THE STAGE-LEVEL RESTRICTION
AND THE PECULIAR STATUS
OF DEPICTIVE PREDICATES

NAOCHI KOIZUMI
Aichi University of Education

It has sometimes been pointed out in the generative literature that a semantic restriction is imposed on depictive predicates: stage-level predicates are acceptable as depictive predicates, but individual-level predicates are not. In this paper, we argue that as an answer to the question of why such a restriction is imposed on depictive predicates, Maruta's (1995) explanation is basically correct, but that the status of depictive predicates is not as simple as he supposes: they are, so to speak, half-fledged adverbials with adjectival nature rather than full-fledged adverbials. We therefore present an analysis which can provide an adequate account for such peculiar status.*

1. Introduction

In English there is a class of adjuncts that has been frequently discussed under the name of secondary predicate, as typified by the examples (1).¹

(1) a. John hammered the metal flat.
    b. John ate the meat raw.
    c. John can't work hungry.

Specifically, the adjunct in (1a) has been called resultative predicate, that in (1b) as depictive predicate, and that in (1c) as conditional predicate. Although most of the discussions have been devoted to the syntactic characterization of these predicates, it has also been pointed

* This is a drastically revised version of the paper read at the regular meeting of the Tokyo English Linguistic Circle held at Sophia University on October 21, 1995. I would like to thank Akira Ota, Takao Yagi and two anonymous EL reviewers, whose useful comments and suggestions improved this paper. My thanks also go to Suzanne F. Collins, who kindly acted as an informant and corrected stylistic errors.

¹ In this paper, we will present secondary predicates in italics for expository purposes.

English Linguistics 13 (1996) 121-139 — 121 —
© 1996 by the English Linguistic Society of Japan
out by several grammarians (e.g. Rothstein (1983), McNultey (1988), Tsuzuki (1988), Jackendoff (1990), and Rapoport (1991, 1993a, 1993b)) that a semantic restriction is imposed on depictive and conditional predicates: stage-level predicates are acceptable as depictive and conditional predicates, while individual-level predicates are not, as shown in (2).

(2) a. The gardener watered the mysterious plant *droopy/*brown.
    b. The maid wore her apron dirty/*white.
    c. My kid is a terror naked/*intelligent.

(Iwasawa (1985: 234))

The terms stage-level and individual-level originate with Carlson (1980). According to him, stage-level predicates express the transitory property of the entities that they are predicated of, as in (3a); and individual-level predicates express the permanent property of the entities that they are predicated of, as in (3b).

(3) a. sick, tired, hungry, drunk, open, naked, alert, awake, etc.
    b. big, boring, intelligent, insane, orange, fat, smart, etc.

(Carlson (1980: 72))

The purpose of this paper is to search for a plausible solution to the question of why such a restriction is imposed on depictive predicates (see Tsuzuki (1988) for the semantic restriction on conditional predicates), and then propose an analysis in which the solution works effectively. In section 2, we will take up Rapoport (1991, 1993a) and Maruta (1995) as the analyses which grapple squarely with the question, and point out their respective problems. In section 3, we will present an analysis within the framework of the ‘extension theory’ initiated by Kajita (1977).

2. Previous Analyses

2.1. Rapoport’s Analysis

Rapoport (1991, 1993a) advances the following proposal on the lexical representation of a predicator and its projection to syntax. Each predicator’s lexical representation consists of, in part, its θ-structure. θ-structure subsumes the argument structure and the event structure. This θ-structure information is projected into syntax as part of a predicator’s representation, and these lexical properties are part of
its representation through all the syntactic levels. If the predicator is a verb, the projection of its $\theta$-structure information is roughly diagramed in (4):

\[
\text{(4) syntax} \quad \quad \quad \quad \quad V \\
\text{lexicon: } V: [e\text{-structure} [\text{argument-structure}] [\text{event-structure}]]
\]

Rapoport proposes further a principle of licensing like (5) as a condition on the syntactic representation.

\[
\text{(5) Licensing Principle} \\
\text{Every phrase in a syntactic structure must be licensed through the direct linking of a position in its $\theta$-structure to a position in the $\theta$-structure of the head of its clause, within the government domain of that head.}
\]

Based on these proposals, Rapoport (1993a: 159) insists that "just as arguments must be linked, through their $\theta$-structure, to the $\theta$-structure of the matrix verb, so must all modifier and adjunct phrases be linked, through their $\theta$-structure, to the original predicate-argument structure of their clause (the $\theta$-structure of the verb) in order to be licensed."

Let us now turn to the licensing of depictive predicates. In order to meet the condition of the Licensing Principle, depictive predicates must contain in their $\theta$-structure some position that is directly linked to a position in the $\theta$-structure of the verb. Given the fact in (2b), the position must be something peculiar to stage-level predicates. Thus, Rapoport assumes that stage-level predicates contain a position, event-place or e-place for short, in their event-structure, and that it is this position that gives the necessary licensing connection to the verb. For this reason, she claims, stage-level predicates can be depictive predicates. She goes on to assume that since all elements are licensed through a connection between their $\theta$-structure and that of the licensing head, the verb in depictive predicate constructions must also contain a licensing position, i.e. e-place, in its $\theta$-structure. Consequently, the verb in such constructions must be stage-level, as in (6).3

---

2 Notice that the event structure, although it consists of a particular configuration that can license certain elements in syntax as well, does not project syntactic positions.

3 The notion 'place' was originally proposed by Davidson (1980) as an extra argument in the argument structure of predicators for the purpose of making clear
(6)  a. Noa wrote the answers *drunk.
    b. Noa knew the answers *drunk.

She hypothesizes further that individual-level predicates, on the other hand, have no e-place to be linked to a verb for licensing. Therefore, they cannot be depictive predicates, even if the verb is stage-level as in (7a) or individual-level as in (7b).4

(7)  a. *Shuli ate the berries *large.
    b. *Nadav knew the answers *stupid.

Granted that the basic line of her proposals sketched above is correct, her analysis will suffer the following defect. She explains that individual-level predicates cannot be depictive predicates since they do not have e-places to be connected to a verb for licensing. But this explanation, even if tenable as far as it goes, is insufficient and raises a new question; for there remains the possibility of positing in the θ-structure of individual-level predicates as well some other position which serves to provide the necessary licensing connection to the verb. In fact, this possibility cannot be overlooked, because, in (8), such a position must be admitted in the adjuncts and individual-level verbs anyhow. Otherwise, those adjuncts too would violate the Licensing Principle (5).

(8)  a. John knows the problem fully.
    b. John respects his father deeply.

the logical form of action sentences. He suggested, for instance, that the action verb kick be taken as a three-place predicator, and that (ia) be given the logical form (ib).

(i)  a. Shem kicked Sham.
    b. (∃x)(Kicked(Shem, Sham, x)).

Kratzer (1995), making use of this Davidsonian argument, attempts to explain the difference mainly in semantic interpretation between the sentences with stage-level predicators and those with individual-level predicators. What is unique to Rapoport’s analysis is, then, that the extra argument, i.e. e-place in her papers, is utilized for licensing adjuncts in syntax, and that e-place is postulated in adjuncts as well.

4 It should be noticed that the stage/individual distinction is not as simple as it appears to be. Even individual-level predicates such as those given in (3b) can be stage-level if in their interpretations, trasitoriness is guaranteed by context or adverbials, as illustrated in (i) and (ii).

(i)  a. John loaded the hay into the wagon *green. (Williams (1980: 204))
    b. Alice met the White Rabbit *tall. (Jackendoff (1990: 203))

(ii) a. *We ate the meat *fragrant.
    b. ?We ate the meat *fragrant with herbs. (Rothstein (1983: 153))
Therefore, unless cogent evidence is adduced to show that individual-level predicates do not contain a position for licencing, the ungrammaticality of (7b) will be a serious problem for her analysis.

2.2. Maruta’s Analysis

Maruta (1995) assumes that depictive predicates are not of adjectival status but of adverbial status, namely modifiers of action- or motion/change-eventualities. Eventuality is a cover term for state and non-state comprised of process and event (cf. Bach (1986)). As the name implies, modifiers of action- or motion/change-eventualities serve a dual function: modifiers of action-eventualities such as carefully in (9a); and modifiers of motion/change-eventualities such as fast in (9b).

(9) a. He drove the car carefully.
   b. He drove the car fast.

Given the adverbial status of depictive predicates, he claims, the question of why the verb in depictive predicate constructions must be stage-level can be explained straightforwardly, because it is action or motion/change denoted by the verb that modifiers of action- or motion/change-eventualities restrict in some way. Compare, for instance, (10) with (11) (the coindexing represents the predication relation between a depictive predicate and its host).

(10) a. *Johni is a doctor angryi.
    b. *Johni resembles his brother happyi.

    (Roberts (1988: 708))

(11) a. *Max resembled his mother sadly.
    b. *Max possessed three cards intentionally.

He also claims that the same explanation applies to (12) and (13), although the verbs in these examples are stage-level.

(12) a. ?*Johni received the letter angryi.
    b. ?*Johni acquired ulcers depressedi.

    (McNulty (1988: 211))

(13) a. *John received the book from Bill intentionally.
    b. *John acquired ulcers intentionally.

    (Gruber (1976: 157))

Furthermore, he argues that the claim that the verb in depictive predicate constructions must at least be stage-level, is effective in explaining why depictive predicates must be stage-level, because in (14), for example, the permanent property of the individual-level predicates cannot be compatible with the transitory eventuality.
described by the stage-level verbs.

(14) a. *Ayala bought the dogi intelligenti.
    b. *Ayala cut the breadi whitei.

This explanation for the semantic restriction seems to be basically correct. Yet, his analysis confronts the following problems. First, he emphasizes that depictive predicates are of adverbial status, but they have traditionally not been granted such status. For instance, no dictionary gives adverbial usage in the entries of angry and raw, though these words have most frequently been cited as depictive predicates. This, however, seems to be due not so much to a mistake of the traditional view as to the fact that depictive predicates are still immature as adverbs, as we will see in sections 3.3. and 3.4. It would then be problematic to treat depictive predicates and ordinary adverbs equally. Second, since his analysis does not grant adjectival status to depictive predicates at all, it will inevitably fail to predict the existence of the object-oriented depictive predicates as shown in (15).

(15) a. John sent Mary the packagei torni.
    b. I bought the tablei brokeni.
    c. I sold the tablei brokeni.

For ordinary action- or motion/change modifying adverbs are all subject-oriented. In order to overcome this difficulty, he assumes that the main verbs in (15) have complex event structures, which are loosely represented as in (16), and that depictive predicates can modify either the matrix or embedded event structures.

(16) \[\text{Event} \ x \ \text{cause} \ \text{Event} \ y \ \text{undergo a change of location/possession}\]
    (where y projects onto the verb’s object)

Based on this assumption, he argues that torn in (15a), for example, can be object-oriented, because it can felicitously modify the embedded sub-eventuality, i.e. the package’s undergoing change of location. Moreover, he applies the assumption to the sentences other than those with the verbs of motion, arguing that naked and raw in (17) can be subject-oriented and object-oriented respectively, since the verb eat consists of two eventualities: the eating action by the agent John, and the meat’s quantitative change.

(17) Johnj ate the meati rawi nakedi.

Though his arguments are apparently ingenious, there are a lot of counterexamples. Consider the following.

(18) first they weighed the trucki emptyi. (Nichols (1978: 326))
(19) a. We left the committee unhappy.\textsuperscript{5} 
    b. John met Fred drunk. (Roberts (1987: 95))

(20) a. You can count on John even drunk. 
    b. What do you make of John drunk? 
    (Jackendoff (1990: 204))

(21) Ethan photographed Nadav happy. 
    (Rapoport (1993b: 165))

The objects in these examples do not undergo any change or motion in the described events any more than do the objects in (22).

(22) a. *Eleanor saved the tree small. 
    b. *Mira phoned Ruti sick. 
    c. *Herman kicked the bear tired. 
    d. *Ned hugged Ed warm. 
    e. *The chef pursued the turkey contaminated. 
    f. *The baker checked the loaves hot. 
    (Rapoport (1993b: 177))

Since he explains that the lack of the sub-eventuality in which the referent of the object NP can participate is responsible for the ill-formedness of (22), the same explanation should be true of (18)-(21). They are well-formed however. Therefore, there seems to be a limit to accounting for the predication phenomena only in terms of the adverbial status.

The advantage and disadvantage of Maruta's analysis lead us to think that depictive predicates may be of adjectival nature as well as of adverbial nature. In fact, Long (1961: 265) notes in this respect that in (23) "the adjective cold is an adjunct of manner or circumstance and a half modifier of the complement the chicken."

(23) They ate the chicken cold.

Accordingly, in order for Maruta's explanation for the semantic restriction to provide its real value, it needs to be given an analysis capable of capturing the two-faced nature of depictive predicates successfully.

3. The Extension Theory

3.1. Outline

Kajita (1983a, 1983b) defines the possible rules of grammar in terms

\textsuperscript{5} Notice that unhappy in this example is not the AP complement of the verb left.
of the theory-format (24).

(24) a. Rules of type X are possible in G.
    b. If rules of type Y are in G\textsuperscript{i}, then rules of type Z are possible in G\textsubscript{i+1}. (Superscripts: particular languages; subscripts: stages of acquisition)

(24a) prescribes that rules of type X are possible in any grammar G of any language at any stage of language acquisition. Ike-uchi (1991: 109–110) states that they include the rules “constructed by combining the most basic meanings and expressional means that can be acquired at the earliest stages (and that may partly be innate).” (24b) asserts that it is only when a grammar at a certain stage of language acquisition satisfies a certain condition that a certain type of rules may be introduced into the grammar at the next stage. This is the embodiment of the notion ‘extension.’ What is important to notice is that (24) includes information about the process of language acquisition, but does not contain any direct information about its final results. (24) has the following advantages over a theory-format that makes reference only to the final stage of acquisition, i.e. the adult grammar, taking no account of its intermediate stages, i.e. pre-adult grammars. First, the class of possible grammars can be more narrowly restricted, because the only rules available to a child at the next stage of acquisition are those in (24a) and those which are introducible into his or her grammar under a certain condition. Second, the diversity of natural languages can be explained more easily, since so long as the candidate rules at the next stage are severely limited, it does not matter if adult grammars as final products of acquisition end up in being quite diverse. (See Yagi (1984), Kajita (1986) and Ike-uchi (1991) for further details.)

3.2. An Analysis of Depictive Predicates

Let us first assume that depictive predicates are introduced into a grammar under the condition of a ‘paradigmatic gap.’ In Kono (1985: 151), this condition is characterized as follows. Suppose that the set of four elements A, B, C and D forms a natural class or a paradigm, but the set of A, B and C does not, and suppose that A, B and C are in G\textsuperscript{i} but not D. In such a situation we say we have a paradigmatic gap in G\textsuperscript{i}. If G\textsuperscript{i} contains a certain paradigmatic gap, then it is possible for R' (a derived rule) to be derivatively generated to fill the gap in G\textsubscript{i+1}. With this characterization in mind, next assume an acquisitional stage
in English at which some basic adjectives (type-A adjectives) and adverbs isomorphic with them (type-A adverbs) have already been acquired by children. Here by type-A adverbs I mean what is called flat adverbs, examples of which are listed below (cf. Yasui et al. (1976) and Quirk et al. (1985)).

(25) bad, bright, clean, close, dear, deep, direct, easy, excellent, fair, fast, fine, fit, flat, free, full, heavy, high, just, late, light, low, luck, near, new, plain, quick, right, sharp, sure, tight, wide, wrong, etc.

Assume further that at this stage other basic adjectives (type-B adjectives) have also been acquired, but adverbs isomorphic with them (type-B adverbs) have not. In this situation, we have a kind of paradigmatic gap in that though type-A adjectives and adverbs form a natural class or a paradigm together with type-B adjectives and adverbs, type-B adverbs are absent. Then, at the next stage, in order to fill the gap, B-type adverbs are supposed to be introduced into the children's grammar. Notice that type-B adverbs here are what we have been referring to as depictive predicates.6

Let us now consider what consequences the above assumption would have. Maruta (1995) maintains simply that depictive predicates are modifiers of action- or motion/change-eventualities, but there is good reason to believe that they are more like flat adverbs than (manner) -ly adverbs. First, depictive predicates are easier to coordinate with flat adverbs than with -ly adverbs.

(26) a. *The lovers stood closely and silent.  
   b. The lovers stood close and silent.

Second, unlike -ly adverbs and like flat adverbs, depictive predicates can coordinate with present participles (cf. Fukuchi (1976)).

---

6 Other factors may be involved in the introduction of B-type adverbs (depictive predicates). One is that even if corresponding -ly adverbs exist and are entirely usable, adverbs without the suffix ly tend to be preferred, as more forceful, in informal styles when sentences are short and somewhat emotional (cf. Long (1961: 265)). Another factor is that A-type adverbs (flat-adverbs) and B-type adverbs (depictive predicates) are likely to be confused. This can be seen from the following examples, in which flat adverbs are mistakenly cited as depictive predicates.

( i ) a. they are sold cheap.  
   b. it reads quite clear. (Halliday (1967: 63))

( ii ) Eli broke the glass new. (Rapoport (1993a: 169))
(27) a. *The lovers stood trembling and silently.
b. The lovers stood silently trembling.
(28) a. The lovers stood close and trembling.
b. *The lovers stood close trembling.
(29) a. The lovers stood silent and trembling.
b. *The lovers stood silent trembling.

Third, unlike -ly adverbs, flat adverbs cannot occur in a position after the subject. Depictive predicates are similarly restricted.
(30) a. He slowly drove the car into the garage.
b. *He slow drove the car into the garage.

(Quirk et al. (1972: 238))
(31) a. *John drunk left the room.
b. *John raw ate the carrots.

Fourth, some -ly adverbs can be the focus of a cleft sentence, but the corresponding flat adverbs cannot.
(32) a. It was slowly that he drove the car into the garage.
b. *It was slow that he drove the car into the garage.

(Quirk et al. (1972: 238))

The same restriction holds for depictive predicates.
(33) a. *It was drunk that John left.
b. *It was raw that John ate the carrots.

Under our analysis, these facts are naturally expected, because depictive predicates are introduced into the grammar of children learning English on the model of flat adverbs. Notice that the two-faced nature of depictive predicates mentioned above is also a natural result of our analysis, since depictive predicates are those adjectives which acquired adverbial status through zero derivation. This means that they are internally adjectives but externally adverbs.

3.3. Derivativeness

Our proposed analysis is tantamount to claiming that depictive predicates are the derivative brought forth by a kind of analogical process. Their derivativeness is revealed by the following facts.

First, Pinker (1989: 107) remarks that “marked rules are those that generate constructions that are statistically rare across languages or across the lexical items of a single language ....” And there is some evidence showing that depictive predicates are statistically rare. Out of the depictive predicates cited in the traditional and generative grammars, I selected ten which are frequent in the Brown Corpus (cf.
Francis and Kučera (1982)).

(34) young (375/2), black (165/0), cold (147/2),\(^7\) poor (113/0),
happy (97/2), alive (57/12), dry (53/1), safe (51/1), sick (51/2), angry (45/4)

In (34), the figure on the left of the slash stands for the number of
adjectival uses, and the figure on the right of the slash, the number of
adverbial uses. (Note that the number of adjectival uses here includes
the number of adverbial uses.) This datum, albeit not enough, shows
clearly that depictive predicates are rarely used. The rarity becomes
clearer as compared with the number of flat adverbs. Out of (25), I
also selected ten which are frequent in the Brown Corpus.

(35) just (816/795), high (488/34), right (313/79), sure (264/39),
full (226/5), late (179/47), close (177/97), low (147/97), deep (83/16), fast (76/45)

In (35), in order to keep the parallelism, I gave the total number of
adjectival and adverbial uses on the left of the slash, and the number of
adverbial uses on the right of the slash.

Second, Ike-uchi (1990) reports that the judgment of wh-movement
of depictive predicates varies from speaker to speaker or from dialect
to dialect as in (36) and (37), and that the judgment can be influenced
by the pragmatic factors like how natural and plausible the speaker
feels the relation is between the main verb and the depictive predicate.

(36) a. OK/\(\)How raw did John eat the meat?
b. \(\)How drunk did you meet John?
c. \(\)How young did John buy the mare?
d. OK/\(\)How hot did John drink his coffee yesterday?

(37) a. \(\)How drunk did John discuss the topic yesterday?
b. \(\)How angry did John serve the meat?
c. \(\)How drunk did John bicycle home yesterday?
d. \(\)How angry did John leave the room?

He also reports that the same judgment is obtained with other con-
structions involving movement such as exclamatives, Though-Movement
constructions and comparatives, as in (38)-(40).

\(^7\) Notice that two are the examples of idiom and intensive usage rather than
depictive predicates, as in (i) and (ii).

(i) And one cannot but wonder whether Marshal Malinovsky, who has
blowing hot and cold, exalting peace but …. (Brown B25 1220-30)

(ii) … and knocked each other out cold\(\)", Shayne said good-humoredly.
        (Brown L05 1630-49)
(38) a. How raw John ate the meat!
b. How angry John left the room!

(39) a. Raw though John ate the meat, ...
b. Happy though John left the room, he came back totally disappointed.

(40) a. John ate the fish as raw as John ate the meat.
b. John entered the room today as angry as he left the room yesterday.

Because ordinary adverbs do not show such unstability, these data seem to suggest the derivativeness of depictive predicates.\(^8\)

3.4. Acquisition

Pinker (1989: 107) remarks that “all things being equal, one would expect marked rules to appear later in language development, and be accompanied by more errors, than unmarked rules.” If we follow this remark, our analysis will predict that depictive predicates appear later in language development than flat adverbs. In order to verify this prediction, I examined the speech corpus of the child named Adam which is stored in the CHILDES database (cf. Brown (1973), MacWhinney and Snow (1985) and MacWhinney (1991)). There are 55 files in the Adam corpus covering the ages 2;3 to 4;10. As for flat adverbs, it turns out that in every file we find several or more instances, and that though many of the instances are back, just and right, we come across occasionally such examples as apart, better, far, first, front, hard, later, next, quick, slow and smaller, including the

\(^8\) Taking it into consideration that many generative grammarians (e.g. Chomsky (1986), Roberts (1987), McNulty (1988), Nakajima (1990), Rizzi (1990)) reject the examples of wh-movement, wh-movement of depictive predicates may be, if anything, hard to accept. A natural question arises as to why this is so, and the cause seems to lie also in the derivativeness of depictive predicates. Chomsky (1981: 147, note 108) states that the examples (i) are moderately acceptable, presumably because they are only derivatively generated.

\(\text{(i) }\)
\begin{enumerate}
  \item they forced it to rain (by seeding the clouds)
  \item they forced better care to be taken of the orphans (by passing new laws)
\end{enumerate}

He states further that this is supported by the evidence that they are resistant to further grammatical operations.

\(\text{(ii) }\)
\begin{enumerate}
  \item *it was forced to rain
  \item *better care was forced to be taken of the orphans
\end{enumerate}

Therefore, the resistance of depictive predicates to wh-movement would be accounted for in a similar fashion.
following.

(41)  a. Age (2;8.0) you going faster [?]?  
      (BROWN¥ADAM¥ADAM11.CHA: 15)
  b. Age (2;8.0) he’s going round.  
      (BROWN¥ADAM¥ADAM12.CHA: 26)
  c. Age (3;4.0) I talking very quiet.  
      (BROWN¥ADAM¥ADAM29.CHA: 1322)
  d. Age (3;6.0) watch it go up so high.  
      (BROWN¥ADAM¥ADAM33.CHA: 285)
  e. Age (4;5.0) I just put it down too tight.  
      (BROWN¥ADAM¥ADAM48.CHA: 245)
  f. Age (4;6.0) can I borrow one of yours and keep it very long?  
      (BROWN¥ADAM¥ADAM49.CHA: 1433)

As for depictive predicates, however, there is no instance found. These findings are obviously consistent with our prediction.

3.5. Further Extension

Thus far we have limited our discussion mainly to the cases where depictive predicates are APs. But APs are not the only member of depictive predicates. Other possible members are past participles, present participles, PPs and predicate nominals, as exemplified in (42).

(42)  a. The chef cooked the bird contaminated.  
      [past participle] (Rapoport (1991: 161))
  b. Bill encountered Harry leaving the room.  
      [present participle]
  c. Bill encountered Harry out of sorts.  [PP]
  d. Bill encountered Harry a pauper.  [predicate nominal]  
      (Jackendoff (1990: 206))

However, these depictive predicates cannot be generated by the process proposed in section 3.2. Let us suppose then that they are introduced into the children’s grammar in another way. Assume first that there is an acquisitional stage in English at which the constructions containing flat adverbs, depictive APs and postnominal modifiers have already been acquired, but those containing the above depictive predicates have not yet. Assume further that at this stage, children encounter the situation in which these predicates can be interpreted as both postnominal modifiers and depictive predicates. In this connection, Bouldin (1990) notes that the example (43a) is ambiguous: it gets either
the postnominal or the depictive reading, which are paraphrased in (43b) and (43c), respectively.

(43)  
a. We ate the biggest piece microwaved.
b. We ate the biggest piece that was/had been microwaved.
c. The biggest piece we ate microwaved.

Thus children are supposed to come across just such an example. What is noteworthy to this example is that whether *microwaved* is interpreted as a postnominal modifier or a depictive predicate, there is little difference in meaning. Furthermore, if the latter reading is chosen, there arises the situation of ‘syntactico-semantic discrepancy,’ because *microwaved* is interpreted as an adverbial but is not given an appropriate syntactic position for that interpretation. Then, at the next stage of acquisition, the following process will be activated to eliminate the discrepancy (cf. Ishii (1985)).

(44) If, at a certain stage of acquisition $S_i$, a syntactico-semantic discrepancy occurs, then, at the next stage $S_{i+1}$, rules of syntactic reinterpretation (or some other types of rules) are introduced as derivative rules so that the discrepancy in question may be eliminated by the application of the rules.

Notice that in the extension theory it is hypothesized that rules of syntactic reinterpretation cannot operate without a model or a target in addition to a sufficient motivation. Assume that in the case we are considering, depictive APs and flat adverbs are such a model, and that *microwaved* is syntactically reinterpreted into an adverbial on this model. Notice also that a model, by definition, must satisfy at least one of the three defining characteristics: structural similarity, semantic similarity and functional similarity (see Ike-uchi (1991) for some details). In this light, depictive APs and many flat adverbs are well-qualified, since they are functionally similar to postnominal past participles, present participles and PPs in that they can have predication relations with the NPs to which they relate, as attested by (45).^9

(45)  
a. The papers [removed from the safe by the robbers] have not been found.
    (The papers were [removed from the safe by the robbers].)

^9 Notice that the fact that depictive APs and many flat adverbs can have predication relations with their host NPs follows from their adjectival nature.
b. The man [holding the bottle] disappeared.
   (The man is [holding the bottle].)

c. The boy [in the doorway] waved to his father.
   (The boy is [in the doorway].) (Baker (1989: 262))

This explanation, however, fails to deal with predicate nominals, because they do not modify an NP postnominally.

(46) any person |who is/?/ a layer (McCawley (1988: 382))

Assume then that depictive predicate nominals are introduced into the grammar in still another way: on the basis of the fact that predicate nominals are semantically similar to depictive APs and many flat adverbs in having adjectival nature. The adjectival nature of predicate nominals manifests itself in a variety of ways. First, predicate nominals can coordinate with adjectives.

(47) John is both a good teacher and highly competent.
   (Halliday (1967: 71))

Second, both adjectives and predicate nominals may take *indeed* as a modifier.

(48) a. You are foolish indeed.
    b. What you are carrying is a burden indeed.
    cf. *The girl I’m looking for is Mary indeed.
   (Bolinger (1972: 97))

Third, they can enter into the imperative construction, if self-controllable.

---

10 Strictly speaking, we claim that depictive predicate nominals are introduced into the grammar under the condition of ‘syntactico-semantic overlapping.’ In Kajita (1977: 66), it is characterized as follows. Suppose $G_i$ contains a syntactic rule $R$ which satisfies the condition (i):

(i) (a) $R$ is defined only in terms of syntactic categories $A_1, ..., A_n$ and other syntactic primitives.
   (b) Many, if not all, of the structures generated by $R$ are such that they could have been generated by another rule $R'$ (not contained in $G_i$) whose definition would be identical with that of $R$ except that, in the former, one of the syntactic categories that appear in the latter, say $A_i$, is replaced by a set of semantic element, $B_i$.

If this condition is satisfied, $G_i$ may be developed into $G_{i+1}$, where the hypothetical rule $R'$ specified in (ib) above is actually incorporated into the grammar, without eliminating the rule $R$ on the basis of which $R'$ has been constructed.

Kajita (1977: 67) hypothesizes further that once $R'$ has been developed, it should be applicable to phrases of any syntactic structure, so long as they convey the semantic information $B_i$. 
Fourth, Inversion does not apply to either of them.

Finally, predicate nominal can undergo *Though*-movement, which is sensitive to adjectival categories.

The sensitivity of *Though*-movement to adjectival categories is confirmed by the fact that it applies to adjectival passives but not to verbal passives, as in (52), and that it is blocked when the fronted PPs are locational but is applicable when they describe a property of the subject, as in (53).\(^{11}\)

4. Conclusion

In this paper we have argued that as an answer to the question of why the semantic restriction is imposed on depictive predicates, Maruta’s explanation is more plausible than Rapoport’s, but that the

\(^{11}\) We must add that *Though*-movement is also sensitive to manner -ly adverbs and VPs, as in (i) and (ii).

(i)  
\begin{enumerate}
  \item a. Carefully though the elephant walked into the room, it broke a vase.
  \item b. Fortunately though John was saved, he didn’t thank us.
\end{enumerate}  

(ii) 
\begin{enumerate}
  \item a. Eat the meat nude/singing though John did, nobody thought he was crazy.
  \item b. Clean the pool for free though John did, they still thought he was a freeloader.
\end{enumerate}
status of depictive predicates is not as simple as he supposes: they are, so to speak, half-fledged adverbials with adjectival nature rather than full-fledged adverbials. We have therefore argued that in order for his explanation to be valid, it must be given an analysis which can provide an adequate account for such peculiar status, just like the one proposed here.

REFERENCES


Iwasawa, Katsuhiko (1985) "Three Levels of Complement APs and the Notion of Time," Tsukuba English Studies 3, 229-241, University of Tsukuba.


Kajita, Masaru (1983b) "Grammatical Theory and Language Acquisition," paper presented at a symposium, the 1st Annual Meeting of the English Linguistic Society of Japan.

Kajita, Masaru (1986) "Chomsky kara no Mittsu no Bunkiten (Three Turning Points from Chomsky)," Gengo 15.12, 96-104.


Nichols, Johanna (1978) "Double Dependency?" CLS 14, 326-339.


Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik (1985) 

*Syntax and Semantics 25: Perspectives on Phrase Structure*, ed. by Susan D. 

Rapoport, Tova R. (1993a) “Stage and Adjunct Predicates: Licensing and 
Structure in Secondary Predication Construction,” *Knowledge and Lan-
guage II: Lexical and Conceptual Structure*, ed. by Eric Reuland and 

and the Lexicon*, ed. by James Pustejovsky, 163-184, Kluwer Academic 
Publishers, Dordrecht.


Subjects*, Foris, Dordrecht.


Rothstein, Susan (1983) *Syntactic Form of Predication*, Doctoral dissertation, 
MIT.


Yasui, Izumi (1980) “Eigo no be Doushi no Tagisei (Syntactic Ambiguity in 
English Be),” *Eigogaku* 23, 40-67.

Yasui, Minoru, Satoshi Akiyama, and Masaru Nakamura (1976) *Keiyoshi 
(Adjectives)*, Kenkyusha, Tokyo.

Department of British & American Studies 
Aichi University of Education 
1 Hirosawa, Igaya-cho 
Kariya 448 
e-mail: nkoizumi@auecc.aichi-edu.ac.jp