
 tamago-GEN boil-way-NOM soft-PRES/hard-PRES
 “The way of boiling (the egg) is soft/hard.”
- c. [from (98c)]
(surume-no) *saki-kata-ga* ***hoso-i/?huto-i***
 dry squid-GEN tear-way-NOM thin(narrow)-PRES/wide-PRES
 “The way of tearing (the dry squid) is narrow/wide.”
- d. [from (98d)]
niku-no *kiri-kata-ga* ***atu-i/usu-i***
 meat-GEN cut-way-NOM thick-PRES/thin-PRES
 “The way of cutting (the meat) is thick/thin.”
- e. [Canonical Object-oriented Resultative]
Taroo-ga *kutu-o* ***pikapika-ni*** *migai-ta*
 Taroo-NOM shoe-ACC shine-ni polish-PST
 “Taro polished the shoes into a shine.”
- e’. [Predication Test of (137) with (138e)]
 kutu-no* *migaki-kata-ga* *pikapika-da***
 shoe-GEN polish-way-NOM shiny-COP
 Int. “The way of polishing (the shoes) is shiny.”
- f. [Canonical Subject-oriented Resultative]
taoru-ga ***karakara-ni*** *kawai-ta*
 Towel-NOM very dry-ni dry-PST
 “The towel dried very dry.”
- f’. [Predication Test of (137) with (138f)]
 taoru-no* *kawaki-kata-ga* *karakara-da***
 shoe-GEN dry-way-NOM dry-COP
 Int. “The way of towel’s drying is dry.”

Finally, there is one more point, which distinguishes resultant manner adverb from the canonical resultative predicate. Resultant manner adverbs are only adverbs, and thus allow antonym pairs as their resultant state as can be seen in (98), which is atypical of true resultative (see section 2.8).⁴¹

Next, I do not have much to say about simple “manner adverbs”, such as *yukkuri-to* ‘slowly-ADV’, *tanosi-ku* ‘joyful-ku’ and so on. They are the ones which describe the way/manner of an action denoted by verbs. Thus they do not pass the predication test but do pass the manner adverb test I showed in (96).

Here, I offer the list of resultant, resultant manner and manner adverbs in (101). As mentioned in footnote 10, an adverb may belong to more than one category of adverbs; e.g. *utukusi-ku* ‘beautiful’ of (101) can be either resultant manner adverb (101a) or manner adverb (101c), depending upon the main verb and context; the context could force an adverb in a different usage from its canonical one. Thus the list shows the typical usage of adverbs. However, importantly, these lexical items in (101) are all adverbs and not (resultative) predicates. Even in a distorted context, the words in (101) can never be used as a resultative predicate.

- (101) [Categorisation of Japanese Adverbial Expressions]
- a. [Resultant Adverbs]
- | | | |
|-----------------------------------|-------------------------------|-------------------------------|
| <i>utukusi-ku</i> ‘beautiful-ku’, | <i>kakkoyo-ku</i> ‘smart-ku’, | <i>aomuke-ni</i> , ‘belly.up’ |
| <i>utubuse-ni</i> ‘belly.down’ | <i>karat-to</i> ‘dry&light’, | <i>karit-to</i> ‘crispy’ |
- b. [Resultant Manner Adverb]
- | | | |
|------------------------------|----------------------------------|----------------------------|
| <i>kitu-ku</i> ‘tight-ku’, | <i>yuru-ku</i> ‘loose’, | <i>kata-ku</i> ‘hard’, |
| <i>yawaraka-ku</i> ‘soft’, | <i>atu-ku</i> ‘hot/thick’, | <i>usu-ku</i> ‘thin’, |
| <i>ooki-ku</i> ‘big-ku’, | <i>tiisa-ku</i> ‘small-ku’, | <i>huto-ku</i> ‘thick’, |
| <i>hoso-ku</i> ‘thin/tight’, | <i>komaka-ku</i> ‘small/fine-ku’ | <i>hukkura-to</i> ‘fluffy’ |
- c. [Manner Adverbs]
- | | | |
|------------------------------|----------------------------------|-------------------------------|
| <i>yasasi-ku</i> ‘kind’, | <i>sintyoo-ni</i> ‘careful’, | <i>teenee-ni</i> ‘polite’, |
| <i>sizuka-ni</i> ‘quite-ni’, | <i>bukkiraboo-ni</i> ‘rough-ni’, | <i>hogaraka-ni</i> ‘mild-ni’, |
| <i>tanosi-ku</i> ‘joyful-ku’ | | |

(102) shows a couple of words I picked up from Nitta’s adverbial list (93). These words cannot be used adverbs, but only as (resultative secondary) predicates.

- (102) [Resultative Predicate, picked up from Nitta’s (2002) List (93)]
- | | | |
|-------------------------------------|---------------------------------|---------------------|
| <i>massiro-ni</i> ‘plain white-ni’, | <i>konagona-ni</i> ‘pieces-ni’, | <i>aka-ku</i> ‘red’ |
|-------------------------------------|---------------------------------|---------------------|

⁴¹ The antonym pair test does not apply to all the *-ku* words I list in (101) as resultant manner adverbs, but they highly allow antonym pairs.

Now I start looking into each fake resultative example introduced in the previous literature as genuine/fake resultative. First, I start with Washio's (1997) famous spurious resultatives.

3.4.1 Washio's (1997) Spurious Resultative

The spurious resultative resembles the genuine resultative on the surface but expresses a different content from the genuine type. An example of the spurious resultative is given in (101).

(103) He tied his shoelaces tight. (Washio, 1997)

Washio (1997) called the examples like (80) as "spurious resultatives". He discussed semantic and syntactic features of the spurious type; (A) they involve an activity such that a particular manner of action directly leads to a particular state, (B) it makes no difference if the adjective is taken as specifying the result state or specifying the manner of action so that, typically, the adjective can be replaced with the corresponding adverb with virtually no difference in meaning, (C) they permit either one of the adjectives forming the antonym pair, and (D) the standard paraphrase ("x cause y to become z") often fails, especially with one of the antonymous adjectives, which will be shown below. All these features are not the characteristics of the genuine resultatives. Examples are given below.

(104) [(B) Adjective to Corresponding Adverb in the Spurious Resultatives]
a. He tied his shoelaces tight.
b. He tied his shoelaces tightly. (Washio, 1997)

(105) [(B) Adjective to Corresponding Adverb in the Genuine Resultatives]
a. He shot the dog dead.
b. *He shot the dog deadly.

As shown in (103), the spurious resultative predicate *tight* of (104a) can be replaced with its adverbial counterpart *tightly*. However, as in (105) it is impossible to replace the canonical resultative predicate with its adverbial counterpart.

(106) [(C) Antonym Pair]
a. He spread the butter thick/thickly.
b. He spread the butter thin/thinly. (Washio, 1997)

(106a) is a spurious resultative which allows both *thick* and *thickly* to mean the same proposition. (106) shows the antonym pair *thick* and *thin* can both be a resultative predicate in the sentence *he*

spread the butter. As already mentioned in section 2.6, the genuine resultative does not allow both words of an antonym pair to be a resultative predicate of a sentence.

- (107) [(D) Paraphrasing between “Spurious Resultatives” and “X cause Y to become Z”]
 a. He opened the window wide/widely.
 b. He caused the window to become wide by opening it. (Washio, 1997)

(107a) is a spurious resultative. (107b) does not mean (107a); the window itself does not become wide or change its size; thus in (107a) *the window* cannot semantically be predicated with *wide*. In the spurious type, the spurious resultative predicate modifies the main verb like a manner adverb. As shown in 2.2 (predication test), the genuine resultative always allows the resultative predicate to be predicated with its modifying argument.

Another feature of the spurious type is that it is not an accomplishment type and normally describes a temporal situation. Thus it can be compatible with both ‘in 10 minutes’ and ‘for 10 minutes’ unlike canonical resultatives. This is illustrated in (108).

- (108) a. John opened the window wide in 3 seconds
 b. John opened the window wide for 3 seconds (it was wide for 3 seconds).

Washio (1997) stated that the spurious resultatives can be found in Japanese with both *-ni* and *-ku* morphemes and carry the same properties as the English ones. Some examples of Japanese spurious resultatives are given below. These spurious resultative predicates in bold font in (109) belong to the resultant manner adverbs.

- (109) a. *kare-wa bataa-o **atu-ku/usu-ku** nut-ta*
 he-TOP butter-ACC thick/thin spread-PST
 “He spread the butter thick/thin.”
- b. *kare-wa niku-o **atu-ku/usu-ku** kit-ta*
 he-TOP meat-ACC thick/thin cut-PST
 “He cut the meat thick/thin.”
- c. *kare-wa kutu-no himo-o **kata-ku/yuru-ku** musun-da*
 he-TOP shoe-GEN lace-ACC tight/loose tie-PST
 “He tied the shoelaces tight/loose.”

(109) shows that Japanese spurious resultatives permit both adjectives forming an antonym pair, like the English ones. For instance, in (109a) both *atu-ku* ‘thick’ and *usu-ku* ‘thin’ are grammatical. (109a,b,c) are all compatible with both *10 pun-de* ‘in 10 minutes’ (in (110)) and *10*

pun-kan ‘for 10 minutes’ (in (111)); Japanese spurious resultatives are not the accomplishment type either.

- (110) [‘in 10 minutes’ Test on the Japanese Spurious Resultative (86a)]
kare-wa bataa-o 10 pun-de atu-ku/usu-ku nut-ta
 he-TOP butter-ACC 10 minutes-in thick/thin spread-PST
 “He spread the butter thick/thin in 10 minutes.”
- (111) [‘for 10 minutes’ Test on the Japanese Spurious Resultative (86a)]
kare-wa bataa-o 10 pun-kan atu-ku/usu-ku nut-ta
 he-TOP butter-ACC 10 minutes-for thick/thin spread-PST
 “He spread the butter thick/thin for 10 minutes.”

Onaziyoo-ni ‘in the same way’ replacement test also distinguishes the spurious resultative from the true resultative. As mentioned earlier, the canonical resultative predicate cannot be replaced with the adverbial phrase *onaziyoo-ni* ‘in the same way’, maintaining its original meaning. However, the spurious resultative predicate can be replaced with *onaziyoo-ni* ‘in the same way’. Thus the spurious resultative predicate modifies the main verb rather than an argument. Look at the example (112).

- (112) [*Onaziyoo-ni* ‘in the same way’ Replacement Test]
Taroo-ga bataa-o usuku nut-ta, Hanako-mo bataa-o
 Taro-NOM butter-ACC thin spread-PST Hanako-also butter-ACC
onaziyoo-ni nut-ta
 in.the.same.way spread-PST
 “Taro spread the butter thin, Hanako also spread butter in the same way (= thin).”

Note that here I used the *-ku* morpheme as the examples of the spurious resultative predicates. However, spurious resultatives can be *-ni* marked, though Washio (1997) did not show any of spurious *-ni* resultatives. Furthermore, it seems to be possible to have subject-oriented spurious resultatives too, although they have not yet been introduced in any previous literature. In the coming several sections, I will introduce these fake resultatives one by one.

3.4.2 Fake Subject-oriented *-ni* Resultatives

The sentences in (113) represent fake subject-oriented *-ni* resultatives. Some of them are the ones raised as a real resultative, and others are the ones which, I thought, look like a resultative. In all examples, the *X-ni* phrases are not resultative predicates but adverbs.

- (113) [Fake Subject-oriented *-ni* Resultatives]
- a. *hana-ga kirei-ni sai-ta*
 flower-NOM beautifully blossom-PST
 “The flower beautifully blossomed.”
- b. *Taroo-ga yasuraka-ni sin-da*
 Taroo-NOM peacefully die-PST
 “Taro died peacefully.”
- c. *akari-ga kasuka-ni tomot-ta*
 Light-NOM slightly light-PST
 “The light lit slightly.”
- d. *Taroo-ga rippa-ni/genki-ni kuruma-o untensi-ta*
 Taroo-NOM splendidly/lively car-ACC drive-PST
 “Taro drove the car splendidly/lively.”

These sentences are likely to be misunderstood as genuine resultatives, because the predication test looks fine; (114), which describes the predication test with (113a), is grammatical. However (114) does not represent a part of the event structure of (113a); the sentence (113a) does not contain the stative event where the flower became beautiful; (113a) is a simple activity event. Thus, what (114) describes is only a pragmatically imaginable event associated with (113a). *Kirei-ni* ‘beautifully’ in (113a) is a manner or resultant manner adverb. The others (113b-d) are all manner adverbial sentences.

- (114) [Predication test on (113a)]
- #*hana-ga kirei-ni nat-ta*
 flower-NOM beautiful-ni become-PST
 “The flowers became beautiful.”

Not only (113a) but all examples of (113) carry the properties which canonical resultatives do not; they are compatible with *10 pun-kan* ‘for 10 minutes’ and can be replaced with *onaziyoo-ni* ‘in the same way’, maintaining the original meaning of the *-ni* adverbs (cf. sections 2.1 and 2.2). Examples of the aspectual test and manner adverb replacement test are given in (115).

- (115) a. *Taroo-ga rippa-ni kuruma-o untensi-ta* [= (113d)]
 Taroo-NOM splendidly car-ACC drive-PST
 “Taro drove the car splendidly.”

- b. [*10pun-kan* ‘for 10minutes’ Test on (113d)]
Taroo-ga 10 pun-kan rippa-ni kuruma-o untensi-ta
 Taroo-NOM 10 minutes-for splendidly car-ACC drive-PST
 “Taro drove the car splendidly for 10 minutes.”
- c. [*Onaziyoo* ‘in the same way’ Replacement on (113d)]
Ziroo-ga onaziyoo-ni kuruma-o untensi-ta
 Ziroo-NOM in the same way car-ACC drive-PST
 “Ziro drove the car in the same way (=splendidly).”

In respect to fake subject-oriented *-ni* resultatives, some more examples are shown in (116). Miyakoshi (2006) raised the example of (116) as a subject-oriented resultative construction. Although “the resultative predicate” of Miyakoshi’s examples does not carry the morpheme *-ni*, the resultative predicate can bear the morpheme *-ni* without changing its meaning at all (shown in the brackets). Thus, I decided to introduce it here. Nakazawa (2008) also raised a similar example to insist (117a) is a resultative construction. Look at (116) and (117).

- (116) a. *baransu-no yoi shokuzi-o hara-hatibun(-ni) tabe-ru*
 balance-GEN well meal-ACC stomach-80%(-ni) eat-PRES
 “eat(s) well-balanced meal till you feel 80%-full.” (Miyakoshi, 2006)
- b. *watashi-wa hara-hatibun-ni nat-ta*
 I-TOP stomach-80%-ni become-PAST
 “I became almost full. (I am not too full but should stop here to feel comfortable.)”
- (117) a. *Taroo-ga sakana-o hara-ippai(-ni) tabetukushi-ta*
 Taroo-NOM fish-ACC stomach-full-ni eat-PST
 “Taro gorged himself on fish.” (Nakazawa, 2008)
- b. *Taroo-ga hara-ippai-ni nat-ta*
 Taroo-NOM stomach-full-ni become-PST
 “Taro became full.”
- c. *Taroo-ga hara-ippai-da*
 Taroo-NOM stomach-full-PRES
 “Taro is full.”

Miyakoshi (2006) read the interpretation (116b) as the resultative state of (116a), which is without doubt grammatical. However, as Matsui and Kageyama (2009) pointed out, (116a) does not mean *Taro’s stomach/Taro changed into hara-hatibun ‘stomach-80%’*; that is, the right

interpretation of (116a) is not (116b), but it should be *I ate until the point of 80%-full*. Matsui and Kageyama (2009) called this phrase *hara-hatibun-ni* ‘stomach-80%’ as “adverb of extent”. Moreover, in canonical resultatives, it is impossible to omit the morpheme *-ni* from a resultative predicate, but in (106a) the morpheme *-ni* is optional (in fact, in the Miyakoshi’s example the “resultative” predicate *hara-hatibun* ‘80%-full’ does not have the morpheme *-ni*). The same argument can be applied to the Nakazawa’s (2008) example of (117a). *Hara-ippai-ni* ‘stomach-full’ of (117a) is not a resultative predicate but an adverb of extent. So these examples are not subject-oriented *-ni* resultatives.

3.4.3 Fake Subject-oriented *-ku* Resultatives

In the previous literature there have been many example sentences introduced as a subject-oriented *-ku* resultative, in which the resultative predicates are not colour terms. These non-colour “*-ku* resultative predicates” are not genuine resultative secondary predicates, but extent or resultant adverbials which syntactically and even semantically modify the main verb rather than the subject. Examples like (118) can be found in many articles.

- (118) *hune-ga huka-ku sizun-da*
 ship-NOM deeply sink-PST
 “The ship sank deep/deeply.” (Nakazawa, 2008)

Nakazawa (2008) introduced the sentence (118) as “... subject oriented, i.e. describe a resultant state of the referent of subject NP, in unaccusative intransitive sentences”. However, the example (118) is actually a (subject-oriented) spurious resultative construction, and *huka-ku* ‘deeply’ represents the resultant manner adverb; it is possible in Japanese to say *the way of the ship’s sinking is deep*. The example sentence (119) illustrates the *10 pun-de/-kan* ‘in/for 10 minutes’ and ‘antonym pair’ tests, which show that (118) is not the genuine resultative but the spurious one.⁴²

⁴² Some native speakers of Japanese may judge (119) of *-kan* ‘for’ as ungrammatical, because sinking of a ship must be caused by some accident, and in that kind of case the ship normally never floats up again (sinking of a ship is a permanent event); the phrase ‘for 10 minutes’ suggests that the action (sinking) is temporal, so that the ship floats up after 10 minutes. However, this is likely to be a matter of lexical choice of the subject argument. If the subject *hune* ‘ship’ is changed to *uki* ‘float’ for fishing, the sentence becomes totally grammatical.

- (i) *uki-ga 3 byoo-kan hukaku sizun-da*
 float-NOM 3 seconds-for deeply sink-PST
 “The float sank deeply for 3 seconds.”

- (119) *hune-ga* **10 pun-de/-kan** *huka-ku* *sizun-da*
 ship-NOM 10 minutes-in/-for deeply sink-PST
 “The ship sank deep in/for 10 minutes.”

As in (119), (118) is compatible with *10 pun-de/-kan* ‘in/for 10 minutes’; that is, (118) is not the accomplishment type. This is against the definition of resultatives; resultatives must contain a change of state and resultative point, which in turn means they are the accomplishment type.

In the next examples, (120) describes a sentence of a minimal pair, where the adverbs of these two sentences are the members of an antonym pair; *huka-ku* ‘deep-ku’ represents the opposite meaning of *asa-ku* ‘shallow-ku’. In (120) both adverbs are fully acceptable.

- (120) [Antonym Pair Test with (118)]
hune-ga *huka-ku/asa-ku* *sizun-da*
 ship-NOM deeply/shallowly sink-PST
 “The ship sank deep(ly)/shallow(ly).”

Another piece of supporting evidence that the sentence (118) does not represent the true resultative but a mere manner adverbial construction comes from the predication test. Consider example (121).

- (121) [Predication Test on (118)]
 #*hune-ga* *huka-ku* *nat-ta*
 ship-NOM deep(ly) become-PST
 Int. “The ship became deep.”

Though (111) is not an ungrammatical sentence, it is complete nonsense. The only possible meaning of (111) is that *the floor of a ship lowered deep(ly)*, which is not what (118) means. *Huka-ku* ‘deeply’ of (118) only indicates the position of the ship in the sea as a form of manner and is not predicated with the subject *hune* ‘ship’. Thus the predication test fails. This type of construction, which is not the accomplishment type, allows both words of an antonym pair and fails in the predication test, is the spurious resultative, but not the genuine resultatives.

Taking all the evidence above, I can conclude that the subject-oriented *-ku* resultatives are all fake resultatives, unless they are the colour terms (see the case of colour terms in section 3.1.2 “Subject-oriented *-ku* Resultatives”).

3.4.4 Fake Object-oriented *-ni* Resultatives

Nakazawa (2008) stated that “the head of resultative phrases in Japanese can be... an “adjectival noun” as *kirei-* ‘beautiful’”, using the example sentence of (122).

- (122) *Taroo-ga kabe-o siro-ku kirei-ni nut-ta*
 Taroo-NOM wall-ACC white-ku beautiful-ni paint-PST
 Lit. “Taro painted a wall white and beautiful.”

She explains that “both resultative phrases *siro-* ‘white’ and *kirei-* ‘beautiful’ describe the state of the wall as a result of Taro’s painting it”. However, *kirei-ni* ‘beautiful’ does not seem to be a resultative predicate for some reasons. The first reason is that the predication test does not work.

- (123) a. *Taroo-ga kabe-o kirei-ni nut-ta*
 Taroo-NOM wall-ACC beauty-ni paint-PST
 “Taro painted a wall beautifully.”
- b. *#kabe-ga kirei-ni nat-ta*
 wall-NOM beauty-ni become-PST
 “The wall became beautiful.”

(113b) is grammatical, but it is not the situation indicated by (123a); what is actually indicated by (113a) is that the quality of painting, such as how thin/thick the paint is spread without any lumps, is good, but not that the wall itself is beautiful. The aspectual test of inserting the phrase *10pun-kan* ‘for 10 minutes’ also shows *kirei-ni* ‘beautifully’ is not a resultative predicate; the genuine resultative is the accomplishment type which is incompatible with ‘for 10 minutes’, while sentences with *kirei-ni* ‘beautifully’ like (123a) are compatible with ‘for 10 minutes’ and not the accomplishment type. An example is given in (124).

- (124) [(123a) with *10 pun-kan* ‘for 10 minutes’]
Taroo-ga kabe-o 10 pun-kan kirei-ni nut-ta
 Taroo-NOM wall-ACC 10 minutes-for beauty-ni paint-PST
 “Taro painted a wall beautifully for 10 minutes.”

Kirei-ni ‘beautiful’ can be used as in (113) which will clearly reveal that in (122)/(123a) the reason that *kirei-ni* ‘beautifully’ looks like a resultative is only because of their lexical choices.

- (125) a. *Taroo-ga himo-o kirei-ni musun-da*
 Taroo-NOM string-ACC beauty-ni tie-PST
 “Taro tied the string beautiful/beautifully.”
- b. [Predication Test]
#himo-ga kirei-ni nat-ta
 string-NOM beauty-ni become-PST
 “The string became beautiful.”

(125) shows the contrast that tying up a string does not obviously cause the string to become beautiful; the beautiful part is the point where the string is tied up. I believe that this is a type of spurious resultative, although Washio (1997) did not show example sentences of spurious *-ni* resultatives; all his data of the spurious resultative was *-ku* resultative.

According to the previous literature, such as Rothstein (1983), Tenny (1994), etc., it is not possible to have more than one resultative predicate in a sentence (cf. section 2.5). However, the kind of *-ni* phrases such as *kirei-ni* ‘beautiful-ni’, *rippa-ni* ‘splendid-ni’, *ganzyoo-ni* ‘solid’, etc., can appear together in a sentence as in (126), which is atypical of the genuine resultative. The common feature of these words is that whether they are in the situations indicated by these words fully depends upon the speaker’s judgement. I will discuss about the lexical feature of the resultative predicates later.

- (126) *zizyuu-ga* *ohimesama-o* *kirei-ni* *rippa-ni* *ganzyoo-ni*
 chamberlain-NOM princess-ACC beautiful-ni splendid-ni solid-ni
sodate-ta
 raise-PAST
 Lit. “The chamberlain raised the princess beautiful splendid solid.”

Kageyama (2001) listed a numeral item *mit-tu-ni* ‘three-CL-ni’ as a resultative predicate. Look at the examples in (127).

- (127) [Numeral Items as Fake Resultatives]
 a. *Taroo-ga* *eda-o* *mit-tu-ni* *ot-ta*
 Taroo-NOM wood.stick-ACC three-CL-ni break-PST
 “Taro broke the wood stick into three.”
 b. *Taroo-ga* *suika-o* *yot-tu-ni* *kit-ta*
 Taroo-NOM watermelon-ACC four-CL-ni cut-PST
 “Taro cut the watermelon into four.”

(127a,b) look like the true resultative. However, actually they do not represent the real resultative. The reason is that they do not pass the predication test as in (128a,b).

- (128) a. [Predication Test with (127a)]
 #eda-ga *mit-tu-ni* *nat-ta*
 wood.stick-ACC three-CL-ni become-PST
 Lit. “The stick became three.”

b. [Predication Test with (127b)]

#*suika-ga* *yot-tu-ni* *nat-ta*
 watermelon-ACC four-CL-ni become-PST
 Lit. “The watermelon became four.”

(128a,b) are grammatical sentences, but they do not mean that the wood stick or watermelon is divided into three or four; the correct interpretation is that those object arguments of (127a,b) are reduplicated and there exist three or four of them. Thus, as a matter of lexical choice, the sentences in (127) look to be a resultative, but the numeral items with *-ni* are actually resultant adverbs. (129) also uses the numeral item *mit-tu-ni* ‘three-CL-ni, but there are not three pieces of the object argument as a result of the action denoted by the main verb.

(129) [Numeral Item *mit-tu-ni* ‘three-CL-ni’ as a Clear (Resultant) Manner Adverb]

a. *Taroo-ga* *kami-o* ***mit-tu-ni*** *ot-ta*
 Taroo-NOM paper-ACC three-CL-ni fold-PST
 “Taro folded the paper into three.”

b. *Taroo-ga* *huton-o* ***yot-tu-ni*** *oritatan-da*
 Taroo-NOM duvet/futon-ACC four-CL-ni fold-PST
 “Taro folded the duvet/futon into four.”

Here in (129), the object argument *kami* ‘paper’ is not divided into three pieces; the paper is folded so that the size of the folded paper is roughly one third of the original size. Some native speakers of Japanese do not find the sentence (129a) so natural, but (129b) is a perfectly grammatical sentence in any sense. In this sentence the object argument *huton* ‘duvet/futon’ is not divided into four pieces. Thus in (129a,b) the numeral items are not resultative predicates.

The final type of the fake object-oriented *-ni* resultatives comes from the NP-*ni* type. The sentence (130a) is not a double object construction because there is no concept of possession or shift between the accusative marked noun and *-ni* marked noun. The reason that this sentence looks like a resultative construction is that it seems to pass the predication test as in (130b).

(130) a. [NP-*ni* as Fake Resultative Predicate]

Taroo-ga *Hanako-o* ***gityoo-ni*** *eran-da*
 Taroo-NOM Hanako-ACC chairperson-ni choose-PST
 “Taro chose Hanako as a chairperson.”

b. [Predication Test with (130a)]

Hanako-ga *gityoo-ni* *nat-ta*
 Hanako-NOM chairperson-ni become-PST
 “Hanako became the chairperson.”

However, (130a) does not represent the true resultative construction. There are two reasons for that: first, the seemingly resultant state of (130a) can be cancelled with another proposition, as in (131a): the *-ni* marked noun in (130a) is a necessary element in the sentence, which is atypical of the resultative construction, because generally a resultative sentence should be grammatical without the resultative predicate since it does not affect the subcategorisation frame.⁴³

(131) a. [Cancelling Resultant State of (130a)]

<i>Taroo-ga</i>	<i>Hanako-o</i>	<i>gityoo-ni</i>	<i>eran-da.</i>	<i>Sikasi</i>
Taroo-NOM	Hanako-ACC	chairperson-ni	choose-PAST	however
<i>Hanako-wa</i>	<i>kozi-si-ta</i>			
Hanako-NOM	refuse-do-PST			

“Taro chose Hanako as a chairperson. However she refused.”

b. [(120) without NP-*ni*]

# <i>Taroo-ga</i>	<i>Hanako-o</i>	<i>eran-da</i>
Taroo-NOM	Hanako-ACC	choose-PST

Lit. “Taro chose Hanako.”

(131a) is totally natural, which means that (131a) does not denote that Hanako became the chairperson. (131b) is ungrammatical unless there is a pragmatic support of a *-ni* phrase, which means that the *-ni* phrase of (131a) is an oblique complement rather than a resultative predicate.

(132a,b) are a similar type to (130a). The unique feature of this sentence is that the accusative marker and the morpheme *-ni* can be swapped without changing the meaning so much. Again, they resemble the resultative sentences and pass the predication test as in (133a,b). Consider the example sentences (132a,b) and their predication test in (133). After I show why (132a,b) are not the true resultatives like (130a) in (134), then I will discuss what is happening in the conversion between (132a) and (132b).

(132) [Equative/Copular Sentence]

a. <i>Taroo-ga</i>	<i>Rondon-o</i>	<i>koohoti-ni</i>	<i>eran-da</i>
Taroo-NOM	London-ACC	candidate.place-ni	choose-PST

“Taro chose London for the candidate place.”

b. <i>Taroo-ga</i>	<i>koohoti-o</i>	<i>Rondon-ni</i>	<i>eran-da</i>
Taroo-NOM	candidate.place-ACC	London-ni	choose-PST

“Taro chose the candidate place as London.”

⁴³ In the case of intransitive resultative, which not Japanese but English allows, the resultative predicate seems to affect the subcategorisation frame.

- (133) a. [Predication Test with (132a)]
Rondon-ga koohoti-ni nat-ta
 London-NOM candidate.place-NI become-PST
 “London became the candidate place.”

- b. [Predication Test with (132b)]
koohoti-ga Rondon-ni nat-ta
 candidate.place-NOM London-NI become-PST
 “The candidate place became London.”

However, both (132a,b) are not the true resultative. Like (130a), their resultant state can be cancelled, and their *-ni* phrases are the oblique complement.

- (134) a. [Cancelling Resultant State of (132a)]
Taroo-ga Rondon-o koohoti-ni eran-da.
 Taroo-NOM London-ACC candidate.place-ni choose-PST
Sikasi mitomer-are-nakat-ta
 however approve-PASS-NEG-PAST
 “Taro chose London as the candidate place, but it was not approved”

- b. [(132a) without NP-*ni*]
#Taroo-ga London-o eran-da
 Taroo-NOM Hanako-ACC choose-PAST
 Lit. “Taro chose London.”

- c. [Cancelling Resultant State of (132b)]
Taroo-ga koohoti-o Rondon-ni eran-da.
 Taroo-NOM candidate.place-ACC London-ni choose-PST
Sikasi mitomer-are-nakat-ta
 however approve-PASS-NEG-PAST
 “Taro chose London as the candidate place, but it was not approved”

- d. [(132b) without NP-*ni*]
#Taroo-ga koohoti-o eran-da
 Taroo-NOM candidate.place-ACC choose-PST
 Lit. “Taro chose London.”

Thus, as observed in (134), (132a,b) are not the resultative construction.

My next interest is why the alternation between (132a) and (132b) is possible, though this is not the main point of this section.⁴⁴ The answer is that (132a) has a copular structure between the accusative marked noun ‘London’ and *-ni* marked noun ‘candidate place’. In (132b) the accusative and *-ni* marked nouns are still in the copular relation, but they are clefted. That is, the alternation between (132a) and (132b) does not represent the locative alternation, but a cleft operation from (132a) to (132b). The important issue in these two sentences is that those two nouns ‘London’ and ‘candidate place’ are not in an equal status; to be concrete, ‘London’ is the argument, and ‘candidate place’ is the predicate, in both (132a) and (132b). First, look at (135a,b), which show the base structures of (132a,b). Then move onto (136a,b), where clefting tells which noun is argument/predicate between *Rondon* ‘London’ and *koohoti* ‘candidate place’ in (135a,b)/(132a,b).

(135) [Simple Copular Sentence for *Rondon* ‘London’ and *koohoti* ‘Candidate Place’ with Two Word Orders]

a. *Rondon-ga koohoti-da*
 London-NOM candidate. place-COP
 “London is the candidate place.

b. *koohoti-ga Rondon-da*
 candidate.place-NOM London-COP
 “The candidate place is London.”

(136) [Clefting between *Rondon* ‘London’ and *koohoti* ‘candidate place’]
 (Brackets “[...]” show the focus position in these cleft constructions.)

a. *koohoti-na-no-wa [Rondon]-da*
 candidate.place-COP-one-TOP London-COP
 “What the candidate place is is London.”

b. **Rondon-na-no-wa [koohoti]-da*
 London-COP-one-TOP candidate. place-COP
 “What London is is the candidate place.”

The contrast between (136a) and (136b) is clear; (136a) is grammatical and (136b) is ungrammatical. This indicates that *koohoti* ‘candidate place’ is the predicate and *Rondon* ‘London’ is the argument because, as den Dikken (2005, 2006, 2009) suggests, in the cleft construction only an argument but not a predicate can be in the focus position. That is, (135a) is the canonical word order, since *koohoti* ‘candidate place’ plays the role of predicate between these two nouns, the word order in (135b) is syntactically derived by clefting (136a). When the word order of (135a) appears in the sentence-intermediate position, it is realised as (132a). When

⁴⁴ The theoretical solution and tests in (136) were given by Hideki Kishimoto.

the word order of (136b) appears in the sentence-intermediate position, it is realised as (132b). In both cases, the morpheme *-da* changes to *-ni*, because, as mentioned in the beginning of section 2, the ‘*n*’ of *-ni* is a phonologically different form of ‘*d*’ of the copular ‘*-da*’, which carries the sense of copular. The fact also indicates that when two words are combined with a copular, which one is argument or predicate can be determined fully by the lexical information.

3.3.5 Fake Object-oriented *-ku* Resultatives

The first example sentence for the fake object-oriented *-ku* resultative comes from its spurious type.

- (137) [Spurious *-ku* Resultative]
- a. *Taroo-ga mado-o ooki-ku ake-ta*
 Taroo-NOM window-ACC big open-PST
 “Taro opened the window wide(ly).”
- b. [Predication Test]
#mado-ga ooki-ku nat-ta
 window-NOM big-ku become-PST
 “The window became big.”
- c. [*10 pun-kan* ‘for 10 minutes’ Test]
Taroo-ga mado-o 10 pun-kan ooki-ku ake-ta
 Taroo-NOM window-ACC 10 minutes-for big open-PST
 “Taro opened the window wide for 10 minutes.”

(137a) does not indicate (137b); opening the window can never cause it to be big. What is big is the extent of opening the window. As in (137c), this type is compatible with *10 pun-kan* ‘for 10 minutes’ and thus not the accomplishment type; (137c) does not represent true resultative.

The next type of fake object-oriented *-ku* resultatives is a part of what Martin (1975) called the “evaluative” sentence.

- (138) a. [Evaluative (Martin, 1975)]
Taroo-ga tempura-o oisi-ku tabe-ta
 Taroo-NOM tempura-ACC delicious-ku eat-PST
 Lit. “Taro ate the tempura deliciously.”
 “Taro ate the tempura in a circumstance where he considers it delicious.”

b. [Predication Test]

#tempura-ga	oisi-ku	nat-ta
tempura-NOM	delicious	become-PST

“The tempura became delicious.”

c. [10 pun-de ‘in 10 mintes’ Test]

*Taroo-ga	tempura-o	10 pun-de	oisi-ku	tabe-ta
Taroo-NOM	tempura-ACC	10 minutes-in	delicious-ni	eat-PST

“Taro ate the tempura deliciously in 10 minutes.”

In this type of construction, the predication test (138b) clearly tells that it is not the genuine resultative. (138a) cannot imply (138b); eating the tempura cannot cause the tempura to become tasty. This type fails the ‘in 10 minutes’ aspectual test unlike the genuine resultatives; (138c) is ungrammatical. Actually, (138a) means Taro did something in order to feel delicious when he ate the tempura; the “something” can be having a good atmosphere, having his close friends, drinking nice *sake* ‘Japanese rice wine’ with the tempura and so on; nothing might have happened to the tempura itself.

Next, Takamine (2007) used *utukusi-ku* ‘beautiful-ku’ as a resultative predicate. She also showed a honorification test with the resultative sentence of *utukusi-ku* ‘beautiful-ku’, as in (139).

- (139) [Utukusi-ku ‘beautiful’ as “Resultative” Predicate by Takamine (2007)]
- | | | | |
|------------------|--------------------|--------------------------|------------------|
| <i>zizyuu-ga</i> | <i>ohimesama-o</i> | <i>utukusi-ku</i> | <i>sodate-ta</i> |
| chamberlain-NOM | princess-ACC | beautiful-ku | raise-PST |
- “The chamberlain raised the princess beautiful.”

According to Takamine (2007), the sentence (139) represents a true object-oriented resultative. However, I regard *utukusi-ku* ‘beautiful-ku’ as an resultant adverb, as mention in the beginning of section 3.4. Here I would like to discuss Takamine’s example sentence of (139) in detail by investigating the evidence she used to prove that (139) is a resultative construction. First of all, she assumed that the subject-oriented honorification on a small clause predicate can target its notional subject (accusative-marked NP). However, this does not seem to be possible. She judged (140a) as grammatical but to me and my consultants the sentence is clearly bad.⁴⁵

⁴⁵ Son (2008) stated that Satoshi Tomioka noted that the subject-honorification on the small clause predicate does not target the accusative-marked object in Japanese. Besides, Shim & den Dikken (2007) and Son (2008) noted that Korean does not allow subject-honorification on the small clause predicate to target the accusative-marked object. Thus, although Takamine judges the sentences (140) which contains the subject-honorification targeting the accusative-marked NP as grammatical, I regard these sentences as ungrammatical, following my intuition, my consultants judgements and typological point of view.

- (140) [Small Clause Construction and Resultative Predicate by Takamine (2007)]
 **zizyuu-ga ohimesama-o o-utukusi-ku omot-tei-ru*
 chamberlain-NOM princes-ACC HON-beautiful-ku think-PROG-PRES
 Int. “The chamberlain considers the princess beautiful-[HON (to *princess*)].”

Takamine (2007) continues that the sentence (141) is also grammatical, which makes a minimal pair with the small clause sentence (140) in that the only difference comes from the main verb. However, the sentence (141) looks to be unacceptable to me and my consultants.

- (141) ??*zizyuu-ga ohimesama-o o-utukusi-ku sodate-ta*
 chamberlain-NOM princess-ACC HON-beautiful-ku raise-PAST
 Int. “The chamberlain raised the princess beautiful-[HON (to *princess*)].”

In (141) the key issue is whether the honorification holds between the *ohimesama* ‘princess’ and “resultative” predicate *o-utukusi-ku* ‘HON-beautiful-ku’, and it does not. Importantly the grammatical acceptability of (141) is clearly lower than that of (139). This contrast between (139) and (141) seems to show that the phrase *utukusi-ku* is not predicated with the object argument; that is, (139) is perfectly acceptable because the phrase *utukusi-ku* ‘beautiful-ku’ works as an adverb, whilst in (141), because of the honorification marker, the phrase *utukusi-ku* ‘beautiful’ is forced to attach to the object argument although *utukusi-ku* is an adverb which does not carry the copular element and cannot play the role of a predicate. If the sentence (141) sounds good for some people, I assume it is just because of the semantic information of *ohimesama* ‘princess’ and honorification marker; that is, *ohimesama* ‘princess’ is somebody who is respected generally (and *o-hime-sama*’s *o-* and *-sama* are both honorification markers), that is why the reader somehow (in the pragmatic domain) build up a predication relation through the honorification meanings between *o-hime-sama* ‘HON-princess-HON’ and *o-utukusi-ku* ‘HON-beautiful-ku’. Takamine did not show any other examples of this kind. I also tried hard to find similar examples but it was not possible. I think that these examples might coincidentally look fine to some people because of the lexical choices, but generally these are grammatically unacceptable. The phrase *utukusi-ku* ‘beautiful’ can normally be used only as a subject-oriented manner or resultant manner adverb. So the small clause sentence (140) and the resultant adverb sentence (141) are both ungrammatical, but for different reasons; in a small clause, for a structural reason, while in a resultant adverbial sentence, because an adverb cannot be predicate with NP.

The final counterexample to Takamine’s example (139) is that the sentence can have additional resultant words, which is against the syntactic proposal by Rothstein (1983), Tenny (1994) that it is not possible to have more than one resultative predicate in a sentence. Thus, not only *utukusi-ku* ‘beautiful-ku’ but *rippa-ni* ‘respectful’ and *ganzyoo-ni* ‘solid’ do not represent a real resultative predicate.

- (142) *zizyuu-ga ohimesama-o utukusi-ku rippa-ni ganzyoo-ni*
 chamberlain-NOM princess-ACC beautiful-ni splendid-ni solid-ni
sodate-ta
 raise-PST
 “The chamberlain raised the princess and she became beautiful, respectful and solid.”

So far I have been discussing about the fake *-ku* resultatives. However, as mentioned in 3.1.2 “subject-oriented *-ku* resultative” and 3.2.2 “object-oriented *-ku* resultative”, the colour *-ku* terms represent the true resultative, although they are marked with *-ku* but not with *-ni*. The predication test (143) and manner adverbial test (144) clearly divide the colour *-ku* terms from the other *-ku* resultant (manner) adverbs.

- (143) [Colour *-ku* terms with Predication and Manner Adverb Tests]
 [Canonical ‘Colour *-ku*’ Resultative]

a. *Taroo-ga kabe-o aka-ku nut-ta*
 Taroo-NOM wall-ACC red-ku paint-PST
 “Taro painted the wall red.”

a’. *Taroo-ga huku-o ao-ku some-ta*
 Taroo-NOM clothes-ACC blue-ku dye-PST
 “Taro dyed the clothes blue.”

[Predication Test with (143a,a’)]

b. *kabe-ga aka-ku nat-ta*
 wall-NOM red-ku become-PST
 “The wall became red.”

b’. *huku-ga ao-ku nat-ta*
 clothes-NOM blue-ku become-PST
 “The wall became blue.”

[Manner Adverb Test with (143a,a’)]

c. **(kabe-no) nuri-kata-ga aka-i*
 wall-GEN paint-way-NOM red-PRES
 Int. “The way of painting (the wall) is red.”

c’ **(huku-no) some-kata-ga ao-i*
 clothes-GEN dye-way-NOM blur-PRES
 Int. “The way of dyeing (the clothes) is blue.”

First, unlike the resultant and resultant manner adverbs, the colour *-ku* words pass the predication test, as in (143b,b'). Second, (143c,c') prove that the colour *-ku* terms in fact do not represent manner adverb because they fail in the manner adverb test; they do not describe the way/manner how the action of the main verb is performed. Thus, the colour *-ku* terms indeed represent the true regulative.

4. Lexical Analysis of Japanese Resultatives

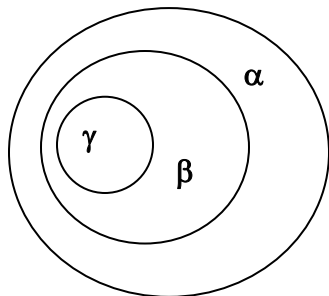
In section 3.4 “Fake Resultatives”, we observed what kind of lexical items and morphemes can/cannot represent the true resultatives. Here in section 4, I will investigate the restrictions of Japanese resultatives even further, in the point of view of lexical semantics.

Restrictions of the resultatives can be found in two aspects such as the main verb and secondary predicates. Washio (1997) showed the restrictions from the verb's side. I will first introduce his analysis in 4.1. Then the restrictions from the secondary predicate's side will be discussed, based on my own analysis in 4.2, where I will show some cases that a sentence, which satisfies Washio's Patienthood Condition, does not qualify as a resultative construction. The sentences which satisfy both sides' restrictions will always qualify as a true resultative sentence.

4.1 Restriction from Main Verb

In order to explain the restrictions of resultatives cross-linguistically, Washio (1997) analysed the string of words S-V-O-AP with three classes in terms of Patienthood, as the following diagram of (140). Note that the degree of Patienthood is fully determined by the type of the main verb. Thus Washio's (1997) proposal is a restriction only from the main verb.

(144) [Three classes of resultatives by Washio (1997)]



α : unacceptable in both English and Japanese
 β : acceptable only in English but not Japanese (STRONG)
 γ : acceptable both in English and Japanese (WEAK)

The outer circle marks the limit of permissible resultatives in English. Domain α contains those strings of words analyzable as S-V-O-AP which are unacceptable as resultatives even in English;

“*Medusa saw him stiff.” Domain β contains “strong” resultatives, which are possible in English but not in Japanese. Domain γ contains “weak” resultatives, possible both in English and Japanese. Then, Washio (1997) proposed a “patienthood condition”. This account is a finer version of Jackendoff’s (1990) two patients; “grammatical patients” and “discourse patients”. The former are those “whose Patient role is assigned by the verb of sentence itself”, while the latter are those which “are Patients by virtue of discourse or pragmatics: a story is generated in which the Actor somehow adversely affects the Patient” (Jackendoff, 1990). Washio developed this idea and showed five classes for patient:

(145) [Washio’s (1997) Patienthood Condition]

non-Patient: the verb lexically specifies that it is not affected; hence it may not undergo any change of state; e.g., *see her (stiff)*. This type corresponds to the domain α of (144)

Patient₁: the verb, being intransitive, lexically specifies nothing about this; it may be interpreted as “affected” by virtue of discourse or pragmatics; Jackendoff’s discourse patient; e.g., *run (the pavement thin)*. This type corresponds to the domain β of (144).

Patient₂: the verb lexically specifies that it is affected; hence it may undergo some change of state; but the verb does not specify whether or how it changes; e.g., *drag the logs (smooth)*. This type corresponds to the domain β of (144).

Patient₃: the verb lexically specifies that it is affected; hence it may undergo some change of state; the verb does not specify whether it actually changes its state or not; but the verb specifies that, if it does change, then it changes in certain fixed directions (the verb has a disposition toward certain states); e.g., *wipe the table (clean)*. This type corresponds to the domain γ of (144).

Patient₄: the verb lexically specifies that it undergoes some specific change of state; hence it is also affected; e.g., *sharpen the pencil (pointy)*. This type corresponds to the domain γ of (144).

As for (145), he stated that “the amount of specification that the verb imposes on the patient is smallest in the case of Patient₁, and it becomes progressively larger with Patient₂, Patient₃, and

Patient₄”. The non-Patient class contrasts with the other four patient classes, in that the object is not affected at all. These five classes are categorised into three types as in the diagram (144); α for non-Patients; β for Patient₁ and Patient₂, and γ for Patient₃ and Patient₄. Thus, Washio (1997) concluded as (146) about the distinction between English and Japanese resultatives;

- (146) [Distinction between English and Japanese resultatives (Washio, 1997)]
- a. In English resultatives of the form S-V-O-AP, O must be a Patient.
 - b. In Japanese resultatives of the form S-O-AP-V, O must be a Patient₃ and Patient₄.

In (147) I will illustrate Japanese example sentences for all types of (145) to show that Japanese indeed allow resultatives only when the object argument is either Patient₃ or Patient₄.

- (147) [Japanese Example Sentences for all types of (145)]
- a. [non-Patient]

<i>*Medyuusa-ga</i>	<i>kare-o</i>	<i>katikati-ni</i>	<i>mi-ta</i>
Medusa-NOM	him-ACC	stiff-ni	see-PST

 Int. “Medusa saw him stiff.”

 - b. [Patient₁]

<i>*Taroo-ga</i>	<i>hodoo-o</i>	<i>petyanko-ni</i>	<i>hasit-ta</i>
Taroo-NOM	pavement-ACC	squashed-ni	run-PST

 Int. “Taro ran the pavement thin.”

 - c. [Patient₂]

<i>*Taroo-ga</i>	<i>maruta-o</i>	<i>turuturu-ni</i>	<i>hikidut-ta</i>
Taroo-NOM	log-ACC	smooth-ni	drag-PST

 Int. “Taro dragged the log smooth.”

 - d. [Patient₃]

<i>Taroo-ga</i>	<i>kabin-o</i>	<i>pikapika-ni</i>	<i>migai-ta</i>
Taroo-NOM	vase-ACC	shine-ni	polish-PST

 “Taro polished the glass shiny.”

 - e. [Patient₄]

<i>Taroo-ga</i>	<i>kabin-o</i>	<i>konagona-ni</i>	<i>wat-ta</i>
Taroo-NOM	vase-ACC	pieces-ni	break-PST

 “Taro broke the glass into pieces.”

(147a) represents the non-Patient type. This sentence is ungrammatical, where the main verb is *mi-ta* ‘see-PAST’ and thus the object argument is not affected at all. (147b) represents the Patient₁

type. This sentence is also ungrammatical, where the main verb is an intransitive verb *hasit-ta* ‘run-PAST’, which does not lexically specify anything about the object; the object is not affected at all, or affected only by virtue of discourse or pragmatics. (147c) represents the Patient₂ type. This sentence is also ungrammatical, where the main verb is a transitive verb *hikidut-ta* ‘drag-PAST’, which specifies that the object argument is affected, but does not specify whether or how the object argument undergoes the change. (147d) represents the Patient₃ type. This sentence is grammatical, where the main verb is a transitive verb *migai-ta* ‘polished’, which clearly specifies the object argument is affected, but the object argument may not undergo the change of state. However, if it undergoes the change, then it has to be in a certain way, denoted by the main verb. (147e) represents the Patient₄ type. This type is grammatical, where the main verb is *wat-ta* ‘break-PAST’, which specifies that the object argument is affected and undergoes some change as the main verb denotes.

This is the restriction on the verb’s side. In Japanese, the object argument has to be either Patient₃ or Patient₄. Which patient type the object argument represents is fully determined by the main verb. Thus, in Japanese resultatives, the main verb is restricted to be the ones, which require specific patient types of object.

However, this is not the whole story of the restrictions of resultatives. Remember example (98); in there the main verbs are *kit-ta* ‘cut-PAST’ in (98a,d), *yude-ta* ‘boil-PAST’ in (98b) and *sai-ta* ‘tear-PAST’ in (98c). Talking about the patient types these verbs require, *kit-ta* ‘cut-PAST’ of (98a,d) and *sai-ta* ‘tear-PAST’ of (98c) require Patient₄ type objects, and *yude-ta* ‘boil-PAST’ of (98b) requires Patient₃ type objects. However, none of the example sentences in (98) represents the true resultatives. now I will move onto the next restriction, which is the lexical restriction of the secondary predicate.

4.2 Restriction from Secondary Predicate

First of all I will show the list of the lexical items which can be a resultative predicate in Japanese, and then those which are often introduced as a secondary predicate but in fact cannot be a resultative predicate (most of the ones which cannot be a resultative predicate are from the adverbs of (101)). The list of the resultative predicates shown in (148) is the summary of section 2, while the list of lexical items, which cannot be a resultative predicate, is the summary of section 3. The morpho-syntactic and semantic analysis of (148) and (149) will follow later on.

I will first mention about the general lexical characteristics of (148A,B,C,D). The lexical items for a resultative predicate are not gradable because they express an extreme extent of a state compared with an adjective which denotes a similar state, and are subjective notions unlike depictives so that they require checking to know whether an entity is in the state denoted by the words in (148). For example, *pikapika-ni* ‘very shiny-ni’ of (148A) is not a gradable word (see (18); it is impossible to say *pikapika-na*, where the morpheme *-na* attaches to gradable adjectives when they modify nominals), because the word means very (extremely) shiny/sparkling, so that

it is very unusual to have an intermediate state of it. And *pikapika-ni* is not a non-subjective notion either, which distinguishes the resultative predicates from depictives; depictive words, which I will discuss in the next section, are *sintiku-de* ‘newly built’, *tyuuko-de* ‘second hand’, *kotai-de* ‘a solid’ and so on. One does not need to check (touch or see) whether an entity is in that state or not, because if something is used even once it is second hand, and whether something is a solid or not is fully determined by the flexibility of molecular defined by science. As for the resultative predicates (e.g. *pikapika-ni* ‘very.shiny-*ni*’), they need to be checked by touching or seeing whether an entity is really shiny or not. Or in the case of *katikati-ni* ‘very.firm-*ni*’, one needs to check to know whether something is very firm or not. Besides, since they are subjective notions, subjective judgements affect; one may think something is very firm, but another person may think it is not very firm. Remember the case of resultant adverbs such as *utukusi-ku* ‘beautiful-*ku*’. They also need subjective judgements, but even on this point, they are different from the canonical resultative predicates. Resultant adverbs like *utukusi-ku* ‘beautiful-*ku*’ do not have any common standard to assess the state; there are unlimited ways of something to be beautiful, and an entity which is judged as beautiful by one person may be judged fully ugly by another. On the other hand, resultative predicates express such notions as shiny, firm, etc. These notions have a standard to assess; e.g. there is only one way for something to be firm/soft. Thus, a firm thing is firm for any individuals of any country: a rock is firm for everyone, though it can be beautiful or ugly. Moreover, resultative predicates express an extreme extent of an entity; in the case of *katikati-ni* ‘very.firm-*ni*’ an entity cannot be just a little bit firm, but has to be absolutely firm. So, although there is still a bit of room for an individual to judge and need to check by himself to know whether an entity is in the state denoted by the resultative predicate, a resultative predicate denotes a state which can be shared by many people. These characteristics of a resultative predicate, such as non-gradable and subjective, are common to all the resultative predicates in (148A,B,C,D).

The lexical items of (148A) are semantically more adjectival than the others of (148). The notions of (148A) can be expressed with normal adjectives, though those of (148A) express the extreme extent of a state, unlike canonical adjectives. The lexical items of (148B) are more nominals, which express the state/shape of an entity. There is an understood standard for these states/shapes, but they need individual checking to know whether they are truly in those states or not. The lexical items of (148C) represent colour terms. These are not the exceptions of the typical resultatives. Whether something is red or not has to be judged by individuals, but I assume there is an understood standard of something being red; unlike the case of the beautiful-ugly contrast, a red thing cannot be judged as blue by any individual. Finally, the lexical items of (148D) represent the shapes with the morpheme *-ku*, which also carry the typical lexical semantic characteristics of the resultative predicates.

- (148) [Examples of Resultative Predicate]
- (A) mimetic + -ni
- | | | | |
|--------------------|---------------------------|----------------------|--------------------------|
| <i>pikapika-ni</i> | ‘very shiny- <i>ni</i> ’ | <i>gudenguden-ni</i> | ‘very drunk- <i>ni</i> ’ |
| <i>karikari-ni</i> | ‘very crispy- <i>ni</i> ’ | <i>hetoheto-ni</i> | ‘very tired- <i>ni</i> ’ |
- (B) Adjective-based Noun + -ni
- | | | | |
|---------------------|---------------------------------|-----------------|-----------------------|
| <i>mapputatu-ni</i> | ‘fully.equally.two- <i>ni</i> ’ | <i>yuuzi-ni</i> | ‘U.shape- <i>ni</i> ’ |
|---------------------|---------------------------------|-----------------|-----------------------|
- (C) Colour Term + -ku
- | | | | |
|---------------|--------------------|----------------|---------------------|
| <i>aka-ku</i> | ‘red- <i>ku</i> ’ | <i>siro-ku</i> | ‘white- <i>ku</i> ’ |
| <i>ao-ku</i> | ‘blue- <i>ku</i> ’ | <i>kuro-ku</i> | ‘black- <i>ku</i> ’ |
- (D) Adjective-based Noun of Shape + -ku
- | | | | |
|----------------|---------------------|------------------|----------------------|
| <i>maru-ku</i> | ‘round- <i>ku</i> ’ | <i>sikaku-ku</i> | ‘square- <i>ku</i> ’ |
|----------------|---------------------|------------------|----------------------|
- (149) [Examples of Lexical Items which CANNOT be Resultative Predicate]
- (A) -ni and -to Adverbs
- | | | | |
|-----------------|-------------------------|-------------------|----------------------|
| <i>kirei-ni</i> | ‘beautiful- <i>ni</i> ’ | <i>naname-ni</i> | ‘tilt- <i>ni</i> ’ |
| <i>karat-to</i> | ‘crispy- <i>to</i> ’ | <i>hukkura-to</i> | ‘fluffy- <i>to</i> ’ |
- (B) Noun + -ni
- | | | | |
|------------------|---------------------------|------------------|----------------------|
| <i>gityoo-ni</i> | ‘chairperson- <i>ni</i> ’ | <i>Rondon-ni</i> | ‘London- <i>ni</i> ’ |
|------------------|---------------------------|------------------|----------------------|
- (C) Non-colour/-shape -ku Adverbs
- | | | | |
|-------------------|----------------------------|-------------------|---------------------|
| <i>komaka-ku</i> | ‘small.pieces- <i>ku</i> ’ | <i>kata-ku</i> | ‘firm- <i>ku</i> ’ |
| <i>utukusi-ku</i> | ‘beautiful- <i>ku</i> ’ | <i>kakkoyo-ku</i> | ‘smart- <i>ku</i> ’ |

Syntactically speaking, the common feature to all four categories of (148) is that the words have the adjectival and nominal dual status, where the adjectival characteristic is the base. On the other hand, none of the three categories in (149) have the dual status of nominal and adjectival.

First, the syntactic category of the type (A) of (148) is examined. Kageyama (2007) investigated the categorisation of mimetics. His analysis is briefly introduced in (150).

(150) [Cross-categorial Relations of Mimetic Words from Kageyama (2007)]

	Examples	Adverbial mimetic (<i>to</i>)	Verbal mimetic <i>suru</i>	Adjectival mimetic <i>da</i>	Nominal mimetic <i>ga/o...</i>
I	<i>gabugabu</i> 'quick & a lot'	✓ <i>gabugabu (to)</i>	× * <i>gabugabu suru</i>	× * <i>gabugabu da</i>	× <i>gabugabu ga ...</i>
II	<i>akuseku</i> '(work) hard'	✓ <i>akuseku (to)</i>	✓ <i>akuseku suru</i>	× * <i>akuseku da</i>	× * <i>akuseku ga ...</i>
III	<i>pikapika</i> 'shiny'	× * <i>pikapika (to)</i>	× * <i>pikapika suru</i>	✓ <i>pikapika da</i>	✓ <i>pikapika ga ...</i>
IV	<i>gakkari</i> 'disappointed'	× <i>gakkari (to)</i>	✓ <i>gakkari suru</i>	✓ <i>gakkari da</i>	× <i>gakkari ga ...</i>
	<i>iraira</i> 'annoyed'	× <i>iraira (to)</i>	✓ <i>iraira suru</i>	× * <i>iraira da</i>	✓ <i>iraira ga ...</i>
V	<i>subesube</i> 'smooth'	✓ <i>subesube (to)</i>	✓ <i>subesube suru</i>	✓ <i>subesube da</i>	✓ <i>subesube ga ...</i>
VI	<i>bissiri</i> 'dense'	✓ <i>bissiri (to)</i>	× * <i>bissiri suru</i>	✓ <i>bissiri da</i>	× * <i>bissiri ga</i>

As the column “Adverbial” indicates, the mimetics, which have the adverbial characteristic, can be used as an adverb without any morphemes or can be combined with *-to* which is an adverbial marker. The column “Verbal” indicates that the mimetics which have a verbal characteristic are compatible with the verb *suru* ‘do’.⁴⁶ The column “Adjectival” indicates that the mimetics which have an adjectival characteristic can be a predicate with the copular *-da*. The column “Nominal” indicates that the mimetics which have a nominal characteristic can be combined with the case markers *-ga* ‘NOM’ and *-o* ‘ACC’.

As can be seen in (150), a mimetic word may have only one or more than one syntactic categories. The row (III) of (150) is the one which has the dual categories of nominals and adjectival. As a matter of fact, all the mimetic words I listed as a potential resultative predicate in (39)/(148(A)) belong to the row (III); they are nominal as well as adjectival. Kageyama (2007) showed not only the categorisation of mimetics as in (150) but also which syntactic category between nominal and adjectival is the base characteristic for the lexical items of row III. Although whether the base form is adjective or nominal is not related to whether a mimetic is a potential resultative predicate or not, I will introduce the analysis in (151) since it is worth observing.

⁴⁶ Kageyama (2007) states that the *suru* ‘do’ as the morphological head of mimetic verbs is neither the heavy verb *suru* ‘do’ nor the light verb *suru* ‘do’.

(151) [Nominal vs. Adjectival for Lexical Items of Row III]

a. [Nominal Test]

pikapika-ga ichiban-da

shiny-NOM no.1-COP

“**The state/situation of being** shiny is the best.”

Lit. “Shiny is the best.”

b. [Adjectival]

kutu-ga pikapika-da

shoe-NOM shiny-COP

“The shoes are shiny.”

Kageyama (2007) stated that when a mimetic of row (III) of (150) is used as a nominative subject like (151a), the interpretation of the subject is “the status/situation of *mimetic...*”; there has to be some pragmatic support to acquire the right interpretation of the word to fit the sentence as a subject. This is shown in the interpretation of (151a). On the other hand, as in (151b), when mimetics of row (III) of (150) is used as an adjective, there is no need of pragmatic support; the meaning is straightforward. Thus, the words of the row III of (150) can be used as both nominal (as a subject of a sentence with nominative case) and adjectival (as a predicate of a sentence with copular), but the adjectival one is the case, since it does not require any pragmatic support to interpret it. Unlike the case of dual-status words of the row III of (150), canonical nouns such as, *table*, *apple*, *concept* and so on, never require a pragmatically supported interpretation when they are used in the subject position. For example, in the sentence *the table is nice*, the subject is not interpreted as “*the state/situation of being the table*”, but the interpretation is just “*table*”. Thus I claim that when a lexical item is used in a subject position and requires the pragmatic support such as “the state/situation of being...”, then the word has dual status of nominal and adjectival, where the adjectival status is the base one. This test will be used in (153).

One tricky case is the row (V). The row (V) has all four categories including adjectival and nominal. I am not sure whether these can be used as a resultative predicate. Look at an example in (152).

(152) [Lexical Items of Row V of (150) as Resultative Predicate]

a. ^{???}*Hanako-ga o-hada-o subesube-ni migai-ta*
 Hanako-NOM [POLITE]-skin-ACC smooth-ni polish-PST
 “Hanako polished her skin smooth.”

b. *Taroo-ga nezi-o guragura-ni ???-ta*
 Taroo-NOM screw-ACC loose-ni ???-PST
 Int. “Taro ??? the screw loose.”

(152a) may or may not be judged as a grammatical acceptable sentence. The word *guragura* ‘loose’ also belongs to the row V in (150), however I could not find a verb to fit in (152a) except for the light verb *suru* ‘do’. The causative verb *yurum-e-ru* ‘loosen’ may be the best choice to fit in (152a), but still it is unacceptable to me. At the moment, I am not sure why the lexical items in the row V of (150) cannot play the role of resultative predicate. It may be because their adverbial and verbal features clash with the feature of resultative. Further research is needed on this point.

Next, I will examine the syntactic categories of (148B,C,D). Nominal and adjectival tests are applied to the lexical items of (B), (C) and (D) in (153).

- (153) [Syntactic Categories of (B), (C) and (D) of (148)]
- a. [Nominal Property of (148B)]
- | | | |
|-----------------------|----------------|------------------|
| <i>mapputatu-ga</i> | <i>ichiban</i> | <i>koohee-da</i> |
| fully.equally.two-NOM | no.1 | fair-COP |
- “The state of being fully equally two is most fair.”
- b. [Nominal Property of (148C)]
- | | | |
|---------------|----------------|-----------------|
| <i>aka-ga</i> | <i>ichiban</i> | <i>kirei-da</i> |
| red-NOM | no.1 | beautiful-COP |
- “Red is most beautiful.”
- b’. [Adjectival Property of (148C)]
- | | |
|-----------------|--------------|
| <i>tukue-ga</i> | <i>aka-i</i> |
| table-NOM | red-PRES |
- “The table is red.”
- c. [Nominal Property of (148D)]
- | | | |
|-------------------|------------------|--------------|
| <i>soko-ni-wa</i> | <i>sikaku-ga</i> | <i>nia-u</i> |
| there-to-TOP | square-NOM | suit-PRES |
- “The square form suits there.”

(153a,c) show that they need the additional pragmatic support of nominal element in the interpretation, such as “the state of being...” and “... form”. This is because those lexical items of (B) and (D) of (148) have the dual status of nominal and adjectival, where the adjectival one is the base. In fact, consider the case of (153b’), focusing on the subject argument. *Tukue* ‘table’, which is a canonical pure noun, does not need the additional nominal element to interpret it; its interpretation is simply *table*. The case of colour term is even simpler; the colour term itself can be used as a subject of a sentence with nominative case marker as in (153b), while it can be combined with *-i* ‘-PRES’ morpheme, which is an adjective marker in Japanese. Thus colour terms are clear dual categorical items.

Moving onto the lexical items which cannot be a resultative predicate shown in (149), it can be said that those of (A) and (C) lack the nominal feature and those of (B) lack the adjectival feature. Consider examples (154)-(156).

- (154) [Syntactic Categories of (E) of (149)]
- a. [(A) Lacks Nominal Element]
**kirei-ga yo-i*
 beautiful-NOM good-PRES
 Int. “(The state of being) beautiful is good.”
- b. [(A) Lacks Nominal Element]
**karatto-ga yo-i*
 crispy-NOM GOOD-PRES
 Int. “(The state of being) crispy is good.”
- (155) [(B) Lacks Adjectival Element]
- a. *gityoo-ga kakkoi-i*
 chairperson-NOM handsome
 “The chairperson is handsome.”
 * “The state of being a chairperson is handsome.”
- b. *Rondon-ga kirei-da*
 London-NOM beautiful-COP
 “London is beautiful”
 * “The state of being London is beautiful.”
- (156) [(C) Lacks Nominal Element]
- a. **komaka-ku-ga yo-i*
 small.pieces-ku-NOM good-PRES
 Int. “(The state of being) small pieces is good.”
- b. **utukusi-ku-ga yo-i*
 beautiful-ku-NOM good-PRES
 “(The state of being) beautiful is good.”

(154) and (156) suggest that the lexical items of (149(A)) and (149(C)) cannot be combined with the nominative marker *-ga*; they do not have the nominal feature. (155) suggests that the lexical items of (149(B)) are pure nominals and do not have the adjectival feature.

5. Tests for Depictives

This section shows several tests which reveal the characteristics of depictives. For all the tests, I will mostly use only one depictive sentence, which is one of the most typical Japanese depictives.

- (157) [A Canonical Japanese Depictive]
Taroo-ga niku-o nama-de tabe-ta
 Taroo-NOM meat-ACC raw-de eat-PAST
 “Taro ate the meat raw.”

The sentence (157) is an object-oriented depictive sentence. Japanese has two types of depictives: namely subject- and object-oriented depictives. The tests of this section will be later applied to these two types of depictives in section 6.

5.1 Telic/Atelic Adverb Insertion: ‘in/for 10 Minutes’

The aspectual structure of the depictive construction is investigated with the adverbial phrases ‘in/for 10 minutes’. The ‘for 10 minutes’ phrase is compatible with Activity type (atelic event), but the ‘in 10 minutes’ phrase is not (cf. (10)-(14)). As shown in section 2.1, resultatives are not compatible with ‘for 10 minutes’ but compatible with ‘in 10 minutes’. Unlike resultatives, depictives are compatible with ‘for 10 minutes’ but not with ‘in 10 minutes’. In (158) and (159), both *10 pun-kan* ‘for 10 minutes’ and *10 pun-de* ‘in 10 minutes’ are inserted in the Japanese canonical depictive sentence (157).

- (158) [*10 pun-kan* ‘for 10 minutes’ Test]
Taroo-ga 10 pun-kan niku-o nama-de tabe-ta
 Taroo-NOM 10 minutes-for meat-ACC raw-de eat-PST
 “Taro ate the meat raw for 10 minutes.”

- (159) [*10 pun-de* ‘in 10 minutes’ Test]
 **Taroo-ga 10 pun-de niku-o nama-de tabe-ta*
 Taroo-NOM 10 minutes-in meat-ACC raw-de eat-PST
 “Taro ate the meat raw in 10 minutes.”

(158) and (159) shows that the canonical depictive (157) is indeed compatible with ‘for 10 minutes’ phrase but not with ‘in 10 minutes’ phrase. That is, the depictive construction in Japanese is an activity type but not an accomplishment type.

5.2 *Onaziyoo* ‘in the same way’ Replacement

As already mentioned in section 1, NP-*de* as a secondary predicate is an adverb. However, it does not modify the main verb like manner adverbs but modifies either subject or object. Replacing an adverb with *onaziyoo* ‘in the same way’, which is a typical Japanese manner adverb, detects whether the adverb is a manner one or not (cf. section 2.2). The test with the depictive sentence (157) is given below.

- (160) [Manner Adverb Replacement Test for *nama-de* ‘raw’]
- a. [= (157)]
- | | | | |
|-----------------|---------------|----------------|----------------|
| <i>Taroo-ga</i> | <i>niku-o</i> | <i>nama-de</i> | <i>tabe-ta</i> |
| Taroo-NOM | meat-ACC | raw-de(Adv) | eat-PAST |
- “Taro ate the meat raw.”
- b. #*Ziroo-mo* *niku-o* *onaziyoo-ni* *tabe-ta*
- | | | | |
|------------|----------|-----------------|----------|
| Ziroo-also | meat-ACC | in the same way | eat-PAST |
|------------|----------|-----------------|----------|
- “Ziroo also ate the meat in the same way (\neq raw).”

In (160b), the resultative predicate is replaced with the manner adverb *onaziyoo-ni* ‘in the same way’. The replacement is unsuccessful; (160b) is grammatical, but it means something different from (160a). In (160b), *onaziyoo-ni* ‘in the same way’ cannot stand for raw. It represents the way Taro ate the meat; such as with hand, fork or chopsticks, or the movement of Taro’s arm or hand, etc. Thus, the depictive secondary predicate is not a manner adverb.

5.3 Morphological Distinction between Depictive and Manner Adverb

Section 2.3 explained the morphological patterns of manner adverbs in (19); when they are used as adjectives, they cannot bear the morpheme *-no* but *-na*. The depictive predicates show opposite behaviour. When they are used as adjectives, they can bear the morpheme *-no*, but not *-na*. This phenomenon provides another piece of evidence that the depictive secondary predicate is not a manner adverb. An example is illustrated in (161) with the typical secondary predicate *mana-de* ‘raw (Adv)’ of (157). (19) is repeated to compare with (161). The difference between the morphemes *-no* and *-na* is concretely explained in section 2.3.

- | | | | |
|-------|----------------------------|--|----------------------------------|
| (161) | Depictive Predicate | | its Adjectival Form |
| | <i>nama-de</i> ‘raw’ | | <i>nama-no</i> , <i>*nama-na</i> |

- | | | |
|------|------------------------------------|---|
| (19) | Manner Adverbs | their Adjectival Forms |
| | a. <i>kirei-ni</i> ‘beautifully’ | * <i>kirei-no</i> , <i>kirei-na</i> |
| | b. <i>yasuraka-ni</i> ‘peacefully’ | * <i>yasuraka-no</i> , <i>yasuraka-na</i> |
| | c. <i>kasuka-ni</i> ‘slightly’ | * <i>kasuka-no</i> , <i>kasuka-na</i> |
| | d. <i>rippa-ni</i> ‘respectably’ | * <i>rippa-no</i> , <i>rippa-na</i> |

5.4 Complement vs. Adjunct

The common assumption of the behaviours of SUBJ- and OBJ-oriented depictives in English is that the depictive predicate is an adjunct unlike the resultative predicate. The first piece of evidence comes from the fact that a sentence can have two depictive predicates, and the second evidence is that *wh*-phrases cannot target the depictive predicate. Examples are given in English in (162) and (163), followed by Japanese examples in (164) and (165).

- (162) [Two Depictive Predicates in a Sentence in English]
- a. John ate the meat_i raw_i, tender_i.
 - b. John_i ate the salad_j undressed_j naked_i.
- (163) [Wh-question with (non-)Depictives in English]
- a. ?How raw did John eat the meat? <Depictive>
 - a’. When John served the meat, how raw was it? <Non-depictive>
 - b. *How naked did John dance? <Depictive>
 - b’. When John was dancing, how naked was he? <Non-depictive>

In (162a), both *raw* and *tender* are depictive predicates, predicated with the object *the meat*. In (162b), *undressed* and *naked* are depictive predicates, where the former modifies the object *the salad* and the latter the subject *John*.⁴⁷ In both sentences there are two depictive predicates, which proves that depictives are adjuncts rather than complements. In (163a), the *wh*-phrase *how* targets the object oriented depictive predicate, while in (163b) it targets the subject oriented depictive predicate. (163a) is not fully ungrammatical, but at least worse than its non-depictive counterpart (163a’). (163b) may well be regarded as ungrammatical, which is clearly worse than its non-depictive counterpart (163b’). As see in (163), the reason that (163a,b) are less grammatically acceptable than (163a’,b’) seems to be syntactic; that is, for instance, the ungrammaticality of (163b) is not due to the semantic connection between *how* and *naked* since the combination of *how naked* is fully grammatical in (163b’). The unacceptability of (163a,b) is likely to be based on the syntactic position reason; syntactic position of the depictive phrases.

⁴⁷ In (162b), McNulty (1988) pointed out that it is not possible to change the order of *undressed* and *naked*, to conclude that the SUBJ- and OBJ-oriented depictives occupy different syntactic positions.

This fact follows Chomsky’s (1981) observation; he stated that a depictive predicate cannot be fronted with a *wh*-phrase unlike resultative predicate. Rothstein (1983) and Rapoport (1993) suggested that this difference is due to the positions/status of depictive and resultative predicates; a depictive predicate is an adjunct attached to the maximum projection of VP, while a resultative predicate stays inside VP as a complement.

The same phenomena can be observed in Japanese.

(164) [Two Depictive Predicates in a Sentence in Japanese]

- a. *Taroo-ga niku-o nama-de kusizasi-de tabe-ta*
 Taroo-NOM meat-ACC raw-de skewered-de eat-PST
 “Taro ate the meat raw, skewered.”
- b. *Taroo-ga niku-o nama-de hadaka-de tabe-ta*
 Taroo-NOM meat-ACC raw-de naked-de eat-PST
 “Taro ate the meat raw naked.”

(165) [Wh-question with Depictives in Japanese]

- a. **Taroo-ga niku-o dorekurai nama-de tabe-ta*
 Taroo-NOM meat-ACC how raw-de eat-PST
 “How raw did Taro eat the meat?”
- b. **Taroo-ga niku-o dorekurai hadaka-de tabe-ta*
 Taroo-NOM meat-ACC how naked-de eat-PST
 “How naked did Taro eat the meat?”

(164a) represents a Japanese sentence with two object oriented depictive predicates such as *nama-de* ‘raw’ and *kusizasi-de* ‘skewered’, while (164b) shows it is possible to have subject- and object-oriented depictive predicates in a sentence. Thus the test in (164) deduces that Japanese as well as English can have more than two depictive secondary predicates in a sentence, which means that Japanese depictive predicates are adjuncts rather than complements. In (165a), the object-oriented depictive predicate *nama-de* ‘raw’ is targeted by *dorekurai* ‘how’, and the sentence is ungrammatical, whilst in (165b) the subject-oriented depictive predicate *hadaka-de* ‘naked’ is targeted by *dorekurai* ‘how’, and the sentence is ungrammatical. Thus the test (165) deduces that Japanese depictive predicate should be an adjunct rather than a complement as Rothstein (1983) and Rapoport (1993) stated.

5.5 Pseudo-cleft and *do so* Replacement

As for the syntactic positions of English subject- and object-oriented depictive predicates, many linguists including Andrews (1982) have pointed out that they occupy different syntactic positions though they are both inside VP. First, the pseudo-cleft test with subject- and object-oriented depictives in English is laid out below.

(166) [Pseudo-cleft with English Subject-oriented Depictive]

- a. What John did was eat the meat naked.
- b. ^{???}What John did naked was eat the meat.

(167) [Pseudo-cleft with English Object-oriented Depictive]

- a. What John did was eat the meat raw.
- b. *What John did raw was eat the meat.

(166a, b) and (167a, b) show that both *naked* and *raw* must be inside the VP, because they cannot separate the secondary predicates from the main verbs. Second, “do so” replacement test will be examined. Lakoff and Ross (1976) and Zagona (1988) among others stated that the elements inside VP must be replaced with *do so* as in (168a), but adjuncts adjoined to the VP need not be replaced with *do so* as in (168b).

(168) [*Do so* replacement test by Lakoff and Ross (1976) and Zagona (1988)]

- a. *John put the cup on the desk, but Mary did so on the floor.
- b. John ate the fish at the table, but Mary did so on the floor.

The same contrast can be observed between the subject- and object-oriented depictives.

(169) [*Do so* replacement with subject- and object-oriented depictives]

- a. John came home sober, but Mary did so drunk. (SUBJ-oriented depictive)
- b. *John ate the fish raw, but Mary did so raw. (OBJ-oriented depictive)

(165a, b) suggest that the subject-oriented depictive predicate adjoins VP directly, while the object-oriented depictive predicate stays lower than VP.

Next, pseudo-cleft and *do so* replacement tests will be applied to Japanese depictives. Again here, I will use only one example depictive sentence (157), which is object-oriented. The subject-oriented type and the contrasts between the two types will be discussed later in section 5.

(170) [Canonical Japanese Object-oriented Depictive (=157)]

<i>Taroo-ga</i>	<i>niku-o</i>	<i>nama-de</i>	<i>tabe-ta</i>
Taroo-NOM	meat-ACC	raw-de	eat-PST

“Taro ate the meat raw.”

- (171) [Pseudo-cleft with Canonical Japanese (Object-oriented) Depictive]
- a. *Taroo-ga sita-no-wa niku-o nama-de tabe-ru koto-da*
 Taroo-NOM do-PST-COMP-TOP meat-ACC raw-de eat-PRES thing-COP
 “What Taro did was eat the meat raw.”
- b. **Taroo-ga nama-de sita-no-wa niku-o tabe-ru koto-da*
 Taroo-NOM raw-de do-PST-COMP-TOP meat-ACC eat-PRES thing-COP
 “What Taro did raw was eat the meat.”

Like the case of English (166)/(167), Japanese object-oriented depictive predicate is also an element of VP. This is shown in (171); it is impossible to separate the depictive predicate *namae-de* ‘raw’ from the main verb *tabe-ru* ‘eat’ by pseudo-clefting. (172) below exemplifies the *soo-suru* ‘do so’ test with the object-oriented depictive predicate, which shows that the Japanese object-oriented depictive predicate also stays inside VP, like the English one (169b).

- (172) [Do-so replacement with Canonical Japanese (Object-oriented) Depictive]
- **Taroo-wa niku-o nama-de tabe-ta ga Ziroo-wa midyiamu-de*
 Taroo-TOP meat-ACC raw-de eat-PST but Ziroo-TOP medium-de
soo-si-ta
 so-do-PST
 Lit. “Taro ate the meat raw, but Ziro did so medium.”
 Int. “Taro ate the meat raw, but Ziro ate the meat medium.”

5.6 Overt Notional Subject of Depictive Predicate

The next test investigates whether the depictive phrase form a full TP clause or small clause. In (173) below, the notional subject NP is inserted to the canonical English depictive sentence, which clearly leads to the ungrammaticality.

- (173) [Additional Notional Subject of Depictive Predicate in English]
- a. John drank the soup (*its temperature) hot.
 b. John left the room (*his mood) angry.

Guéron & Hoekstra (1995) explain that (173a,b) are ungrammatical because English depictives lack tense; the English depictive predicate does not form a TP but a small clause.

Japanese depictives seem to have the same syntactic structure as the English one; they do not form a full TP but a small clause. In (174), the nominative-marked subject of the depictive predicate is added to the canonical depictive sentence, which causes the ungrammaticality.

- (174) [Additional Notional Subject of Depictive Predicate]
*Taroo-ga pizza-o (*ondo/tiizu-ga) atuatu-de tabe-ta*
 Taroo-NOM pizza-ACC temperature/cheese-NOM hot-de eat-PST
 Lit. “Taro ate the soup its temperature/cheese hot.”

(174) shows that the depictive predicate *atuatu-de* ‘hot-de’ cannot host a nominative-marked subject. This test may look to obvious for the English and Japanese native speakers. However, there are some languages, which allow this additional nominative-marked subject in the resultatives as well as depictives, such as Korean and Mongolian (see chapters 4 and 5).

Adding the extra NP like (174) becomes grammatical if the additional NP is in the part-whole relation with the accusative object and marked with *-mo* ‘also’ or *-dake* ‘only’. As already explained in the resultative section 3.3 in (92), [NP₁-GEN NP₂-x] (“x” stands for a case marker, which varies, depending on where the phrase appears) in Japanese can be always converted to [NP₁-x NP₂-*mo/-dake*]. And the nouns in the part-whole relation can be always expressed as [NP₁-GEN NP₂-x]. Examples are given in (175). (92a) is repeated.

- (92) [Case Conversion in Japanese]
 [NP₁-no NP₂-ga/-o] ↔ [NP₁-ga/-o NP₂-mo/-dake]
 -GEN -NOM/-ACC -NOM/-ACC -also/-only

- (175) a. [Part-whole Noun as Matrix Object of Depictive Construction]
Taroo-ga sono pizza-no tiizu-o [_{sc} atuatu-de] tabe-ta
 Taroo-NOM the pizza-GEN cheese-NOM hot-de eat-PST
 “Taro ate the cheese of the pizza hot.”
- b. [Additional Notional Subject of Depictive Predicate]
Taroo-ga sono pizza-o (tiizu-mo/-dake) [_{sc} atuatu-de] tabe-ta
 Taroo-NOM the pizza-ACC cheese-also/-only hot-de eat-PST
 Lit. “Taro ate the pizza (only/also) its cheese hot.”
 “Taro ate the pizza, while (only) its cheese was (also) hot.”

(175) is a normal depictive construction. The object is composed with two nouns, which are in the part-whole relation, connected with genitive case. (175b) is the case where the second noun *kuruton* ‘crouton’ is stays outside the depictive small clause. It is likely to be because *-mo/-dake* contains the property of case, but does not represent a specific case, therefore it does not violate any rules/restrictions such as spec-head relation or double accusative constraint.

5.7 Antonym Pairs

Unlike the resultatives, it is possible to replace a depictive predicate with its antonym counterpart. More precisely, the meaning of a depictive predicate in a sentence is not restricted; as long as the meaning of a depictive predicate sensibly matches the meanings of main verb and object, anything can be a depictive predicate, in principle. In (176), the depictive predicate *nama-de* ‘raw’ of the Japanese canonical depictive sentence (157) is replaced with different lexical items.

(176) a. [A Canonical Japanese Depictive]

<i>Taroo-ga</i>	<i>niku-o</i>	<i>nama-de</i>	<i>tabe-ta</i>
Taroo-NOM	meat-ACC	raw-de	eat-PST

“Taro ate the meat raw.”

b. *Taroo-ga* *niku-o* *uerudan-de* *tabe-ta*
 Taroo-NOM meat-ACC well.done-de eat-PST
 “Taro ate the meat well-done.”

c. *Taroo-ga* *niku-o* *kurokoge-de* *tabe-ta*
 Taroo-NOM meat-ACC black.burnt-de eat-PST
 “Taro ate the meat burnt black.”

d. *Taroo-ga* *niku-o* *suduke-de* *tabe-ta*
 Taroo-NOM meat-ACC vinegar.soaked-de eat-PST
 “Taro ate the meat pickled.”

I am not entirely confident about whether any of the depictive predicates *urerudan-de* ‘well.done-de’, *kurokoge-de* ‘black.burnt-de’ and *suduke-de* ‘vinegar.soaked-de (pickled)’ makes the antonym pair with *nama-de* ‘raw’. However, it can be said that the meaning of the depictive predicates is not as restricted as that of the resultative predicates. This seems to be because the depictive predicate is not the selected element by the main verb, unlike resultative predicates.

6. Analysis of Japanese Depictives

This section contains three subsections; section 6.1 observes the subject-oriented depictives, section 6.2 observes the object-oriented depictives, and section 6.3 observes fake depictives, which were previously dealt as “depictives” but do not actually represent a true depictives. As for the morpheme of a depictive predicate, there is only one choice, which is *-de*. Although *-ni* and *-ku* mark secondary predicates, they can be used only to form resultative predicates. All the tests illustrated in section 5 with the canonical Japanese depictive construction will be applied to

subject-oriented, object-oriented and fake depictives, which concludes that subject- and object-oriented depictives in Japanese carry the “common features” of depictives as well as some unique ones.

6.1 Subject-oriented Depictives

In section 6.1, I will apply the tests of section 5 to Japanese subject-oriented depictives. Canonical subject-oriented depictive sentences in Japanese are laid out in (177).

(177) [Canonical Subject-oriented Depictive Sentences in Japanese]

- a. *Taroo-ga niku-o hadaka-de tabe-ta*
Taroo-NOM meat-ACC naked-de eat-PST
“Taro ate the meat naked.”
- b. *Taroo-ga hadasi-de hasit-ta*
Taroo-NOM bare foot-de run-PST
“Taro ran barefoot.”

(177a) represents the transitive subject-oriented depictives, while (177b) represents the intransitive subject-oriented depictives. In both cases the depictive predicates are marked with *-de*, forming adverbials morphologically. In (178) some secondary predicates, which can be used in the subject-oriented depictives, are listed. Unlike the case of resultatives (cf. (36)), secondary predicates will be given without any main verbs which can potentially combine with the secondary predicates. This is simply because depictive predicates are not restricted by the meaning of main verbs at all.

(178) [Examples of Secondary Predicates in Subject-oriented Depictives]

- a. *hadaka-de* ‘naked’
b. *hadasi-de* ‘barefoot’
c. *ragan-de* ‘without glasses’
d. *muboo-de* ‘without hat’
e. *sude-de* ‘bare hand’
f. *hujukayoi-de* ‘hangover’
g. *hidaruma-de* ‘fully surrounded by fire’
h. *tidarake-de* ‘full of blood’
i. *timamire-de* ‘fully surrounded by blood’
j. NP-*no zyootai-de* ‘NP-GEN state-*de*’
k. AP *zyootai-de* ‘AP state-*de*’

Now let us observe each test in section 4 with the canonical subject-oriented depictives (177a, b). First, *10pun-de/-kan* ‘in & for 10 minutes’ insertion tests show they are not compatible with ‘in 10 minutes’ as in (179a,b) but with ‘for 10 minutes as in (179c,d), which suggests the aspectual structure of the subject-oriented depictives does not form an accomplishment but an active/achievement type. This is a typical feature of the true depictive as already shown in section 4.1.

(179) [*10 pun-de* ‘in 10 minutes’ Test]

a. *??/*Taroo-ga niku-o 10 pun-de hadaka-de tabe-ta*
 Taroo-NOM meat-ACC 10 minutes-in naked-de eat-PST
 “Taro ate the meat naked in 10 minutes.”

b. *??/*Taroo-ga sono hon-o 10 pun-de ragan-de yon-da*
 Taroo-NOM the book-ACC 10 minutes-in without glasses-de read-PST
 “Taro read the book without glasses in 10 minutes.”

[*10 pun-kan* ‘for 10 minutes’ Test]

c. *Taroo-ga niku-o 10 pun-kan hadaka-de tabe-ta*
 Taroo-NOM meat-ACC 10 minutes-for naked-de eat-PST
 “Taro ate the meat naked for 10 minutes.”

d. *Taroo-ga 10 pun-kan hadasi-de hasit-ta*
 Taroo-NOM 10 minutes-for bare foot-de run-PST
 “Taro ran barefoot for 10 minutes.”

Second, whether the subject-oriented depictive predicate represents a manner adverb is examined with *Onziyoo-ni* ‘in the same way’ replacement test. As already introduced in 2.2 and 4.2, true manner adverbs can be replaced with *onaziyo-ni* ‘in the same way’. Examples are given in (180) and (181) with the canonical depictive sentences.

(180) [Onaziyo-ni ‘in the same way’ Replacement Test with (177a)]

a. *Taroo-ga niku-o hadaka-de tabe-ta*
 Taroo-NOM meat-ACC naked-de eat-PST
 “Taro ate the meat naked.”

b. *#Zi-roo-mo niku-o onaziyo-ni tabe-ta*
 Zi-roo-also meat-ACC in the same way eat-PST
 “Ziro also ate the meat in the same way (\neq naked).”

- (181) [Onaziyoo-ni ‘in the same way’ Replacement Test with (177b)]
- a. *Taroo-ga hadasi-de hasit-ta*
 Taroo-NOM bare foot-de run-PST
 “Taro ran barefoot.”
- b. #*Ziroo-ga onaziyoo-ni hasit-ta*
 Ziroo-NOM in the same way run-PST
 “Ziro also ran in the same way (\neq barefoot).”

The sentences (180b) and (181b) are both grammatical. However, *onaziyoo-ni* ‘in the same way’ in those sentences does not mean what the depictive secondary predicates of (180a) and (181a) mean. *Onaziyoo-ni* only indicates some other manner information such as ‘in the same angle of hands/arms’, ‘in the same speed’ and so on. Thus the test suggests that the Japanese subject-oriented depictives are not manner adverbs. This feature is common to both depictive and resultative secondary predicates; neither of them are manner adverbs.

Third, there is a morphological difference between subject-oriented depictive predicates and manner adverbs. The root of a subject-oriented depictive predicate cannot be marked with *-na* but with *-no* when it modifies a noun, while the root of a manner adverb should be marked with *-na* but not with *-no*, as in (19). Examples are given in (182). (19) is repeated in (183).

- (182) [Morphemes of Depictive Predicate and its Adjectival Form]
- | | Depictive Predicate | its Adjectival Form |
|----|-----------------------------------|---|
| a. | <i>hadaka-de</i> ‘naked’ | <i>hadaka-no</i> , * <i>hadaka-na</i> |
| b. | <i>ragan-de</i> ‘bare eye’ | <i>ragan-no</i> , * <i>ragan-na</i> |
| c. | <i>muboo-de</i> ‘no hat’ | <i>muboo-no</i> , * <i>muboo-na</i> |
| d. | <i>hadasi-de</i> ‘bare foot’ | <i>hadasi-no</i> , * <i>hadasi-na</i> |
| e. | <i>hidaruma-de</i> ‘in full fire’ | <i>hidaruma-no</i> , * <i>hidaruma-na</i> |
- (183) [Morphemes of Manner Adverb and its Adjectival Form (=19)]
- | | Manner Adverb | its Adjectival Form |
|----|---------------------------------|---|
| a. | <i>kirei-ni</i> ‘beautifully’ | * <i>kirei-no</i> , <i>kirei-na</i> |
| b. | <i>yasuraka-ni</i> ‘peacefully’ | * <i>yasuraka-no</i> , <i>yasuraka-na</i> |
| c. | <i>kasuka-ni</i> ‘slightly’ | * <i>kasuka-no</i> , <i>kasuka-na</i> |
| d. | <i>rippa-ni</i> ‘respectably’ | * <i>rippa-no</i> , <i>rippa-na</i> |

Fourth, the subject-oriented depictive predicate is likely to be an adjunct rather than a complement. As in 4.4, two tests will be applied: (184) more than two subject-oriented depictive predicates in a sentence, and (185) wh-question. In (184a, b), there are two *X-de* phrases in each sentence, which all represent subject-oriented depictive predicates. Thus, it is possible to have more than two subject-oriented depictive predicates in a sentence; they are adjuncts.

(184) [More than Two Depictive Predicates]

- a. ?*Taroo-ga hon-o ragan-de timamire-de yon-da*
 Taroo-NOM book-ACC without glasses full blood-de read-PST
 “Taro read the book without glasses, with his body bleeding.”
- b. *Taroo-ga suasi-de timamire-de hasit-ta*
 Taroo-NOM bare foot-de full blood-de run-PST
 “Taro ran barefoot, with his body bleeding.”

In (185), the subject-oriented depictive predicates are targeted by the *wh*-phrase *dorekurai* ‘how’, which leads to ungrammaticality. This implies that the Japanese subject-oriented depictives carry a typical characteristic of true depictives.

(185) [Wh-question]

- a. *Taroo-wa niku-o dorekurarai hadaka-de tabe-ta?*
 Taroo-TOP meat-ACC how naked-de eat-PST
 “How naked did Taro eat the meat?”
- b. *Taroo-wa dorekurai gudenguden-de hasit-ta?*
 Taroo-TOP how drunk-de run-PST
 “How drunk did Taro run?”

Fifth, the syntactic position(s) of the subject-oriented depictive predicate is examined here. Unlike English, Japanese potentially allows two different syntactic positions for a subject-oriented depictive predicate (Koizumi, 1994). Mongolian seems to have the same characteristic as Japanese, which will be introduced in chapter 5. (187) shows that there are two possibilities to pseudo-cleft the canonical Japanese subject-oriented depictive sentence (177a); (187a) shows that the depictive secondary predicate *hadaka-de* ‘naked’ is an element of VP, whereas (187b) shows that *hadaka-de* ‘naked’ is an element outside VP. Mentioning the fact in (187), Koizumi (1994) pointed out that Japanese subject-oriented depictive predicate adjoins either T’ or VP. The canonical Japanese subject-oriented depictive sentence (177a) is repeated in (186).

(186) *Taroo-ga niku-o hadaka-de tabe-ta* (=177a)
 Taroo-NOM meat-ACC naked-de eat-PST
 “Taro ate the meat naked.”

(187) [Pseudo-cleft with Japanese Subject-oriented Depictive]

- a. *Taroo-ga sita-no-wa niku-o hadaka-de tabe-ru koto-da*
 Taroo-NOM do-PST-COMP-top meat-ACC naked-de eat-PRES thing-COP
 “What Taro did was eat the meat naked.”

- b. *Taroo-ga hadaka-de si-ta-no-wa niku-o tabe-ru koto-da*
 Taroo-NOM naked-de do-PST-COMP-TOP meat-ACC eat-PRES thing-COP
 “What Taro naked was eat the meat.”

Here, *soo-suru* ‘do-so’ replacement test (cf. section 4.5) is applied to (177a, b) in (188).

(188) [*Soo-suru* ‘do-so’ Replacement Test with Subject-oriented Depictive]

- a. **Taroo-wa niku-o sude-de tabe, Zi-roo-wa hadaka-de soo-si-ta*
 Taroo-TOP meat-ACC sude-de eat Zi-roo-TOP naked-de so-do-PST
 Lit. “Taro ate the meat with his bare hands, but Ziro did so naked.”
 Int. “Taro ate the meat with his bare hands, but Ziro ate the meat naked.”
- b. **Taroo-wa hadaka-de hasir-i, Zi-roo-wa timamire-de soo-si-ta*
 Taroo-TOP naked-de run-and Zi-roo-TOP full blood-de so-do-PST
 Lit. “Taro ate the meat raw, but Ziro did so medium.”
 Int. “Taro ate the meat raw, but Ziro ate the meat medium.”

(188) suggests that the subject-oriented depictive predicate is not selected by V; it is an element adjoined to VP directly or higher than VP.

Sixth, in order to examine the size of the clause of the subject-oriented depictives, the notional nominative-marked subject is added to the canonical subject-oriented depictive sentences. (189a,b) show that the Japanese subject-oriented depictive predicates cannot host their notional nominative -marked subject in their clause; they do not form a full TP but a small clause. Importantly, this is a purely syntactic issue; whether or not the depictive predicate can host a notional nominative-marked NP is nothing to do with semantics but fully the matter of syntax. The reason is that, as in (185a’,b’), these additional subject NPs in (189a,b) can be predicated with the depictive words outside the context of depictive construction; semantically, they have no problem in the predication relation. Thus the ungrammaticality in (189a,b) is a matter of syntax; the subject-oriented depictive predicate lacks T.

(189) a. [Additional Subject NP with Subject-oriented Depictive]

- Taroo-ga niku-o (*zyoohansin-ga) hadaka-de tabe-ta*
 Taroo-NOM meat-ACC upper.part-NOM naked-de eat-PST
 Lit. “Taro ate the meat the upper part of his body naked.”

a’ [Predication Test with (189a)]

- zyoohansin-ga hadaka-da*
 upper.part-nom naked-COP
 “The upper part (of someone’s body) is naked.”

- b. [Additional Subject NP with Subject-oriented Depictive]

*Taroo-ga (*migi-asi-ga) hadasi-de hasit-ta*
 Taroo-NOM right.foot-NOM bare foot-de run-PST
 Lit. “Taro ran his right foot barefoot.”

- b'. [Predication Test with (189b)]

migi-asi-ga hadasi-da
 right.foot-nom barefoot-COP
 “The right foot is barefoot.”

Seventh, as already mentioned in the third point of this section, the meaning of a subject-oriented depictive predicate is not related with the main verb, unlike resultatives. Although none of the secondary predicates in (190) make antonym pairs, it is clear that the meaning of the secondary predicates is not constrained. This test shows that the subject-oriented depictive predicate is an adjunct rather than a complement.

(190) a. *Taroo-ga niku-o hadaka-de/ragan-de/ timamire-de tabe-ta*
 Taroo-NOM meat-ACC naked-de/without glasses-de/full blood-de eat-PST
 “Taro ate the meat naked/without glasses/with his body bleeding.”

b. *Taroo-ga hadasi-de/hadaka-de/ragan-de/ timamire-de hasit-ta*
 Taroo-NOM barefoot-de/naked-de/without glasses-de/full blood-de run-PST
 “Taro ran barefoot/naked/without glasses/with his body bleeding.”

6.2 Object-oriented Depictives

This section examines the Japanese object-oriented depictives with the tests shown in section 5. Several Japanese object-oriented depictive sentences are given in (191). In all cases the depictive predicates are marked with *-de*, forming adverbials morphologically.

- (191) [Object-oriented Depictive Sentences in Japanese]

a. *Taroo-ga tamago-o hanzuyuku-de tabe-ta*
 Taroo-NOM egg-ACC soft.boiled-de eat-PST
 “Taro ate the egg soft-boiled.”

b. *Taroo-ga sake-o atukan-de non-da*
 Taroo-NOM alcohol-ACC hot-de drink-PST
 “Taro drank sake hot.”

- c. *Taroo-ga kuruma-o tyuuko-de kat-ta*
 Taroo-NOM car-ACC second.hand-de buy-PST
 “Taro bought a car second-hand.”
- d. *Taroo-ga tisso-o ekitai-de hozonsi-ta*
 Taroo-NOM nitrogen-ACC liquid-de keep-PST
 “Taro kept nitrogen liquid.”

In (192), some object-oriented depictive predicates are listed. Like the case of subject-oriented depictives, the meaning of object-oriented depictive predicates are not constrained by the main verb. Thus, unlike the case of resultatives, only the secondary predicates themselves are listed.

- (192) [Examples of Secondary Predicates in Object-oriented Depictives]
- a. *hadaka-de* ‘naked’
 b. *hadasi-de* ‘barefoot’
 c. *ragan-de* ‘without glasses’
 d. *muboo-de* ‘without hat’
 e. *hanzyuku-de* ‘soft-boiled’
 f. *katayude-de* ‘hard-boiled’
 g. *rea-de* ‘rare’
 h. *midyiamu-de* ‘medium’
 i. *sintiku-de* ‘newly built’
 j. *tyuuko-de* ‘second hand’
 k. *atuatu-de* ‘hot’
 l. *atukan-de* ‘hot (this word is only for *sake* ‘rice wine’)’
 m. *sirayaki-de* ‘grilled without source (for eel fish)’
 n. NP-*no zyootai-de* ‘NP-GEN state-*de*’
 o. AP *zyootai-de* ‘AP state-*de*’

Now let us observe each test in section 4 with the canonical object-oriented depictives in (191). First, *10 pun-de/-kan* ‘in & for 10 minutes’ insertion tests show they are not compatible with ‘in 10 minutes’ as in (193) but with ‘for 10 minutes’ as in (194), which indicates that the aspectual structure of the object-oriented depictives does not form an accomplishment but an activity/achievement type.

- (193) [*10 pun-de* ‘in 10 minutes’ Test with (191a, b)]
- a. ^{??}/**Taroo-ga tamago-o 10 pun-de hanzyuku-de tabe-ta*
 Taroo-NOM egg-ACC 10 minutes-de soft.boiled-de eat-PST
 “Taro ate the egg soft-boiled in 10 minutes.”

- b. ^{??}/**Taroo-ga sake-o 10 pun-de atukan-de non-da*
 Taroo-NOM alcohol-ACC 10 minutes-in hot-de drink-PST
 “Taro drank the alcohol hot in 10 minutes.”
- (194) [*10 pun-kan* ‘for 10 minutes’ Test]
- a. *Taroo-ga tamago-o 10 pun-kan hanzyuku-de tabeta*
 Taroo-NOM egg-ACC 10 minutes-for soft.boiled-de eat-PST
 “Taro ate the egg soft-boiled for 10 minutes.”
- b. *Taroo-ga sake-o 10pun-kan atukan-de non-da*
 Taroo-NOM alcohol-ACC 10minutes-for hot-de drink-PST
 “Taro drank the alcohol hot for 10 minutes.”

Second, *Onaziyoo-ni* ‘in the same way’ replacement test reveals that the subject-oriented depictive predicate should be distinguished from manner adverb although it is marked as adverbial. As mentioned earlier, true manner adverbs can be replaced with *onaziyoo-ni* ‘in the same way’. With the Japanese subject-oriented depictive predicates, in fact the replacement test does not work. Examples are given in (195) and (196) with the canonical depictive sentences, where (a) and (b) sentences are uttered in a single context.

- (195) [*Onaziyoo-ni* ‘in the same way’ Replacement Test with (191a)]
- a. *Taroo-ga tamago-o hanzyuku-de tabe-ta*
 Taroo-NOM egg-ACC soft.boiled-de eat-PST
 “Taro ate the egg soft-boiled.”
- b. #*Ziroo-mo tamago-o onaziyoo-ni tabe-ta*
 Ziroo-also egg-ACC in the same way eat-PST
 “Ziroo also ate the egg in the same way (\neq soft-boiled).”
- (196) [*Onaziyoo-ni* ‘in the same way’ Replacement Test with (134b)]
- a. *Taroo-ga sake-o atukan-de non-da*
 Taroo-NOM alcohol-ACC hot-de drink-PST
 “Taro drank sake hot.”
- b. #*Ziroo-ga sake-o onaziyoo-ni non-da*
 Ziroo-also alcohol-ACC in the same way drink-PST
 “Ziroo also drank alcohol in the same way (\neq barefoot).”

The sentences (195b) and (196b) are both grammatical. However, *onaziyoo-ni* ‘in the same way’ in those sentences does not mean what the depictive secondary predicates of (195a) and (196a)

mean. *Onaziyoo-ni* only indicates some other manner information such as ‘in the same angle of hands/arms’, ‘in the same speed’ and so on. Thus the object-oriented depictive predicates are not manner adverbs.

Third, there is a morphological difference between object-oriented depictive predicates and manner adverbs. The root of an object-oriented depictive predicate cannot be marked with *-na* but *-no* when it modifies a noun, while the root of a manner adverb can be marked with *-na* but not with *-no*, as in (19). Examples are given in (197). (19) is repeated in (198).

- (197) [Morphemes of Depictive Predicate and its Adjectival Form]
- | Depictive Predicate | its Adjectival Form | |
|--|----------------------------|----------------------|
| a. <i>hadaka-de</i> ‘naked’ | <i>hadaka-no,</i> | * <i>hadaka-na</i> |
| b. <i>hadasi-de</i> ‘barefoot’ | <i>hadasi-no,</i> | * <i>hadasi-na</i> |
| c. <i>ragan-de</i> ‘without glasses’ | <i>ragan-no,</i> | * <i>ragan-na</i> |
| d. <i>muboo-de</i> ‘without hat’ | <i>muboo-no,</i> | * <i>muboo-na</i> |
| e. <i>hanzyuku-de</i> ‘soft-boiled’ | <i>hanzyuku-no,</i> | * <i>hanzyuku-na</i> |
| f. <i>katayude-de</i> ‘hard-boiled’ | <i>katayude-no,</i> | * <i>kadayude-na</i> |
| g. <i>rea-de</i> ‘rare’ | <i>rea-no,</i> | * <i>rea-na</i> |
| h. <i>midyiamu-de</i> ‘medium’ | <i>midyiamu-no,</i> | * <i>midyiamu-na</i> |
| i. <i>sintiku-de</i> ‘newly built’ | <i>sintiku-no,</i> | * <i>sintiku-na</i> |
| j. <i>tyuuko-de</i> ‘second hand’ | <i>tyuuko-no,</i> | * <i>tyuuko-na</i> |
| k. <i>atuatu-de</i> ‘hot’ | <i>atuatu-no,</i> | * <i>atuatu-na</i> |
| l. <i>atukan-de</i> ‘hot’ | <i>atukan-no,</i> | * <i>atukan-na</i> |
| m. <i>sirayaki-de</i> ‘grilled without source’ | <i>sirayaki-no,</i> | * <i>sirayaki-na</i> |
| n. ... <i>zyootai-de</i> ‘state- <i>de</i> ’ | <i>zyootai-no,</i> | * <i>zyootai-na</i> |
- (198) [Morphemes of Manner Adverb and its Adjectival Form (=19)]
- | Manner Adverbs | their Adjectival Forms | |
|------------------------------------|-------------------------------|--------------------|
| a. <i>kirei-ni</i> ‘beautifully’ | * <i>kirei-no,</i> | <i>kirei-na</i> |
| b. <i>yasuraka-ni</i> ‘peacefully’ | * <i>yasuraka-no,</i> | <i>yasuraka-na</i> |
| c. <i>kasuka-ni</i> ‘slightly’ | * <i>kasuka-no,</i> | <i>kasuka-na</i> |
| d. <i>rippa-ni</i> ‘respectably’ | * <i>rippa-no,</i> | <i>rippa-na</i> |

Fourth, the object-oriented depictive predicate seems to be an adjunct rather than a complement. Two tests of section 4.4 will be applied to the canonical object-oriented depictives: (199) more than two object-oriented depictive predicates in a sentence, and (200) wh-question. In (199), there are two *X-de* phrases, which represent object-oriented depictive predicates, and the sentences are grammatical. Thus, it is possible to have more than two object-oriented depictive predicates in a sentence.

- (199) [More than Two Depictive Predicates]
Taroo-ga tamago-o hanzkyuku-de atuatu-de tabe-ta
 Taroo-NOM egg-ACC soft.boiled-de very.hot-de eat-PST
 “Taro ate the egg soft-boiled, very hot.”

In (200), the object-oriented depictive predicates are targeted by the wh-phrase *dorekurai* ‘how’, which leads to ungrammaticality. This implies that the Japanese object-oriented depictives carry a typical characteristic of true depictives; Chomsky (1981) stated depictive predicates cannot be targeted by ‘how’.

- (200) [Wh-question]
 a. ^{??}*Taroo-ga tamago-o dorekurai hanzkyuku-de tabe-ta*
 Taroo-NOM egg-ACC how soft.boiled-de eat-PST
 “How did Taro eat the egg?”
 b. **Taroo-ga sake-o dorekurai atukan-de non-da*
 Taroo-NOM alcohol-ACC how hot-de drink-PST
 “How hot did Taro drink the sake?”

Fifth, the syntactic position of the object-oriented depictive predicate is examined. Like the ones of other languages including English, Japanese one seems to adjoin to V’. (202) shows that the depictive predicate *hanzyuku-de* ‘soft-boiled’ is at least inside VP.

- (201) [Canonical Japanese Object-oriented Depictive (=191a)]
Taroo-ga tamago-o hanzkyuku-de tabe-ta
 Taroo-NOM egg-ACC soft.boiled-de eat-PST
 “Taro ate the egg soft-boiled.”

- (202) [Pseudo-cleft with Japanese Subject-oriented Depictive]
 a. *Taroo-ga sita-no-wa tamago-o hanzkyuku-de tabe-ru koto-da*
 Taroo-NOM do-PST-COMP-TOP egg-ACC soft.boiled-de eat-PRES thing-COP
 “What Taro did was eat the egg soft-boiled.”
 b. **Taroo-ga hanzkyuku-de sita-no-wa tamago-o tabe-ru koto-da*
 Taroo-NOM soft.boiled-de do-PST-COMP-TOP egg-ACC eat-PRES thing-COP
 “What Taro soft-boiled was eat the egg.”

In order to analyse the syntactic position of the object-oriented depictive predicate more precisely, *soo-suru* ‘do-so’ replacement test is examined in (203). The adjuncts, which directly adjoin to VP, do not need to be replaced with do-so. Consider the case of English in (203).

- (203) [do-so Replacement Test in English]
 a. John danced in his house, but Mary did so in the park.
 b. John ate the fish and chips quickly, but Mary did so slowly.

Thus, if an element must be replaced with do-so, then it has to be inside V'; it adjoins V' as an adjunct or the complement of V. Now look at the case of Japanese depictives in (204).

- (204) [*Soo-suru* 'do-so' Replacement Test with Subject-oriented Depictive]
 a. **Taroo-wa tamago-o hanzuyuku-de tabe, Ziroo-wa katayude-de soo-si-ta*
 Taroo-TOP egg-ACC soft.boiled-de eat Ziroo-TOP hard.boiled-de so-do-PST
 Lit. "Taro ate the egg soft-boiled, but Ziro did so hard-boiled."
 Int. "Taro ate the egg soft-boiled, but Ziro ate the egg hard-boiled."
 b. **Taroo-wa sake-o atukan-de nom-i, Ziroo-wa nurukan-de soo-si-ta*
 Taroo-TOP alcohol-ACC hot-de drink-and Ziroo-TOP warm-de so-do-PST
 Lit. "Taro drank the sake hot, but Ziro did so warm."
 Int. "Taro drank the sake hot, but Ziro drank the sake warm."

(204) suggests that the object-oriented depictive predicate in Japanese is not an element which directly adjoins to VP, but inside V'. As I have already shown above, Japanese object-oriented depictives are adjuncts. This means that the only position it can adjoin seems to be V'.

Sixth, the size of the object-oriented depictive clause is examined here. In (205a), the notional nominative-marked subject of the object-oriented depictive predicate is added, which causes the ungrammaticality. As can be seen in (205b), the additional NP *yakikagen-ga* 'grill.extent-NOM' can potentially be predicated with the depictive phrase *rea* 'rare'; semantically their predication relation does not have a problem. Thus the ungrammaticality in (205a) is due to the syntactic issue; the object-oriented depictive phrase does not form a full TP, but a small clause.

- (205) a. [Additional Subject NP with Subject-oriented Depictive]
*Taroo-ga niku-o (*yakikagen-ga) rea-de tabe-ta*
 Taroo-NOM meat-ACC grill.extent-NOM rare-de eat-PST
 Lit. "Taro ate the meat its extent of grilling rare."
 Int. "Taro ate the meat which is grilled rare."
 b. [Predication Test with (205a)]
yakikagen-ga rea-da
 grill.extent-nom rare-COP
 "The extent of grilling is rare."

Seventh, as briefly mentioned in the third point of this section, the meaning of an object-oriented depictive predicate is not associated with the main verb, unlike resultatives. Although none of the secondary predicates in (206) make antonym pairs, it is clear that the meaning of the secondary predicates is not restricted at all. This test also shows that the object-oriented depictive predicate is an adjunct rather than a complement.

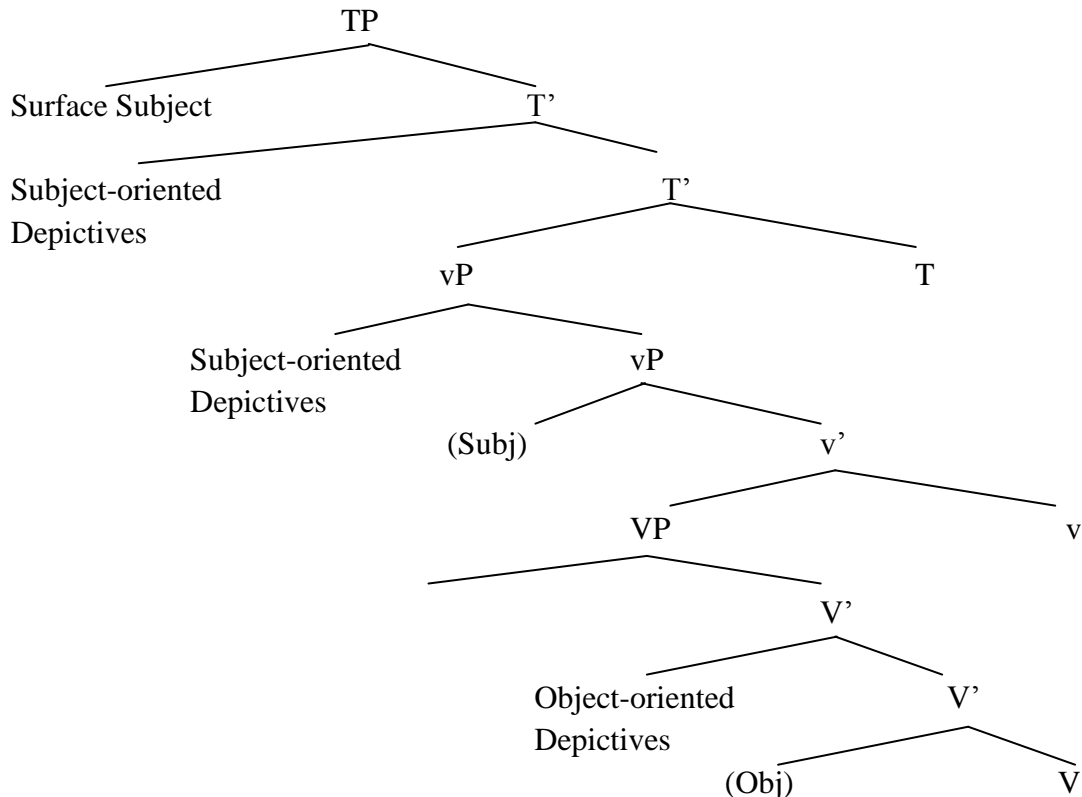
- (206) *Taroo-ga tamago-o hanzzyuku-de/katayude-de /atuatu-de tabe-ta*
 Taroo-NOM egg-ACC soft.boiled-de/hard.boiled-de/hot-de eat-PST
 “Taro ate the egg soft-boiled/hard-boiled/hot.”

6.3 Syntactic Structure of Japanese Depictives

First of all I will illustrate the syntactic structure of Japanese depictives by summarising the section 6.2. Then some related syntactic issues will be introduced.

As seen in (187), Japanese subject-oriented depictive predicate has two possible positions to adjoin to; it adjoins to either the top vP or T'. On the other hand, the object-oriented depictive predicate directly adjoins to VP. The syntactic positions of Japanese subject- and object-oriented depictives are illustrated in (207).

- (207) [Syntactic Representation of Japanese Depictives]



Koizumi (1994) stated that Japanese object-oriented depictive predicate can only modify the affected-theme object but not the non-affected theme object. Consider examples (208) and (209).

(208) [Affected Theme Object in Japanese Depictive Construction]

a. *Taroo_i-ga Hanako_j-o hadaka_{i/j}-de kososi-ta*
 Taroo-NOM Hanako-ACC naked-de kill-PST
 “Taro killed Hanako naked.

b. *Taroo-ga sakana_i-o nama_i-de tabe-ta*
 Taroro-NOM fish-ACC raw-de eat-PST
 “Taro ate the fish raw.”

(209) [Non-affected Theme Object in Japanese Depictive Construction]

a. *Taroo_i-ga Hanako_j-o hadaka_{i/*j}-de mat-ta*
 Taroo-NOM Hanako-ACC naked-de wait-PST
 “Taro waited for Hanako naked.

b. *Taroo_i-ga Hanako_j-o deesui-zyootai_{i/*j}-de donat-ta*
 Taroo-NOM Hanako-ACC fully.drunk-situation-de shout.at-PST
 “Taro shouted at Hanako fully drunk.

In (208), the objects are affected theme objects, which can successfully be modify by the depictive predicates. On the other hand, in (209) the objects are non-affected theme objects, which cannot be linked by the depictive predicates. In fact, we can see that the type of the verb affects the grammaticality of depictive sentences by comparing (208a) and (209a), which consist of a minimal pair. One syntactic solution of this phenomenon would be to assume different layers of VP as Cinque (1993) proposed. The upper VP represents the causative layer whose V’ the object-oriented depictive predicate adjoins to and where the affected theme object stays in the complement position of V. The lower VP represents the thematic tier, where the non-affected theme object stays in the complement of V.

Though Mongolian depictives (in chapter 5) resembles Japanese depictives, they do not have the contrast between the affected and non-affected theme objects. English, although slightly different from the issue of affected vs. non-affected theme objects, does show the difference in grammaticality according to the type of main verb. Examples are given in (210).

(210) [Stage-level Predicate vs. Individual-level Predicate with Different Types of Verb]

- a. John bought the peanuts salted/*salty.
- b. John cut the meat hot/*red.
- c. John likes the peanuts salted/salty.
- d. John prefers his steak hot/red.

In all the example sentences of (210) there two choices of “secondary predicates”; the former represents a stage-level predicate, but the latter an individual-level predicate. Generally, only stage-level predicates are allowed to be a depictive predicate, but individual-level predicates cannot be, as in (210a,b). However, as Rapoport (1993) suggested, there are some main verbs which allow the stage-level predicates to be depictive predicates as in (210c,d). Rapoport distinguishes these (210c,d) from the canonical depictives and call them as “stative depictive predicate”. Thus it can be widely observed that the grammatical acceptability is affected by the type of main verb.

6.4 Fake Depictives

There has been much research on the area of Japanese depictives. However, some example sentences introduced as depictives do not look like genuine depictives. This section picks up those fake depictive sentences one by one and explains why they should not be regarded as true depictives. Section 6.4.1 observes the fake subject-oriented depictives, while section 6.4.2 the fake object-oriented depictives.

6.4.1 Fake Subject-oriented Depictives

The first example represents “-ku depictive”, which does not exist. Examples are given in (211).

- (211) [Fake -ku depictives]
- a. *Taroo-ga watasi-ni iyarasi-ku suriyotteki-ta*
 Taroo-NOM 1SG.SING-to nasty-ku snuggle-PST
 “Taro nastily snuggled to me.”
- b. *Taroo-ga hanasi-o otonasi-ku ki-itei-ru*
 Taroo-NOM talk-ACC quiet-ku listen-PROG-PRES
 “Taro quietly listens to the talk.”

The reason that they look like depictives comes from the fact that the predicate test between the subject and “secondary predicate” happen to be successful in both sentences as in (212).

- (212) a. [Predication Test with (211a)]
Taroo-ga iyarasi-i
 Taroo-NOM nasty-PRES
 “Taro is nasty.”

b. [Predication Test with (211b)]

Taroo-ga otonasi-i
 Taroo-NOM quiet-PRES
 “Taro is quiet.”

However, this does not mean they are depictives. *Onaziyoo-ni* replacement is successful with (213a, b), which indicates the “secondary predicates” in (214a, b) are mere manner adverbs.

(213) [Onaziyoo-ni ‘in the same way’ Replacement Test with (211a)]

- a. *Taroo-ga watasi-ni iyarasi-ku suriyotteki-ta*
 Taroo-NOM 1SG.SING-to nasty-ku snuggle-PST
 “Taro nastily snuggled to me.”
- b. *Ziroo-mo watasi-ni onaziyoo-ni suriyotteki-ta*
 Ziroo-also 1SG.SING-to in the same way snuggle-PST
 “Ziro also snuggled to me in the same way (= nastily).”

(214) [Onaziyoo-ni ‘in the same way’ Replacement Test with (211b)]

- a. *Taroo-ga hanasi-o otonasi-ku ki-itei-ru*
 Taroo-NOM talk-ACC quiet-ku listen-PROG-PRES
 “Taro quietly listens to the talk.”
- b. *Ziroo-mo hanasi-o onaziyoo-ni ki-itei-ru*
 Ziroo-also talk-ACC in the same way drink-PROG-PRES
 “Ziro also listens to the talk in the same way (= quiet).”

Sentences like (215) also look like true depictives because the predication test between the subject and X-*de* phrase is successful as in (216).

- (215) a. *Taroo-ga hissi-de/-ni mooka-no-naka-e tobikondeit-ta*
 Taroo-NOM desperate-de/-ni strong.fire-GEN-inside-to jump.into-PST
 “Taro jumped into the strong fire desperately.”
- b. *Taroo-ga kootyoo-de/-ni sansin-no-yama-o kidui-ta*
 Taroo-NOM one’s top shape-de/-ni strike.out-GEN-mountain-ACC pile.up-PST
 “Taro piled up a lot of strike-outs in top shape.”

- (216) a. [Predication Test with (215a)]
Taroo-ga hissi-da
 Taroo-NOM desperate-PRES
 “Taro is desperate.”
- b. [Predication Test with (215b)]
Taroo-ga kootyoo-da
 Taroo-NOM ones’s top shape-PRES
 “Taro is in top shape.”

However, these sentences are also not the real depictives. Firstly, as shown in (216), the morpheme *-de* can be replaced with *-ni* without changing the meaning.⁴⁸ This is uncharacteristic of true depictives. Second, again, *onaziyoo-ni* replacement with the *X-de/-ni* is successful in (216a, b), which suggests the *X-de/-ni* phrases are manner adverbs.

The final examples of the fake subject-oriented depictives come from NP-*no-mama* ‘NP-GEN-mama’ or ADJ-*mama* phrases, which resemble the depictive predicates. Examples are given in (217). Although Uchimaru (1999) stated that NP-*no-mama* ‘NP-GEN-mama’ contained the meaning of ‘remain in a state’, Matsui and Kageyama (2009) denied that the phrase formed a true depictive. One of the reasons is that *X(-no)-mama* ‘NP(-GEN)-state’ can optionally take the morpheme *-de*, which is atypical of genuine depictives.

- (217) a. [NP-*no-mama* ‘NP-GEN-state’ Phrase]
Taroo-wa ragan-no-mama(-de) hon-ga yom-e-ru
 Taroo-TOP naked.eye-GEN-state(-de) book-NOM read-CAN-PRES
 “Taro can read books without using glasses.”
- b. [ADJ-*mama* phrase]
Taroo-wa tumetai-mama(-de) koohii-o non-da
 Taroo-TOP cold-state(-de) coffee-ACC drink-PRES
 “Taro drank coffee without making it hot.”

(216a, b) are compatible with *10 pun-de* ‘in 10 minutes’ even when *X-mama* takes the morpheme *-de*. This suggests they are the accomplishment type, which is not a feature of the real depictive.

⁴⁸ There is a slight difference in the meanings/nuances between *-de* and *-ni* in (215). Alfonso (1974; p1076) states about the meanings of *-de* and *-ni* in construction with *-mama*; “*-de* is used when the verb preceding *-mama* indicates some action that the subject could decide on voluntarily”, while “*-ni* is used when the indeliberate actions are expressed, or situations over which the subject has no control”. In addition, I found that *-mama* of *-mama-de* can be rephrased with *zyootai* ‘state’, while *-mama* of *-mama-ni* cannot be rephrased with *zyootai* ‘state’. This is an interesting topic, and I will leave it for further research.

- (218) [NP-*no-mama* ‘NP-GEN-mama’ Phrase with ‘in 10 minutes’]
 a. *Taroo-wa ragan-no-mama(-de) 10 pun-de hon-ga yom-e-ru*
 Taroo-TOP naked eye-GEN-state(-de) 10 minutes-in book-NOM read-CAN-PRES
 “Taro can read books without using glasses in 10 minutes.”
 b. [ADJ-*mama* Phrase with ‘in 10 minutes’]
Taroo-wa tumetai-mama(-de) 10 pun-de koohii-o non-da
 Taroo-TOP cold-state(-de) 10 minutes-in coffee-ACC drink-PRES
 “Taro drank coffee without making it hot in 10 minutes.”

Another piece of evidence that (217a, b) are not genuine depictives is that the meaning of X-*mama* is somehow restricted, which is also atypical of the true depictive.

- (219) [“Antonym Pairs are not Possible”]
Taroo-wa tumetai-mama(-de)/#ataataikai-mama(-de) koohii-o non-da
 Taroo-TOP cold-state(-de)/warm-state(-de) coffee-ACC drink-PRES
 “Taro drank coffee cold/warm.”

Miyake (1995) explains that *-mama* involves the meaning of “a situation which normally does not occur or is regarded as improper”. This is why, *-mama* cannot be used to describe a predictable situation. Thus, Matsui and Kageyama (2009) regards the X-*mama* phrases as a marker of attendant circumstances rather than a depictive marker.

6.4.2 Fake Object-oriented Depictives

Fake depictives can be found in the object-oriented depictives. The first example comes from the “Evaluative” sentence named by Martin (1975), which resembles the true depictives, since the predication test is successful.

- (220) [Evaluative Sentence]
Taroo-ga tempura-o oisi-ku tabe-ta
 Taro-NOM tempura-ACC delicious-ku eat-PST
 Lit. “Taro ate the tempura deliciously.”
 “Taro ate the tempura in a circumstance where he felt it delicious.”
- (221) [Predication Test with Evaluative sentence (220)]
tempura-ga oisi-i
 tempura-NOM delicious-PRES
 “Tempura is delicious.”

(221) shows that the object *tempura* and the adverbial *oisi-ku* ‘delicious’ of (220) can be predicated successfully. However, actually the interpretation of (220) does not indicate that the *tempura* itself is delicious. For when *Taroo* feels the tempura is delicious when he eats it, there are some other affecting factors. Consider example (222).

- (222) *ii* *kesiki-no* *okage-de*, *Taroo-wa* *tempura-o* *oisi-ku* *tabe-ta*
 good scenery-GEN due to Taroo-TOP fry-ACC delicious-ku eat-PST
 “Due to the good scenery, Taro ate the tempura and felt it was delicious.”

In Japanese (222) is a very natural sentence/context. This suggests that *oisi-ku* ‘delicious’ does not really describe the state of the object *tempura* ‘fry’, but notes the subject feeling when the subject *Taroo* makes the action of eating. In terms of the linguistic tests in section 5, *10 pun-de/-kan* ‘in & for 10 minutes’ phrases do not fit (220) well, which is atypical of the true depictives. This is shown in (223).

- (223) a. [Evaluative Sentence with ‘in 10 minutes’]
 **Taroo-ga* *tempura-o* *10 pun-de* *oisi-ku* *tabe-ta*
 Taro-NOM fry-ACC 10 minutes-in delicious-ku eat-PST
 “Taro deliciously ate the fry in 10 minutes.”
- b. [Evaluative Sentence with ‘for 10 minutes’]
 **Taroo-ga* *tempura-o* *10 pun-kan* *oisi-ku* *tabe-ta*
 Taro-NOM fry-ACC 10 minutes-for delicious-ku eat-PST
 “Taro deliciously ate the fry for 10 minutes.”

7. Lexical Analysis of Japanese Depictives

Summarising section 6, I can conclude that depictive predicates generally has to have the form of “[NP which describes a state]-*de*”. The NPs which describe a state of a situation are different from the canonical NPs in their syntactic categories. The ones which describe a state of situation have the nominal and adjectival dual categories like the resultative predicates. However, the difference between the syntactic categories of resultatives and depictives is that the base category of the resultative predicate is adjective, as already discussed in section 5, while the base category of the depictive category is noun. Remember that when the depictive predicate combines with the nominative case marker *-ga*, the interpretation of the word always needs a pragmatic support to have “the state/situation of being...” (see (151)). As for the case of the depictive predicates with *-ga* ‘-NOM’, they can have both interpretations: one with the straightforward reading as a pure nominal (like table, chair and so on), and the other with the additional meaning of “the state/situation of being...” (like adjective based nominals). Consider the examples in (224),

where *sintiku* ‘newly.built’ and *sinpin* ‘new.product’ represent canonical depictives. Compare (224a,b) with (151) and (153), which are repeated in (225a,b).

- (224) [Depictive Predicates with Nominative Marker *-ga*]
- a. *sintiku-ga* *ninki-da*
 newly.built-NOM popular-COP
 “**New buildings** are popular.”
 “**The state/concept of being new about house** is popular.”
- b. *kuruma-wa* *sinpin-ga* *yo-i*
 car-TOP new.product good-PRES
 “As for cars, **the new product** is good.
 “As for cars, **the state of being new product** is good.”
- (225) a. [(151) Adjective-based Nominal]
pikapika-ga *ichiban-da*
 shiny-NOM no.1-COP
 “**The state/situation of being shiny** is the best.”
- b. [(153) Pure Nominal]
tukue-ga *aka-i*
 table-NOM red-PRES
 “**The table** is red.”

For the native speakers of Japanese, the examples in (224a,b) on their own may be doubtful; I myself have a feeling that both interpretations may be all right, or I am not sure which interpretation I am reading when I read the sentences. However, if they are compared with the cases of adjective-based nominals as in (225a) and the pure nominal case as in (225b), the contrast is very clear. (224a,b) indeed have two interpretations, which in turn suggests that the depictive predicates have dual categories and not adjective-based.

As already mentioned briefly in the resultative section, the depictive predicates generally express scientific notions; “generally” means, except for pseudo-mimetic depictive predicates such as *atuatu-de* ‘hot-de’.⁴⁹ So, lexical items listed in (177) and (192) such as *hadaka-de* ‘naked-de’, *ragan-de* ‘without glasses’, *kotai-de* ‘solid’ and so on are non-subjective predicates. This is a unique feature of the depictive predicates.

An important and interesting point of Japanese secondary predicates is that the (root of) depictive predicates cannot be combined with *-ni* (the morpheme for resultatives), and the (root of) resultative predicates cannot be combined with *-de* (the morpheme for depictives), unless

⁴⁹ Pseudo mimetics do not purely derive from a copy of a sound but from a lexical word: in the case of *atuatu-de* ‘hot-de’, an adjective *atu-i* ‘hot-PRES’ is the origin.

some special main verbs, such as *suru* ‘do (heavy)’, *naru* ‘become’ and *onegai-suru* ‘ask for’ are used. Firstly, look at the case of “depictive-root + *-ni* ‘resultative morpheme’” in (226).

- (226) [Depictive-root with *-ni* ‘resultative morpheme’]
- | | | | | | |
|----|-----------------|-----------------|-------------------------|------|----------------------|
| a. | <i>Taroo-ga</i> | <i>Hanako-o</i> | <i>hadaka-ni</i> | ???? | ← no main verb found |
| | Taroo-NOM | Hanako-ACC | naked-ni | ???? | |
| b. | <i>Taroo-ga</i> | <i>Hanako-o</i> | <i>ragan-ni</i> | ???? | ← no main verb found |
| | Taroo-NOM | Hanako-ACC | no.glasses-ni | ???? | |
| c. | <i>Taroo-ga</i> | <i>kuruma-o</i> | <i>tyuuko-ni</i> | ???? | ← no main verb found |
| | Taroo-NOM | car-ACC | second.hand-ni | ???? | |
| d. | <i>Taroo-ga</i> | <i>sanso-o</i> | <i>ekitai-ni</i> | ???? | ← no main verb found |
| | Taroo-NOM | oxygen-ACC | liquid-ni | ???? | |

In (226), all the phrases in bold font have the form of “depictive-root + *-ni*”. Because of the phrases of “depictive-root + *-ni*”, all the sentences cannot find an appropriate main verb apart from *suru* ‘do (heavy)’; *suru* ‘do (heavy)’ can fit in the “????” of all the sentences in (226) to give perfectly grammatical sentences. The reason that those sentences in (226) cannot find an appropriate main verb seems to be because the combination of depictive-root and the resultative morpheme *-ni* is illogical. I assume that the depictive roots originally have semantic aspect of STATIVE/COP, and the resultative morpheme *-ni* has the semantic aspect of INCHOATIVE/BECOME. And when they are combined, they clash. The aspect of morphemes and predicates will be further investigated in section 7. On the other hand the reason why *suru* ‘do (heavy)’ fits in these sentences seems to be that, as Kageyama (2009) stated, the heavy *do* provides a skeletal LCS template to the complex predicate and I assume that this skeletal LCS template forces the morpheme *-ni* to play the role of preposition to rather than the resultative morpheme. Prepositions do not have aspects. This is why there is no clash between the depictive-root and *-ni* ‘to’ when the main verb is *suru* ‘do (heavy)’ and thus the sentences is grammatical.

Next, the combination of the resultative-root with *-de*, which is the morpheme for depictives, is examined. Again, like the case of “depictive-root + *-ni* ‘resultative morpheme’”, the combination of “resultative-root + *-de* ‘depictive morpheme’” also causes ungrammaticality, unless the main verb is *onegai-suru* ‘ask for (literary ‘wish-do’). Examples are given in (227).

- (227) [Resultative-root with *-de* ‘depictive morpheme’]
- | | | | | | |
|----|-----------------|---------------|---------------------------|------|----------------------|
| a. | <i>Taroo-ga</i> | <i>kutu-o</i> | <i>pikapika-de</i> | ???? | ← no main verb found |
| | Taroo-NOM | shoe-ACC | sparkling-de | ???? | |

- b. *Taroo-ga yuka-o turuturu-de* ??? ← no main verb found
 Taroo-NOM floor-ACC smooth-de ???
- c. *Taroo-ga aisukuriimu-o dorodoro-de* ??? ← no main verb found
 Taroo-NOM ice cream-ACC fully.melted-de ???
- d. *Taroo-ga suika-o mapputatu-de* ??? ← no main verb found
 Taroo-NOM watermelon-ACC equally.two-de ???

In (227) it is impossible to fill in the “????” with a verb. The reason seems to be because, the resultative-root originally have the semantic aspect of INCHOATIVE/BECOME, and the depictive morpheme *-de* has the semantic aspect of STATIVE/COP. When these two elements are combined together as “resultative.root-*de*”, their aspectual information crashes and cannot provide a grammatical sentence. Now, the verb *onegai-suru* ‘ask for’ is rather a tricky verb. I am not entirely sure about what it does to syntax. However, we can at least observe the combination of “resultative.root-*de* + *onegai-suru* ‘ask for’”, which might become the key to solve the properties of depictives and resultatives further. (228a,b) describe the sentences of (227a,b) with *onegai-si-ta* ‘ask.for-PAST’.

(228) [Resultative-root with *-de* ‘depictive morpheme’ + *onegai-suru* ‘ask for’]

- a. *Taroo-ga kutu-o pikapika-de onegai-si-ta*
 Taroo-NOM shoe-ACC sparkling-de ask.for-do-PST
 “Taro asked for **the state of being** shiny for the shoes.”
- b. *Taroo-ga yuka-o turuturu-de onegai-si-ta*
 Taroo-NOM floor-ACC smooth-de ask.for-do-PST
 “Taro asked for **the state of being** shiny for the floor.”

These sentences in (228) are difficult to translate, though they are fully grammatical. When native speakers of Japanese understand these sentences, it is necessary to supplement the interpretation of *-no zyootai-* ‘-GEN state-’ in between the resultative-root and the depictive morpheme *-de*: e.g. *pikapika-no zyootai-de*. Thus, it seems that the resultative-root pragmatically plays the role of noun to attach to the *-no* ‘-GEN’, and *zyootai-de* ‘state-*de*’ plays the role of depictive predicate. Remember that the form NP(*-no*) *zyootai-de* ‘NP-GEN state-*de*’ can always work as a true depictive predicate.

(229) [NP(*-no*) *zyootai-de* ‘NP-GEN state-*de*’ as Depictive Predicate]

- a. *deesui(-no)-zyootai-de* ‘very.drunk(-GEN)-state-*de*’
 b. *kanseehin-no zyootai-de* ‘fully.built-GEN state-*de*’
 c. *seehon-no zyootai-de* ‘completed.book-GEN state-*de*’

- d. *pikapika-no zyootai-de* ‘sparkling-GEN state-*de*’
 e. *turuturu-no zyootai-de* ‘smooth-GEN state-*de*’

Thus, the verb *onegai-suru* ‘ask.for’ is likely to have a special property which provides the meaning of *-no zyootai-* “-GEN state-” and makes the whole sentence grammatical as a depictive sentence.

Finally, as another pragmatic dependent depictive construction, I will introduce some “unagi-bun ‘eel-sentences’ proposed by Okutsu (1987, 2007). First, consider the depictive sentences in (230).

- (230) [*Unagi-bun* ‘eel-sentences’ as Depictive Construction]
 a. *Taroo-ga Beetooben-o Karayan-de kii-ta*⁵⁰
 Taroo-GEN Beethoven-ACC Karajan-de listen-PAST
 “Taro listened to Beethoven conducted by Karajan.”
 Lit. “Taro listened to Beethoven Karajan.”
 b. *Taroo-ga Ria-oo-o Tomu Kuruuzu-de mi-ta*
 Taroo-NOM Lear-King-ACC Tom Cruise-de watch-PAST
 “Taro watched the King Lear in which Tom Cruise acts.”
 Lit. “Taro watched the King Lear Tom Cruise.”

These sentences in (230) are not the most natural Japanese sentences, but they are grammatical. It seems that (230a,b) contain the underlying structure of “*unagi-bun* (eel-sentence)”, which is a Japanese unique construction, proposed by Okutsu (1978).⁵¹

- (231) *boku-wa unagi-da*
 I-TOP eel-PRES
 Lit. “I am an eel.”
 Int. “I’ll eat/choose/go for the eel in the menu.” (Okutsu, 1978)

The sentence (231) is grammatical and colloquially used ordinarily in Japanese. The sentence literally means *I am an eel*. However, the intended meanings can be *I’ll eat/choose/go for the eel fish* (when the person is looking at the menu in a restaurant). So the real action can be interpreted in any ways to fit the context. Again, I assume that the pragmatically added interpretation connects the nouns like *Karajan* and *Tom Cruise* with *zyootai-de* ‘state-*de*’ to make the whole phrase as a well-formed depictive secondary predicate.

⁵⁰ Herbert von Karajan was an Austrian orchestra and opera conductor.

⁵¹ Thanks to Jae Hoon Yoen for pointing out that Korean also allows the “unagi-bun” construction but does not allow the depictive examples of (230). Thus further research is needed on this topic.

8. Aspect of Japanese Predicates and morphemes

To begin with, let me discuss the distinction between the concepts of semantic and syntactic aspect. The semantic aspect can be regarded as a part of the meaning of a word, which affects the interpretation of predication when predicates are used with their bare form (without any added morphemes or changing their form morphologically), but does not affect the syntactic behaviour of the predicate such as what type of clause the predicate forms, or what kinds of words/morphemes/particles they can attach to; that is, the semantic aspect is not a syntactic category but a pure semantic category and only affects the interpretation. On the other hand, the syntactic aspect is the one which also determines the interpretation, but is the tensed element not realised under T; when a lexical item which carries the syntactic aspect is used in a clause, the clause is TP or bigger. For example, in English the adjective *sober* seems to have the semantic aspects of STATIVE/COPULAR and INCHOATIVE, but not the syntactic aspects.

- (232) [English Ambiguous Sentence between Resultative and Depictive]
John slapped Mary sober.
Subject-oriented depictive: “John, who was sober, slapped Mary.”
Object-oriented depictive: “John slapped Mary while she was sober.”
Object-oriented resultative: “John slapped Mary so that she became sober.”

The sentence (232) is ambiguous; (a) John, who is sober, hit Mary (subject-oriented depictive): (b) John hit Mary, while she was sober (object-oriented depictive): (c) John hit Mary, as a result she became sober ((object-oriented) resultative). The reason that *sober* allows both depictive (STATIVE/COPULAR) and resultative (INCHOATIVE) interpretations is because it has both types of the semantic aspects. However, none of these semantic aspects seems to affect the syntactic behaviour of the adjective *sober*; in all the readings the type of the clause is the same.

Guéron and Hoekstra (1995) stated that in English it is impossible to add a notional subject NP of the depictive or resultative secondary predicate because of the lack of “tense” in the resultative phrase.

- (233) [Additional Notional Subject NP in English Resultative]
a. *John polished his shoes **their surface** shiny.
b. *John hammered the metal **its form** flat.

They also stated that “aspect” is a tensed form which is not realised under T, but always dependent to its local T head. I understand their statement in this way: the aspect, which they discuss, is syntactic aspect but not semantic aspect. Thus English adjectives lack syntactic aspect, but have semantic aspect(s): some of the adjectives like *sober* have both STATIVE and INCHOATIVE aspects: others have only one of these, which all affect whether the adjective can be used in depictive or/and resultative sentences. If a phrase has only semantic aspect, then the

predication is a small clause. If a phrase has syntactic aspect, the predication necessarily composes a full TP clause.

Generally, the size of a clause and the type of interpretation is determined by the main verb; a main verb often requires a certain type of embedded clause: e.g. small clause for *consider* (semantic and syntactic aspect of predicates within the clause has to satisfy the characteristics the main verb requires). However, that is not always the case; a main verb sometimes does not select the type of the embedded clause: e.g. *eat* does not select any specific types of embedded clause. In this kind of unselected embedded clauses, what decides the type of the clause? More concretely, what decides the type of secondary predicate clause in “John ate the fish raw”? Because “John ate the fish” is a completed sentence, it is obvious that the main verb *eat* does not select the type/characteristics of the secondary predicate clause to be whether it is depictive or resultative, or TP or small clause. In the case of the unselected clause, I propose that the semantic and syntactic aspects, which are part of the lexical entries of a lexical item, determine the type of the clause. That is, it is the adjective *raw* which determines the characteristics of the clause. In English, *raw* seems to have the semantic aspect of STATIVE but not INCHOATIVE, since *raw* cannot be used as a resultative predicate.⁵² As mentioned above, the secondary predicate *sober* seems to have both INCHOATIVE/BECOME and STATIVE/COPULAR. Thus, in English, an adjective may have only INCHOATIVE/BECOME or STATIVE/COPULAR, or both of them. But none of the adjectives has syntactic aspects, as adjectives on their own cannot form a full TP clause in English.⁵³ Therefore, I can illustrate the lexical structure of English adjective as (51). In (51), both semantic aspects are ticked, but it does not mean that all adjectives have both semantic aspects. An adjective may have one of the two or both.

⁵² On this point, Andrew Spencer gave me a comment. “An adjective like *raw* lacks inchoative interpretation only in normal, real world contexts. It is nonsensical to say the meat became raw of the same reason that it is nonsensical to say the woman became young. However, in mythological/fantasy contexts this is perfectly possible: *the magician waved his wand and the cooked meat became raw/the old woman became young.*” Thus I also agree that all adjectives potentially have both inchoative and stative aspect.

⁵³ Andrew Spencer also points out that English may have clause-like secondary predications: e.g. non-restrictive attributive modification such as *John, being drunk, was unable to drive.*

There is also a case of reduced clauses which seem to have aspectual properties:

e.g. John_i slapped Mary_j [*while drunk*_{i/*j}].

In the example above, only subject-oriented interpretation is possible. Moreover, the reduced clause [*while drunk*] can be fronted in the sentence; it has an adverbial property as well. Thus they are closer to the Mongolian TP-style predicates.

At the moment, I am not sure whether *drunk* of these cases have syntactic aspect or not because the properties of these clauses were contributed by *being* and *while* as well. However, this is an interesting point and I will research further in the future.

(234) [Lexical Structures of English Adjective]

	Lexical Meaning	Semantic Aspect		Syntactic Aspect	
		STATIVE	INCHOATIVE	STATIVE	INCHOATIVE
Adjective	✓	✓	✓		

Unlike English, in some languages including Mongolian, it is possible to add an aspectual marker to adjectives, which changes not only the interpretation of the predication but the structure of the sentence: e.g. the clausal structure of the sentence to the full TP embedded clause. This aspect is the syntactic aspect, which is always dependent to its local T head.

In Japanese, both *-ku* ‘depictive marker’ and *-ni* ‘resultative marker’ can neither change the characteristics of their clauses nor host tense. That is, they do not carry any syntactic aspect. Moreover, as already discussed, it is impossible to have a resultative reading with *-ku*, or a depictive reading with *-ni*, which means that *-ku* has the STATIVE aspect, and *-ni* has the INCHOATIVE aspect. Finally, remember that the predicates on their own cannot host tense. And a resultative predicate can only attach to *-ni*, and a depictive predicate *-ku*. This means that each predicate has its aspectual information; a resultative predicate has INCHOATIVE aspect and a depictive predicate STATIVE aspect. The table below summarise the argument here.

(235) [Lexical Structures of Japanese Resultative & Depictive Predicates, *-ni* and *-de*]

	Lexical Meaning	Semantic Aspect		Syntactic Aspect	
		STATIVE	INCHOATIVE	STATIVE	INCHOATIVE
Depictive Predicate	✓	✓			
Resultative Predicate	✓		✓		
<i>-de</i> ‘depictive morpheme’		✓			
<i>-ni</i> ‘resultative morpheme’			✓		

In the end of the next chapter, I will analyse the Mongolian secondary predicates and morphemes in terms of aspect as I did in (235), which clearly shows the difference between Japanese and Mongolian secondary predication.

9. Conclusion

This chapter investigated Japanese secondary predicates. Japanese makes use of the morphemes *-ni* and *-de* for resultatives and depictives, and each morpheme has a few different functions. This fact seems to have confused scholars in understanding which data represent the real resultatives and depictives. On this point, I showed several syntactic and semantic tests for both resultatives and depictives which determine what qualifies as real resultatives and depictives. In Japanese, both true resultatives and depictives take a small clause structure which does not contain tense or aspect, much like the case of English. Thus syntactically speaking, Japanese and English have

the same kind of properties in their secondary predicates. The difference between Japanese and English appears in their semantic properties; a Japanese secondary predicate can be used either as a resultative or depictive predicate, while an English secondary predicate can be used as either a resultative or depictive predicate as long as the context allows.

I also showed the categorisation of non-resultative *-ni* phrases and non-depictive *-de* phrases, which I believe is the first convincing categorisation of these words with linguistic tests.

In the end of the resultative and depictive sections, I mentioned the properties of the morphemes *-ni* and *-de*. It seems that each morpheme has its own aspectual information such as inchoative and stative. This contrasts with Korean secondary predicates which I will discuss in Chapter 5, in that Korean morpheme *-key* does not affect the interpretation of secondary predicates unlike the Japanese morphemes *-ni* and *-de*.

Chapter 4

Secondary Predication in Mongolian

1. Introduction

This chapter investigates Mongolian “secondary predicates”. The reason that they are only so-called as secondary predicates is that Mongolian resultatives are not true resultatives which, for instance, Simpson (1983) defined. In this thesis, I call this Mongolian “resultatives” as pseudo-resultatives. In fact, Mongolian pseudo-resultatives do not take the complement structure as English or Japanese resultative constructions do. Moreover, as opposed to Simpson’s Direct Object Restriction, Mongolian, but this is never in fact a challenge/counter argument to the Simpson’ law since it is not a true resultative.

All the data was collected from a native linguist of Mongolian Dolgor Guntsetseg (University of Stuttgart). She is a speaker of standard Khalka Mongolian from Ulan Bator.

Mongolian pseudo-resultatives are analysed in detail in section 2. On the other hand, Mongolian seems to allow a real depictive construction. There seem to be three depictive look-a-like constructions in Mongolian. I will analyse those three types syntactically and semantically, and conclude that two of them represent the real depictive construction and the other a full TP clause structure. I will discuss the lexical structure of adjectives, which should and can successfully be applied to the Mongolian resultative construction as well as the depictive construction. Furthermore, the lexical approach to the Mongolian depictives, as a result, explains the distinction between Mongolian and Korean pseudo-resultatives. The comparative study between Mongolian and Korean is not shown in this section, but in the Korean section, once the analysis of Korean resultatives is given. All the details of Mongolian depictives are analysed in Section 3. Finally section 4 concludes the whole chapter.

Before going into the main argument, let me here explain some terminologies I use in this section, as some of it is not so common outside the Mongolian context (see (1)). The term “Converb” (CVB) is originally named by Mongolian grammarians. There are about 20 CVBs. Each of them has some meaning. The CVB which appears in the resultative constructions is *-tAl*, which may be realised as *-tal/-tel/-tol/töl* due to vowel harmony. All CVBs attach only to verbs. The “reflexive possessive” (REFL.POSS) marker *-AA* contains both properties of the accusative case marker *-ig* and possessive meaning. A noun with the reflexive possessive marker is co-referential only with the subject argument. *-AA* can be realised as *-aa/-oo/-ee/-öö* due to vowel harmony. There are second person (2.poss) *chin* and third person markers (3.POSS) *n*. These markers are not morphemes but independent words. They are both co-referent only with non-subject arguments. The morpheme *-bol* has the meaning of either subject or/and contrastive topic marker (SM/CT). These terms are laid out in table (1).

- (1)
- tAl (-tal/-tel/-tol/töl): Converb (CVB); attaches only to verb
 - AA (-aa/-oo/-ee/-öö): Reflexive Possessive (REFL.POSS); co-referent only with SUBJ, contains the meaning of accusative case marker
 - (i)g: Accusative case marker (ACC)
 - chin: 2nd person marker (2.POSS); co-referent only with non-SUBJ
 - n: 3rd person marker (3.POSS); co-referent only with non-SUBJ
 - bol: Subject/Contrastive topic marker (SM/CT)
 - AAr (-aar/-eer/-oor) Instrumental case marker (INSTR)
 - (a)h Infinitive marker (INF)
 - ad Dative case marker (DAT)

2. Mongolian Resultatives

Mongolian uses the *-tAl* Converb construction to express resultative interpretations. In this chapter, I investigate the syntactic structure of Mongolian resultatives, focusing on the status and position of *-tAl* phrases. Washio (2002) noted that the *-tAl* Converb construction looks very much on the surface like the Korean *-key* resultative. My investigation of Mongolian shows that the *-tAl* resultative phrases take a TP adjunct structure which in fact lines up in important ways with the study of Korean by Sells (1998) and Shim & den Dikken (2007). Canonical Mongolian resultative sentences are shown in (2).

- (2)
- a. *John ene metal-ig havtgai bol-tol davt-san.*
 John this metal-ACC flat(A) become-CVB hammer-PST
 “John hammered the metal flat.”
- b. *John ene shal-ig gyalalz-tal uгаа-san.*
 John this floor-ACC glitter(V)-CVB wash-PST
 “John washed the floor, as a result it became glittering.”

(2a,b) show that there are two strategies to express the resultative interpretation in Mongolian. In (2a) *havgai* ‘flat’ is an adjective, which goes with *bol-tol* ‘become-CVB’ to express the resultant state of the sentence. In (2b) *gyalalz* ‘glitter’ is a verb, which directly combines with *-tAl* ‘CVB’ to express the resultant state of the sentence. Thus, the two strategies for resultatives can be schematically described as “Adj become-*tAl*” and “V-*tAl*”; adjectives always need *bol* ‘become’ and verbs cannot co-occur with *bol* ‘become’. The difference between the “Adj become-*tAl*” and “V-*tAl*” is that the former carries a stronger intention than the latter. However, there is no structural difference at all, which we will show in the next section.

By analysing the sentences (1a,b) syntactically and semantically, we will conclude that the Mongolian *-tAl* resultatives take the structure (3). “SP” stands for secondary predicate (it is either “Adj + become” or “V”), and [...] * means the bracketed clause can occur recursively.

- (3) [Syntactic Structure of Mongolian Resultative Construction]
 SUBJ (NP₁-ACC) [_{TP}(NP₂-NOM) (NP₃-ACC) SP-*tAl*]* V

The structure in (3) means that the resultative phrase “SP-*tAl*” can take optional notional subject and object arguments (NP₂-NOM and NP₃-ACC) inside its clause. The clause which contains the secondary predicate is categorised as TP. This TP clause is an adjunct element, adjoined to VP, which can occur recursively in the sentence. The presence of NP₁-ACC is due to the transitivity of the main verb; an intransitive main verb cannot host NP₁-ACC; a transitive main verb may or may not have NP₁-ACC, for when NP₂-NOM exists, NP₁-ACC does not need to exist. In this case NP₁-ACC seems to be pragmatically reconstructed because NP₁-ACC and NP₂-NOM are always in a whole-part relation. This will also be shown with syntactic tests later on.

The structure of this section follows. Section 2.1 shows the syntactic and semantic tests, which will support the syntactic structure illustrated in (3). As there has not been much research on Mongolian, I will show as many language facts as possible in this section. In detail, 2.1.1 shows that Mongolian pseudo-resultatives indeed have some typical resultative properties, and in 2.2.2 I will show the theoretical analysis of the data. Section 2.2 summarises the section.

2.1 Syntactic and Semantic Tests for Mongolian Pseudo-resultatives

In 2.1.1 I firstly claim that the Mongolian *-tAl* Converb examples in (2a,b) represent an object-oriented resultative showing that they have the typical characteristics of the resultatives; a) accomplishment interpretation: (2a,b) are compatible with *10 minutin dotor* ‘in 10 mins.’ but not with *10 minutin tursh* ‘for 10mins.’; b) the *-tAl* Converb phrases are inside VP, which can be proved by pseudo-clefting and do-so replacement; c) the resultative predicate *havtgai/gyalalz-* ‘flat/glitter’ cannot be replaced with their antonym counterparts. Secondly in 2.1.2, I will claim that Mongolian *-tAl* phrases take a TP adjunct form rather than a complement structure by showing several tests: a) additional nominative-marked NP in the *-tAl* clause, suggesting that the *-tAl* clause always forms an eventive TP clause; b) the *-tAl* resultative clause can even take its notional object argument (NP₃-ACC of (3)) as well as the object argument of the main verb (NP₁-ACC of (3)) at the same time, suggesting that there is an embedded clause; c) there can be more than one resultative clause; d) there seems to be aspect in the clause of the *-tAl* resultative phrase, namely *inchoative*, which is always dependent on T, suggesting that the clause of the *-tAl* resultative phrase is TP.

2.1.1 Mongolian *-tAl* resultatives Have Typical Resultative Properties

First, the aspectual structure of the pseudo-resultatives construction is examined. Examples (4) and (5) illustrate the *10 minutin dotor* ‘in 10 minutes’ and *10 minutin tursh* ‘for 10 minutes’ tests. The former is compatible with telic events, but the latter is not. Mongolian *-tAl* Converb constructions seem to be telic and are expected to be compatible only with ‘in 10 minutes’.

(4) [In & for 10 minutes test with (2a)]

- a. *John ene metal-ig 10 minut-in dotor havtgai*
 John this metal-ACC 10 minute-GEN within flat(A)
bol-tol davt-san.
 become-CVB hammer-PST
 “John hammered the metal flat in 10 minutes.”

- b. **John ene metal-ig 10 minut-in tursh havtgai*
 John this metal-ACC 10 minute-GEN for flat(A)
bol-tol davt-san.
 become-CVB hammer-PST
 “John hammered the metal flat for 10 minutes.”

(5) [In & for 10 minutes test with (2b)]

- a. *John ene shal-ig 10 minut-in dotor gyalalz-tal uгаа-san.*
 John this floor-ACC 10 minute-GEN within glitter(V)-CVB wash-PST
 “John washed the floor shiny in 10 minutes.”

- b. **John ene shal-ig 10 minut-in tursh gyalalz-tal uгаа-san.*
 John this floor-ACC 10 minute-GEN for glitter(V)-CVB wash-PST
 “John washed the floor shiny for 10 minutes.”

Second, the syntactic position of the *-tAl* phrase is investigated. Roberts (1988) showed that the English resultative predicate stays inside VP with such syntactic tests as pseudo-cleft, do-so replacement, tough movement and VP preposing, which are all well-known tests to detect what a VP contains. Here we use pseudo-cleft and do-so replacement, where the former targets the whole VP and the latter the lower elements within VP (*do-so* does not target the adjuncts adjoined to VP). These two tests show that *-tAl* phrases are indeed inside VP.

(6) [Pseudo-cleft with (2a)]

a. *John-in hii-sen yum bol ene metal-ig havtgai*
 John-GEN do-PST matter SM/CT this metal-ACC flat(A)

bol-tol davt-ah.
 become-CVB hammer-INF

“What John did was to hammer this metal flat.”

b. **John-in havtgai bol-tol hii-sen yum bol*
 John-GEN flat(A) become-CVB do-PST matter SM/CT

ene metal-ig davt-ah.
 this metal-ACC hammer-INF

Int: “What John did flat was to hammer this metal.”

(7) [Pseudo-cleft with (2b)]

a. *John-in hii-sen yum bol ene shal-ig gyalalz-tal uгаа-h.*
 John-GEN do-PST matter SM/CT this floor-ACC glitter(V)-CVB wash-INF

“What John did was to wash the floor glittering.”

b. **John-in gyalalz-tal hii-sen yum bol ene shal-ig uгаа-h.*
 John-GEN glitter(V)-CVB do-PST matter SM/TOP this floor-ACC wash-INF

Int: “What John did glittering was to wash the floor.”

(8) [do-so replacement with (2a)]

a. *John ene metal-ig havtgai bol-tol davt-san. ba*
 John this metal-ACC flat(A) become-CVB hammer-PST and
Mary ch gesen teg-sen.
 Mary also do.so-PST

“John hammered this metal flat and Mary also did so.”

b. **John ene metal-ig havtgai bol-tol davt-san. ba*
 John this metal-ACC flat(A) become-CVB hammer-PST and

Mary ch gesen ninggen bol-tol teg-sen.
 Mary also thin(A) become-CVB do.so-PST

“John hammered this metal flat and Mary also did so thin.”

(9) [do-so replacement with (2b)]

- a. *John ene shal-ig gyalalz-tal uгаа-san ba*
 John this floor-ACC glitter(V)-CVB wash-PST and
Mary ch gesen teg-sen.
 Mary also do.so-PST
 “John washed the floor glittering and Mary also did so.”
- b. **John ene shal-ig gyalalz-tal uгаа-san ba*
 John this floor-ACC glitter(V)-CVB wash-PST and
Mary ch gesen tsagaan bol-tol teg-sen.
 Mary also white(A) become-CVB do.so-PST
 “John washed the floor glittering and Mary also did so white.”

(8) and (9) above show that the resultative phrases are lower than VP; in other words, inside V'. That is, they are either adjuncts adjoined to V' or complements forming a secondary predication with the accusative marked nouns. In 2.1.2 we will show evidence that they are actually adjuncts of V'.

Third, as for another typical characteristic of a real resultative construction, I will show that only one of the antonym pairs qualifies as a resultative predicate in a resultative sentence, for the resultative predicate expresses a final state which is related to the meaning of the main verb. This is shown in (10a,b). And (10c) is not the resultative; it allows both *tight* and *loose*. In Mongolian as well as English and Japanese, (10c) type is not a real resultative because it is not the whole *shoelace* which becomes tight or loose; what is tight or loose is the point where the tie is made. It is similar to the example “John opened the window wide.” It is not the *window* which becomes wide (the size of the window does not change). These fake resultatives, called “spurious resultative” by Washio (2002), typically allow either word of an antonym pair as a resultative predicate in a given example. In Mongolian, there is a morphological difference between the canonical resultative predicate and the spurious resultative predicate; the latter is morphologically adverbial; in (10c), *changa/sul* ‘tight/loose’ is adverb, and there is no *-tAl* phrase in sentence (10).

- (10) a. *John ene zonh-ig zeverhen/*bohir bol-tol arch-san.*
 John this window-ACC clean / dirty become-CVB wipe-PST
 “John wiped this window clean/*dirty.”
- b. *John ene nohoi-g üh-tel / *amid bai-tal zod-son.*
 John this dog-ACC die-CVB / alive be-CVB beat-PST
 “John beat this dog dead/*alive.”

c. <spurious resultative>

John ene gutl-in üides-ig changa /sul üidsen.
 John this shoe-GEN laces-ACC tight/loose(Adv) tie-PST
 “John tied this shoelaces tight/loose.”

So far we have observed the syntactic and semantic properties of the *-tAl* resultative phrases; they are the accomplishment type, inside VP, different from morphologically adverbial type shown in (10c) in that they do not allow the antonym counterpart. In the next sub-section 2.2, we will investigate the size of the *-tAl* resultative clause.

2.1.2 Status of *-tAl* Resultative Clause

In order to determine the status of the *-tAl* clause, we will start with some sentences which have additional NPs on top of the canonical resultative sentence. Examples are given in (11a’,b’). (1a,b) are repeated in (11a,b). Compare (11a,b) with (11a’,b’) respectively.

(11) [Additional NPs to the Canonical Resultative Sentences]

a. *John ene metal-ig [havgai bol-tol] davt-san.*
 John this metal-ACC flat(A) become-CVB hammer-PST
 “John hammered the metal flat.”

a’ *John ene metal-ig [helber n’ havgai bol-tol] davt-san.*
 John this metal-ACC form 3.POSS flat(A) become-CVB hammer-PST
 “John hammered the metal, as a result its form became flat.”

b. *John ene shal-ig [gyalalz-tal] uгаа-san.*
 John this floor-ACC glitter(V)-CVB wash-PST
 “John washed the floor shiny.”

b’. *John ene shal-ig [öngö n’ gyalalz-tal] uгаа-san.*
 John this floor-ACC colour 3.POSS glitter(V)-CVB wash-PST
 “John washed the floor, as a result its colour became glittering.”

As can be seen in the pairs of (11a,a’) or (11b,b’), an additional NP-NOM can appear as a real subject of the secondary predicates in the *-tAl* embedded clause. This nominative case has to be assigned by the local T.⁵⁴ Thus this data strongly supports that the embedded clause is a TP

⁵⁴ There is no previous literature on the relation between T head and nominative case in Mongolian. Generally, small clause is the environment where T does not exist and nominative NP cannot take place. Mongolian small clause does not allow NP-NOM or aspects on the small clause predicate as

clause. In (11a',b'), the NP-ACC and NP-NOM are in the part-whole relation; that is, the NP-NOM must be a part of the NP-ACC. Thus, it is always possible to change the construction of (11a',b') into the construction with a genitive-marked NP as in (12). Example sentences are given in (13).

(12) [Alternation between “NP₁-ACC NP₂-NOM” and “NP₁-GEN NP₂-NOM”]

a. Subj NP₁-ACC [_{TP} NP₂-NOM SP-*tAI*] V

↓↑

b. Subj [_{TP} NP₁-GEN NP₂-NOM SP-*tAI*] V

(13) [Examples with the “NP₁-GEN NP₂-NOM” scheme]

a. *John [ene metal-in helber n' havtgai bol-tol] davt-san.*
 John this metal-GEN form 3.POSS flat(A) become-CVB hammer-PST
 “John hammered the metal, as a result its form became flat.”

b. *John [ene shal-ni öngö n' gyalalz-tal] uгаа-san.*
 John this floor-GEN colour 3.POSS glitter(V)-CVB wash-PST
 “John washed the floor, as a result its colour became glittering.”

In (13), the nouns in the part-whole relation are connected with the genitive case marker. However, importantly there is no double nominative construction in Mongolian, which also contains the part-whole relation between two nouns. In some languages such as Japanese and Korean, which allow double nominative construction, “NP₁-NOM NP₂-NOM” sequence is possible to give a meaning of “NP₁-GEN NP₂-NOM”, where NP₁ and NP₂ are in the strict part-whole relation. This is indeed an important point because in the Korean double nominative construction, the second nominative case is claimed to be assigned not by the local T-head but by the predicate itself as an inherent case (Yoon 1996, Moon 2000); the embedded clause does not need to be TP. In Mongolian, there is no double nominative construction as in (14), and this is why, the second nominative case must be assigned by the local T-head, implying that the embedded clause is TP.

below. Thus I regard in Mongolian like other languages, nominative case is assigned by its local T head.

e.g. [Small Clause Construction with NP-NOM]

*John ter höörhön (bai-na) gej üz-sen.
 John 3SG.NOM beautiful (COP-PERS) as consider-PST
 Int. “John considers her beautiful.”

e.g. [Small Clause Construction with -bai ‘STATIVE/COPULAR aspectual mrker’]

John tuuniig höörhön (*bai-na) gej üz-sen.
 John 3PS.ACC beautiful (COP-PRES) as consider-PST
 “John considers her beautiful.”

- (14) [No Double Nominative Construction in Mongolian]
- a. **Ene metal helber n' havtgai bai-na.*
 this metal form 3.POSS flat(A) be-PRS
 Int. “The metal’s form is flat.”
- b. **Ene shiree gadarguu n' zeverhen bai-na.*
 this table surface 3.POSS clean be-PRS
 Int. “The table’s surface is clean.”
- c. **John [ene metal helber n' havtgai bol-tol] davt-san.*
 John this metal:NOM form:NOM 3.POSS flat(A) become-CVB hammer-PST
 “John hammered the metal, as a result its form became flat.”
- d. **John [ene shal öngö n' gyalalz-tal] uгаа-san.*
 John this floor:NOM colour:NOM 3.POSS glitter(V)-CVB wash-PST
 “John washed the floor, as a result its colour became glittering.”
- e. *John ene metal-ig [helber-ig n' havtgai bol-tol] davt-san.*
 John this metal-ACC form-ACC 3.POSS flat(A) become-CVB hammer-PST
 “John hammered the metal, as a result its form became flat.”
- f. *John ene shal-ig [öng-ig n' gyalalz-tal] uгаа-san.*
 John this floor-ACC colour-ACC 3.POSS glitter(V)-CVB wash-PST
 “John washed the floor, as a result its colour became glittering.”

(14a,b) simply show that there is no double nominative construction in Mongolian. Hence (14c,d) are also ungrammatical in Mongolian. Interestingly, (14e,f) are grammatical in Mongolian. Mongolian has a Differential Subject Marking (DSM) system, proposed by Guntsetseg (2010) and von Heusinger, Klein and Guntsetseg (2011), which allows the embedded subject to be marked with accusative case. Thus, (14e,f) correspond to (11a',b'), where the case markers of the embedded subject gives the distinction in between them. All the Korean counterparts of (14a-f) are grammatical. Those like (14c-d) are the case of double nominative construction which Korean famously allows. And those of (14e-f) are the case where both nominative-marked NPs of the embedded clause in (14c,d) raised to the matrix clause. This will be briefly reviewed in section 3. Here, we emphasise again that Mongolian does not allow the double nominative construction as seen in (14c-d), and therefore, the nominative case of the NP₂ in (12) has to be assigned by the local T-head, the *-tAl* embedded clause is TP.

The data in (15) shows that the secondary predicate can be verbal in Mongolian but not in English. Guéron & Hoekstra (1995) explained the ungrammaticality of English sentence (15c) as lack of T in the English secondary predicates, for a verb must always be licensed by a local T-

head. Shim & den Dikken (2007) also stated that ‘for every verb there must be a tense’, introducing Korean resultative data with an additional NP-ACC inside the resultative clause like (15a,b). Thus, the grammaticality of (15a,b) also supports that Mongolian *-tAl* clause forms TP.

(15) [Additional NPs to the Canonical Resultative Sentences]

- a. *Ene nohoi ter muur-ig [ene hulgan-ig ald-tal] haz -san.*
 this dog that cat-ACC this mouse-ACC loose-CVB bite-PAST
 “The dog bit that cat so that it lost this mouse.”
- b. *John ene zagdaa-g [ter heregtn-ig ald-tal] tsohi-son.*
 John this police-ACC that criminal-ACC loose-CVB kick-PAST
 “John kicked this policeman as a result he lost that criminal.”
- c. [English] *The dog bit the cat miss the mouse.

(16) shows that the *-tAl* clause can appear more than twice in a sentence. Note that between the two clauses “[]” in (16), there is no need of a pause, which suggests that these two clauses are not in a coordinate relationship but each clause is adjoined to VP as an adjunct separately.

(16) [Two *-tAl* clauses in a sentence]

- a. *John ene metal-ig [helber n’ havtgai bol-tol]*
 John this metal-acc sjape 3.POSS flat(A) become-CVB
[öngö n’ aril-tal] davt-san.
 colour 3.POSS delete- CVB hammer-PST
 “John hammered the metal as a result its shape became flat and its colour got deleted.”
- b. *John [hooloi-goo söö-töl] [biy-ee yadar-tal]*
 John throat-REFL.POSS hoarse(V)-CVB body-REFL.POSS tired(V)-CVB
hashgir-san.
 shout-PST
 “John shouted so that his throat became hoarse and his body became tired.”

Further supporting arguments for the TP adjunct analysis can be observed in (17). (1a,b) are repeated in (17a,b). Compare (17a,b) with (17a’,b’) respectively.

(17) [Case of NPs]

- a. *John ene metal-ig [havgai bol-tol] davt-san.*
 John this metal-ACC flat(A) become-CVB hammer-PST
 “John hammered the metal flat.”

- a'. *John* [ene metal havtgai bol-tol] davt-san.
 John this metal:NOM flat(A) become-CVB hammer-PST
 "John hammered, so that the metal became flat."
- b. *John* ene shal-ig [gyalalz-tal] ugaa-san.
 John this floor-ACC glitter(V)-CVB wash-PST
 "John washed the floor, as a result it became glittering."
- b'. *John* [ene shal gyalalz-tal] ugaa-san.
 John this floor:NOM glitter(V)-CVB wash-PST
 "John washed, so that the floor became glittering."

Interestingly, (17a',b') are both grammatical, although the main verbs are transitive and there is no object (accusative marked NP) in (17a',b'). There are two reasons that the (17a', b') are grammatical: first, the embedded *-tAl* clause is TP, so the nominative case is successfully assigned to the nouns *metal/shal* 'metal/floor'; second, the object of the verb can be easily reconstructed in the pragmatic domain, because the object of the main verb and the subject of the embedded clause are in a part-whole relation, as mentioned for the examples in (11). Indeed, in (17a',b') it is possible to have a reading that *John actually hammered/washed something else on/around the metal/floor, so that the metal/floor became flat/glittering*. This fact corresponds with another language fact, that native speakers normally use (17a,b) rather than (17a',b'); it is because when they make something flat/clean by hammering/washing, they normally directly hammer/wash the entity they want to make flat/clean.

The next several examples illustrate scrambling. (18a,b) show the clear bi-clausal case, showing that scrambling the embedded clause to the post-subject position causes ungrammaticality. The data in (20-22) support our proposal shown in (3). (3) is repeated in (19).

- (18) [Impossible to Scramble the Embedded Clause to Post-subject Position]
- a. *John* [geds-ee düüür-tel] us uu-san.
 John stomach-REFL.POSS full(V)-CVB water drink-PST
 "John drank water to make his stomach full."
- b. **John* düüür_i-tel [geds-ee t_i] us uu-san.
 John full(V)-CVB stomach-REFL.POSS water drink-PST

- (19) [Syntactic Structure of Mongolian Resultative Construction] (= (3))
 SUBJ (NP₁-ACC) [_{TP} (NP₂-NOM) (NP₃-ACC) SP-tAl]* V

- (20) [Scrambled Sentences of (1a,b)]
- a. *John* [havtgai bol-tol]_i metal-aa t_i davt-san.
 John flat(A) become-CVB metal-REFL.POSS hammer-PST
 “John hammered the metal flat.”
- b. *John* [gyalalz-tal]_i shal-aa t_i ugaa-san.
 John glitter(V)-CVB floor-REFL.POSS wash-PST
 “John washed the floor, as a result it became glittering.”
- (21) [Scrambled Sentences of (14a’,b’)]
- a. **John* [havtgai bol]_i-tol [ene metal t_i] davt-san.
 John flat(A) become-CVB this metal:NOM hammer-PST
 “John hammered, so that the metal flat.”
- b. **John* gyalalz_i-tal [ene shal t_i] ugaa-san.
 John glitter(V)-CVB this floor:NOM wash-PST
 “John washed, so that this floor became glittering.”
- (22) a. *John* [hooloi-goo söö-töl] hashgir-san.
 John throat-REFL.POSS hoarse(V)-CVB shout-PST
 “John shouted until / (to the degree that) his voice became hoarse.”
- b. **John* söö_i-töl [hooloi_i-goo t_i] hashgir-san.
 John hoarse(V)-CVB throat-REFL.POSS shout-PST

The structure of (3)/(19) predicts that the embedded adjunct clause [_{TP} (NP₂-NOM) (NP₃-ACC) SP-*tAl*] can be scrambled to the post-subject position preceding the main verb but SP-*tAl* on its own cannot. In fact, (20) shows that the scrambling is successful; *metal-aa* ‘metal- REFL.POSS’ is originally outside the clause and represents NP₁-ACC.⁵⁵ (21) is ungrammatical because the NP *ene metal* ‘this metal’ is originally inside the embedded clause, and thus it is impossible to produce this word order as it requires extracting the secondary predicate and the converb out of the embedded clause, leaving its notional subject inside the clause. (22) represents the case of DSM like (14e,f); the NP *hooloi-goo* ‘throat-REFL.POSS’ is the embedded accusative marked subject, for the main verb *hashgir-san* ‘shout-PST’ is intransitive, and thus *hooloi-goo* ‘throat-REFL.POSS’ is not the object of the main verb; it is inside the embedded clause and thus the secondary predicate on its own cannot be scrambled to left.

The final supporting argument for my TP adjunct analysis comes from the existence of inchoative aspect expressed with *bol-* ‘become’ in the *-tAl* embedded clause. Consider example (23).

⁵⁵ As already noted in section 1, “REFL.POSS” can contain the function of -ACC.

(23) [Morphological Structure of *-tAl* Phrase]

*John ene metal-ig {havtga bol-tol/*havtgai/*havtgai bai-tal} davt-san.*
 John this metal-ACC flat(A) become-CVB/flat/flat be-CVB hammer-PST
 “John hammered the metal flat.”

(23) suggests that when an adjective is used as a part of the *-tAl* phrase there has to be *bol-* ‘become’ with it, which implies that there is a projection for aspect immediately outside the lexical projection of the resultative secondary predicate.⁵⁶ Aspect has a close connection with tense. Guéron & Hoekstra (1995) regarded aspect as a dependent tense. They stated that the aspect is “a tensed form not directly bound by a T-operator”. That is, aspect is not realised as an element of T, but whenever there is aspect in a clause, there has to be tense. Shim & den Dikken (2008) supported this argument with Korean data, claiming that the presence of the Korean aspect *-ci* ‘become/INCHOATIVE’ within the resultative phrase signals the presence of a T-node local to the resultative predicate; not a deictic tense but a dependent tense (dependent on the matrix tense). We here regard that *bol-* ‘become’ plays a double role in Mongolian pseudo-resultatives sentences: first, it makes it possible for an adjective word to connect with the converb *-tAl*, since CVBs can attach only to verbs, and second, it plays the role of the dependent tense of the embedded clause (dependent to the tense of the main verb). Thus the presence of the *bol-* ‘become’ seems to support the claim that the *-tAl* embedded phrase in Mongolian forms a TP clause.

I strongly believe that true resultatives, which take a complement type structure, do not allow subject-oriented resultatives at all. Thus, we assume that English, Japanese, etc. do not have the subject-oriented resultative construction, and their resultatives strictly abide the Simpson’s (1983) Double Object Restriction (DOR). However, Mongolian have an adjunct structure as discussed above; they are not the real complement type resultatives Mongolian pseudo-resultatives allow subject oriented resultatives, which is not a counter argument/example against Simpson’s DOR. The examples of a subject-oriented pseudo-resultatives are given in (24).

(24) [Subject Oriented Pseudo-resultatives]

- a. *Ene robot [evderhii bol-tol-oo] ene mod-ig tair-san.*
 this robot out.of.order(A) become-CVB-REFL.POSS this tree-ACC cut-PST
 “This robot cut trees so much that it became out of order.”
- b. *Ene robot [evder-tel-ee] ene mod-ig tair-san.*
 this robot break.down(V)-CVB-REFL.POSS this tree-ACC cut-PST
 “This robot cut trees so much and it broke down.”

⁵⁶ Washio (1999, 2002) stated that Middle Mongolian allowed a bare adjective to be the resultative secondary predicate, though it was not productive at all (see section 4). In Modern Mongolian this is completely impossible.

The key point in (24) is that all the subject-oriented *-tAl* phrases take the reflexive possessive marker *-AA* which is always co-referent with the subject argument. Thus there are two factors which make the subject-oriented linking possible in Mongolian pseudo-resultatives: first with the help of the subject-referent marker *-AA*; second, the *-tAl* clause is an (TP) adjunct which can be adjoined to different maximal projections relatively easily. As shown in (24a,b), the subject-oriented linking is possible both with ‘*Adj + become-tAl*’ and ‘*V-tAl*’. The syntactic position of the subject-oriented pseudo-resultatives is investigated with pseudo-clefting and ‘do-so’ replacement tests in (25) and (26).

(25) [Pseudo-clefting with Subject-oriented Resultative]

a. *Ene robot-in hii-sen yum bol [evderhii*
 this robot-GEN do-PST matter SM out.of.order
bol-tol-oo *mod tair-ah*.
 become-CVB-REFL.POSS tree cut-INF
 “What this robot_i did was cut this tree broken_i.”

b. *Ene robot-in evderhii bol-tol-oo hii-sen*
 this robot-GEN out.of.order become-CVB-REFL.POSS do-PST
yum bol [mod tair-ah].
 matter SM tree cut-INF
 “What this robot_i did broken_i was cut this tree.”

(26) [‘do-so’ Replacement Test with Subject-oriented Resultative]

a. *John sogtuu bol-tol-oo piv uu-san ba Mary ch bas*
 John drunk become-CVB-REFL.POSS beer drink-PST and Mary also
teg-sen.
 do.so-PST
 “John drank beer drunk, Mary also did so.”

b. *John sogtuu bol-tol-oo piv uu-san ba Mary ch bas*
 John drunk become-CVB-REFL.POSS beer drink-PST and Mary also
yadar-tal-aa *teg-sen*.
tire-CVB-REFL.POSS do.so-PST
 “John drank beer drunk, Mary also did so tired.”

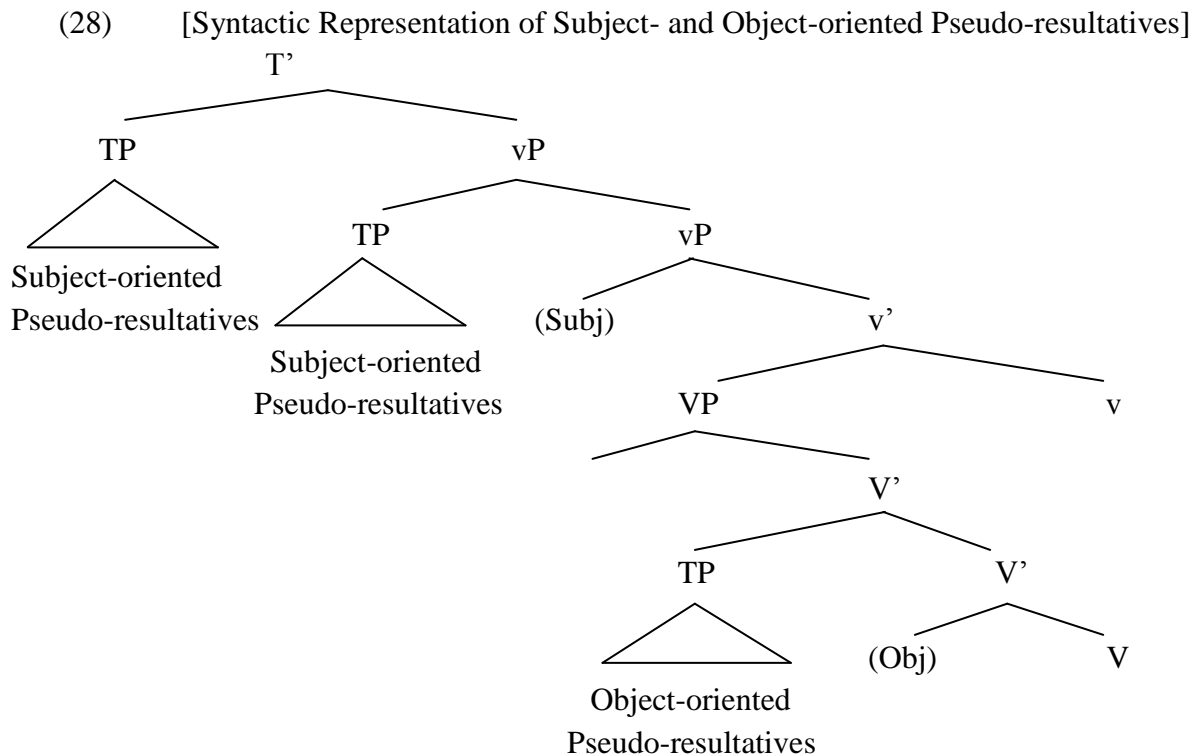
In (25a) the pseudo-resultative phrase in bold font stays inside the verb phrase, whereas in (25b) the resultative phrase is outside the verb phrase. Unlike the object-oriented resultatives the resultative phrase can be either inside or outside of the verb phrase with the pseudo-cleft construction (see (6) and (7) for the pseudo-cleft construction with the object-oriented pseudo-resultatives), which suggests that the resultative phrase may be adjoined to VP or higher than that

such as T'. This characteristics of the subject-oriented resultative phrase is actually typical of the subject-oriented adjuncts of some SOV languages. As already introduced in the Japanese chapter, Koizumi (1994) stated that in Japanese the subject-oriented depictive predicate may be adjoined to VP or T'. In the next section, I will show that Mongolian subject-oriented depictive phrases also behave in the same way. The 'do-so' replacement test in (26) also shows the same contrast as in (25). The *teg-sen* 'did-so' phrase does not need to replace the subject-oriented resultative phrase as in (26b), unlike the case of the object-oriented resultative phrase as in (8) and (9).

The word order in (24a,b) is canonical; unlike the object oriented resultatives, the object *mod* 'tree' is positioned between the *-tAl* clause and the main verb. Scrambling the object argument to the position between the subject and *-tAl* clause seems to be difficult, which is shown in (27). This is likely to be a purely syntactic issue. As we assume that the subject oriented *-tAl* clause adjoins to the top vP or T' as an adjunct, there seems to be no landing site for the object argument.

- (27) c. ^{2/??} *John huvtsas-aa_i [zeverhen bol-tol-oo] t_i uгаа-san.*
 John clothes-REFL.POSS clean(A) become-CVB-REFL.POSS wash-PST
 "John washed his clothes as a result he(his hands) became clean."

Taking all the discussion into account, we propose the syntactic representation of Mongolian pseudo-resultatives as in (28). In (28), there are two possible positions for the subject-oriented pseudo-resultative phrase as discussed above.



As a final issue of this section, I will raise one point which does not slightly align my account in (28). The sentence in (29a) below has two resultative phrases without their notional overt subjects. As in (16), when there is a notional embedded subject for each of the resultative phrase, it is possible to have more than two resultative phrases. (16a) is repeated in (26b).

- (29) [Two *-tAl* Phrases without their notional embedded subjects]
- a. ^{??}/**John ene tol'-ig zeverhen bol-tol gyalalz-tal*
 John this mirror-ACC clean(A) become-CVB glitter(V)-CVB
arch-san.
 wipe-PST
 Int. “John polished this mirror clean into a brilliant shine.”
- b. [(16a) Two *-tAl* phrases with their notional embedded subjects]
John ene metal-ig [helber n' havtgai bol-tol]
 John this metal-acc form 3.POSS flat(A) become-CVB
[öngö n' aril-tal] davt-san.
 colour 3.POSS delete- CVB hammer-PST
 “John hammered the metal as a result its form became flat and its colour got deleted.”
- c. [Same notional subject for both *-tAl* clauses]
^{??}/**John ene tol'-ig [gadarguu n' zeverhen]*
 John this mirror-ACC surface:nom 3.poss clean(A)
bol-tol] [gadarguu n' gyalalz-tal] arch-san.
 become-CVB surface:nom 3.poss glitter(V)-CVB wipe-PST
 Int. “John polished this mirror clean into a brilliant shine.”

This issue raises a serious question about what are complements and adjuncts; the properties of prototypical complements and adjuncts are well studied in many languages, but they are not as clear-cut as the theory predicts in some less typical cases and in some languages. More research is certainly needed in this domain. However at least in the Mongolian data (26), it can be said that when there are two *-tAl* phrases, each one has to have an overtly expressed different subject; when the embedded subjects are not overtly expressed, they are automatically reconstructed pragmatically using the part-whole relation with the accusative marked NP, and the same noun seems to be reconstructed as a subject of both embedded clause, which causes the extreme redundancy. In Mongolian (as well as Korean) it is almost grammatically unacceptable to have the same subject noun in the two *-tAl* clauses because of this strong redundancy, which is shown in (26c). Although the theory of adjuncts/complements might predict that any numbers of adjuncts should be able to occur, the semantic and pragmatic fact of Mongolian discussed in this paragraph seems to be blocking the construction (29a).

2.2 Summary

The syntactic and semantic characteristics of the Mongolian pseudo-resultatives construction have been discussed in detail in this chapter; the key feature is that the pseudo-resultative phrases form a full TP adjunct. Whether this construction should be called as resultative or not depends upon the definition of the resultative construction. Certainly, this construction in Mongolian is not a true “resultative”. However, unlike some Japanese fake resultatives, these Mongolian pseudo-resultatives are not adverbs; that is, Japanese fake resultative phrases simply modify the main verb, whereas the Mongolian pseudo-resultative phrases are indeed predicated with arguments. This chapter also explored several related issues such as clausal structure, double nominative/accusative NPs, and adjuncts/complements, which will be investigated further in the next section “Mongolian depictives”.

3. Mongolian Depictives

Mongolian has three types of constructions which look like real depictives. All these constructions have a typical depictive interpretation as well as the depictive-like structure at least on the surface. The structures of the three constructions are schematically illustrated in (30).

- (30) [Structures of Mongolian Depictive Candidates]
- | | | | | |
|----|---|-------|--|---|
| a. | S | O-ACC | X-INSTR- \emptyset /-REFL.POSS/3.POSS | V |
| b. | S | O-ACC | X-be-INF-DAT- \emptyset /-REFL.POSS/3.POSS | V |
| c. | S | O-ACC | X- \emptyset /*-REFL.POSS/*3.POSS | V |

In (30), the REFL.POSS marker agrees only with subject; the depictive phrase with REFL.POSS has to link to subject. The 3.POSS marker agrees only with object; the depictive phrase with 3.POSS has to link to object. As for the ones without referential markings, “X- \emptyset ” of (30c) and “X-INSTR- \emptyset ” of (30a) are potentially ambiguous between subject- and object-oriented depictives, while “X-be-INF-DAT- \emptyset ” of (30b) links to object for a structural reason. The example sentences of all types of “depictives” are laid out in (31a-g), where the depictive phrases are in bold font.

- (31) <Subject-oriented Depictives>
- | | | | | | | |
|----|---|---------------|-----------------------------|--------------------------|--------------------|---------|
| a. | <i>John</i> | <i>Mary-g</i> | <i>nuzgen-eer-ee</i> | <i>shalga-san.</i> | --(30a) | |
| | John | Mary-ACC | naked-INSTR-REFL.POSS | examine-PST | | |
| | “John _i examined Mary _i naked _i .” | | | | | |
| b. | <i>John</i> | <i>Mary-g</i> | <i>nuzgen</i> | <i>bai-h-d-aa</i> | <i>shalga-san.</i> | --(30b) |
| | John | Mary-ACC | naked | be-INF-DAT-REFL.POSS | examine-PST | |
| | “John _i examined Mary _i naked _i .” | | | | | |

<Object-oriented Depictives>

c. *John Mary-g nuzgen-eer n' shalga-san.* --(30a)
 John Mary-ACC naked- INSTR 3.POSS examine-PST
 “John examined Mary_i naked_i.”

d. *John Mary-g nuzgen bai-h-ad n' shalga-san.* --(30b)
 John Mary-ACC naked be-INF-DAT 3.POSS examine-PST
 “John examined Mary_i naked_i.”

e. *John Mary-g nuzgen bai-h-ad shalga-san.* --(30a)
 John Mary-ACC naked be-INF-DAT examine-PST
 “John examined Mary_i naked_i.”

<Ambiguous Types>

f. *John Mary-g nuzgen-eer shalga-san.* --(30b)
 John Mary-ACC naked-INSTR examine-PST
 “John_i examined Mary_j naked_{i/j}.”

g. *John Mary-g nuzgen shalga-san.* --(30c)
 John Mary-ACC naked examine-PST
 “John_i examined Mary_j naked_{i/j}.”

In this section, I will investigate the sentences in (28) as well as some other fake types such as manner adverbs in terms of syntactic and semantic properties, and conclude that the types of (30a,c) represent real depictives but (30b) does not.

3.1 Syntactic and Semantic Properties of Mongolian Depictives

I will present several different syntactic and semantic tests onto the sentences in (31) to determine the properties of Mongolian depictives. Firstly the depictive phrases in (30)/(31) are distinguished from manner adverbs. Then semantic test follows to investigate their aspectual structure and show that those example sentences in (31) indeed carry the depictive interpretation. After the semantic test, I will show several syntactic tests such as pseudo-cleft and ‘do-so’ replacement tests to determine the syntactic positions of subject- and object-oriented depictive phrases. As the most important and interesting test, I will also exhibit the ‘overt notional subject’ test as well, which reveals that the types of (30a,c)/(31a,c,f,g) have the true secondary predication, but those of (30b)/(31b,d,e) take a TP adjunct form. The data and analysis for the (30b)/(31b,d,e) as an embedded TP clause will be supported with the double accusative structure,

- b. #*John Mary-g nuzgen bai-h-d-aa shalga-san.*
 John Mary-ACC naked be-INF-DAT-REFL.POSS examine-PST
ba Billch gesen Mary-g adilhan shalga-san
 and Bill also Mary-ACC s imilarly examine-PST
 “John_i examined Mary naked_i, and Bill also examined Mary similarly (similarly ≠/naked)”

<Object-oriented Depictives>

- c. #*John Mary-g nuzgen-eer n' shalga-san ba Bill*
 John Mary-ACC naked-INSTR 3.POSS examine-PST and Bill
ch gesen Mary-g adilhan shalga-san.
 also Mary-ACC similarly examine-PST
 “John examined Mary_i naked_i, and Bill also examined Mary similarly (similarly ≠/naked)”

- d. #*John Mary-g nuzgen bai-h-ad n' shalga-san ba Bill*
 John Mary-ACC naked be-INF-DAT 3.POSS examine-PST and Bill
ch gesen Mary-g adilhan shalga-san.
 also Mary-ACC similarly examine-PST
 “John examined Mary_i naked_i, and Bill also examined Mary similarly (similarly ≠/naked)”

- e. #*John Mary-g nuzgen bai-h-ad shalga-san ba Bill*
 John Mary-ACC naked be-INF-DAT examine-PST and Bill
ch gesen Mary-g adilhan shalga-san.
 also Mary-ACC similarly examine-PST
 “John examined Mary_i naked_i, and Bill also examined Mary similarly (similarly ≠/naked)”

<Ambiguous Types>

- f. #*John Mary-g nuzgen-eer shalga-san ba Bill ch gesen*
 John Mary-ACC naked-INSTR examine-PST and Bill also
Mary-g adilhan shalga-san.
 Mary-ACC similarly examine-PST
 “John_i examined Mary_j naked_{i/j}, and Bill also examined Mary similarly (similarly ≠/naked).”

- g. #*John Mary-g nuzgen shalga-san ba Bill ch gesen*
 John Mary-ACC naked examine-PST and Bill also
Mary-g adilhan shalga-san.
 Mary-ACC similarly examine-PST
 “John_i examined Mary_j naked_{i/j}, and Bill also examined Mary similarly (similarly ≠ naked).”

The next test reveals the semantic property of Mongolian depictives. As already discussed in the Japanese chapter, depictives are not compatible with ‘in 10 minutes’ phrase but with ‘for 10 minutes’ phrase, because the depictive phrase itself gives a temporal durative information to the sentence, and thus generally the aspect of a sentence with a depictive phrase is not accomplishment but activity in Mongolian.⁵⁷ Below, in (34), both *10 minut-in trush* ‘for 10 minutes’ and *10 minute-in dotor* ‘within 10 minutes’ are added to the sentences of (31) to investigate the aspectual structure of (31a-g).

(34) [Aspectual test with ‘in & for 10 minutes’]

<Subject-oriented Depictives>

- a₁. *John Mary-g nuzgen-eer-ee 10 minut-in tursh shalga-san.*
 John Mary-ACC naked-INSTR-REFL.POSS 10 minut-GEN for examine-PST
 “John_i examined Mary naked_i for 10 minutes.”
- a₂. **John Mary-g nuzgen-eer-ee 10 minut-in dotor shalga-san.*
 John Mary-ACC naked-INSTR-REFL.POSS 10 minut-GEN within examine-PST
 “John_i examined Mary naked_i in 10 minutes.”
- b₁. *John Mary-g nuzgen bai-h-d-aa 10 minut-in tursh*
 John Mary-ACC naked be-INF-DAT-REFL.POSS 10 minut-GEN for
shalga-san.
 examine-PST
 “John_i examined Mary naked_i for 10 minutes.”

⁵⁷ Thanks to Andrew Spencer for pointing out that a depictive phrase can appear in an accomplishment type sentence in English.

e.g. John swam across the river naked in ten minutes.

In fact in Mongolian, it is possible to have a depictive predicate in an accomplishment type sentence.

e.g. John ene gol-ig nuzgen 10 minut-in dotor gatal-san.

John this river-ACC naked 10 minute-GEN within cross-PST

John swam across the river naked in 10 mins.

One of the purposes of this Mongolian chapter is to describe the data. Therefore I still maintain this test, because this test can be found in almost all previous literature of depictives of many languages.

b₂. **John Mary-g nuzgen bai-h-d-aa 10 minut-in dotor*
 John Mary-ACC naked be-INF-DAT-REFL.POSS 10 minut-GEN within
shalga-san.
 examine-PST
 “John_i examined Mary_i naked_i in 10 minutes.”

<Object-oriented Depictives>

c₁. *John Mary-g nuzgen-eer n' 10 minut-in tursh shalga-san.*
 John Mary-ACC naked- INSTR 3.POSS 10 minut-GEN for examine-PST
 “John examined Mary_i naked_i for 10 minutes.”

c₂. **John Mary-g nuzgen-eer n' 10 minut-in dotor shalga-san.*
 John Mary-ACC naked- INSTR 3.POSS 10 minut-GEN within examine-PST
 “John examined Mary_i naked_i in 10 minutes.”

d₁. *John Mary-g nuzgen bai-h-ad n' 10 minut-in tursh*
 John Mary-ACC naked be-INF-DAT 3.POSS 10 minut-GEN for
shalga-san.
 examine-PST
 “John examined Mary_i naked_i for 10 minutes.”

d₂. **John Mary-g nuzgen bai-h-ad n' 10 minut-in dotor*
 John Mary-ACC naked be-INF-DAT 3.POSS 10 minut-GEN within
shalga-san.
 examine-PST
 “John examined Mary_i naked_i in 10 minutes.”

e₁. *John Mary-g nuzgen bai-h-ad 10 minut-in tursh shalga-san.*
 John Mary-ACC naked be-INF-DAT 10 minut-GEN for examine-PST
 “John examined Mary_i naked_i for 10 minutes.”

e₂. **John Mary-g nuzgen bai-h-ad 10 minut-in dotor shalga-san.*
 John Mary-ACC naked be-INF-DAT 10 minut-GEN within examine-PST
 “John examined Mary_i naked_i in 10 minutes.”

<Ambiguous Types>

f₁. *John Mary-g 10 minut-in tursh nuzgen-eer shalga-san.*
 John Mary-ACC 10 minut-GEN for naked-INSTR examine-PST
 “John_i examined Mary_j naked_{i/j} for 10 minutes.”

f₂. **John Mary-g 10 minut-in dotor nuzgen-eer shalga-san.*
 John Mary-ACC 10 minut-GEN within naked-INSTR examine-PST
 “John_i examined Mary_j naked_{i/j} in 10 minutes.”

- g₁. *John Mary-g 10 minut-in tursh nuzgen shalga-san.*
 John Mary-ACC 10 minut-GEN for naked examine-PST
 “John_i examined Mary_j naked_{i/j} for 10 minutes.”
- g₂. **John Mary-g 10 minut-in dotor nuzgen shalga-san.*
 John Mary-ACC 10 minut-GEN within naked examine-PST
 “John_i examined Mary_j naked_{i/j} in 10 minutes.”

(34) shows that *10 minut-in trush* ‘for 10 minutes’ is compatible with all sentences of (31a-g), but *10 minut-in dotor* ‘within 10 minutes’ cannot be. This test suggests that the sentences in (28a-g) do not take the accomplishment type aspect but activity one; they all have true depictive interpretation.

Next I start investigating the syntactic properties of the Mongolian depictive sentences. The first test is pseudo-cleft. The pseudo-cleft operation targets the whole VP. Thus whether or not the depictive phrase can stay in the focus position indicates whether or not it is the element of VP. Interestingly, the subject-oriented depictive phrase in Mongolian, shown in (35a₁,a₂,b₁,b₂), can be either inside or outside VP. As already observed in the Japanese section, this property of the Mongolian subject-oriented depictive phrase is exactly the same as that of the Japanese one; Japanese subject-oriented depictive phrase may be adjoined to VP or to a higher position T’. In both languages it is impossible to determine one position for the subject-oriented depictives. On the other hand, the object oriented depictives, shown in (35c₁,c₂,d₁,d₂,e₁,e₂), are all inside VP; their depictive phrases cannot be separated from VP. The ambiguous types, shown in (35f₂,g₂), support these syntactic positions of subject- and object-oriented depictives; that is, when the depictive predicates of the ambiguous types are left out of the VP, they have only the subject-oriented interpretation; the object-oriented interpretation disappears.

- (35) [Pseudo-cleft Construction]
 <Subject-oriented types (27a,b)>
- a₁. *John-in hii-sen yum bol [Mary-g nuzgen-eer-ee*
 John-GEN do-PST matter SM/TOP Mary-ACC naked-INSTR-REFL.POSS
shalga-san] yavdal.
 examine-PST act
 “What John_i did was examine Mary naked_i.”
- a₂. *John-in nuzgen-eer-ee hii-sen yum bol [Mary-g*
 John-GEN naked-INSTR-REFL.POSS do-PST matter SM/TOP Mary-ACC
shalga-san] yavdal.
 examine-PST act
 “What John_i did naked_i was examine Mary.”

b₁. *John-in hii-sen yum bol [Mary-g nuzgen*
 John-GEN do-PST matter SM/TOP Mary-ACC naked
bai-h-d-aa shalga-san] yavdal.
 be-INF-DAT-REFL.POSS examine-PST act
 “What John_i did was examine Mary_i naked_i.”

b₂. *John-in nuzgen bai-h-d-aa hii-sen yum bol*
 John-GEN naked be-INF-DAT-REFL.POSS do-PST matter SM/TOP
 [*Mary-g shalga-san.*] *yavdal.*
 Mary-ACC examine-PST act
 “What John_i did naked_i was examine Mary.”

<Object-oriented Types (27c,d,e)>

c₁. *John-in hii-sen yum bol [Mary-g nuzgen-eer n’*
 John-GEN do-PST matter SM/TOP Mary-ACC naked- INSTR 3.POSS
shalga-san] yavdal.
 examine-PST act
 “What John did was see Mary_i naked_i.”

c₂. **John-in nuzgen-eer n’ hii-sen yum bol [Mary-g*
 John-GEN naked- INSTR 3.POSS do-PST matter SM/TOP Mary-ACC
shalga-san] yavdal.
 examine-PST act
 Int. “What John did naked_i was examine Mary_i.”

d₁. *John-in hii-sen yum bol [Mary-g nuzgen bai-h-ad*
 John-GEN do-PST matter SM/TOP Mary-ACC naked be-INF-DAT
 n’ *shalga-san] yavdal.*
 3.POSS examine-PST act
 “What John did was examine Mary_i naked_i.”

d₂. **John-in nuzgen bai-h-ad n’ hii-sen yum bol*
 John-GEN naked be-INF-DAT 3.POSS do-PST matter SM/TOP
 [*Mary-g shalga-san] yavdal.*
 Mary-ACC examine-PST act
 Int. “What John did naked_i was examine Mary_i.”

e₁. *John-in hii-sen yum bol [Mary-g nuzgen bai-h-ad*
 John-GEN do-PST matter SM/TOP Mary-ACC naked be-INF-DAT
shalga-san] yavdal.
 examine-PST act
 “What John did was examine Mary_i naked_i.”

e₂. **John-in nuzgen bai-h-ad hii-sen yum bol [Mary-g
John-GEN naked be-INF-DAT do-PST matter SM/TOP Mary-ACC
shalga-san] yavdal.*
examine-PST act
Int. “What John did naked_i was examine Mary_i.”

<Ambiguous Types 4(e,f)>

f₁. *John-in hii-sen yum bol [Mary-g nuzgen-eer shalga-san]
John-GEN do-PST matter SM/TOP Mary-ACC naked-INSTR examine-PST
yavdal.*
act

“What John_i did was examine Mary_j naked_{i/j}.”

f₂. *John-in nuzgen-eer hii-sen yum bol [Mary-g
John-GEN naked- INSTR do-PST matter SM/TOP Mary-ACC
shalga-san] yavdal.*
examine-PST act

“What John did naked_{i/*j} was examine Mary.” (Only subject-oriented interpretation)

g₁. *John-in hii-sen yum bol [Mary-g nuzgen shalga-san] yavdal.*
John-GEN do-PST matter SM/TOP Mary-ACC naked examine-PSTact
“What John_i did was examine Mary_j naked_{i/j}.”

g₂. *John-in nuzgen hii-sen yum bol [Mary-g shalga-san] yavdal.*
John-GEN naked do-PST matter SM/TOP Mary-ACC examine-PST act
“What John_i did naked_{i/*j} was examine Mary_j.” (Only subject-oriented interpretation)

As a second step for determining the syntactic position of the depictive phrases, I will use the *teg* ‘do-so’ replacement test.⁵⁸ Lakoff and Ross (1976) and Zagana (1988) explained that the adjunct element adjoined to VP does not need to be replaced with *do-so*, but the elements which are inside VP have to be replaced by *do-so* together with the head verb. Now the judgements of the grammatical acceptability of the *teg* ‘do-so’ replacement test with the sentences (31) were difficult. Most of the sentences were between acceptable and somehow slightly strange. I marked all those sentences with one question “?”. However there are also sentences whose judgements were clear. One of them was (36e), which was judged as clearly ungrammatical. Thus the data below shows that the depictive phrase in (36e)/(31e) stays in a position lower than VP (branching from V’ or the complement of V), and all other depictive phrases seem to be the adjunct of VP or an element of TP.

⁵⁸ The verb *teg* ‘do so’ can be interpreted in the spoken language as “to sleep with someone”. So especially in (36c,d) together with *sogtuu(-gaar)* ‘drunk(-INSTR)’, it can have the interpretation that *Bill slept with Mary when she was drunk, so she wasn’t able to defend herself*, which has a perfect grammatical acceptability, but is not my intended meaning here.

(36) [teg ‘do-so’ Replacement]

<Subject-oriented Depictives>

- a. ?John Mary-g nuzgen-eer-ee shalga-san harin Bill
 John Mary-ACC naked-INSTR-REFL.POSS examine-PST but Bill
 sogtuu-gaar-aa teg-sen.
 drunk-INSTR-REFL.POSS do.so-PST
 “John_i examined Mary_i naked_i, but Bill did so drunk.”

- b. ?John Mary-g nuzgen bai-h-d-aa shalga-san harin
 John Mary-ACC naked be-INF-DAT-REFL.POSS examine-PST but
 Bill sogtuu bai-h-d-aa teg-sen
 Bill drunk be-INF-DAT-REFL.POSS do.so-PST
 “John_i examined Mary_i naked_i, but Bill did so drunk.”

<Object-oriented Depictives>

- c. ?John Mary-g nuzgen-eer n’ shalga-san harin Bill
 John Mary-ACC naked-INSTR 3.POSS examine-PST but Bill
 sogtuu-gaar n’ teg-sen.
 drunk-INSTR 3.POSS do.so-PST
 “John examined Mary_i naked_i, but Bill did so drunk.”

- d. ?John Mary-g nuzgen bai-h-ad n’ shalga-san harin
 John Mary-ACC naked be-INF-DAT 3.POSS examine-PST but
 Bill sogtuu bai-h-ad n’ teg-sen.
 Bill drunk be-INF-DAT 3.POSS do.so-PST
 “John examined Mary_i naked_i, but Bill did so drunk.”

- e. *John Mary-g nuzgen bai-h-ad shalga-san harin Bill
 John Mary-ACC naked be-INF-DAT examine-PST but Bill
 sogtuu bai-h-ad teg-sen.
 drunk be-INF-DAT do.so-PST
 Int. “John examined Mary_i naked_i, but Bill did so drunk.”

<Ambiguous Types>

- f. John Mary-g nuzgen-eer shalga-san harin Bill sogtuu-gaar
 John Mary-ACC naked-INSTR examine-PST but Bill drunk-INSTR
 teg-sen.
 do.so-PST
 “John_i examined Mary_j naked_{i/j}, but Bill did so drunk.”

- g. *John Mary-g nuzgen shalga-san harin Bill sogtuu teg-sen.*
 John Mary-ACC naked examine-PST but Bill drunk do.so-PST
 “John_i examined Mary_j naked_{i/j}, but Bill did so drunk.”

So far, we have observed the syntactic positions of the Mongolian depictive phrase. Here I will show some tests to determine the size of each depictive phrase/clause. In (37), a nominative-marked notional subject is added for each depictive phrase/clause. If the insertion of the NP:NOM is acceptable, the depictive element is not a secondary predication but a TP. However, if the insertion is impossible, then the depictive element is smaller than TP, namely a small clause (secondary predication). As can be seen below, (37a,c,f,g) are ungrammatical; they do not take the TP strategy. On the other hand, (37b,d,e) are grammatical; the depictive elements form an embedded TP clause, which will be further supported later on. Thus I can deduce that (31a,c) represent true depictives forming a small clause adjunct, whereas (31b) does not.

(37) [Overt Notional Subject NP]

<Subject-oriented Depictives>

- a. **John Mary-g [TP biye-ee/n' nuzgen-eer-ee] shalga-san.*
 John Mary-ACC body-REFL.POSS/3. POSS naked-INSTR-REFL.POSS examine-PST
 Int. “John_i examined Mary while his body was naked_i.”
- b. *John Mary-g [TP biye-ee/n' nuzgen bai-h-d-aa] shalga-san.*
 John Mary-ACC body-REFL.POSS/3. POSS naked be-INF-DAT-REFL.POSS
 examine-PST
 “John_i saw Mary while his body was naked_i.”

<Object-oriented Depictives>

- c. **John Mary-g [TP biye n' nuzgen-eer n'] shalga-san.*
 John Mary-ACC body 3.POSS naked- INSTR 3.POSS examine-PST
 Int. “John examined Mary_i while her body was naked_i.”
- d. *John Mary-g [TP biye n' nuzgen bai-h-ad n'] shalga-san.*
 John Mary-ACC body 3.POSS naked be-INF-DAT 3.POSS
 examine-PST
 “John examined Mary_i while her body was naked_i.”
- e. *John Mary-g [TP biye n' nuzgen bai-h-ad] shalga-san.*
 John Mary-ACC body 3.POSS naked be-INF-DAT examine-PST
 “John examined Mary_i while her body was naked_i.”

<Ambiguous Types>

- f. **John Mary-g* [_{TP} *biye-ee/ n'* *nuzgen-eer*] *shalga-san*.
 John Mary-ACC body-REFL.POSS/3.POSS naked-INSTR examine-PST
 Int. “John_i examined Mary_j naked_{i/j} while his/her body was naked.”
- g. **John Mary-g* [_{TP} *biye-ee/ n'* *nuzgen*] *shalga-san*.
 John Mary-ACC body-REFL.POSS/3.POSS naked examine-PST
 Int. “John_i examined Mary_j naked_{i/j} while his/her body was naked.”

Those which allow the embedded subject can always take the accusative-marked embedded subject instead of the embedded nominative-marked subject. In Mongolian there is a Differential Subject Marking system (Guntsetseg 2010 and von Heusinger, Klein and Guntsetseg 2011); the embedded subject can be either nominative-marked or accusative-marked. Thus, the fact that the nominative case of the embedded subject NP can be converted to the accusative case proves that the additional NPs in (34b,d,e) indeed are the subjects. Examples are given in (38).

(38) [Differential Subject Marking for (37b,d,e)]

a. [for (37b)]

John Mary-g [_{TP} *biye-ee/n'* *nuzgen*
 John Mary-ACC body-REFL.POSS//3.POSS naked
bai-h-d-aa] *shalga-san*.
 be-INF-DAT- REFL.POSS examine-PST
 “John_i examined Mary while his body was naked_i.”

b. [for (37d)]

John Mary-g [_{TP} *biye(-ig) n'* *nuzgen bai-h-ad n'*] *shalga-san*.
 John Mary-ACC body-ACC 3.POSS naked be-INF-DAT 3.POSS examine-PST
 “John examined Mary_i while her body was naked_i.”

c. [for (37e)]

John Mary-g [_{TP} *biye(-ig) n'* *nuzgen bai-h-ad*] *shalga-san*.
 John Mary-ACC body-ACC 3.POSS naked be-INF-DAT examine-PST
 “John examined Mary_i while her body was naked_i.”

Since the depictive phrases of (30b)/(31b,d,e) are TP adjuncts, they can be more than one depictive phrase in a sentence, in principle. This is shown in (38); (38a) is the case of subject-oriented depictive from (31b), and (39b,c) are the cases of object-oriented depictives from (31d,e).

(39) [Two Depictive TP Clauses]

a. [Two “X-be-INF-DAT-REFL.POSS” phrases in (31b)]

*John ene mashin-ig [nas zaluu bai-h-d-aa] [turschlaga nimgen
John this car-ACC age young be-INF-DAT-aa experience thin
bai-h-d-aa] av-san.*

be-INF-DAT-aa take-PST

“John bought this car when he was young and when he had little experience.”

b. [Two “X-be-INF-DAT-3.POSS” in (31d)]

*John ene girl-ACC [nas (n') zaluu bai-had n']
John this girl-ACC age 3.POSS young be-INF-DAT 3.POSS
[turschlaga (n') nimgen bai-had n'] ajil-d av-san.*

experience 3.POSS thin be-INF-DAT 3.POSS work-DAT take-PST

“John appointed this girl when she was young and when she had little experience.”

c. [Two “X-be-INF-DAT-Ø” in (31e)]

*John ene girl-ACC [nas (n') zaluu bai-had] [turschlaga
John this girl-ACC age 3.POSS young be-INF-DAT experience
(n') nimgen bai-had] ajil-d take-PST*

3.POSS thin be-INF-DAT work-DAT take-PST

“John bought this car when she was young and when she has little experience.”

Theoretically speaking, the number of adjuncts should not be limited as long as they fit the semantic and pragmatic contexts of a sentence. We have observed the case of two depictive phrases in (39). This theoretical expectation is true to some extent. (40) exemplifies the case of both subject- and object-oriented depictive phrases in one sentence. (40a) is grammatical, where two subject-oriented depictive phrases are located between the subject and object, and one object-oriented-depictive phrase is located between the object and verb. (40b) is almost ungrammatical, where two subject-oriented and one object-oriented depictive phrases are located in one position; between object and verb. The theory of adjuncts/complements cannot predict the ungrammaticality of (40b), but the reason is simply because the sentence takes too much processing, from the psycholinguistic point of view.

(40) a. [Both Subject- and Object-oriented Depictive Phrases in a Sentence]

John [nas zaluu bai-h-d-aa] [turschlaga nimgen bai-h-d-aa]
 John age young be-INF-DAT-aa experience thin be-INF-DAT-aa
ene mashin-ig [motor n' huuch(i)n -aar /bai-h-ad n']
 this car-ACC engine 3.POSS old -INSTR/be-INF-DAT 3.POSS
av-san.
 take-PST
 “John bought this car when he was young and had little experience, and the car’s engine was old.”

b. [All Subject- and Object-oriented Depictive Phrases after the Object]

^{??}*John ene mashin-ig [nas zaluu bai-h-d-aa] [turschlaga*
 John this car-ACC age young be-INF-DAT-aa experience
nimgen bai-h-d-aa] [motor n' huuch(i)n -aar/bai-h-ad n']
 thin be-INF-DAT-aa engine 3.POSS old -INSTR/be-INF-DAT 3.POSS
av-san.
 take-PST
 Int. “John bought this car when he was young and had little experience, and the car’s engine was old.”

As is the case of *bol-* ‘become’ for the Mongolian resultatives, which we have observed in section 2, *bai-* ‘be’ of depictives is also an auxiliary verb, which carries the aspect, namely *stative*. The presence of this auxiliary verb *bai-* ‘be’ implies that the depictive phrase of (30b) forms a TP, because aspect is always dependent on its local T-head. Importantly, the others such as (30a,c) cannot have the aspectual marker *bai-* ‘be/STATIVE’, which suggests that the depictive phrases in (30a,c) do not form a TP.

(41) [*bai* ‘be’ in (27a,c)]

- a. SUBJ NP-ACC Adj-(**bai*)-INSTR-Ø/-aa/n V
- b. SUBJ NP-ACC Adj-(**bai*) V

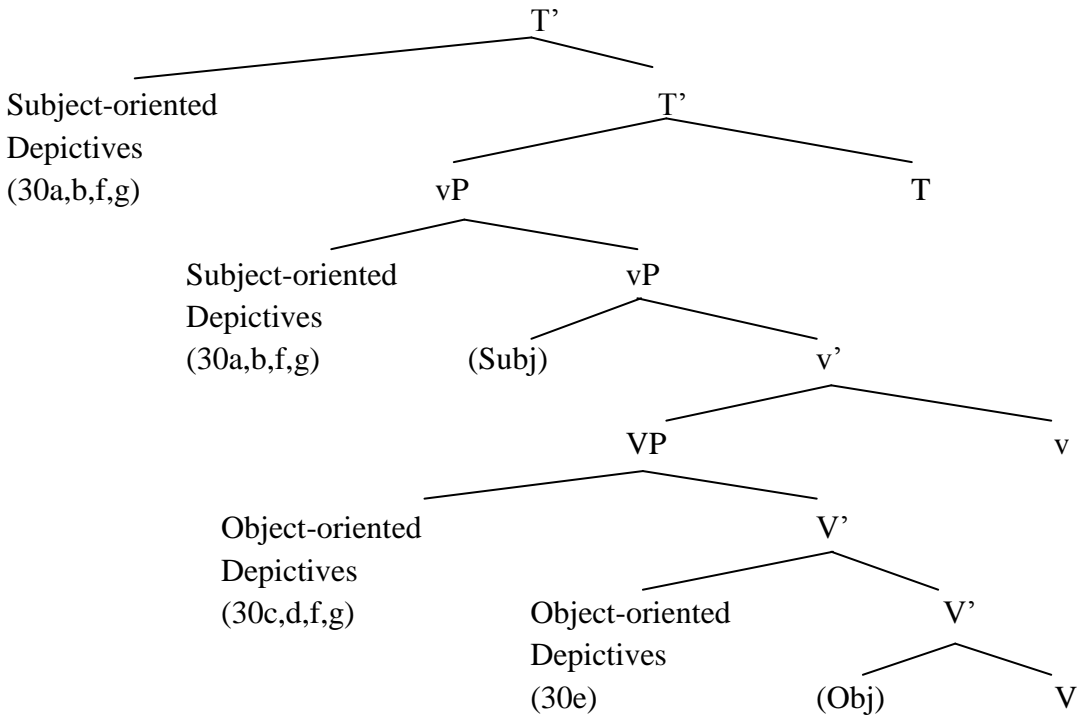
The facts laid out in (41) can consistently be observed in the pseudo-resultatives and depictives. In section 2, I analysed the Mongolian resultatives as TP adjuncts, which always require either the aspectual marker *bol-* ‘become’ or a (dynamic) verb within the resultative clause. Thus, the existence of aspect or a verbal element is associated with TP status in Mongolian, and the lack of aspect or a verbal element indicates the phrase is smaller than TP and represents a secondary predication connecting the predicate and a surface object (its notional subject). (30) is reanalysed in (42). I also assume that there is *pro* inside the depictive phrases.

(42) [Structures of Mongolian Depictives]

- a. SUBJ NP-ACC [_{SM} *pro* Adj-INSTR-Ø/-REFL.POSS/3.POSS] V
- b. SUBJ NP-ACC [_{TP} (NP:NOM) Adj-be-INF-DAT-Ø/-REFL.POSS/3.POSS]* V
- c. SUBJ NP-ACC [_{SM} *pro* Adj-Ø/*-REFL.POSS/*3.POSS] V

Following the analysis I developed in this section, the syntactic representation of the Mongolian depictives can be illustrated as in (43). There are two subject-oriented depictives in this structure, but as mentioned earlier, there seem to be two possible positions in this language, like Japanese.

(43) [Syntactic Representation of Mongolian Depictives]



The structure in (43) not only reflects the properties of Mongolian depictives but also explains some other facts about the (28e) type. First, the depictive phrase “Adj-be-INF-DAT” of (31e) cannot be scrambled unlike the other Mongolian depictive phrases. Compare (44e) with the others.

(44) [Scrambling Depictive Phrase]

<Subject-oriented Depictives>

- a. *John nuzgen_i-eer-ee Mary-g t_i shalga-san.* (=31a)
- John naked-INSTR-REFL.POSS Mary-ACC examine-PST
- “John_i examined Mary naked_i.”

- b. *John* [*nuzgen bai-h-d-aa*]_i *Mary-g* *t_i* *shalga-san.* (=31b))
 John naked be-INF-DAT-REFL.POSS Mary-ACC examine-PST
 “John_i examined Mary_i naked_i.”

<Object-oriented Depictives>

- c. *John* [*nuzgen-eer n'*]_i *Mary-g* *t_i* *shalga-san.* (=31c))
 John naked-INSTR 3.POSS Mary-ACC examine-PST
 “John examined Mary_i naked_i.”

- d. *John* [*nuzgen bai-h-ad n'*]_i *Mary-g* *t_i* *shalga-san.* (=31d))
 John naked be-INF-DAT 3.POSS Mary-ACC examine-PST
 “John examined Mary_i naked_i.”

- e. **John* [*nuzgen bai-h-ad*]_i *Mary-g* *t_i* *shalga-san.* (=31e))
 John naked be-INF-DAT Mary-ACC examine-PST
 “John examined Mary_i naked_i.”

<Ambiguous Types>

- f. *John* *nuzgen_i-eer* *Mary-g* *t_i* *shalga-san.* (=31f))
 John naked-INSTR Mary-ACC examine-PST
 “John_i saw Mary_j naked_{i/j}.”

- g. *John* *nuzgen_i* *Mary-g* *t_i* *shalga-san.* (=31g))
 John naked Mary-ACC examine-PST
 “John_i examined Mary_j naked_{i/j}.”

(44) suggests that the depictive phrase of (31e) cannot move to a position which precedes the object. The reason seems to be because the depictive phrase of (31e) is an element inside VP as illustrated in (42), whereas all the other depictive phrases adjoin to VP or stay even higher than VP.

Second, although the depictive phrase “Adj-be-INF-DAT” of (31e) does not have any referential markers such as -AA ‘REFL.POSS’ (agrees only with SUBJ) or *n'* ‘3.POSS’ (agrees only with non-subject arguments), it only links to object, but never to subject unlike the cases of (31f,g); in (31f,g) there is no referential marker and the depictive phrases of (31f,g) can link to either subject or object. This fact can also be explained with the syntactic structure in (43). The depictive phrase of (31e) is the element inside VP unlike all the others, so the control of *pro* can take place only within VP. Thus (31e) has only object-oriented interpretation, though the depictive phrase does not have a referential marker.

Previously, the property of *n'* ‘3.POSS’ has not been researched much. However, the syntactic position of the object-oriented depictive phrase in (31e) can be a clue to understand the

property of *n'* '3.POSS'; the morpheme *n'* is a fully syntactic device which determines the syntactic position of the containing phrase/cause. In concrete terms, the phrase/clause with *n'* is likely to stay in a position lower than VP, which as a result leads to the object-oriented reading.

Third, the position of the depictive phrase of (31e) affects indirect object predication. This will be discussed with some other issues in the next section.

As a final point of this whole section, I will raise one issue which slightly contradicts my account of Mongolian depictives illustrated in (43). The theory of adjunct/complement predicts that an adjunct phrase can occur more than two times, while a complement phrase cannot. However, like the resultatives shown in section 2, when there is no overt notional subject for each depictive phrase, Mongolian depictives, which I analysed as adjuncts, cannot occur more than two times in a sentence.⁵⁹ This is shown in (45).

(45) [Two Depictive Phrases without their Notional Subjects]

<Subject-oriented Depictives>

- a. **John Mary-g nuzgen-eer-ee sogtuu-gaar-aa shalga-san.*
 John Mary-ACC naked-INSTR-REFL.POSS drunk-INSTR-REFL.POSS examine-PST
 Int. "John_i examined Mary_i naked_i; drunk_i."

- b. **John Mary-g nuzgen bai-h-d-aa sogtuu*
 John Mary-ACC naked be-INF-DAT-REFL.POSS drunk
bai-h-d-aa shalga-san.
 be-INF-DAT-REFL.POSS examine-PST
 Int. "John_i examined Mary_i naked_i; drunk_i."

<Object-oriented Depictives>

- c. **John Mary-g nuzgen-eer n' sogtuu-gaar n' shalga-san.*
 John Mary-ACC naked- INSTR 3.POSS drunk-INSTR 3.POSS examine-PST
 Int. "John examined Mary_i; naked_i; drunk_i."

- d. **John Mary-g nuzgen bai-h-ad n' sogtuu bai-h-ad n'*
 John Mary-ACC naked be-INF-DAT 3.POSS drunk be-INF-DAT 3.POSS
shalga-san.
 examine-PST
 Int. "John examined Mary_i; naked_i; drunk_i."

⁵⁹ Andrew Spencer commented on this issue that the point about only one ('pure') depictive being allowed pre clause seems to be valid for English as well as Mongolian, and the depictive is different from a purely adjunct in that the depictive creates a kind of complex predicate, to see NP drunk, and hence the depictive functions more like a complement than an adjunct (while lacking most other adjunct properties). I totally agree with him, and will discuss this issue again in the next Chapter on Korean secondary predicates in comparison with the Mongolian TP-type adjuncts.

- e. **John Mary-g nuzgen bai-h-ad sogtuu bai-h-ad shalga-san.*
 John Mary-ACC naked be-INF-DAT drunk be-INF-DAT examine-PST
 Int. “John examined Mary_i naked_i drunk_i.”

<Ambiguous Types>

- f. **John Mary-g nuzgen-eer sogtuu-gaar shalga-san.*
 John Mary-ACC naked-INSTR drunk-INSTR examine-PST
 Int. “John_i examined Mary_j naked_{i/j} drunk_{i/j}.”

- g. **John Mary-g nuzgen sogtuu shalga-san.*
 John Mary-ACC naked drunk see-PST
 Int. “John_i examined Mary_j naked_{i/j} drunk_{i/j}.”

The grammatical acceptability of the English translation “John saw Mary naked drunk” is also quite low, although English depictive predicates are believed to be adjuncts. Again like the case of resultatives, more research is need in the theory of complements and adjuncts; these two categories may not be so clear-cut in some languages.

3.2 Further Related Issues

As mentioned earlier, in English it is difficult to extract a depictive predicate with the *wh*-phrase *how*. Mongolian also seems to exhibit the phenomenon, though the judgement is marginal. The grammatical acceptability of the depictive sentences with *her* ‘how’ in (47) is slightly lower than that of the canonical interrogative one in (46).

- (46) [Interrogative Sentence with *her* ‘how’]
Chamaig öröö-nd n’ or-oh-od John her nuzgen
 you.ACC room-DAT3.POSS enter-INF-DAT John how naked
bai-san be?
 be-PST Q
 “How naked was John when you went into his room?”

- (47) [Extracting the Depictive element with *her* ‘how’]
 <Subject-oriented Depictives>
 a. ??*John Mary-g her nuzgen-eer-ee shalga-san be?*
 John Mary-ACC how naked-INSTR-REFL.POSS examine-PST Q
 “How naked_i did John_i examine Mary?”

- b. ?*John Mary-g her nuzgen bai-h-d-aa shalga-san be?*
 John Mary-ACC how naked be-INF-DAT-REFL.POSS examine-PST Q
 “How naked_i did John_i examine Mary?”

<Object-oriented Depictives>

- c. ??*John Mary-g her nuzgen-eer n' shalga-san be?*
 John Mary-ACC how naked- INSTR 3.POSS examine-PST Q
 “How naked_i did John examine Mary_i?”

- d. ?*John Mary-g her nuzgen bai-h-ad n' shalga-san be?*
 John Mary-ACC how naked be-INF-DAT 3.POSS examine-PST Q
 “How naked_i did John examine Mary_i?”

- e. ?*John Mary-g her nuzgen bai-h-ad shalga-san be?*
 John Mary-ACC how naked be-INF-DAT examine-PST Q
 “How naked_i did John examine Mary_i?”

<Ambiguous Types>

- f. ?*John Mary-g her nuzgen-eer shalga-san be?*
 John Mary-ACC how naked-INSTR examine-PST Q
 “How naked_{i/j} did John_i examine Mary_j?”

- g. ?*John Mary-g her nuzgen shalga-san be?*
 John Mary-ACC how naked examine-PST Q
 “How naked_{i/j} did John_i examine Mary_j?”

The general theoretical accounts of this issue are as below. Chomsky (1981) explained this phenomenon with the Empty Category Principle. There are also other attempts to explain this issue; Aarts (1992) stated that depictive phrases are non-gradable words, which is why the combination of *how* and a depictive phrase causes the ungrammaticality; Rapoport (1990) stated that the secondary and primary predicates make an equative connection, which blocks the extraction of depictive predicate with *wh*-phrase.

Since the grammatical judgements between (46) and (47) are slight, I will not analyse the data too much. If the difference in acceptability clearly exists as indicated in (46) and (47), then at least Aarts' (1992) semantic account is far from perfect, because it is possible to modify a word for depictives with *how* as in (46), and it also fails to explain the difference between (46) and (47g). So I assume that the structural facts affect the *wh*-extraction of depictive phrases.⁶⁰

⁶⁰ On this issue, Andrew Spencer offered a comment to me; in English a subject-oriented predicate can be gradable but it cannot be question.

e.g. John played the sonata (slightly) drunk.

Another related issue is about the predication with indirect object and oblique arguments. In English, it is not possible to predicate a depictive predicate of the indirect object or of the oblique argument. Mongolian data given in (48) seems to offer a further account of this issue. look at the data (48): (48c₁,d₁,e₁,f₁,g₁) represent the double object construction, where the indirect object is marked with dative case; (48c₂,d₂,e₂,f₂,g₂) represent the dative counterpart of the double object construction, where the indirect object forms a prepositional phrase; (48c₃,d₃,e₃,f₃,g₃) represent a mere prepositional sentence, where there is no indirect object, but the only argument except subject is the oblique with the preposition *ruu* ‘to’. In (48) only object-oriented types are chosen since subject-oriented types are fully irrelevant to the issue of predication with (in)direct objects or oblique arguments.

(48) [Predication with Indirect Object and Oblique Argument]
<Object-oriented Depictives>

[from (31c)]

- c₁. *John ene zahia-g Mary-d nuzgen-eer n' ög-sön.*
 John this letter-ACC Mary-DAT naked-INSTR 3.POSS give-PST
 “John gave Mary_i this letter_j naked_{i/j}.”
- c₂. *John ene zahia-g Mary ruu nuzgen-eer n' ög-sön.*
 John this letter-ACC Mary to naked- INSTR 3.POSS give-PST
 “John gave this letter_j to Mary_i naked_{*i/j}.”
- c₃. ^{???} *John Mary ruu nuzgen-eer n' yar'-san.*
 John Mary to naked- INSTR 3.POSS speak-PST
 “John spoke to Mary_i naked_i.”

[from (31d)]

- d₁. *John ene zahia-g Mary-d nuzgen bai-h-ad n' ög-sön.*
 John this letter-ACC Mary-DAT naked be-INF-DAT 3.POSS give-PST
 “John gave Mary_i this letter_j naked_{i/*j}.”
- d₂. *John ene zahia-g Mary ruu nuzgen bai-h-ad n' ög-sön.*
 John this letter-ACC Mary to naked be-INF-DAT 3.POSS give-PST
 “John gave this letter_j to Mary_i naked_{i/*j}.”
- d₃. *John Mary ruu nuzgen bai-h-ad n' yar'-san*
 John Mary to naked be-INF-DAT 3.POSS speak-PST
 “John spoke Mary_i naked_i.”

e.g. *How drunk did John play the sonata?

The fact raised by Andrew Spencer suggests that this issue is syntactic rather than semantic.

[from (31e)]

- e₁. **John ene zahia-g Mary-d nuzgen bai-h-ad ög-sön.*
 John this letter-ACC Mary-DAT naked be-INF-DAT give-PST
 Int. “John gave Mary_i this letter_j naked_{i/j}.”
- e₂. **John ene zahia-g Mary ruu nuzgen bai-h-ad ög-sön.*
 John this letter-ACC Mary to naked be-INF-DAT give-PST
 Int. “John gave this letter_j to Mary_i naked_{i/j}.”
- e₃. **John Mary ruu nuzgen bai-h-ad yar'-san.*
 John Mary to naked be-INF-DAT speak-PST
 Int. “John spoke to Mary_i naked_i.”

<Ambiguous Type>

[from (31f)]

- f₁. *John ene zahia-g Mary-d nuzgen-eer ög-sön.*
 John this letter-ACC Mary-DAT naked-INSTR give-PST
 “John_i gave Mary_j this letter_k naked_{i/*j/?k}.”
- f₂. *John ene zahia-g Mary ruu nuzgen-eer ög-sön.*
 John this letter-ACC Mary to naked-INSTR give-PST
 “John_i gave this letter_k to Mary_j naked_{i/*j/?k}.”
- f₃. *John Mary ruu nuzgen-eer yar'-san.*
 John Mary to naked-INSTR speak-PST
 “John_i spoke to Mary_j naked_{i/j}.”

[from (31g)]

- g₁. *John ene zahia-g Mary-d nuzgen ög-sön.*
 John this letter-ACC Mary-DAT naked give-PST
 “John_i gave Mary_j this letter_k naked_{i/?j/k}.”
- g₂. *John ene zahia-g Mary ruu nuzgen ög-sön.*
 John this letter-ACC Mary to naked give-PST
 “John_i gave this letter_k to Mary_j naked_{i/*j/k}.”
- g₃. *John Mary ruu nuzgen yar'-san.*
 John Mary to naked speak-PST
 “John_i spoke to Mary_j naked_{i/j}.”

There is no agreement on the syntactic structure of the double object construction.⁶¹ Thus it is difficult to determine the exact positions of the depictive phrases in relation to the positions of

⁶¹ There are two directions for the analysis of double object constructions. One is the mono-structural analysis where the IO-DO word order derives from DO-IO word order (Aoun and Li 1989, Miyagawa and Tsujioka 2004, Harada and Larson 2009, among many others). The other is the bi-

direct/indirect object or oblique argument. However, the Mongolian data in (48) look to be still very interesting. We follow the examples one by one.

First, in (48c) the depictive phrase forms a secondary predicate rather than the TP embedded clause, as already discussed. Here the depictive predicate cannot link to any arguments such as the dative-marked indirect object (48c₁), prepositional indirect object (48c₂) and canonical prepositional oblique argument (48c₃). The depictive predicate *nuzgen-eer n* ‘naked-INSTR 3.POSS’ can link to the direct object *zahia* ‘letter’ syntactically as well as semantically to denote that the letter was not in the envelope. That is, object-oriented secondary predication is successful only with the direct object.

Second, (48d) represents the case of depictive phrase as a TP adjunct. Unlike the case of proper secondary predication in (48c), the depictive phrases of (48d) can link to the indirect object and oblique argument, but not to the direct object *zahia* ‘letter’ as in (48d_{1,d2}). Assuming that this issue is purely syntactic, then it seems to imply that the indirect object stays higher than the direct object, and in between them there is a barrier which blocks the control relation between the arguments and *pro* of the depictive phrase. The secondary predicate of (48c) seems to be lower than the barrier, and the TP adjunct depictive phrase higher than the barrier but still inside VP. This barrier looks to appear only in the double object construction but not within the VP of canonical single object sentence, because the depictive phrase in (31e)/(48e) can and does link to the accusative-marked object in such case.

Third, (48e) is the case from (31e) whose depictive phrase is likely to stay lower than that of (31d)/(48d) because of the non-existence of *n* ‘3.poss’. Here the depictive phrase cannot link to any of direct, indirect object and oblique argument. This is again a bit of contradiction with (31e), where the same depictive phrase successfully modifies the accusative-marked object.

Fourth, in the ambiguous types of (48f,g) from, (31f,g), the depictive phrases are both secondary predicates. Like the secondary predicate case of (44c), the depictive phrases of (48f,g) fail to link to the dative-marked and prepositional object. However, unlike (48c), here they successfully link to the oblique argument. So far, I have not shown a piece of data which distinguishes the three object-oriented depictive predicates of (31c,f,g), but the data in (48c,f,g) clearly shows the difference among them. In between (31f)/(48f) and (31g)/(48g), there is a slight difference. The depictive predicate marked with the instrumental case in (31g)/(48g) seems to be easier to link to the direct object in the double object construction, but the one of (31f)/(48f), which uses the bare adjectival scheme, looks slightly more difficult to link to the direct object of the double object construction. At this stage, I am not entirely sure whether this difference derives from the syntactic or semantic.

As a brief summary of this small section, I emphasise that each depictive predicate seems to occupy a different position, which causes the different patterns of grammatical acceptability in the linking to indirect object and oblique argument. Deciding the exact positions of each depictive predicate looks interesting in terms of the development of and feedback to the theory of

structural analysis, where IO-DO and DO-IO word orders are base-generated separately (Marantz 1993, Pykkänen 2002, among many others).

syntax. However, the process requires the accurate syntactic description of the double object construction in Mongolian, which could be another new topic of a whole thesis. Although the analysis looks somehow incomplete, I hope I showed enough interesting data and possible theoretical suggestions, and wish to leave the rest for further research.

3.3 Summary

In this section, I have argued that Mongolian has true depictives, which are adjectives with instrumental case marker and bare adjectives. They have all the typical characteristics of the canonical depictives such as English or Japanese ones. I also discussed about the ‘Adj-be-INF-DAT’ type, which also has the depictive interpretation, but does not have the depictive syntactic structure. This type forms a full TP clause allowing the notional subject NP of the depictive phrase optionally. As a whole I discussed about seven morphologically different types of depictives (see (28a-g)), and suggested that all of them have different syntactic structures. Some of the differences were plausible which I showed in (40), but others are not; I stated that the less plausible differences will be understood in detail by investigating the indirect object predication.

The data and analysis of depictives and resultatives will be gathered in the next section to investigate the diachronic change of Mongolian adjectives with their lexical structure.

4. The Lexical Structure of Mongolian Adjectives and Verbs, and Other Related Issues

Looking into the case of Mongolian, I propose that (i) the morphemes *-bai* ‘copular/STATIVE’ and *-bol* ‘become/INCHOATIVE’ are syntactic aspect markers. The adjectives of Modern Mongolian lack syntactic aspect but have semantic aspect, firstly because bare adjectives without these syntactic aspect morphemes such as *-bai* ‘copular/STATIVE’ and *-bol* ‘become/INCHOATIVE’ can only form a small clause (see (50a,c)), and secondly because adjectives with *-bai* ‘STATIVE’ or *-bol* ‘INCHOATIVE’ must form a full TP resultative or depictive (see (49a) and (50b)); (ii) Mongolian adjectives have the STATIVE semantic aspect but not the INCHOATIVE one, because bare adjectives without the syntactic aspect markers can only form the depictive construction but never the resultative (see (50a,c): these are the only possible choices with bare adjectives); (iii) Mongolian verbs have the syntactic aspect INCHOATIVE⁶², firstly because verbs cannot have a depictive reading but only a resultative one, which suggests that the meaning is INCHOATIVE,

⁶² It seems that Mongolian has a very limited number of stative verbs, like Japanese. The form (-)bai can be used as a stative aspect marker or a copular (stative verb). Apart from (-)bai ‘STATIVE/be’, all verbs seem to be dynamic, carrying the INCHOATIVE aspect. This is based on my own research and there is no previous literature on this issue. Further research is surely needed.

where the verb forms a full TP clause but never a small clause. So it is syntactic aspect but not semantic aspect (see (49b)), and verbs cannot be combined with *-bai* ‘STATIVE’ or *-bol* ‘INCHOATIVE’ (see (51a,b)), and it seems that a phrase cannot host two syntactic aspects.

(49) [Syntactic Structure of Mongolian Resultative Construction (from (3))]

- a. SUBJ (NP₁-ACC) [TP (NP₂-NOM) **Adj-bol-tAI**]* V
- b. SUBJ (NP₁-ACC) [TP (NP₂-NOM) (NP₃-ACC) **V-tAI**]* V

(50) [Structures of Mongolian Depictives (from (39))] ⁶³

- a. SUBJ NP₁-ACC [SM *pro* **Adj-INSTR-Ø/-REFL.POSS/3.POSS**] V
- b. SUBJ NP₁-ACC [TP (NP₂:NOM) **Adj-bai-INF-DAT-Ø/-REFL.POSS/3.POSS**]* V
- c. SUBJ NP₁-ACC [SM *pro* **Adj-Ø**] V

(51) a. [Intended Depictive Structure with *V-bai*]

*SUBJ NP₁-ACC [TP (NP₂:NOM) **V-bai-INF-DAT-Ø/-REFL.POSS/3.POSS**]* V

b. [Intended Resultative Structure with *V-bol*]

*SUBJ (NP₁-ACC) [TP (NP₂-NOM) (NP₃-ACC) **V-bol-tAI**]* V

Thus the lexical structure of Modern Mongolian adjectives, verbs and the aspectual morphemes can be illustrated as in (52).

(52) [Lexical Structures of Mongolian Adjective, Verb and Aspectual Morphemes]

	Lexical Meaning	Semantic Aspect		Syntactic Aspect	
		STATIVE	INCHOATIVE	STATIVE	INCHOATIVE
Adjective	✓	✓			
Verb	✓			? (footnote 62)	✓
<i>-bai</i> ‘copular/STATIVE’				✓	
<i>-bol</i> ‘become/INCHOATIVE’					✓

The table (52) indicates that Modern Mongolian adjectives have semantic STATIVE aspect, but no syntactic aspect; verbs have meaning and syntactic INCHOATIVE aspect: *-bai* ‘copular/STATIVE’ and *-bol* ‘become/INCHOATIVE’ are syntactic aspects but not semantic aspects.

There seems to be one example sentence in the previous literature which gives a clue to the lexical structure of Mongolian adjectives, which have gone through a diachronic change. Washio (2002) discusses the resultatives and depictive constructions of Middle Mongolian, where bare adjectives function as depictives as well as resultatives. The example sentences from Middle Mongolian are given in (53), (54) and (55). Remember that Modern Mongolian cannot have a

⁶³ In (49), (50) and (51), [...] * means the phrase can occur recursively.

resultative interpretation with bare adjectives as discussed in this section (see (49), which represents all possible types of resultative structures). All the example sentences are cited from Washio (2002), who cited them from Rachewiltz (1972) and Cleaves (1982).

- (53) [Bare Adjective “Resultative” of Middle Mongolian]
ö'er-ee busu ayimagun gü'ün-i ö'ere böldeyitketciüu
 separate different tribe-of person-acc separate(ly) isolate-IMPERATIVE
 “... set apart from the rest any man who is with a group which is not his own”
- (54) [-tAl Converb Resultative (Equivalent to Modern Resultative)]
 ... *hökör-i* ... *kelki-tele* ... *qarbuyu*⁶⁴
 enemy-ACC transfix-CVB shoot
 “... shoot the enemy(wife) transfixed.”
- (55) [Depictives of Middle Mongolian]
 a. ... *ja'ura mawui otcu* ...
 on the way bad going
 “On the way, [being] bad, he went on and, ...”
 b. *tere qoyinaca juja'an-a ayisuqun ken buyu*
 that behind-from thick-DAT approach-ATTRIB.PL who be
 “Who are they who thickly draw night behind him?”

Washio (2002) claimed that (53) represents the true (complement type) resultative construction, where “the word *ö'ere* ‘separate(ly)’ is an AP schema” and it represents the resultative predicate. The reason that Washio regards the word *ö'ere* as an adjective is because it can be used as a prenominal modifier, such as *ö'ere ni'ur* ‘separate/different face’. However, as Washio himself pointed out in the beginning of his paper, in the Middle/Modern Mongolian adjectives and adverbs are morphologically identical; the word *ö'ere* can be used as an adjective ‘separate’ or adverb ‘separately’. So, without having tests such as manner adverbial replacement, it is impossible to tell whether the word *ö'ere* is used as an adjective or adverb in (53). Moreover, (53) is the only example which was introduced as a resultative construction with the AP schema. I doubt his analysis of (53), and strongly believe that in (53) the word *ö'ere* is used as a manner adverb. If the word *ö'ere* indeed represented an adjective in (53), it would mean that at least some Mongolian adjectives had INCHOATIVE semantic aspect, which in turn would imply that Mongolian adjectives have gone through a diachronic change between Middle and Modern Mongolian.

⁶⁴ In (54), Washio (2002) glossed *hökör* as ‘enemy’. However, according to native speakers of (Modern) Mongolian this word means ‘wife’. Maybe, in the Middle Mongolian, the words for ‘enemy’ and ‘wife’ were the same.

(54) suggests that Middle Mongolian had the *-tAl* (*-tAlA* in the Middle period) Converb resultative strategy like Modern Mongolian.

(55) is the case of depictives in Middle Mongolian. (55a) shows that bare adjectives can be depictive predicates, and (55b) shows that adjectives can be suffixed with dative case marker to denote a depictive interpretation; these properties can be seen in Modern Mongolian as well.

Thus, I do not think that it is likely that there was a diachronic change in the lexical structure of Mongolian adjectives. However, in order to be more conclusive, we need further research.

5. Conclusion

This chapter targeted the Mongolian secondary predicates including the resultative and depictive construction. In section 2, I investigated the resultative phrases, where I concluded that Mongolian does not have the true complement (small clause) resultative construction, but there are constructions which make use of the *-tAl* Converb, forming a full TP embedded adjunct clause, which indeed have the resultative interpretation, including the accomplishment aspectual structure. I also discussed about their syntactic positions: the subject-oriented one adjoins to either the top vP or T', which is a common feature of the subject-oriented adjunct phrases of some SOV languages; and the object-oriented one adjoins to V'. Although Mongolian and Korean resultatives resemble each other quite significantly, there is a slight difference in the way of having more than two resultative adjunct phrases, which appears to be caused by the difference in the syntactic positions of the resultative phrases; that is, unlike Mongolian, the Korean object-oriented resultative phrase adjoins to VP. This will be discussed in the next chapter.

In section 3, I investigated the depictive phrases, where I concluded that Mongolian has the true depictive construction using bare adjectives, or those with the instrumental case marker. There are some other types which have a depictive interpretation but a different syntactic structure from the true depictives. I also showed the syntactic characteristics of these depictive phrases and presented that they all have different positions.

In section 4, I gathered all the data about how adjectives and verbs are used in the resultative and depictive constructions, and investigated the lexical structure of adjectives and verbs, where I concluded that Mongolian adjectives have *STATIVE* semantic aspect but do not have *INCHOATIVE* semantic aspect or any syntactic aspect, while the verbs have *INCHOATIVE* syntactic aspect. Although Washio's (2002) statement implied that Middle Mongolian adjectives had *INCHOATIVE* semantic aspect, I did not agree with his analysis of the Middle Mongolian "resultative" AP schema.

This study of secondary predicates in Mongolian has not only revealed the lexical structure of adjectives and verbs, but dealt with related topics including the case marking system, clausal structure, predication, adjuncts and complements, positions of arguments, properties of some particles and morphemes, and so on. I left some issues to be investigated in the future, especially

in the depictive section. Here I hope that the work in this chapter could be the basis for further research on Mongolian syntax and semantics.

Chapter 5

Secondary Predication in Korean

1. Introduction

This chapter investigates Korean secondary predicates. First I will analyse Korean resultatives in section 2, where I will argue that the resultative phrases are full TP clauses; in this sense, Korean resultatives do not represent the genuine resultative; Korean resultatives are different from those of English or Japanese but resemble Mongolian ones. Then, in section 3, I will discuss Korean depictive, where I will argue that the syntactic properties of the depictive predicate is the same as that of the resultative predicate; the depictive phrases as well as the resultative ones form full TP clause; Korean depictive does not represent the true depictives, unlike English, Japanese and Mongolian. I will also mention that the type of the main verb and context determines the occurrence of the depictive interpretation. In section 4, I will discuss the lexical structure of Korean verbs, using the analyses of resultatives and depictives. Section 5 concludes the whole chapter.

As for the data of this chapter, I consulted two native linguists from Seoul. They speak standard Korean.

2. Korean Resultatives

Korean resultatives, which are always marked with *-key* on the secondary predicate (glossed here as ‘KEY’), have well been investigated within Korean linguistics.^{65,66} Sells (1998) analysed all

⁶⁵ The morpheme *-key* has often been regarded as an adverbial marker. Cho and Sells (1995) argued that an ending like *-key* indicates that the verb is in construction with another verb; they referred to *-key* as COMP. In this chapter, *-key* is simply glossed as ‘KEY’.

⁶⁶ Thanks to Jaehoon Yeon for point out that there are constructions without *-key* which look like a resultative construction in Korean.

- | | | | | |
|-----|--|----------------|---------------------|---------------------|
| (a) | <i>Yongsu-ka</i> | <i>elum-ul</i> | <i>tantan-hi</i> | <i>elli-ess-ta</i> |
| | Yongsu-NOM | ice-ACC | solid-ADV | freeze-PST-DC |
| | “Yongsu froze the ice solid.” | | | |
| (b) | <i>Yongsu-ka</i> | <i>atul-ul</i> | <i>phyenhosa-lo</i> | <i>khiwu-ess-ta</i> |
| | Yongsu-NOM | son-ACC | lawyer-INSTR | bring.up-PST-DC |
| | “Yongsu brought up his son as a lawyer.” | | | |

In (a), the *-hi* (ADV) marked word seems to correspond my resultant manner adverb (see Ch.3). They belong to the participant-oriented adverbials of Himmelmann and Schultze (2005) but do not represent genuine resultative. In (b) as well as in (a), the main verb is transitivised; their intransitive counterparts are the original words. Thus those main verbs represent a type of causative verbs on

kinds of *-key* phrases including resultatives and concluded that they are adjuncts. Shim and den Dikken (2007) specifically analysed the resultative construction and argued that it forms a TP adjunct clause. On the other hand, Son (2008) argued that there are two types of resultative: one is the “eventive resultative”, where the secondary predicate is a dynamic verb which she analyses as ‘become.STATE’, which forms a TP adjunct clause; the other is the “stative resultative”, where the secondary predicate is a stative verb which she analyses as ‘be.STATE’, which forms a small clause complement. Son (2008) also stated that there are some other types of secondary predicate which make use of dynamic verbs, expressing purpose and extent interpretations; these also form TP clauses.

In this section I will claim that all “resultatives” are TP adjuncts as Sells (1998) and Shim and den Dikken (2007) claimed; there are no small clause *-key* resultatives. However, looking into the details of the resultatives, I will claim that there are indeed two types of resultatives which are the eventive ones and the stative ones, as Son suggested. In section 2.2.1, I will argue that the eventive resultatives, which are analysed with either a ‘become.STATE’ secondary predicate or a V_{DYNAMIC} secondary predicate, have a raising construction as in (1).⁶⁷ In section 2.2.2, I will show evidence that the stative resultatives, which are analysed with ‘be.STATE’, do not form a small clause structure but form a TP clause, and yet are still different from the eventive type in certain syntactic properties. However, the precise analysis of the stative type involves issues which go beyond the scope of this thesis, and therefore I will leave the full details for further research.

- (1) [Syntactic Structures of Korean Eventive Resultative Constructions]
 Subj-NOM (NP_{1i}-ACC) [_{TP} t_i (NP₂-NOM) (NP₃-ACC) V_{DYNAMIC-key}] V

2.1 Data and Analysis

To begin with, eventive and stative resultatives are introduced in (2) and (3).

- (2) [Canonical Eventive Resultative]
 a. *Jim-i Yenghi-lul nemeci-key himkkes mil-ess-ta*
 Jim-NOM Yenghi-ACC fall-KEY with.power push-PST-DC
 “Jim pushed Yenghi with power so that she fell.”

their own, and thus I do not regard them as a type of resultative construction from the syntactic point of view.

⁶⁷ By ‘become.STATE’ Son refers to a state descriptor like ‘wet’, interpreted inchoatively. V_{DYNAMIC} refers to a dynamic verb such as ‘fall’. The former appears only in intransitive resultatives, whereas the latter appears in both intransitive and transitive resultatives. However, both seem to have the same syntactic structure. Full examples of these types are given in (2a,b).

- b. *Jim-i* *sonswuken-i* *cec-key* *wul-ess-ta*
 Jim-NOM handkerchief-NOM become.wet-KEY cry-PST-DC
 “Jim cried his handkerchief wet.”

(3) [Canonical Stative Resultative]

- a. *Jim-i* *sikthak-ul* *kkaykkusha-key* *takk-ass-ta*
 Jim-NOM table-ACC be.clean-KEY wipe-PST-DC
 “Jim wiped the table clean.”

- b. *Jim-i* *apeci-lul* *siwuenha-key* *anmaha-ess-ta*
 Jim-NOM father-ACC be.fresh-KEY massage-PST-DC
 “Jim massaged his father, as a result he felt refreshed.”

The aim of this section is to show the evidence that the eventive resultative examples in (2) have the syntactic structure of (1), and the stative resultative examples in (3) also have the TP resultative phrase but behave syntactically differently from the eventive one. The eventive resultative is examined in 2.2.1, and then the stative one in 2.2.2.

2.2.1 Eventive Resultative

In this section, the syntactic properties of the eventive resultative construction are investigated. The definition of the eventive resultative is that the resultative verb is not stative but dynamic. In terms of Son’s (2008) definition of eventive resultative, it contains “ $V_{\text{STATIVE-}ci\text{-key}}$ ” type as well as the “ $V_{\text{DYNAMIC-}key}$ ” type. However, as will be shown later in 2.2.2, adding *ci* ‘become/INCH’ does not change the stative resultative to the eventive resultative unlike Son’s statement, and thus I exclude “ $V_{\text{STATIVE-}ci\text{-key}}$ ” type from the eventive resultative. Before going into the main argument, let us discuss the status of *ci(-ta)* ‘become/INCHOATIVE(-DC)’. *Ci-ta* is an auxiliary verb, which denotes a “state of change” (Lee, 1993). So in Korean, *ttattusha-ta* means ‘be warm’, and *ttattushay ci-ta* means ‘become warm’.

(2a) represents the transitive eventive resultative, and (2b) the intransitive one. At least on the surface, (2a) looks like a genuine resultative because it has the structure of “S O X V”. However, I will claim that the eventive resultatives have the structure shown in (1), which is repeated in (4). The structure (4) suggests that the eventive resultative has a full TP clause.

- (4) [Syntactic Structure of Eventive Resultative]
 Subj-NOM (NP_{1i}-ACC) [_{TP} t_i (NP₂-NOM) (NP₃-ACC) $V_{\text{DYNAMIC-}key}$] V⁶⁸

⁶⁸ In this structure NP₂-NOM and NP₃-ACC do not occur at the same time. All other combinations of NP₁, NP₂ and NP are possible.

In order to prove that the eventive resultative indeed has the structure in (4), I will present seven tests; (a) case marking of non-subject argument; (b) scrambling; (c) insertion of overt nominative-marked NP (NP₂-NOM); (d) occurrence of NP₃-ACC; (e) subject-oriented honorification test; (f) *-tolok* ‘-TOLOK’ replacement test; (g) more than one resultative phrase.

The eventive resultative allows the nominative marked NP on its own as the notional subject of the resultative predicate. Here I will use (2a) but not (2b), because in (2b) the main verb is intransitive and it is rather self-evident that NP-NOM is preferred to NP-ACC. Later in 2.2.2, I will show that this test distinguishes the eventive resultative from the stative resultative.

- (5) [Eventive Resultative with NP₁-NOM]
Jim-i [Yenghi-ka nemeci-key] himkkes mil-ess-ta
 Jim-NOM Yenghi-NOM fall-KEY with.power push-PST-DC
 “Jim pushed Yenghi with power so that she fell.”

In (5), the accusative case of *Yenghi* of (2) is replaced with the nominative case. This sentence is perfectly grammatical for all the Korean native speakers, though the accusative marked object is missing; Korean is famously a pro-drop language, and therefore can omit any arguments as long as they are not grammatically required and can be recovered by context. In order to examine the characteristics of the embedded clause of (5), I will first discuss the Korean small clause construction. The small clause is an environment where there is no local T head and nominative case cannot be assigned to the notional embedded subject, as in (6).

- (6) [Canonical Small Clause Construction]
 a. *Jim-i [apeci-lul/*-ka witayha-key] sayngkakha-n-ta*
 Jim-NOM father-ACC/-NOM great-KEY think-PRES-DC
 “Jim considers his father great.”
 b. *Jim-i [emeni-lul/*-ka hwullyungha-key] sayngkakha-n-ta*
 Jim-NOM mother-ACC/-NOM magnificent-KEY think-PRES-DC
 “Jim considers his mother magnificent.”

Comparing (5) with the case of small clause (6), we can conclude that the eventive resultative phrases do not form a small clause. It looks to form a full TP clause. Thus, the NP₁ (*Yenghi*) of (5) is likely to be associated with the embedded spec TP position, which indicates that, at this stage, we can assume three potential structures for (2a): raising, control and ECM structures.

- (7) [Three Potential Structures for (5)]
 a. [Raising Construction]
 Subj-NOM NP_{1i}-ACC [_{TP} t_i V_{DYNAMIC}-key] V

- b. [Control Construction]
 Subj-NOM NP₁-ACC [_{TP} PRO_i V_{DYNAMIC-key}] V
- c. [ECM Construction]
 Subj-NOM [_{TP} NP₁-ACC V_{DYNAMIC-key}] V

(7a) represents the raising construction. The NP₁-ACC is originally realised inside the embedded clause. (7b) represents the control structure, where the NP₁ is originally realised in the matrix object position, which controls the PRO. (7c) represents the case of the ECM. The NP₁ remains in the embedded spec TP position, and the accusative case of NP₁ is assigned as ECM.

Second, a scrambling test is applied to the example sentence (5). Look at the example sentence (8). In (8), the embedded clauses are scrambled to the post-subject position.

- (8) [Scrambling Embedded Clause in (5)]
- a. *Jim-i* [_{TP} *nemeci-key*]_i ***Yenghi-lul/*-ka*** *t_i* *himkkes* *mil-ess-ta*
 Jim-NOM fall-KEY Yenghi-ACC/-NOM with.power push-PST-DC
 “Jim pushed Yenghi with power so that he fell.”
- b. *Jim-i* [_{TP} *kkayci-key*]_i ***pyeng-ul/*-i*** *t_i* *himkkes* *tenci-ess-ta*
 Jim-NOM break-KEY bottle-ACC/-NOM with.power throw-PST-DC
 “Jim threw the bottle with force so that it broke.”

In (8), the embedded predicates *nemeci* ‘fall’ and *kkayci* ‘break’ are both dynamic, which are scrambled to the post-subject position. The fact in (8) suggests that the object ‘Yenghi-ACC’ of (5) should stay outside the embedded clause at least on the surface, and therefore eliminates the possibility of the ECM construction (6c). Furthermore, when the NP₁ is marked with the nominative case, the sentences are ungrammatical; the NP₁-NOM indeed stays inside the embedded clause even on surface. The scrambling operation with three potential syntactic structures (7a-c) is illustrated in (9).

- (9) [Scrambling NP₁-ACC in Eventive Resultative]
- a. [Raising Construction (= (7a))]
- Jim-i* [_{TP} *t_i nemeci-key*]_j ***Yenghi_i-lul*** *t_j* *himkkes* *mil-ess-ta*
 Jim-NOM fall-KEY Yenghi-ACC with.power push-PST-DC
 “Jim pushed Yenghi with power so that he fell.”
-

b. [Control Construction (=7b)]

		↓				
<i>Jim-i</i>	<i>[PRO_i nemeci-key]_j</i>		<i>Yenghi_i-ul</i>	<i>t_j</i>	<i>himkkes</i>	<i>mil-ess-ta</i>
Jim-NOM	fall-KEY		Yenghi-ACC		with.power	push-PST-DC
“Jim pushed Yenghi with power so that he fell.”						

c. [ECM Construction (=7c)]

		↓				
<i>Jim-i</i>	<i>nemeci_i-key</i>		<i>[_{TP} Yenghi-ka</i>	<i>t_i</i>	<i>himkkes</i>	<i>mil-ess-ta</i>
Jim-NOM	fall-KEY		Yenghi-NOM		with.power	push-PST-DC
“Jim pushed Yenghi with power so that he fell.”						

As can be seen in (9a,b) the raising and control structures can predict that the scrambling the embedded clause to the post-subject position is possible. And, as in (9c) the ECM structure cannot predict the case of scrambling the embedded predicate to the post-subject position. Thus, so far we can assume that the eventive resultative does not take the ECM structure (7c) but the raising or control structure.

Third, I will add the nominative-marked notional subject of the resultative predicate to the canonical eventive resultative sentences.

(10) [Insertion of Additional Nominative-marked NP (NP₂-NOM)]

a. *Jim-i* *Yenghi-lul* *[mom-i* *nemeci-key]* *himkkes*
 Jim-NOM Yenghi-ACC body-NOM fall-KEY with.power
mil-ess-ta
 push-PST-DC
 “Jim pushed Yenghi with power so that her body fell.”

b. *Jim-i* *pyeng-ul* *[patak-i* *kkayci-key]* *himkkes*
 Jim-NOM bottle-ACC bottom-NOM break-KEY with.power
tenci-ess-ta
 throw-PST-DC
 “Jim threw the bottle with force so that its bottom broke.”

(10a,b) are both fully grammatical. Moreover, the NP₁ ‘Yenghi/bottle’ can be expressed inside the embedded clause with nominative case.

- (11) [Insertion of Additional Nominative-marked NP (NP₂-NOM)]
- a. *Jim-i* [*Yenghi-ka* *mom-i* *nemeci-key*] *himkkes*
 Jim-NOM Yenghi-NOM body-NOM fall-KEY with.power
mil-ess-ta
 push-PST-DC
 “Jim pushed Yenghi with power so that her body fell.”
- b. *Jim-i* [*pyeng-i* *patak-i* *kkayci-key*] *himkkes*
 Jim-NOM bottle-NOM bottom-NOM break-KEY with.power
tenci-ess-ta
 throw-PST-DC
 “Jim threw the bottle with force so that its bottom/neck would break.”

(11a,b) are both grammatical, where both NP₁ and NP₂ are overtly expressed inside the embedded clause; that is the NP₁ is base-generated in the embedded spec TP position as in (12).

- (12) [Base Position of NP₁ for Eventive Resultative]
 Subj-NOM [TP NP₁ NP₂-NOM V_{DYNAMIC-key}] V

I can therefore conclude that the eventive resultative does not take the control structure but the raising structure, because the control structure cannot host the NP₁ inside its clause but the raising structure can. The provisional syntactic structure of eventive resultative is illustrated in (11).

- (13) [Provisional Syntactic Structure of Eventive Resultative]
 Subj-NOM NP_{1i}-ACC [TP t_i (NP₂-NOM) V_{DYNAMIC-key}] V

Fourth, Shim and den Dikken (2007) showed a sentence with an additional NP-ACC to the canonical eventive resultative sentence. The additional NP-ACC corresponds to the NP₃-ACC of (4).

- (14) [Occurrence of NP₃-ACC from Shim & den Dikken (2007)]
 ?*Kay-ka* *koyangi-lul* [*cwi-lul* *nohchi-key*] *mwul-ess-ta*
 dog-NOM cat-ACC mouse-ACC miss-KEY bite-PAST-DC
 Lit. “The dog bit the cat (so that it) missed the mouse.”

(14) is grammatical, where there are two accusative-marked NPs. The first NP *koyangi-lul* ‘cat-ACC’ corresponds to the NP₁-ACC of (4), whereas the second NP *cwi-lul* ‘mouse-ACC’ corresponds to the NP₃-ACC of (4). The accusative case of the NP₁ is assigned by the main verb *mwul* ‘bite’, while the accusative case of the NP₂ is assigned by the embedded predicate *nohchi*

‘miss’. Thus it seems that the embedded resultative clause indeed forms a full TP clause which can host its nominative subject as in (9) and its accusative object as in (14). I can therefore confirm that the syntactic structure of the eventive resultative is indeed (4). (4) is repeated in (15).

- (15) [Syntactic Structure of Eventive Resultative (=4)]
 Subj-NOM (NP_{1i}-ACC) [_{TP} t_i (NP₂-NOM) (NP₃-ACC) V_{DYNAMIC-key}] V

Fifth, I here show the subject-oriented honorification test to confirm the syntactic structure of the eventive resultative as (4)/(14). It is well known in Korean that the subject-oriented honorification on the small clause predicate cannot target its notional subject. Look at (16).

- (16) [Small Clause Construction with subject-honorification]
 a. *Jim-i apeci-lul witayha-(*si)-key sayngkakha-n-ta*
 Jim-NOM father-ACC great-SUBJ.HON-KEY think-PRES-DC
 “Jim considers his father great.” (honorification fails to target ‘father’.)
 b. *Jim-i emeni-lul hwullyungha-(*si)-key sayngkakha-n-ta*
 Jim-NOM mother-ACC magnificent-SUBJ.HON-KEY think-PRES-DC
 “Jim considers his mother magnificent.” (honorification fails to target ‘mother’.)

On the other hand, when the embedded subject is overtly expressed in a CP clause like (17a), or there is a copy/trace of the matrix argument in the embedded TP clause like (17b), the subject-oriented honorification on the embedded predicate can and does target its notional subject.

- (17) [CP Complement Structure with Subject-honorification]
 a. *Jim-i [_{CP} apeci-ka witayha-si-ta-ko] sayngkakha-n-ta*
 Jim-NOM father-NOM great-SUBJ.HON-DC-COMP think-PRES-DC
 “Jim thinks that his father is great.” (honorification successfully targets ‘father’.)
 b. [Control Structure]
Jim-i apeci_i-lul [PRO_i ttena-si-key] seltukha-ess-ta
 Jim-NOM father-ACC leave-SUBJ.HON-KEY persuade-PST-DC
 “Jim persuaded his father to leave.” (honorification successfully targets ‘father’.)

Unlike the case of the small clause construction, the subject-oriented honorification on the eventive resultative predicate can and does target the nominative subject (NP₂-NOM) as well as the accusative object (NP₁-ACC). (18) is grammatical with both nominative and accusative case markers on *sensayng* ‘teacher’ and *apeci(-uy) pyeng* ‘father’s bottle’. The fact suggests that the embedded clause is indeed not a small clause and unlike the stative resultative there is a trace in the embedded clause, which successfully passes the honorification to the matrix argument.

- (18) [Honorification Test with Eventive Resultative]
Jim-i sensayng-nim-kkeyse/-ul nemeci-si-key himkkes
 Jim-NOM teacher-HON-NOM/-ACC fall-SUBJ.HON-KEY with.power
mil-ess-ta
 message-PST-DC
 “Jim pushed the teacher with power so that he fell.”

Sixth, *-tolok* ‘-TOLOK’ replacement test is described here. The morpheme *-tolok* is an adverbial marker, and the clause with *-tolok* is always an adjunct. As shown in (19), the morpheme *-key* of the eventive resultative can always be replaced with *-tolok*, which implies that the embedded clause of the eventive resultative is not complement. The reason is because small clauses, which are always expressed with *-key*, cannot take *-tolok* instead of *-key* as in (20).

- (19) [*-tolok* ‘-TOLOK’ Replacement with Eventive Resultative]
- a. *Jim-i Yenghi-lul nemeci-tolok himkkes mil-ess-ta*
 Jim-NOM Yenghi-ACC fall-TOLOK with.power message-PST-DC
 “Jim pushed Yenghi with power so that he fell.”
- b. *Jim-i pyeng-ul kkayci-tolok himkkes tenci-ess-ta*
 Jim-NOM bottle-ACC break-TOLOK with.power throw-PST-DC
 “Jim threw the bottle with force so that it broke.”
- (20) [Small Clause Construction with *-tolok*]
- a. **Jim-i apeci-lul witayha-tolok sayngkakha-n-ta*
 Jim-NOM father-ACC great-TOLOK think-PRES-DC
 Int. “Jim considers his father great.”
- b. **Jim-i emeni-lul hwullyungha-tolok sayngkakha-n-ta*
 Jim-NOM mother-ACC magnificent-TOLOK think-PRES-DC
 Int. “Jim considers his mother magnificent.”

Finally, I show that two eventive resultative phrases can co-occur in sentence, which is another piece of evidence that the eventive resultative phrases are adjuncts.

- (21) [Two Eventive Resultative Phrases]⁶⁹
OK?? *Jim-i Yenghi_i-lul [t_i nemeci-key] [pro_i tachi-key]*
 Jim-NOM Yenghi-ACC fall-KEY injured-KEY
himkkes mil-ess-ta
 with.power push-PST-DC
 “Jim pushed Yenghi with power so that she fell and got injured.”

(21) shows that the accusative object is raised from the first resultative clause, leaving its trace in the first resultative clause; the notional subject of the first resultative clause is *Yenghi*. The notional subject of the second resultative clause is also *Yenghi*, which is a null subject *pro*; the meaning/referent of the *pro* is recovered from the context.

For all these reasons, I conclude that Korean eventive resultatives are TP adjuncts and indeed take the raising structure of (4)/(14), where NP₁ is base-generated inside the resultative TP clause, and all the arguments such as NP₁, NP₂ and NP₃, are optional. And when NP₂ and NP₃ are not overtly expressed, they can be associated with the matrix subject or object (NP₁) in the pragmatic domain.

2.2.2 Stative Resultative

In this section I will illustrate several tests to investigate the properties of the stative resultative; (a) case marking of the non-subject argument; (b) the occurrence of additional NP₂-NOM; (c) scrambling; (d) honorification test; (e) *-tolok* ‘-TOLOK (adverbial clause marker)’ replacement test; (f) more than two resultative clauses. In the process of explaining the evidence (a-f), I will also claim that the aspectual marker *-ci* ‘-INCHOATIVE’ does not change the stative resultative to the eventive resultative, as opposed to Son’s (2008) claim. Canonical stative resultatives (3a,b) are repeated in (22a,b).

- (22) [Canonical Stative Resultative (= (3))]
- a. *Jim-i sikthak-ul kkaykkusha-key takk-ass-ta*
 Jim-NOM table-ACC be.clean-KEY wipe-PST-DC
 “Jim wiped the table clean.”
- b. *Jim-i apeci-lul siwuenha-key anmaha-ess-ta*
 Jim-NOM father-ACC be.fresh-KEY message-PST-DC
 “Jim massaged his father fresh.”

⁶⁹ I received different judgements from two consultants, regarding (21).

First, the case marking of the non-subject argument (*sikthak* ‘table’ and *apeci* ‘father’ of (22a,b)) is observed. As can be seen in (22a,b), in the stative resultative, NP₁ is normally marked with the accusative marker. However, it seems that it is marginally possible to mark it with the nominative case. Remember that, as in (5), in the eventive resultative, changing the accusative marker to the nominative one is perfectly grammatical, unlike the case of this stative resultative. The examples are given in (23).

- (23) [Stative Resultative with NP-NOM]
- a. ??*Jim-i* [*sikthak-i* *kkaykkusha-key*] *takk-ass-ta*
 Jim-NOM table-NOM clean-KEY wipe-PST-DC
 “Jim wiped the table clean.”
- b. ??*Jim-i* [*apeci-ka* *siwuenha-key*] *anmaha-ess-ta*
 Jim-NOM father-NOM be.fresh-KEY message-PST-DC
 “Jim massaged his father fresh.”

Importantly, there is no consensus in the acceptability of the NP₁-NOM type like (23a,b). Son (2008) judged them as ungrammatical, whereas Shim and den Dikken (2007) judged them as grammatical. However, I think there is a reason for these split judgements. Those who regard (23a,b) as ungrammatical have a feeling that the object (of the main verb) is missing, whilst those who judge the sentence as grammatical interpret the NP-NOM (table-NOM/father-NOM) as NP₂-NOM of (24b) and reconstruct a missing object (NP₁-ACC) in the pragmatic domain. The reconstruction is possible because the NP₁ and NP₂ are always in a whole-part relation, which I will explain later. My consultant judged (23a,b) “not fully ungrammatical, but not good”. The schematic structures for (23a,b) are described in (24); (24a) represents the structure for those who judge (23a,b) as ungrammatical, and (24b) represents the structure for those who judge (23a,b) as grammatical. What is significant here is that two completely opposite judgements on (23a,b) can be derived from the same syntactic structure; this test on its own cannot be the deciding factor of the size of the resultative clause, though Son (2008) insists that the unavailability of NP-NOM in the stative resultative like (23a,b) is a piece of evidence that the stative resultative clause is smaller than TP, forming a small clause. Bear in mind that languages such as Korean, Japanese among many others can easily drop not only object but also other arguments including subject unless it is required. The reason that the missing object must be reconstructed at least in the pragmatic domain is because of the type of the main verb. In the stative resultatives, the main verb has to be of a certain type, which gives a high degree of patienthood to the object.

- (24) [Expected Structures for Stative Resultative with NP-NOM]
- a. <for those who regard (23a,b) as ungrammatical>
- | | | | | |
|----------|------------------|------------------------|----------------------------|-------------------------|
| Subj-NOM | ϕ | [NP _? -NOM | V _{STATIVE-key}] | V _{TRANSITIVE} |
| | ↑ | | | |
| | (missing) | | | |
- b. <for those who regarded (4a,b) as grammatical>
- | | | | | |
|----------|------------------------|------------------------|----------------------------|-------------------------|
| Subj-NOM | NP ₁ -ACC | [NP ₂ -NOM | V _{STATIVE-key}] | V _{TRANSITIVE} |
| | ↑ | | | |
| | (reconstructed) | | | |

In (24a) the missing accusative-marked object needs to be reconstructed because the main verb grammatically requires it, but in fact not successfully reconstructed; the sentence is regarded as ungrammatical. In (24b) the NP₁-ACC is reconstructed in the pragmatic domain, which has whole-part relation with the overtly expressed NP₂-NOM; the structure satisfies the grammatical requirement of the verb. If this assumption is correct, then there should be a case where both NP₁-ACC and NP₂-NOM are overtly realised in a sentence, which will be investigated next.

Second, in (25b) the nominative-marked notional subject of the secondary predicate is added to (22a). The additional nominative-marked argument is expressed with NP₂. The canonical stative resultative sentence of (2a) is repeated in (25a).

- (25) a. [Canonical Stative Resultative (= (22a))]
- | | | | |
|--------------|-------------------|-----------------------|--------------------|
| <i>Jim-i</i> | <i>sikthak-ul</i> | <i>kkaykkusha-key</i> | <i>takk-ass-ta</i> |
| Jim-NOM | table-ACC | clean-KEY | wipe-PST-DC |
- “Jim wiped the table clean.”
- b. [Canonical Stative Resultative with Additional Nominative-marked NP]
- | | | | | |
|--------------|-------------------|---------------------------|-----------------------|--------------------|
| <i>Jim-i</i> | <i>sikthak-ul</i> | [<i>phyomyen-i</i> | <i>kkaykkusha-key</i> | <i>takk-ass-ta</i> |
| Jim-NOM | table-ACC | surface-NOM | clean-KEY | wipe-PST-DC |
- “Jim wiped the table’s surface clean.”
- c. [NP₁ and NP₂, NOT in Whole-part Relation]
- | | | | | |
|----------------|--------------------------|---------------------|------------------|----------------------|
| * <i>Jim-i</i> | <i>phyomyen-i</i> | <i>[sikthak-ul]</i> | <i>hayah-key</i> | <i>chilha-ess-ta</i> |
| Jim-NOM | surface-NOM | table-ACC | white-KEY | paint-PST-DC |
- Int. “Jim painted the surface, so that the table became white.”

(25b) is grammatical, but not (25c). This is because in (25b) the NP₁ *sikthak* ‘table’ and NP₂ *phyomeyn* ‘surface’ are in the whole-part relation, but in (25c) they are not. The grammaticality of (25b) suggests that it is possible to host a nominative-marked argument overtly as a notional subject of the resultative predicate. However, it is yet to early to conclude that the resultative

clause is TP, whose local T head assigns the nominative case to the additional NP ‘surface’ in (25b), because there is another possibility to assign the nominative case to the additional NP. In Korean, there is a double nominative construction. One of the widely accepted analyses of the Korean double nominative construction is that the second nominative case is inherent case assigned by the predicate itself, not by T, while the first nominative case is assigned by T in a normal spec-head configuration (Yoon 1996, Moon 2000). Thus Son (2008) claims that the embedded clause may not be a full TP clause but rather a small clause, for the NP₁ (*sikthak* ‘table’) of (25b) originally forms a double nominative construction with the NP₂ (*phyomeyn* ‘surface’) inside the embedded position as in (26a), and raised to the matrix object position to receive the accusative case as in (26b) since the small clause cannot assign the nominative case to the NP₁ (*sikthak* ‘table’); the first nominative case has to be assigned by the T head which a small clause does not have.

(26) [Son’s (2008) Analysis]

a. [Double Nominative NPs inside Embedded Clause]

<i>Jim-i</i>	<i>[_{sc} sikthak</i>	<i>phyomyen-i</i>	<i>kkaykkusha-key]</i>	<i>takk-ass-ta</i>
Jim-NOM	table	surface-NOM	clean-KEY	wipe-PST-DC

(No case can be assigned to *sikthak* ‘table’ from the small clause)

b. [NP₁ Raised from Embedded Clause]

<i>Jim-i</i>	<i>sikthak_i-ul</i>	<i>[_{sc} t_i phyomyen-i</i>	<i>kkaykkusha-key]</i>	<i>takk-ass-ta</i>
Jim-NOM	table-ACC	surface-NOM	clean-KEY	wipe-PST-DC

“Jim wiped the table’s surface clean.”
(*sikthak* ‘table’ moved to the case position)

However this analysis seems to have a few problems. First, as the small clause does not have the T head and can never assign nominative case to the NP₁ (*sikthak* ‘table’), the NP₁ and NP₂ is not likely to form a “double nominative” construction. Second, even if the structure in (26a) could be called the base of a proper double nominative construction, there would still remain a problem. The example (27a’,b’) shows it is impossible to have “NP₁-ACC NP₂-NOM” sequence in the small clause construction, unlike the case of the stative resultative. (27a,b) show the canonical small clause construction, where nominative case cannot be assigned inside the embedded clause.

(27) [Canonical Small Clause Construction]

a. *Jim-i* *[_{sc} apeci-lul/*-ka* *witayha-key]* *sayngkakha-n-ta*
 Jim-NOM father-ACC/-NOM great-KEY think-PRES-DC
 “Jim considers his father great.”

b. *Jim-i* *[_{sc} emeni-lul/*-ka* *hwullyungha-key]* *sayngkakha-n-ta*
 Jim-NOM mother-ACC/-NOM magnificent-KEY think-PRES-DC
 “Jim considers his mother magnificent.”

[Canonical Small Clause Construction with Additional NP-NOM]

a'. **Jim-i apeci-lul* [_{SC} *melikhalak-i/epcek-i* *witayha-key*]
 Jim-NOM father-ACC hair-NOM /achievement-NOM great-KEY
sayngkakha-n-ta
 think-PRES-DC

Int. "Jim considers his father's hair/achievements great."

b'. **Jim-i emeni-lul* [_{SC} *sonthop-i/nolyek-i* *hwullyungha-key*]
 Jim-NOM mother-ACC nail-NOM /endeavour-NOM magnificent-KEY
sayngkakha-n-ta
 think-PRES-DC

"Jim considers his mother's nails/endeavour magnificent."

(27a',b') contain the additional NP-NOM much like the stative resultative case of (25b) on the surface. This NP-NOM and the NP-ACC are in the part-whole relation. However, as opposed to what Son's (2008) proposal predicts, these sentences are fully ungrammatical. This suggests that the embedded clause of the stative resultative (25b) is not a small clause. Third, (28) is marginally grammatical; that is, (28) is not as ungrammatical as (27a,b) with nominative case, while (27a,b) with nominative case are worse than (28). In (28) the accusative object is missing like the case of (23a,b). For those who can reconstruct the missing object in the pragmatic domain, (28) can be judged as grammatical (as (23a,b)).

(28) [Double Nominative inside Embedded Clause]

??*Jim-i [sikthak-i phyomyen-i kkaykkusha-key] takk-ass-ta*
 Jim-NOM table-NOM surface-NOM clean-KEY wipe-PST-DC

"Jim wiped the table's surface clean."

Further evidence that the embedded clause in (25b) is not a small clause can be observed with the (un)availability of *-ci* 'INCHOATIVE'. Small clause predicates cannot have the aspectual marker *-ci* 'INCH' as in (29), but the stative resultatives can, as in (30).

(29) [Canonical Small Clause Construction]

a. *Jim-i apeci-lul witayhay*(-ci)-key sayngkakha-n-ta*
 Jim-NOM father-ACC great-INCH-KEY think-PRES-DC

Int. "Jim considers his father great."

b. *Jim-i emeni-lul hwullyunghay*(-ci)-key sayngkakha-n-ta*
 Jim-NOM mother-ACC magnificent-INCH-KEY think-PRES-DC

Int. "Jim considers his mother magnificent."

- (30) [Stative Resultative with NP₁-NOM]
- a. *Jim-i sikthak-ul^{??}-i kkaykkushay-ci-key takk-ass-ta*
 Jim-NOM table-ACC/-NOM clean-INCH-KEY wipe-PST-DC
 “Jim wiped the table clean.”
- b. *Jim-i apeci-lul^{??}-ka siwuenhay-ci-key anmaha-ess-ta*
 Jim-NOM father-ACC/-NOM fresh-INCH-KEY massage-PST-DC
 “Jim massaged his father, as a result he (father) felt refreshed.”

As explained in the Mongolian chapter (cf. p170), the existence of aspect in a clause is the evidence that the clause has T (cf. Guéron and Hoekstra (1995)). Shim and den Dikken (2007) applied Guéron and Hoekstra’s proposal to the analysis of Korean “resultatives” and stated that the availability of *-ci* in (30a) suggests the existence of TP associated with the *-key* resultative predicate in Korean. The grammatical acceptability of the nominative case in (30a,b) is clearly worse than that of the accusative case, and it shows the same extent of unacceptability as (23)/(28). This is against Son’s (2008) prediction. If adding *-ci* ‘INCH’ changes the stative resultative to the eventive resultative, then as we observed in (5), (30a,b) with nominative case should be judged as perfectly grammatical. Thus *-ci* ‘INCH’ does not affect the status of resultatives at all.

As Son (2008) stated, *-tolok* is an adverbial adjunct marker. Small clauses cannot take *-tolok* ‘TOLOK (purposes/in order to)’ instead of *-key* ‘KEY’. This is shown in (31).

- (31) [Small Clause Construction with *-tolok*]
- a. **Jim-i apeci-lul witayha-tolok sayngkakha-n-ta*
 Jim-NOM father-ACC great-TOLOK think-PRES-DC
 Int. “Jim considers his father great.”
- b. **Jim-i emeni-lul hwullyungha-tolok sayngkakha-n-ta*
 Jim-NOM mother-ACC magnificent-TOLOK think-PRES-DC
 Int. “Jim considers his mother magnificent.”

Son (2008) argued that *-tolok* cannot replace *-key* in the stative resultative, but according to my consultants the stative resultative can have *-tolok* instead of *-key*, which suggests that the stative resultative does not form a small clause, and forms an adjunct clause. This is shown in (32).

- (32) [*-tolok* Replacement with Stative Resultative]
- a. *Jim-i sikthak-ul kkaykkusha-tolok takk-ass-ta*
 Jim-NOM table-ACC clean-KEY wipe-PST-DC
 “Jim wiped the table clean.”

- b. *Jim-i apeci-lul siwuenha-tolok anmaha-ess-ta*
 Jim-NOM father-ACC fresh-TOLOK message-PST-DC
 “Jim massaged his father fresh.”

Moreover, according to Son’s (2008) argument, *-tolok* and *-key* have different clausal structures; the former as TP and adjunct, and the latter as small clause and complement. However, changing the *-key* to *-tolok* in the sentences of (23) and (28), which are not so grammatical but not fully ungrammatical, does not raise or decrease the grammatical acceptability at all, like the case of additional *-ci* in (30). As already explained in 2.2.1, an eventive resultative sentence such as (5) allows NP-NOM instead of NP-ACC. Thus, the syntactic property of *-key* resultative phrase is likely to be the same as that of the *-tolok* purpose phrase. Look at (33).

(33) [No Change in Grammatical Acceptability between *-key* and *-tolok*]

[Stative Resultative with NP₁-NOM]

- a. ^{??}*Jim-i [sikthak-i kkaykkusha-tolok/-key] takk-ass-ta*
 Jim-NOM table-NOM clean-TOLOK wipe-PST-DC
 Int. “Jim wiped the table clean.”
- b. ^{??}*Jim-i apeci-ka siwuenha-tolok/-key anmaha-ess-ta*
 Jim-NOM father-NOM fresh-TOLOK message-PST-DC
 Int. “Jim massaged his father fresh.”
 [-*tolok* with Stative NP₁-NOM Resultative]
- c. ^{??}*Jim-i sikthak-i kkaykkusha-tolok/-key takk-ass-ta*
 Jim-NOM table-NOM clean-TOLOK wipe-PST-DC
 Int. “Jim wiped the table clean.”
- d. ^{??}*Jim-i apeci-ka siwuenha-tolok/-key anmaha-ess-ta*
 Jim-NOM father-NOM fresh-TOLOK message-PST-DC
 Int. “Jim massaged his father fresh.”

For all these reasons, I claim that the embedded clause of (25b) is not a small clause but a full TP clause.

Third, the scrambling test is applied to the sentence which represents the stative resultative with additional NP₂-NOM such as (25b). The embedded resultative clause is scrambled to the post-subject position. This is shown in (34b). (25b) is repeated in (34a).

(34) a. [(= (25b)) Canonical Stative Resultative with Additional Nominative-marked NP]

- Jim-i sikthak-ul [phyomyen-i kkaykkusha-key] takk-ass-ta*
 Jim-NOM table-ACC surface-NOM clean-KEY wipe-PST-DC
 “Jim wiped the table’s surface clean.”

b. [Scrambling Resultative Clause in (25b)]

Jim-i [*phyomeyn-i* *kkaykkusha-key*]_i *sikthak-ul* *t_i* *takk-ass-ta*
 Jim-NOM surface-NOM clean-KEY table-ACC wipe-PST-DC
 “Jim wiped the table’s surface clean.”

The sentence (34b) is grammatical, which indicates that the position of the NP₁-ACC (*sikthak-ul* ‘table-ACC’), is outside the embedded clause. This in turn implies that the stative resultative construction does not have the ECM structure like (35), because the ECM structure cannot allow the scrambling as in (36): (36) is fully grammatical. In (35), the NP₁-ACC stays inside the embedded TP clause even on the surface; the accusative case is assigned as Exceptional Case Marking.

(35) [ECM Structure]

Subj-NOM [TP NP₁-ACC NP₂-NOM V_{STATIVE-key}] V

(36) [Scrambling Embedded Predicate in Stative Resultative in (35) is Impossible]

Jim-i *kkaykkusha_i-key* [*sikthak-ul* *t_i*] *takk-ass-ta*
 Jim-NOM clean-KEY table-ACC wipe-PST-DC
 “Jim wiped the table’s surface clean.”

Hence, the ECM structure (35) does not express the structure of Korean stative resultative. Furthermore, the structure (35) does not explain the phenomenon (37), which represents one of the sub-types of Korean double accusative constructions. I am not entirely sure whether (37) can be derived from (35), because the accusative case is assigned in the embedded clause and so nothing seems to extract the two nouns to the matrix position.

(37) [Double Accusative with Stative Resultative]

Jim-i *sikthak-ul* *phyomyen-ul* [*kkaykkusha-key*] *takk-ass-ta*
 Jim-NOM table-ACC surface-ACC clean-KEY wipe-PST-DC
 “Jim wiped the table’s surface clean.”

Fourth, the subject-oriented honorification test is applied to the stative and eventive resultatives. In (16) of section 2.2.1, I showed that the subject-honorification on the small clause predicate cannot target its notional subject. On the other hand, when the embedded subject is overtly expressed in a CP clause like (17a), or there is a copy/trace of the matrix argument in the embedded TP clause like (17b), the subject-oriented honorification on the embedded predicate can and does target its notional subject. (16) and (17) are repeated in (38) and (39).

- (38) [Small Clause Construction with subject-honorification]
- a. *Jim-i apeci-lul witayha-(*si)-key sayngkakha-n-ta*
 Jim-NOM father-ACC great-SUBJ.HON-KEY think-PRES-DC
 “Jim considers his father great.” (honorification fails to target ‘father’.)
- b. *Jim-i emeni-lul hwullyungha-(*si)-key sayngkakha-n-ta*
 Jim-NOM mother-ACC magnificent-SUBJ.HON-KEY think-PRES-DC
 “Jim considers his mother magnificent.” (honorification fails to target ‘father’.)
- (39) [CP Complement Structure with Subject-honorification]
- a. *Jim-i [_{CP} apeci-ka witayha-si-ta-ko] sayngkakha-n-ta*
 Jim-NOM father-NOM great-SUBJ.HON-DC-COMP think-PRES-DC
 “Jim thinks that his father is great.” (honorification successfully targets ‘father’.)
- b. [Control Structure]
Jim-i apeci_i-lul [PRO_i ttena-si-key] seltukha-ess-ta
 Jim-NOM father-ACC leave-SUBJ.HON-KEY persuade-PST-DC
 “Jim persuaded his father to leave.” (honorification successfully targets ‘father’.)

Now consider the case of honorification test with the stative resultative in (40). As Son (2008) explains, the subject-oriented honorification cannot target the NP₁-ACC, unlike the case of the eventive resultative (18).

- (40) [Honorification Test with Stative Resultative]
- a. *Jim-i apeci(-uy) melikhalak-lul kkaykkusha-(*si)-key takk-ass-ta*
 Jim-NOM father-GEN hair-ACC clean-SUBJ.HON-KEY wash-PST-DC
 “Jim washed his father’s hair clean.”
- b. *Jim-i emeni(-uy) sonthop-ul kkaykkusha-(*si)-key*
 Jim-NOM mother-GEN nail-ACC clean-SUBJ.HON-KEY
tatum-e-tuli-ess-ta
 polish-LINK-give-PAST-DC
 “Jim polished his mother’s nails clean.”

The unavailability of subject-oriented honorification in (40a,b) indicates that there is no copy/trace of the matrix argument in the embedded clause. Therefore, the structure of the stative resultative is not control/raising, or there is something with the be.STATE predicate that plays the role of barrier.

Next I will discuss the stative resultative with the aspectual marker *-ci* ‘INCHOTATIVE’. Although Son (2008) argued that the stative resultative changes into the eventive resultative by

adding *-ci* ‘INCHOATIVE’, I suggest that adding *-ci* does not change the status of resultative predicate. First, as already mentioned in (30), if *-ci* ‘INCH’ could turn the stative resultative to the eventive resultative, then (30a,b) of NP-NOM would be grammatical, as the eventive resultative allows the “Subj NP-NOM V_{DYNAMIC-KEY} V” structure as in (5). However, in fact, “Subj NP-NOM V_{STATE-ci-KEY} V” is not allowed (cf. (29) & (30)).

(41) shows that the stative resultative with *-ci* cannot accept the honorification marker on the embedded predicate. This feature is exactly the same as that of the canonical stative resultative (38). That is, adding *-ci* does not change the status of the resultative construction; in 2.2.1, I showed that eventive resultatives can accept the subject-oriented honorification marker on the embedded predicate to target matrix arguments.

(41) [Honorification Test with Stative Resultative]

- a. *Jim-i apeci(-uy) melikhalak-lul [kkaykkushay-ci>(*si)-key]*
 Jim-NOM father-GEN hair-ACC clean-SUBJ.HON-INCH-KEY
takk-ass-ta
 wash-PST-DC
 “Jim washed his father’s hair so that it became clean.”

- b. *Jim-i emeni(-uy) sonthop-ul [kkaykkushay-ci(*si)-key]*
 Jim-NOM mother-GEN nail-ACC clean-SUBJ.HON-KEY
tatum-e-tuli-ess-ta
 polish-LINK-give-PAST-DC
 “Jim polished his mother’s nails so that they became clean.”

Taking all the evidence shown above into consideration, I suggest a provisional syntactic structure for the Korean stative resultative construction as in (42).

(42) [Null-subject Structure (Provisional)]

Subj-NOM (NP_{1i}-ACC) [_{TP} *pro*_i (NP₂-NOM) V_{STATIVE-key}] V

In Korean, which is a *pro*-drop language, it is possible to drop the subject/object of a matrix/subordinate clause; context provides the referent. In respect to the non-existing argument, Sells (1996) argued that in Japanese there are two cases for the empty subject position of an embedded clause; first, the argument is *pro*; second, there is nothing (and the embedded clause is VP but not TP). According to Sells (1996), in Japanese, the embedded *pro* always seems to be able to be replaced with *zibun-ga* ‘self-NOM’, whereas when there is nothing in the embedded subject position, the position cannot be filled with *zibun-ga* ‘self-NOM’. That is, in Japanese there are two empty subject positions; one can be filled with *zibun-ga* ‘self-NOM’, and the other cannot. In other words, there exists *pro*, when the case marking is possible in the empty subject position (as *zibun* ‘self’ must be case-marked when it is filled in the empty position). As shown in (28),

the position indicated with *pro* in (42) can be filled overtly. Thus I assume that there is *pro*, rather than absolute nothing.

The structure in (42) accounts for other facts of Korean stative resultative. The case of two resultative TP clauses is described in (43) and (44). In (43), each resultative predicate does not overtly have its own notional subject (at least the second resultative predicate does not have any). In (44), each resultative TP clause has its own notional subject.

- (43) [Two *-key* Phrases (Shim & den Dikken (2007))]
Jim-i patak-ul (phyomyen-i) hayah-key panccaki-key chilha-ess-ta
 Jim-NOM floor-ACC surface-NOM white-KEY shiny-KEY paint-PST-DC
 “Jim painted the floor so that its surface became white (and) shiny.”

- (44) [Two TP Clauses]
 ?*Jim-i chelphan-ul [moyang-i napcakha-key]*
 Jim-NOM iron.plate-ACC shape-NOMflat-KEY
 [*phyomyen-i phanphanha-key*] *twutulki-ess-ta*
 surface-NOM smooth-KEY hammer-PST-DC
 Int. “Jim hammered the iron plate as a result the shape became flat and the surface became smooth.”

The sentence (43) is grammatical for all the native speakers. The example (44) somehow showed slight split judgements: some judged it as fully grammatical; others preferred to have a pause between the two resultative clauses, which implies that the two *-key* phrases are in a coordinate structure. However, generally both (43) and (44) are accepted, and the difference in the judgements between the two readings of (43) was subtle. Hence I here regard that the Korean resultative *-key* phrases form a TP adjunct.

The structure (42) also accounts for the scrambling operation of (34a,b). This is shown in (46).

- (46) [Scrambling with (42)]
- | | | | | |
|--------------|---|-------------------------------|----------------------|--------------------|
| <i>Jim-i</i> | <i>[pro_i kkaykkusha-key]_j</i> | <i>sikthak_i-ul</i> | <i>t_j</i> | <i>takk-ass-ta</i> |
| Jim-NOM | clean-KEY | table-ACC | | wipe-PST-DC |
- “Jim wiped the table’s surface clean.”

However there is a potential problem with the structure (42), which is the subject honorification issue. (42) is likely to predict that the subject-oriented honorification on ‘V_{STATIVE}-key’ successfully targets ‘NP_I-ACC’, as opposed to the data laid out in (38). In order to determine the full details of the stative resultative construction, further research is needed in the domains of double nominative construction, subject-oriented honorification, clausal structure and position and status of embedded subject.

Finally, I will mention about the syntactic position of the Korean stative resultative, focusing upon the difference from the Mongolian resultative, since both Korean and Mongolian resultatives form a TP adjunct. The do-so replacement test is applied to the Korean stative resultative by Shim and den Dikken (2007), as in (47).

- (47) [Do-so replacement Test in Korean Stative Resultative]
Jim-i meli-lul nolah-key yemsaykha-ko Susana-nun
 Jim-NOM hair-ACC yellow-KEY dye-CONJ Susana-TOP
ppalkah-key kuleh-ess-ta
 red-KEY PROFPRM-PST-DC
 “Jim dyed his hair yellow, Susana did so red.”

Adjuncts, which adjoin to VP, do not need to be replaced with ‘do-so’ (Lakoff and Ross, 1976; Zagana 1988). For example, *John solved a problem in England, but I did so in France* is grammatical, where the locative PP is thought to be adjoined to VP. Remember the Mongolian case ((8) and (9) of chapter 3). In Mongolian, the ‘do-so’ replacement test with the resultative construction is ungrammatical (cf. (8b, 9b) of Ch.3), and thus I concluded that the Mongolian resultative phrase adjoins to a category lower than VP but an adjunct position: V’. In Korean, as in (47), the ‘do-so’ replacement test with the stative resultative construction is successful as Shim and den Dikken (2007) showed. Thus, unlike the case of Mongolian, Korean stative resultative phrase adjoins to VP.

As a summary of this section, I showed new data with the stative resultative, which revealed that the stative resultative clause does not form a small clause but a full TP clause, *-ci* ‘INCH’ does not change the status of the embedded clause, and the stative resultative indeed has a structural difference from the eventive resultative.

3. Korean Depictives

This section investigates Korean depictives. Korean has two types of depictives, *-lo* ‘INSTR’ depictives and *-key* ‘KEY’ depictives. Examples of *-lo* depictives are given in (48).

- (48) a. [Subject-oriented *-lo* Depictive]
Yongsu-ka sayngsen-ul nachey-lo mek-ess-ta
 Yongsu-NOM fish-ACC nude-INSTR eat-PST-DC
 “Yongsu ate the fish naked.”

b. [Object-oriented *-lo* Depictive]

<i>Yongsu-ka</i>	<i>sayngsen-ul</i>	<i>nal-lo</i>	<i>mek-ess-ta</i>
Yongsu-NOM	fish-ACC	raw-INSTR	eat-PST-DC

“Yongsu ate the fish raw.”

In fact, these examples represent true depictives from the syntactic point of view. However, in this thesis, I will focus on a more contentious type, *-key* depictives. There is little literature on Korean *-key* depictives. One of the reasons is because *-key* depictives are not so productive. Korean does not have syntactic ‘adjectives’. Cho and Sells (1995) stated that there are no special adjectival inflections in Korean – in contrast to Japanese – and there are a few undeclinable adjectives (like *onazi* ‘same’ in Japanese). Yeo (2007) stated that “adjectives” have the exactly same morpho-syntactic structure as verbs. Adjectives of other languages correspond to either V_{STATIC} or V_{DYNAMIC} . In Korean, only V_{STATIC} can be a *-key* depictive predicate, with some restrictions from the main verb and context. Another reason that Korean *-key* depictives have not been investigated well seems to be because they are not the genuine ‘depictives’. Much like the case of Korean *-key* resultatives, *-key* depictives in Korean are all TP adjuncts and occupy the same position as the resultatives. It is worth noting the restrictions to *-key* depictives as there has not been much research on them, and also because by comparing the characteristics of depictives with resultatives, we can detect the lexical properties of Korean verbs and the morpheme *-key* ‘KEY’. The former will be the focus of this section, and the latter will be discussed in section 4.

First of all, the canonical *-key* depictive sentences in Korean are shown in (49).

(49) [-*key* Depictives]

- | | | | | | |
|----|------------------------------|------------------|----------------|--------------------|---------------------------|
| a. | <i>Jim-i</i> | <i>umsik-ul</i> | <i>cca-key</i> | <i>mek-ess-ta</i> | |
| | Jim-NOM | food-ACC | salty-KEY | eat-PST-DC | |
| | “Jim ate the food salty.” | | | | (Jang, 2002) |
| | | | | | |
| b. | <i>Jim-i</i> | <i>kephi-lul</i> | <i>cha-key</i> | <i>masi-ess-ta</i> | |
| | Jim-NOM | coffee-ACC | cold-KEY | drink-PST-DC | |
| | “Jim drank the coffee cold.” | | | | (Shim & den Dikken, 2007) |

(49a,b) are both introduced as depictives in the previous literature. I will analyse these sentences as the examples of Korean *-key* depictives, and later insist that these sentences are different from the depictives of English or Japanese. In order to investigate the properties of *-key* depictives, I will examine several tests such as the case marking of the non-subject argument(s), additional nominative-marked NP as a notional subject of the depictive predicate and the syntactic position and size of the depictive phrases.

First, case marking of the matrix object of (49a,b) is observed here. *-key* depictives show the same type/extent of the grammaticality as the Korean stative resultative. As already discussed in (4) and (5) of section 2.2.1, changing the accusative marker of the matrix object to the

nominative marker results in “??”, which means not fully ungrammatical. The reason seems to be the same as the case of the stative resultatives: the judgement depends upon whether or not the native speaker is good at reconstructing the missing matrix object in the pragmatic domain, using the part-whole relation between the NP-NOM and the missing object. Examples are given in (50).

- (49) [Changing Accusative Case to Nominative Case]
- a. ??*Jim-i* ***umsik-i*** *cca-key* *mek-ess-ta*
 Jim-NOM food-NOM salty-KEY eat-PST-DC
 “Jim ate the food salty.”
- b. ??*Jim-i* ***kephi-ka*** *cha-key* *masi-ess-ta*
 Jim-NOM coffee-NOM cold-KEY drink-PST-DC
 “Jim drank the coffee cold.”

Second, an NP-NOM is added to the *-key* depictive sentences (41a,b) as a notional subject of the depictive predicate, which is in the part-whole relation with the accusative-marked NP.

- (51) [Additional Nominative-marked NP as Notional Subject of Depictive Predicate]
- a. *Jim-i* *umsik-ul* ***mas-i*** *cca-key* *mek-ess-ta*
 Jim-NOM food-ACC taste-NOM salty-KEY eat-PST-DC
 “Jim ate the food while its taste was salty.”
- b. *Jim-i* *kephi-lul* ***onto-ka*** *cha-key* *masi-ess-ta*
 Jim-NOM coffee-ACC temperature-NOM cold-KEY drink-PST-DC
 “Jim drank the coffee while its temperature was cold.”

(51a,b) are fully grammatical, which is similar to the case of the stative and eventive resultatives. In (51a), the matrix object *umsik* ‘food’ and the added embedded subject ‘taste’ are in the part-whole relation. And in (51b), the matrix object *kephi* ‘coffee’ and the added embedded subject ‘temperature’ are also in the part-whole relation. The facts laid out in (51a,b) suggests that the *-key* depictive forms a full TP clause, and its structure is expected to be exactly the same as that of the stative resultative. The syntactic structure of Korean *-key* depictive is illustrated in (53).

- (53) [Syntactic Structures of Korean “Depictive” Constructions]
 Subj-NOM NP_{1i}-ACC [_{TP} *pro*_i (NP₂-NOM) V_{STATIVE-key}] V

English cannot allow such a structure as (50); its depictive clause lacks the element T (see Guéron and Hoekstra, 1995).

- (52) [English Depictives with Extra Nominative-marked NP]
 a. *John ate the food **its taste** salty.

- b. *John drunk the coffee **its temperature** cold.

Shim and den Dikken (2007) noted that the object-oriented depictives cannot be stranded under VP-topicalisation in Korean, as in (53). This means that the depictive phrase stays inside VP.

- (53) [VP-topicalisation]
- a. *[*umsik-ul mek-ki*]-nun *Jim-i* *cca-key* *ha-ess-ta*
 food-ACC eat-NM-TOP Jim-NOM salty-KEY do-PST-DC
 Int. “As for eating the food, Jim did salty.”
- b. *[*kephi-lul masi-ki*]-nun *Jim-i* *cha-key* *ha-ess-ta*
 coffee-ACC drink-NM-TOP Jim-NOM cold-KEY do-PST-DC
 Int. “As for drinking coffee, Jim did cold.”

It seems to be possible to have more than one depictive phrases as in (54), which indicates that the *-key* depictive phrase in Korean is an adjunct rather than a complement.

- (54) [More than One Depictive Predicates]
- OK?? Jim-i umsik-ul cca-key cha-key mek-ess-ta*
 Jim-NOM food-ACC salty-KEY cold-KEY eat-PST-DC
 “Jim ate the food salty, cold.”

Thus I conclude that the Korean depictive is a TP adjunct and has the structure shown in (51), which is the same structure as the Korean stative resultative construction.

Now, I will discuss the lexical restriction in Korean depictives, which is the most important part of this depictive section. First, unlike Japanese but like English, the depictive reading in Korean does not come from the lexical information of depictive predicates or the morpheme *-key* ‘KEY’; it is entirely context dependent. Compare (55a) with (55b).

- (55) a. [Canonical Korean *-key* Depictive]
- Jim-i umsik-ul cca-key mek-ess-ta*
 Jim-NOM food-ACC salty-KEY eat-PST-DC
 “Jim ate the food salty.”
- b. [Stative Resultative]
- Jim-i umsik-ul cca-key yoliha-ess-ta*
 Jim-NOM food-ACC salty-KEY cook-PST-DC
 “Jim cooked the food as a result the food became salty.”

The sentences (55a) and (55b) make a minimal pair, where the only difference comes from their main verbs; in (55a) the main verb is *mek* ‘eat’, whilst in (55b) the main verb is ‘cook’. The interpretation of (55a) is depictive, while that of (55b) is resultative. Furthermore, the example sentence like (56) can be ambiguous between the resultative and depictive.

- (56) [Ambiguous between Resultative and Depictive]
Jim-i miyek-ul cca-key yoliha-ess-ta
 Jim-NOM sea weed-ACC salty-KEY cook-PST-DC
 Lit. “Jim cooked the sea weed salty.”
 Resultative: “Jim cooked the sea weed, as a result it became salty.”
 Depictive: “Jim cooked the sea weed while it was salty. (Imagine a context that the sea weed is originally salty and normally needs to be soaked in water for a whole day to remove the salt from the sea weed. But Jim cooked it while it was still salty (before all the salt was removed))”

As shown in the interpretations, (56) can be resultative or depictive, depending on the context..

4. The Lexical Structure of Korean Verbs

As observed in the end of section 3, whether a sentence represents a resultative or depictive interpretation depends on the context. In (56), we saw that the embedded predicate *cca-key* ‘salty-KEY’ can be either resultative or depictive predicate. This is similar to the case of English secondary predicates. Example (232) of Chapter 3 is repeated in (57).

- (57) [English Ambiguous Sentence between Resultative and Depictive]
 John slapped Mary sober.
 Subject-oriented depictive: “John, who was sober, slapped Mary.”
 Object-oriented depictive: “John slapped Mary while she was sober.”
 Object-oriented resultative: “John slapped Mary so that she became sober.”

In (57), all the three indicated readings are possible, depending on the context. As mentioned in the Mongolian chapter, the sentence (57) suggests that some English adjectives potentially have both semantic aspects of INCHOATIVE/BECOME and STATIVE/COPULAR as a part of their lexical entries. On this point Korean resembles English. Korean stative verbs have both semantic aspects of INCHOATIVE/BECOME and STATIVE/COPULAR as a part of their lexical entries, because the secondary predicate *cca* ‘salty’ of (56) can be used either as a resultative or depictive predicate, which indicates that it has both semantic aspects of INCHOATIVE/BECOME and STATIVE/COPULAR, much like the case of English. On the other hand, Korean dynamic verbs can be used only as a resultative predicate but not as a depictive predicate. That is, Korean dynamic verbs have only

the aspect of INCHOATIVE/BECOME. As for the morpheme *-key* ‘KEY’, Cho and Sells (1995) and Sells (1998) indicated, “*-key* ‘KEY’ is a marker which says the verb is in a construction with another verb”. Their statement indeed fits my finding of this chapter in that *-key* can be used in different ways such as a marker of small clause, resultative and depictive construction. At this stage it is not possible to determine the full characteristics of the morpheme *-key* ‘KEY’. There are two possibilities. The first possibility is that *-key* is a purely syntactic device which does not contribute to the interpretation of a clause at all. The second possibility is that *-key* has all the different aspects and thus can appear in a variety of constructions; the context determines the interpretation.

Hence, I can state that the property of *-key* shows a significant difference from Japanese and Mongolian secondary predication. Unlike Korean, Japanese morphemes *-ni* ‘resultative marker’ and *-de* ‘depictive marker’ have their own meanings; *-ni* only has the semantic aspect of INCHOATIVE/BECOME, and *-de* only has the semantic aspect of STATIVE/COPULAR. Moreover, unlike Korean and English, a Japanese predicate normally has only one semantic template; either STATIVE/COPULAR or INCHOATIVE/BECOME, but not both of them. Mongolian differs from Korean in that Mongolian adjectives have only the STATIVE/COPULAR aspect; without the INCHOATIVE morpheme, the bare adjectives can only be used as depictive predicates.

5. Conclusion

In this section, I have discussed the resultative and depictive construction in Korean, where I concluded that all the “secondary predicate clauses” such as stative resultative, eventive resultative and depictive, form a full TP clause. Thus in terms of the canonical sense of “secondary predicate”, which takes a small clause complement structure as Simpson (1983) suggested, Korean secondary predicates do not satisfy the genuine syntactic conditions of secondary predicates. In this sense, these Korean constructions belong to the participant-oriented adverbials or subordinate clauses of Himmelmann and Schultze-Brendt (2005).

Chapter 6.

Conclusion

This thesis investigated secondary predication in Chinese, Japanese, Mongolian and Korean. In each language, I first focused upon describing the language facts carefully, and then analysed the data in the domains of syntax and semantics.

In chapter 2, I observed the Chinese secondary predication. I laid out all the possible types of Chinese V-V compound constructions in terms of their argument structures. Then, I extracted the ones whose V_2 is a true secondary predicate, showing that Chinese has three types of secondary predicates: consequence depictives, canonical resultatives and inverse-linking resultatives. I first categorised the three types with regard to the extent of causation: direct causation for canonical and inverse-linking resultatives, and indirect causation for the consequence depictive. The causation carried by the secondary predicate actually contributes to make a grammatical compound verb in the cases of Chinese resultatives and consequence depictives. Thus the non-causative predicates, which have not been mentioned at all in the previous literature, can never make a compound verb, unless the main verb is a causative verb. That is, Chinese resultatives and consequence depictive constructions are causative constructions, and their causation does not appear from the construction, but has to be contributed either by the main verb or/and the secondary predicate. Reflecting the analysis of causation in LCSs, I analysed the system of linking between an argument and a secondary predicate; unlike the case of English depictives, linking in Chinese is not determined by the context but by the lexical information of the secondary predicates; and I stated that the externally-caused change of state predicates link to the affected argument. The advantage of my analysis of Chinese secondary predicate is that it did not require a resultative specific theory unlike any previous syntax-based analyses; the concepts that I used in this chapter were general ones which can be applied to any causative construction. Moreover, I showed that the analysis I offered accounts for examples which previous approaches could not account for.

In chapter 3, I observed Japanese secondary predication. The topic has been well researched in the previous literature. However, there was no consensus even on what actually qualifies as a secondary predicate in Japanese. Therefore I first focused upon describing the data of secondary predicates and the similar/fake types: i.e. the genuine secondary predicates and manner/resultant/resultant manner adverbs. As for the analysis of the data, I proposed eight syntactic and semantic tests, and determined the syntactic and semantic properties of Japanese resultatives and depictives. Thus there should be no more confusion in the study of Japanese secondary predicates from now on. As for the theoretical analysis of Japanese secondary predication, I concluded that there is no tense or aspect in the embedded secondary predicate clause; the size of the clause is smaller than TP. In this sense, Japanese secondary predication is syntactically similar to English, though the secondary predications of Japanese and English differ in their syntactic positions; I showed that the subject-oriented depictive predicate adjoins to

either VP or T', which I think is likely to be the common feature to all the subject-oriented adjuncts of "Altaic" languages including Japanese, Mongolian and Korean. On this point I am currently interested in the phenomenon of other "Altaic" languages such as Turkic languages. The most difficult part of the Japanese secondary predicates comes from the fact that they make use of morphemes *-ni* and *-ku* for resultatives and *-de* for depictives. Each of these morphemes has some functions, and they all induce an adverbial phrase/clause at least on the surface. Therefore, the separation of true secondary predicates from other adverbials was a difficult task. However, not only did I extract the real secondary predicates from all sorts of adverbials, but I categorised the adverbials which do not qualify as secondary predicates. As a whole, I believe this chapter contributes essentially to Japanese syntax, semantics and their morphological interface.

In chapter 4, I observed Mongolian secondary predicates. Mongolian has not been researched well not only in the secondary predicates but generally. Thus investigating secondary predicates in Mongolian secondary predicates required investigations on several other issues such as the case system, converb such as *-bol* 'INCHOATIVE/become' and *-bai* 'STATIVE/be', morphological characteristics in adjectives and adverbs, clause structures such as embedded TP clause and small clause and auxiliaries *-bol* 'become' and *-bai* 'be'. Here, I concluded that there are no real resultatives in Mongolian. As for depictives, there are three subtypes, and two out of the three types indeed represent the real depictive construction, forming a small clause, which resembles the Japanese and English depictives, but one is a fake type, forming a full TP clause, which resembles the Korean depictive construction; they are all adjuncts. I also proposed that the auxiliaries *-bol* 'become' and *-bai* 'be' has a syntactic aspect, which is dependent upon tense. This point seems to be consistent in that *-bol* and *-bai* cannot appear in small clause construction. Thus by using such aspectual markers, it looks to be possible to analyse the clausal structures of various constructions in Mongolian.

In chapter 5, I observed Korean secondary predicates. There was a split in the analysis of Korean resultatives; TP adjunct analysis (Shim and den Dikken, 2007) and small clause complement analysis (Son, 2008). I agreed with Son (2008) in that there are two different types of resultatives such as eventive and stative resultatives, where Shim and den Dikken (2007) had a unified analysis for both eventive and stative resultatives. However, I did not agree with Son (2008) that the stative resultative takes the small clause construction. I regard it a full TP adjunct which accepts its notional subject and aspect inside the adjunct clause. However, the detailed syntactic structure of the stative resultative was beyond the scope of this chapter and will be researched in the future. As for the eventive resultative, I showed some new evidence that it indeed takes the TP adjunct structure. That is, there are no true resultatives in Korean. There has not been much research on Korean depictives. I showed the clausal structure and semantic properties of Korean depictives. Syntactically, they are exactly the same as the resultatives; they form a full TP clause, like the Mongolian fake depictive and unlike English and Japanese depictives. This is due to the property of the morpheme *-key* 'KEY/COMP'; both resultatives and depictives make use of this morpheme *-key*, which seems to determine the syntactic property of

the phrase it attaches to. Semantically, Korean depictives are much like English depictives and different from the Japanese one; the lexical items themselves do not determine the interpretation of the secondary predication in English and Korean. That is, in Korean and English a secondary predicate can be used as both a resultative (inchoative reading) and depictive (stative/copular reading) predicate, while a Japanese secondary predicate can be used as only either a resultative or depictive predicate.

As a whole, I investigated the phenomena on and around the secondary predicates in Chinese, Japanese, Mongolian and Korean. I believe this thesis contributes to the description and analysis of the language facts of these issues.

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