Acquisition of English Complex Predicates in SLA

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Snyder (2001) proposes that complex predicate constructions are interrelated by shared dependence on a single parameter, the Compounding Parameter, and that the global application of the parameter explains the simultaneous acquisition of the complex predicate constructions and N-N compounds in L1 acquisition of English. Slabakova (2002) examined the status of the Compounding Parameter in the acquisition of L2 Spanish by instructed learners. The result of the study, however, was not compatible with the prediction of the Compounding Parameter, possibly due to the availability of negative evidence in the input. Building upon Slabakova's study, this paper examines the status of the Compounding Parameter in naturalistic L2 learning. It is shown that the naturalistic L2 learners do not acquire the complex predicate constructions and N-N compounds concurrently contra to the prediction of the Compounding Parameter. It is suggested that the validity of the Compounding Parameter as a theoretical construct be reconsidered.

[second language acquisition/complex predicates/N-N compound/compounding parameter]

I. INTRODUCTION

Complex predicates or small clause constructions are an argument structure feature of many languages, including English. One characteristic of these constructions is that they involve two predicates, a main verb and a secondary predicate, the combined meaning of which resembles a simple verb. The following examples are from Snyder (2001, p. 325):

(1) a. John painted the house red. (resultative)
b. Mary picked the book up/picked up the book. (verb-particle)
c. Fred made Jeff leave. (make-causative)
d. Fred saw Jeff leave. (perceptual report)
e. Bob put the book on the table. (put-locative)
f. Alice sent the letter to Sue. (to-dative)
g. Alice sent Sue the letter. (double-object dative)

The main verb *paint* combines with the adjective *red* in the resultative construction in (1a), and the main verb *pick* with the particle *up* in the verb-particle construction in (1b); constructions (1c) - (1d) show main verbs combining with the secondary verb *leave*. Based on the structural similarity among the complex predicate constructions, and reinforced by evidence obtained from child language acquisition data, Snyder and his associates have proposed that the complex predicate constructions constitute a natural class (Beck & Snyder, 2001; Snyder, 1995; Snyder & Stromswold, 1997; Sugisaki & Isob, 2000). Snyder (2001) goes on to claim that the complex predicate sentences are interrelated by shared dependence on a single parameter, the Compounding Parameter, and the global application of the parameter explains why the sentence types above are acquired concurrently by English-speaking children. The acquisition pattern of the complex predicate constructions by English-speaking children, thus, provides support for the Principles and Parameter's (P&P) approach to language acquisition, in which the language-specific knowledge being acquired is seen as 'global' rather than construction specific (Snyder & Stromswold, 1997, p. 282).

This article examines the status of the Compounding Parameter in the acquisition of English as an L2 by asking whether L2 learners of English exhibit an acquisition pattern similar to that of L1 English children in learning the complex predicate constructions. The availability of Universal Grammar (UG) and the possibility of parameter resetting in L2 acquisition have been leading issues among L2 researchers working within the generative framework. The study of the acquisition of complex predicate constructions can provide some insight into the question of whether L2 learners have access to UG and whether they can reset parameters. If the complex predicate sentences are interrelated by the Compounding Parameter, as was proposed by Snyder (2001), and if L2 learners of English still have access to UG, then the learners should acquire the complex predicate sentences as a group. If it turns out that L2 learners do not acquire the complex predicate constructions simultaneously, two possible explanations can be suggested: 1) the Compounding Parameter is not a valid

theoretical construct, or 2) UG is no longer available in L2 acquisition.

The paper is organized as follows: Section 2 briefly discusses syntactic analyses of the complex predicate constructions, focusing on Larson (1988) and Stowell (1991), two of the several studies of complex predicate constructions that motivated Snyder's Compounding Parameter. Section 3 reviews language acquisition studies that examined the acquisition of complex predicate constructions in light of the Compounding Parameter: Snyder and Stromswold (1997) and Snyder (2001) for L1 English acquisition and Slabakova (2002) for L2 Spanish. In Section 4, results of analysis of L2 acquisition data collected from Korean children learning English as an L2 in naturalistic settings are presented. It is shown that there is no conclusive evidence to support the simultaneous acquisition of the complex predicate constructions in L2 English learning.

II. SYNTACTIC ANALYSES

1. Larson (1988)

Based on Chomsky's (1955/1975, cited in Larson, 1988) original insight, Larson develops an analysis of the double object construction, which can also be applied to other complex predicate constructions. According to Larson, to-dative sentences are derived from an underlying structure in which the verb and the indirect object form a constituent. The structure proposed by Larson for the to-dative sentence *John sent a letter to Mary* is shown in (2):

$$\begin{array}{c|c} VP & VP \\ \hline V & VP \\ \text{send}_1 & V' \\ \hline a \ letter & V & PP \\ \hline t_1 & to \ Mary \end{array}$$

In this structure, the verb send and the prepositional phrase to Mary form a

constituent at Deep Structure (DS), which is predicated of the inner subject *a letter*. The verb moves to the upper V position to satisfy Case and agreement requirements, and the upper VP is predicated of the sentence subject *John*. Larson argues that the existence of this structure, in which the verb and the PP object form a constituent at one level during the syntactic derivation, is supported by the existence of discontinuous idioms such as those shown in (3):

(3) a. Mary took Felix to the cleaners.

to task

into consideration

- b. Mary threw Oscar to the wolves.
- c. Max carries such behavior to extremes.

Larson proposes that this analysis of the dative construction can be generalized to other similar phenomena such as small clause constructions. For example, the sentence I consider J ohn f oolish has the underlying structure [VP John [$_{v}$ considers foolish]]. In this structure, the main verb c onsider and the secondary predicate f oolish form a constituent at DS.

2. Stowell (1991)

Another study in which the constituency of the main verb and the secondary predicate is proposed is Stowell (1991). In the sentence, *John considers Bill foolish*, according to Stowell, *Bill foolish* is a constituent at Surface Structure (SS); that is, the subject *Bill*, and the predicate *foolish* form a small clause. Evidence that Stowell provides to support the constituency of *Bill* and *foolish* is interpretation of adverbials.

(4) a. John sincerely considers Bill foolish.

(John's opinion is sincere)

b. John considers Bill sincerely foolish.

(Bill's foolishness is sincere)

c. John found Bill repeatedly annoying.

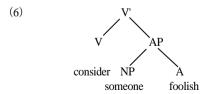
(Bill was repeatedly annoying)

In (4b) the adverb *sincerely* does not modify the main verb *considers*, but modifies the adjective *foolish*. This shows that *Bill sincerely foolish* forms a small clause.

Stowell, contrary to Larson, proposes that complex predicate formation occurs at Logical Form (LF) via restructuring or head movement, a position he supports with the following data.

- (5) a. Someone; seems [t; to be angry at John]
 - b. Someone; seems [t; angry at John]
 - c. John proved two assumptions to be false.
 - d. John proved two assumptions false.

In (5a) *someone* can have both a wide and narrow scope reading, which means that the QP *someone* can adjoin to either the imbedded infinitival IP or the main clause IP. On the other hand, (5b) has only a wide scope reading of *someone*, which means that the QP cannot adjoin to the small clause IP. That is, the small clause does not seem to exist at LF, the level at which quantifier raising occurs. The same puzzle shows up in (5c) and (5d): both a wide and a narrow scope reading are possible for (5c), but only a wide scope reading is available for (5d). The SS of the small clause that Stowell proposes is that in (6):



At LF, *foolish* moves to adjoin to *consider* and forms a V-A head. Stowell proposes the Predicate Scope Principle, which states that for a QP to have scope over a predicate, it must have scope over the head of the movement chain. This means that when *foolish* adjoins to *consider*, it leaves behind a trace that forms a chain with the V-A head. In order for *someone* to have scope over *foolish*, it must occur above the V-A head. Thus, *someone* cannot adjoin to AP but must adjoin to either the main clause VP or IP. Thus, the scope phenomenon provides indirect support for the complex predicate formation of *consider-foolish* at LF.

The difference between Larson's and Stowell's analyses of the complex predicate constructions concerns the level at which the complex predicate is claimed to be formed: DS vs. LF. While the question of which analysis is more accurate appears to be a theory-internal issue, both analyses agree that the main verb and the secondary

predicate form a complex predicate, i.e. a kind of compound at one level during syntactic derivation. Adopting this compound formation analysis, Snyder (2001) proposes the Compounding Parameter, which is discussed in the next section.

III. STUDIES OF THE ACQUISITION OF COMPLEX PREDICATE CONSTRUCTIONS

1. First Language Acquisition

Snyder and Stromswold (1997) analyzed spontaneous speech of 12 Englishspeaking children from the CHILDES database in order to examine the acquisition of complex predicate constructions. The age of the children at the beginning of the data collection ranges from 1 year 4 months (1;4) to 2 years 6 months (2;6). Snyder and Stromswold consider a child to have acquired a target construction the first time the child produces a clear example of the construction. The constructions they examined include the to-dative, double object, put-locative, verb+particle+NP, verb+NP+ particle, and causative/perceptual constructions. Statistical analyses reveal that although double object datives are acquired before to-datives (2;2.5 vs. 2;6.8), the ages for acquisition of these two constructions are highly correlated, which implies that the children treat these two constructions as grammatically related. The mean age of acquisition for the causative/perceptual verb construction (hear, make, see, watch) is 2:4.9, while for put-locatives (put, place, set), the mean is 2:2.9. The V+NP+particle construction appears for the first time at 2;2.7, while the V+ particle+NP construction is acquired at the age of 2;5.7. Though the first production of the complex predicate constructions are statistically correlated, the to-dative and V+particle+NP constructions were produced later than the other complex predicate constructions. Snyder and Stromswold suggest that the ordering effect between the to-dative and V+particle+NP construction and the rest of the complex predicate constructions is due to the language specific rules, what they call, Property A and B. According to them, the constructions acquired early involve property A, while the to-dative and V+particle+NP construction require both Property A and B.

In his effort to find a rule or parameter to account for the statistical correlation among the complex predicate constructions with regard to the mean age of acquisition, Snyder(2001) disregards the ordering effects among the constructions observed in Snyder and Stromswold (1997), especially the ordering effect between the double

object and to-dative construction. The constructions are now considered to be acquired concurrently due to the application of a single parameter, the Compounding Parameter.

<u>Compounding Parameter</u>: The grammar *disallows, allows formation of endocentric compounds during the syntactic derivation.

[*unmarked value]

He argues that complex predicate constructions are allowed only in languages in which the Compounding Parameter is set to the marked option; English is one such language since it allows the formation of endocentric compounds. A good example of the productivity of endocentric compounding in English is *frog man*, which can refer to *a man who resembles a frog, behaves like a frog, or collects frogs*. According to Snyder, the productivity of this kind of compounding shows that the compounds are derived in syntax. In contrast, the corresponding French compound, *home grenouille* 'man frog', is restricted to its original, lexical sense of *underwater diver*, which means that the compound is formed in the lexicon in French. Snyder argues that in French the Compounding Parameter is set to the unmarked value, which explains why French does not have direct counterparts of the English verb-particle, make-causative, or double object dative constructions. According to Snyder's cross-linguistic survey, Romance languages such as French and Spanish do not have resultatives and productive N-N compounding, while East Asian languages such as Korean, Japanese, and Mandarin Chinese have both resultatives and productive N-N compounding.

Based on the Compounding Parameter, Snyder hypothesizes that English children will begin to produce productive compounds and complex predicate constructions at approximately the same age. In order to examine the validity of this hypothesis, he analyzes spontaneous production data from ten children, a subset of those studied in Snyder and Stromswold (1997). The diagnostic for productive compounding is novel N-N compounding, which means that the compounds cannot be lexicalized forms such as *toothbrush* and *apple juice*, but are invented by the child on the spot. Some examples of novel N-N compounds in the children's speech are:

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(7) tattoo man (2;2.6) animal cup (2;3.3) pig book (2;0.8) bunny girl (1;9.2) tape recorder button (1;8.7)
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Statistical analysis of the data reveals that the acquisition of novel compound nouns and that of complex predicate constructions occur at approximately the same age, which supports Snyder's hypothesis. To explain why the acquisition of compounds and complex predicates should be related, Snyder (2001) proposes the Complex Predicate Constraint, which states:

Two syntactically independent expressions can jointly characterize the event-type of a single event-argument, only if they constitute a single word (endocentric compound) at the point of semantic interpretation. (p.336)

For example, Snyder argues, in the sentence *John hammered the metal flat*, though the main verb *hammer* and the secondary predicate *flat* are separate entities in overt syntax, they form an endocentric compound at the point of semantic interpretation; such compound formation is possible in English because English prescribes the marked value of the Compounding Parameter¹

2. Second Language Acquisition

Slabakova (2002) examines the status of the Compounding Parameter in L2 acquisition by comparing the L2 Spanish interlanguage of L1 English speakers with that of L1 French speakers. English exhibits the plus value of the Compounding Parameter while French and Spanish specify the minus value. That is, English allows N-N compounds and complex predicate constructions such as the double object, resultative, verb-particle, and causative/perceptual verb constructions. However, in Spanish and French, N-N compounds and these complex predicate constructions are unavailable; instead, the same meaning is expressed with periphrastic PP constructions, as seen in (10).

(10) a. *Los natives esperaron la crisis [para] afiera.
the natives waited the crisis out
'The natives waited out the crisis.' (verb particle)

¹⁾ Snyder uses the resultative construction as a model example to show the application of the Compounding Parameter. However, he excluded the resultative construction from his data analysis since few tokens of the resultatives were produced by the children. This is a problem for the prediction of the Compounding Parameter.

b. Los natives esperaron hasta el final de la crisis.
 The natives waited until the end of the crisis
 The natives waited until the end of the crisis' (periphrastic PP)
 (p.514)

The verb-particle construction in (10a) is ungrammatical in Spanish, while (10b) with the periphrastic PP is grammatical. The English glosses both in (10a) and (10b) are grammatical, which means that English allows both the resultative and periphrastic PP constructions. Therefore, Slabakova assumes that regarding complex predicate constructions, English is the superset of the subset value of Spanish and French according to the Subset Principle. Slabakova's research questions are: 1)Which is more important in L2 learning, the Subset Principle or L1 transfer? 2) Is it possible for L1 speakers of the superset grammar to learn the subset grammar? 3) Do N-N compounds, double object datives, verb-particles, and resultatives, which according to Snyder (2001) are controlled by the Compounding Parameter, pattern as a cluster?

In order to answer these research questions, Slabakova collected data from 86 English-speaking and 25 French-speaking learners of Spanish. For the complex predicate constructions, which included the double object dative, verb-particle, and resultative constructions, the learners performed a grammaticality judgment task; for the N-N compounds, they performed both a grammaticality judgment task and a forced choice task. Since my interest is in Slabakova's third research question, i.e. whether the complex predicate constructions pattern as a cluster, my discussion of her study focuses on the grammaticality judgment task. The grammaticality judgment questionnaire consisted of 56 sentences, 7 grammatical and 7 ungrammatical, in each of the four conditions: the N-N compounds, double object datives, verb-particles, and resultatives. The subjects were asked to provide their judgments on the grammaticality of these sentences. The results show that: 1) the low proficiency English-speaking learners of Spanish performed much worse than the French-speaking learners at the same low proficiency level in recognizing ungrammatical N-N compounds and complex predicate constructions. 2) At higher proficiency levels, the English-speaking learners performed better at recognizing ungrammatical N-N compounds and double object sentences than at recognizing ungrammatical resultatives and verb-particle constructions. The correct judgments rates for the three proficiency levels are shown in Table 1, which is adapted from Slabakova's Table 7.

TABLE 1
Accuracy Rates for N-N Compounds and Complex Predicate Constructions

	N-N compounds	double objects	verb particles	resultatives
advanced (n=26)	88%	77%	65%	39%
Intermediate (n=27)	78%	67%	33%	7%
Low (n=33)	24%	21%	21%	0%

As can be seen from the table, the answer to Slabakova's third research question appears to be negative. That is, the constructions do not pattern as a cluster, which is a problem for the Compounding Parameter. Slabakova suggests that the potential availability of negative evidence in L2 learning may have resulted in this pattern. In order to see whether the subjects were exposed to negative evidence during formal instruction, she conducted an informal interview with several Spanish teaching assistants and found that the ungrammaticality of the N-N compounds and of the double object datives in Spanish were subjects of explicit instruction, while that of the verb-particle and resultative constructions were not. She concludes that negative evidence is both available and necessary in L2 acquisition via explicit instruction, and that this must be the main reason for the absence of the effect of the Compounding Parameter in L2 acquisition. In order to further test the availability of the Compounding Parameter in L2 acquisition, she suggests examining data collected from learners who are exposed to only positive evidence in naturalistic settings.

IV. THE CURRENT STUDY

Building upon Slabakova's (2002) study and following her suggestion for the necessity of investigating L2 learning in naturalistic settings, the current study examines the acquisition of complex predicate constructions and N-N compounds by Korean children learning English in naturalistic settings.

1. Subjects

A spoken English corpus of four Korean children living in the U.S. is examined. The data were collected by the National Center for Bilingual Research (NCBR) between 1981 and 1983. The children were aged 7-9 at the beginning of the study. The description of the subjects relies heavily on the research report by Kim and Hong

(1982), the researchers who directed the collection of the data.

(11) KH: 7;1 SM: 7;3 SE: 9;7 JA: 9;6

The data collection began nine months after the children arrived in the U.S. and continued for three years. The data were gathered once a month at school and at the children's home. At school, the children wore a small tape-recorder on the belt around their waist and were recorded for 60-90 minutes while they were engaged in various activities. At home the children used Korean most of the time, and structured or semi-structured elicitation tasks were used to obtain English utterances. Thus, the data include both spontaneous speech and elicited speech from story-telling and directed conversation. The data consist of both English and Korean, and in some cases Korean-English mixed utterances. For this study I looked at only English sentences. The number of English sentences produced by each child and analyzed for our study is as follows:

(12) KH: 823 SM: 838 SE: 843 JA: 813

2. Procedures

The occurrences of the complex predicate constructions and N-N compounds in each child's data were counted. The target complex predicate constructions are the same as those examined in Snyder and Stromswold (1997): double object dative, to-dative, verb+NP+particle, verb+particle+Np, put-locative, and causative/perceptual constructions. Only sentences grammatical with respect to argument structure were counted. Sentences with missing arguments were excluded if the subcategorization requirement of the main verb does not allow object omission: thus, sentences such as *He saw mother's riding boat, He gave a book, and He put the basket* were not included for analysis. As Snyder (2001) suggested, novel N-N compounds invented by the children, excluding lexicalized compounds, were counted.

3. Results and discussion

Following Snyder and Stromswold (1997), a target construction is considered to be learned by the subjects when it appears for the first time in the data. Table 2 presents the time, in months and days after the data collection began, when these constructions

are first produced by the children.

TABLE 2
Periods of the First Production of the Complex Predicate Constructions

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	N-N comp	caus/percep	put-loc	v+NP+prt	v+prt+NP	to-dative	double-obj
KH	7;20*	3;07	6;05	12;00	16;07	2;00	3;17
SM	10;01	3;18	10;01	10;01	10;01	11;06	6;05
SE	10;01	12;20	9;25	16;01	9;25	16;11	9;25
KA	1;23	0;00	10;10	0;00	2;00	12;00	7;17

^{* 7} months 20 days

Table 3 provides the number of the tokens of the verbs produced by the children for each construction. Overall, the children did not produce many complex predicate sentences or N-N compounds. The following is a brief description of each child's production of the target structures.

TABLE 3
Verbs Produced in the Complex Predicate Constructions

	caus/perpt	put-loc	v+NP+prt	v+prt+NP	to-dative	double-obj
КН	let:6 hear:1 make:1 see:2	put:2 leave:2	take off: 1	pass out: 1 turn off: 1 take off: 2 take out:1 clean up:2 pick up:1 mess up:1	give:3 get:2 bring:1 send:1 make:1 buy:1	give:4 tell:6 teach:1
SM	let: 7	put:11 leave:1	mix up:1 mess up:1 take away:2	take out: 2 take off:1 turn off:1 clean up:1 climb up:1	give:3 teach: 1	give:6
SE	let:3 watch:1	put: 4 leave:1 stick:1	hang on:1 made up:1 take away:1 hold up:1	take out: 5 take off: 1 clean up:1	give:1	give: 6 tell:4
JA	let: 4 make: 1	put:2	pick up: 1 throw away: 1 mix up: 1 beat up: 1 push off: 1 take off: 1 break up:	take off: 1 pick up:1 sneak out:1 blow up:	give: 1 get: 1	give:4 buy:1 show:1 pay:1 ask:1 tell:

KH: In KH's data, the to-dative construction ('Give it to me') is the first of the six

constructions to appear, being produced two months after the data collection began. One month later, the causative and double object constructions were produced ('Just let him go' 'I wanna tell you this in Korean'). Besides *give*, which was the first verb produced in the to-dative construction, the following verbs also appeared in the to-dative and double object dative construction: *bring*, *buy*, *get*, *make*, *send*, *teach*, and *tell*. The first use of *let* in the causative construction such as *Let him go* and *Let me see it* was counted as a productive use of *let* in contrast to the routinized form of *let* in *Let me see*. *Hear*, *make*, and *see* also occurred in the causative/perception verb construction ('If we makes him mad'²) 'They heard their father singing' 'I saw everyone dance').

The first production of the put-locative construction ('put catchup on it') was six months after the beginning of the data collection. *Leave* is another verb that KH used in this construction (Till leave it here'). The first N-N compound was produced around seven months and 20 days after the data collection began. She described a pencil she used at home as *my home pencil*. *Swim tank* for *swimming pool*, *spiderman bike*, and *yellow band girl* were other N-N compounds KH produced. The V+NP+particle construction appeared for the first time about 10 months after the first production of the to-dative construction, and was followed four months later by the V+particle+NP structure. KH produced a variety of phrasal verbs, including, *clean up, mess up, pass out, pick up, take off, take out*, and *turn off*. Therefore, about 14 months elapsed between the first production of the to-dative construction and the V+particle+NP construction in KH's developing English.

SM: The first of the six constructions to appear in SM's data was the causative ('Let me see this'), which was produced around three months after the data collection began. Let was the only verb used in the causative/perceptual verb construction. The double object dative construction was produced three months later, with give as the main verb ('Don't give me that chalk'). The put-locative, V+NP+particle, V+particle+NP structures, and the N-N compounds appeared around 10 months after data collection began. Put and leave were the verbs SM used in the put-locative construction ('Put them in the trash can' 'Leave the cookies here'). Expressions used in the V+NP+ particle/V+ particle+NP construction were: clean up, climb up, mess up, mix up, take away, take out, take off, and turn off. The N-N compounds uttered by SM were butterfly shirt, the song game, and adult name.

²⁾ This sentence can be analyzed as a resultative sentence rather than a causative sentence. For our purpose, we consider this type as a causative sentence

The to-dative construction ('He give it to somebody') appeared five months after the double object construction, that is, 11 months after data collection began. In SM's data, *give* and *teach* were the only verbs that appeared in the to-dative and double object dative constructions. This contrasts with KH, who was the same age as SM but used a variety of verbs in the dative construction. The time gap between the production of the first complex predicate construction, the causative, and that of the to-dative construction was about eight months.

SE: In SE's data, three of the six constructions, double object, put-locative, and V+particle+NP constructions were first produced during the same data collection period (9 months 25 days), followed by the N-N compound a few days later. Give was the first verb to appear in the double object construction ('She gave her change'). The put-locative construction appeared in both the correct and incorrect forms ('He put it in the glass' 'He's putting soda'). Leave and stick were other verbs used in the put-locative construction ('Her mother stick bandage to her... on her knees' 'Why are you leaving us out and go by yourself?"). SE tried to produce the to-dative construction eight months after the data collection began, but the resulting utterance was not grammatical ('He gave with the.... to the man and she gave the money'). A grammatical to-dative sentence ('You cannot give this to Jungho') was first produced 10 months after the appearance of the incorrect form. Other verbs that SE unsuccessfully tried to use in the dative construction included bring, buy, and show. The sentences with these verbs were missing one of the two arguments ('They brought lots of present' 'The teacher bought for me' 'Show her'3). SE's first N-N compound was McDonald woman, which she used to refer to a woman working at a McDonald restaurant. *Pepsi taste* and *princess name* were the other novel compounds by SE.

A productive causative/perceptual verb sentence was first produced 12 months after the data collection began, with *let* as the main verb ('she let it go'). *Watch* was another verb that appeared in this construction ('The father were watching her mother riding the boat). The V+NP+particle construction appeared around 16 months ('She just made it up the word'). Phrases such as *clean up*, *hang on*, *hold up*, *make up*, *take away*, *take off*, and *take out* were used in both the V+particle+NP and V+NP+particle construction. There was a gap of about nine months between the production of the first complex predicate construction, the double object sentence, and the last one, the to-dative construction.

³⁾ These sentences may be judged grammatical by native speakers of English. However, for our purpose, we consider these sentences are missing one argument.

JA: The causative/perceptual verb and V+NP+particle constructions appeared in JA's data from the beginning of the data collection ('Let me see that' 'You pick it up'). Let was the first verb used in the causative construction ('Let me just write this'), and make followed ('You make me get mad'). He also tried to use get in the causative construction, but his utterance was ungrammatical, with the secondary predicate in an incorrect form ('I got one point take away'). The N-N compounds appeared about two months later ('ghost book', 'country game'), followed by the V+particle+NP construction ('They gonna pick up flower'). Examples of the phrases used in the V+NP+ particle/ V+particle+NP construction included: beat up. blow up. break up. mix up, pick up, push off, sneak out, take away, take off, and throw away. The double object construction appeared five months after the V+particle+NP construction, with buy as the main verb ('Can you buy me one orange juice?'). The to-dative and double object dative constructions with give ('How can I give you hint?' 'He won't give it to her') appeared 12 months after the data collection began. In many cases, JA's dative sentences were missing one of the two arguments ('Don't give to girl'). Besides give and buy, ask, get, pay, show, and tell were other verbs used in the to-dative and double object constructions ('Don't ask me that' 'Can you go and get the ball for me?' 'I show Luke our kitchen'). The put-locative construction ('Put it in your eyes') was produced around 10 months after the data collection started. The time gap between the production of the first complex predicate sentence type and that of the last one was about 12 months.

The mean length of time after data collection began when each of the six constructions and the N-N compounds is first produced by the four children is presented in Table 4.

TABLE 4
Mean Period of First Production (Months and Days after Onset of Data Collection)

structure	mean period
caus/percept	4;26
double-obj	5;29
N-N compound	7;04
put-locative	9;03
v+NP+prt	9;16
v+part+NP	9;16
to-dative	10;14

As the table shows, the causative/perceptual verb construction was on average the earliest of the six constructions to be produced, while the to-dative construction was

the last. In the current study, we consider statistical analyses inapplicable due to the small number of subjects⁴. However, it should be noted that there was a temporal gap of six months between the production of the causative/perceptual construction and the to-dative construction. When the temporal gap among the constructions is examined for each child, especially that between the first and the last construction, it ranges between 8-14 months. This makes it difficult to propose that the six constructions and the N-N compounds are acquired concurrently in the children's L2 English grammar; hence, the status of the Compounding Parameter in L2 acquisition needs more rigorous investigation⁵.

V. SUMMARY AND CONCLUSIONS

To summarize, the acquisition of the complex predicate constructions and N-N compounds observed in the naturalistic L2 learners' data is not consistent with the Compounding Parameter, which predicts that the complex predicate constructions and the N-N compounds are associated with a single parameter and therefore these constructions are learned by language learners simultaneously. There showed up an order of acquisition among the constructions; the causative/perceptual verb construction is produced the earliest, followed by the double object construction and the N-N compound. The put-locative, V+NP+particle, V+particle +NP constructions appear simultaneously four months after the double object construction. The to-dative construction is the last to occur.

The starting point of this study was Slabakova (2002), who observed that the Compounding Parameter did not operate in L2 learning in formal instructional settings, possibly due to the availability of negative evidence. In order to minimize the

 $^{^{4)}}$ In fact, a t-test and Pearson r correlation test we ran show contradicting results; the t-test result indicates that there is no ordering effect among the constructions, i.e. the children acquire the six constructions simultaneously, while the correlation test shows that the constructions are not related in the interlanguage grammar of the four children.

⁵⁾ Some possible causes for the temporal gap and different production order among the constructions found in our data might be: 1) the data collection started nine months after the children arrived in the U.S., and the first production of the target constructions may not have been recorded; 2) the Korean children under study learned English through both formal instruction and naturalistic input after their arrival in the U.S. Thus, their acquisition pattern of the complex predicates may not reflect that of genuine naturalistic L2.

involvement of negative evidence, we examined the production data of the Korean children learning English in naturalistic settings. The result of our study concurs with that of Slabakova (2002), leading us to conclude that the availability of negative evidence is not the main reason for the non-operation of the Compounding Parameter in L2 acquisition. According to Snyder (2001), Korean has the same setting as English regarding the Compounding Parameter; that is, Korean allows formation of compounds during the syntactic derivation and it does have the resultative construction. The fact that the Korean children did not acquire the complex predicate constructions and the N-N compounds simultaneously even though their L1 and L2 have the same value of the parameter makes us question the status of the Compounding Parameter as a theoretical construct. It seems clear that the Compounding Parameter is not a relevant construct to account for the acquisition of the complex predicates and the N-N compound in L2 acquisition.

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Examples in: English

Applicable Languages: English

Applicable Levels: Elementary/College

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