An RCS Approach to Agreement*

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I. Introductory Remarks

Agreement is a grammatical relationship between the constituents of the phrase, clause, or sentence, whereby a form of one word agrees with a corresponding form of another. Agreement involves person, number, gender, case, etc., which are either word-internal or inflectional.[1] Consider the following two diagrams of agreement relationships.

(1)

a. Subject ↔ Verb ↔ Complement

↑_____↑

b. Determiner ↔ Adjective ↔ Noun

↑_____↑

(1a) depicts three possibilities: First, the subject corresponds with the verb; second, the subject corresponds with both the verb and the complement; third, the subject corresponds with the complement. On the other hand, (1b) represents only two possibilities: First, the determiner agrees with both the adjective and the noun; second, the determiner agrees with the noun.[2]

The purpose of this paper is to show an RCS[3] account of agreement in English, French and German. In the course of the discussion, I will use four innovative devices of my own: the Definition of n, n-Continuation, n-Discontinuation, and Dissimilation Rule. The n in the first three devices consists of agreement features. Unlike the first three devices, the Dissimilation Rule is a language specific rule, which was devised to formalize the German weak/strong alternation phenomenon.

II. Agreement in English

Brame (1987: 167) formulated a proposition operator which carries two instances of the variable coindex n to account for the subject-verb agreement [See (2b) below]. As it stands, the value of n can be one of the following three person features: 1, first person; 2, second person; 3, third person. Given the relevant lexical specifications in (2), a well-formed sentence such as *Chomsky sleeps* can be induced by I-Induction, the left-to-right concatenation mechanism, as shown in (3).

(2)

a. $|\Lambda,\$|D>$

b. $|\Lambda,\Sigma|\$D_n,VT^x{}_n>$

c. $|Chomsky,D3|$

d. $|sleeps,VT^o3|$

(3) Chomsky sleeps.

a. $|\Lambda,\$|D>(|Chomsky,D3|)=|Chomsky,\$D3|$

b. $|\Lambda,\Sigma|\$D_n,VT^x{}_n>(|Chomsky,\$D3|)=|Chomsky,\Sigma\$D3|VT^x3>$

c. $|Chomsky,\Sigma\$D3|VT^x3>(|sleeps,VT^o3|)=|Chomsky\text{-}sleeps,\ \Sigma\$D3VT^o3|$

I wish to modify Brame's n-coindexing to include other agreement features such as number, gender, etc. Therefore, I suggest the following definition of n.

(4) Definition of n:

n={ α, β, γ,...}, where

(i) α, β, and γ represent respectively person, number, and gender features,

(ii) the dots can be replaced with possible representatives of agreement features, and

(iii) the feature can be left out if agreement thereof is lost or missing.

In accordance with the above development, (2c)-(2d) and (3) are now replaced with those in (5) and (6). Notice that the value of n is determined as {3,sg}, third person singular.

(5)

a. $|\textit{Chomsky},D_{\{3,sg\}}|$

b. $|\textit{sleeps},VT^{o}_{\{3,sg\}}|$

(6) Chomsky sleeps.

a. $|\Lambda,\$|D>(|\textit{Chomsky},D_{\{3,sg\}}|)=|\textit{Chomsky},\$D_{\{3,sg\}}|$

b. $|\Lambda,\Sigma|\$D_n,VT^{x}_{n}>(|\textit{Chomsky},\$D_{\{3,sg\}}|)=|\textit{Chomsky},\Sigma\$D_{\{3,sg\}}|VT^{x}_{\{3,sg\}}>$

c. $|\textit{Chomsky},\Sigma\$D_{\{3,sg\}}|VT^{x}_{\{3,sg\}}>(|\textit{sleeps},VT^{o}_{\{3,sg\}}|)=|\textit{Chomsky-sleeps},\Sigma\$D_{\{3,sg\}}\ VT^{o}_{\{3,sg\}}|$

To account for the agreement in subject-verb inversion interrogatives such as *Is he eating?*, Brame (1987: 171) introduces a couple of operators. (7a) is the inverted word order operator which combines with an auxiliary verb and produces an interrogative auxiliary, as illustrated in (8a). (7c) sets things up for the induction of structures involving inverted word order. Since (7c) is a dl-word, it is subject to dl-Induction, which is responsible for both the left-to-right and the right-to-left concatenation.

(7)

a. $|\Lambda,U|\underset{+aux}{V}>$

b. $|\textit{is},VT^{o}_{\{3,sg\}}|VT^{prog}>$

c. $<\underset{+aux}{UVT^{x}_{n}}|\Lambda,\Delta|\$D_n>$

d. $|\textit{he},\$D_{\{3,sg\}}|$

e. $|\textit{eating},VT^{prog}|$

(8) Is he eating?

a. $|\Lambda,U|\underset{+aux}{V}>(|is,VT^{o}_{\{3,sg\}}|VT^{prog}>)=|\textit{is},\underset{+aux}{UVT^{o}_{\{3,sg\}}}|VT^{prog}>$

b. $(|\textit{is},\underset{+aux}{UVT^{o}_{\{3,sg\}}}|VT^{prog}>)<\underset{+aux}{UVT^{x}_{n}}|\Lambda,\Delta|\$D_n>(|\textit{he},\$D_{\{3,sg\}}|)=$
$|\textit{is-he},\underset{+aux}{UVT^{o}_{\{3,sg\}}}\Delta\$D_{\{3,sg\}}|VT^{prog}>$

c. $|\textit{is-he},\underset{+aux}{UVT^{o}_{\{3,sg\}}}\Delta\$D_{\{3,sg\}}|VT^{prog}>(|\textit{eating},VT^{prog}|)=$
$|\textit{is-he-eating},\underset{+aux}{UVT^{o}_{\{3,sg\}}}\Delta\$D_{\{3,sg\}}VT^{prog}|$

Agreement in wh-root questions can also be accounted for straightforwardly as shown under (10). Of importance here are the following three points: First, the object of *eating* is the empty determiner $_{x}D$ as

pictured in (9a); second, the $_xD$ is associated with the two instances of $_xD$ in (9b) in terms of the subscripted x; third, the variable type represented as the upper-case X in (9b) is replaced with $\underset{+aux}{VT^{o}_{\{3,sg\}}}\Delta\$D_{\{3,sg\}}VT^{prog}$ by the rule of Variable Continuation, as shown in (10b).

(9)

a. $|eating,VT^{prog}\ {}_xD|$

b. $|what,Q_xD|UX_xD>$[4]

(10) What is he eating?

a. $|what,Q_xD|UX_xD>(|is\text{-}he\text{-}eating,\underset{+aux}{UVT^{o}_{\{3,sg\}}}\Delta\$D_{\{3,sg\}}VT^{prog}\ {}_xD|)=$

b. $|what\text{-}is\text{-}he\text{-}eating,Q_xD\underset{+aux}{UVT^{o}_{\{3,sg\}}}\Delta\$D_{\{3,sg\}}VT^{prog}{}_xD|$

Let us now consider a more complicated construction involving an embedded clause such as *He is a linguist who hates Move-α*. First, the lexical specifications of relevant words are in order. (11a) is a determiner which selects, among others, a relative determiner typed as RD_n, the head of a relative clause. The symbol A_0 is designed to account for the fact that "zero, one or more" adjectives can modify a noun. There is no adjective at the greatest lower bound, hence the subscript zero is used; the least upper bound is unlimited in theory, therefore being unspecified. (11e) represents "zero determiner" which is a phonetically null determiner. Given those and other relevant lexical specifications in (11), the embedded construction can be induced, as illustrated in (12).

(11)

a. $|a,D_{\{3,sg\}}|A_{0n},N_n,RD_n>$

b. $|linguist,N_{\{3,sg\}}|$

c. $|who,RD_{\{3,sg\}}|VT^{x}{}_n>$

d. $|hates,VT^{o}_{\{3,sg\}}\ |D>$

e. $|\Lambda,D^{\phi}_n|A_{0n},N_n>$

f. $|Move\text{-}\alpha,N_{\{3,sg\}}|$

(12) He is a linguist who hates Move-α.

a. $|\Lambda,\Sigma|\$D_n,VT^{x}{}_n>(|he,\$D_{\{3,sg\}}|)=|he,\ \Sigma\$D_{\{3,sg\}}|VT^{x}{}_{\{3,sg\}}>$

b. $|he,\Sigma\$D_{\{3,sg\}}|VT^{x}{}_{\{3,sg\}}>(|is,VT^{o}_{\{3,sg\}}\ |D>)=|he\text{-}is,\Sigma\$D_{\{3,sg\}}VT^{o}_{\{3,sg\}}$

$|D_{\{3,sg\}}>$

c. $|\alpha,D_{\{3,sg\}}|A_{0n},N_n,RD_n>(|$ *linguist*$,N_{\{3,sg\}}|)=|$ *a-linguist*$,D_{\{3,sg\}}N_{\{3,sg\}}$ $|RD_{\{3,sg\}}>$

d. $|$ *he-is*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}|D_{\{3,sg\}}>(|$ *a-linguist*$,D_{\{3,sg\}}N_{\{3,sg\}}|RD_{\{3,sg\}}>)=$ $|$ *he-is-a-linguist*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}N_{\{3,sg\}}|RD_{\{3,sg\}}>$

e. $|$ *he-is-a-linguist*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}N_{\{3,sg\}}|RD_{\{3,sg\}}>(|$ *who*$,RD_{\{3,sg\}}|$ $VT^x_n>)=|$ *he-is-a-linguist-who*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}N_{\{3,sg\}}RD_{\{3,sg\}}|$ $VT^x_{\{3,sg\}}>$

f. $|$ *he-is-a-linguist-who*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}N_{\{3,sg\}}RD_{\{3,sg\}}|VT^x_{\{3,sg\}}>$ $(|$ *hates*$,VT^o_{\{3,sg\}}|D>)=|$ *he-is-a-linguist-who-hates*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}$ $N_{\{3,sg\}}RD_{\{3,sg\}}VT^o_{\{3,sg\}}|D>$

g. $|\Lambda,D^{\phi}_n|A_{0n}N_n>(|$ *Move-*$\alpha,N_{\{3,sg\}})=|$ *Move-*α, $D^{\phi}_{\{3,sg\}}$ $N_{\{3,sg\}}|$

h. $|$ *he-is-a-linguist-who-hates*$,\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}N_{\{3,sg\}}RD_{\{3,sg\}}VT^o_{\{3,sg\}}|$ $|D>(|$ *Move-*$\alpha,D^{\phi}_{\{3,sg\}}$ $N_{\{3,sg\}}|)=|$ *he-is-a-linguist-who-hates-Move-*α, $\Sigma\$D_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D_{\{3,sg\}}N_{\{3,sg\}}RD_{\{3,sg\}}VT^o_{\{3,sg\}}$ $D^{\phi}N|$

The above derivation raises two problems: First, what guarantees the n-coindexing between the verb *is* and its complement *a linguist* in (12b)?; second, what ensures the irrelevancy of the n-coindexing between the verb *hates* and its object *Move-*α in (12h)? From the viewpoint of our RCS approach, a tempting solution would be to introduce D_n as the third component of the argument category of the proposition operator. This would look like $|\Lambda,\Sigma|\$D_n,VT^x_n,D_n>$. This suggestion, however, gives rise to a 'subcategorization conflict': If both the proposition operator and the verb *is* are subcategorized to select D_n, then either one of the two D_n's is realized as a superfluous element.

An alternative to the above solution would be to assign n to the argument category of *is*. This would look like $|$ *is*$,VT^o_{\{3,sg\}}|D_n>$. This solution calls for an n-assigning mechanism. With this in mind, notice that the n, i.e. {3,sg} needs to be eliminated from the argument category of *hates,* as illustrated in (12h) to account for the absence of verb-complement agreement. The key to the two problems of the alternative

solution is the switch: We need a switch in order to switch. Therefore, I put forward the following two rules.

(13) n-Continuation:

If<... | x,φ_n |Ψ_n ...>$\in$LEX and <... | y,Ψ_n |θ...>$\in$LEX, then

<... | x-y,$\varphi_n\Psi_n$ |θ_n ...>$\in$LEX.

(14) n-Discontinuation:

If<... | x,φ_n |Ψ ...>$\in$LEX and <... | y,Ψ_n | ...>$\in$LEX, then

<... | x-y,$\varphi_n\Psi$ | ...>$\in$LEX.

Notice that (13) ensures the continuation of n in the induced category *he-is* in (12b), while (14) eliminates the n, i.e. {3,sg} of *Move-*α in (12h). Do the above two rules apply whenever the conditions are satisfied in any language? It depends. Generally speaking, the n-Continuation involves the structure Subj-BE-DP, where BE means the existential verb such as *be* in English, *est* in French, *ist* in German, etc. On the other hand, the n-Discontinuation involves the structure V-DP, where V represents nonexistential verbs. Agreement in French, however, includes the structure Subj-BE-AP. Let us consider the phenomenon and then demonstrate the productiveness of n-Continuation.

III. Agreement in French

Unlike English, French predicate adjectives must agree with their subjects with respect to number and gender, as shown in the following two sets of examples.[5]

(15)

a. Il est heureux. 'He is happy (mas).'

b. *Il est heureuse. 'He is happy (fem).'

(16)

a. Ils sont petits. 'They (mas) are small (mas, pl).'

b. Elles sont petites. 'They (fem) are small (fem, pl).'

c. *Elles sont petits. 'They (fem) are small (mas, pl).'

The problem that concerns us here is: How do we account for the agreement between the subject and the predicate adjective? The n-Continuation (13) offers the answer. To see this in proper perspective,

let us take (15a) as an example and examine its derivation below. Given the specifications of relevant words in (17), the target sentence is inducible as illustrated in (18).

(17)

a. $|Il,\$D_{\{3,sg,mas\}}|$

b. $|est,VT^{o}_{\{3,sg,mas\}}|A>$

c. $|heureux,A_{\{3,sg,mas\}}|$

(18) Il est heureux. 'He is happy (mas).'

a. $|\Lambda,\Sigma|\$D_{n},VT^{x}_{n}>(|Il,\$D_{\{3,sg,mas\}}|)=|Il,\ \Sigma\$D_{\{3,sg,mas\}}|VT^{x}_{\{3,sg,mas\}}>$

b. $|Il,\Sigma\$D_{\{3,sg,mas\}}|VT^{x}_{\{3,sg,mas\}}>(|est,VT^{o}_{\{3,sg,mas\}}|A>)=|Il\text{-est},\Sigma\$D_{\{3,sg,mas\}}$ $VT^{o}_{\{3,sg,mas\}}|A_{\{3,sg,mas\}}>$

c. $|Il\text{-}est,\Sigma\$D_{\{3,sg,mas\}}VT^{o}_{\{3,sg,mas\}}|A_{\{3,sg,mas\}}>(|heureux,A_{\{3,sg,mas\}}|)=$ $|Il\text{-}est\text{-}heureux,\Sigma\$D_{\{3,sg,mas\}}VT^{o}_{\{3,sg,mas\}}A_{\{3,sg,mas\}}|$

The subject-predicate adjective agreement in (18b) has been executed in terms of the n-Continuation (13). Examples (16a)-(16b) can be accounted for along the same lines.

The ill-formed examples of (15b) and (16c) result from the incompatibility of agreement features as marked by the upper-case X in (19). Due to the conflicting gender features, *Il-est* and *heureuse* are not combined; therefore, the ill-formed sentence is not inducible.

(19)

$|Il\text{-}est,\Sigma\$D_{\{3,sg,mas\}}VT^{o}_{\{3,sg,mas\}}|A_{\{3,sg,mas\}}>(|heureuse,A_{\{3,sg,fem\}}|)=\phi$

↑_____↑_____↑_____X_____↑

VI. Agreement in German

Determiners, adjectives, and nouns in German determiner phrases must agree in number, gender, and case. Consider the examples below.

(20)

a. $\underset{neu}{\underline{das}}$ $\underset{neu}{kleine}$ $\underset{neu}{Mädchen}$ 'the little girl (singular-neuter-nominative)'

b. *$\underset{mas}{\underline{den}}$ $\underset{neu}{kleine}$ $\underset{neu}{Mädchen}$

The underlined determiner in (20b) does not agree with the rest of the elements in the phrase, hence the phrase is asterisked to indicate that it

is ill-formed.

Let us now illustrate how (20a) is induced. Given the lexical specifications in (21), the induction of the target phrase is straightforward.

(21)

a. $|\textit{das}, D_{\{sg,neu,nom\}} | A_{0n}, N_n >$

b. $|\textit{kleine}, A_{\{sg,neu,nom\}}|$

c. $|\textit{Mädchen}, N_{\{sg,neu,nom\}}|$

(22) das kleine Mädchen 'the little girl'

a. $|\textit{das}, D_{\{sg,neu,nom\}} | A_{0\{sg,neu,nom\}}, N_{\{sg,neu,nom\}} > (|\textit{kleine}, A_{\{sg,neu,nom\}}|) =$
$|\textit{das-kleine}, D_{\{sg,neu,nom\}} A_{\{sg,neu,nom\}} | N_{\{sg,neu,nom\}} >$

b. $|\textit{das-kleine}, D_{\{sg,neu,nom\}} A_{\{sg,neu,nom\}} | N_{\{sg,neu,nom\}} > (|\textit{Mädchen}, N_{\{sg,neu,nom\}}|) = |\textit{das-kleine-Mädchen}, D_{\{sg,neu,nom\}} A_{\{sg,neu,nom\}} N_{\{sg,neu,nom\}}|$

Incidentally, (20b) cannot be induced due of course to the incompatible gender feature of the determiner.

Of relevance to the above issue is that German determiner phrases observe the strong/weak alteration constraint. If the determiner is in the strong form, then the following adjective is in the weak form, and conversely if the determiner is in the weak form, then the following adjective is in the strong form.[6] The strong form can be created by adding a case-suffix. There are five types of strong case-suffixes: (i) the definite determiner suffixes in (26a); (ii) the masculine genitive and dative suffixes in (26b); (iii) the neuter genitive and dative suffixes in (26b); (iv) the masculine nominative and accusative suffixes in (27b); (v) the neuter nominative and accusative suffixes in (27b). The rest of the suffixes in (26) and (27) are used to produce the weak form. Consider the examples below, where S means the strong form, and W means the weak form.

(23)

a. das kleine/*das kleines Mädchen
S W S S

b. ein interessantes/*ein interessante Buch 'an interesting book'
W S W W

Quite interestingly, the constraint applies irrespective of the number of adjectives involved. Consider the following examples.

(24)

a. das kleine kluge Mädchen 'the little wise girl (sing-neuter-nominative)
   S W W

b. *das kleine kluges Mädchen
   S W S

c. *das kleines kluges Mädchen
   S S S

I name the constraint Dissimilation Rule and formalize it under (25). Recall that A_0 accounts for the fact that a number of adjectives can modify a noun.

(25) Dissimilation Rule

$$D \quad A_0 \quad N \rightarrow 1 \quad 2 \quad 3$$

$$[\alpha\text{strong}] \qquad [-\alpha\text{strong}]$$

$$1 \quad 2 \quad 3$$

With respect to the German inflection involving determiner and adjective, there are four paradigms: (i) definite determiner suffixes [See (26a) below]; (ii) indefinite determiner suffixes [See (26b)]; (iii) adjective suffixes in the structure D^{def} - A - N [See (27a) below]; (iv) adjective suffixes in the structure D^{indef} - A -N [See (27b)]. The four paradigms are pictured under (26), where a blank space means the lack of inflectional suffix.

(26) Determiner suffixes

a. Definite determiner suffixes

	Masculine	Neuter	Feminine	Plural
Nominative	-er	-es[7]	-e	-e
Genitive	-es	-es	-er	-er
Dative	-em	-em	-er	-en
Accusative	-en	-es[8]	-e	-e

b. Indefinite determiner suffixes

	Masculine	Neuter	Feminine	Plural
Nominative			-e	-e
Genitive	-es	-es	-er	-er
Dative	-em	-em	-er	-en
Accusative	-en		-e	-e

(27) Adjective suffixes

a. Adjective suffixes in the structure D^{def} - A - N

	Masculine	Neuter	Feminine	Plural
Nominative	-e	-e	-e	-en
Genitive	-en	-en	-en	-en
Dative	-en	-en	-en	-en
Accusative	-en	-e	-e	-en

b. Adjective suffixes in the structure D^{indef} - A -N

	Masculine	Neuter	Feminine	Plural
Nominative	-er	-es	-e	-en
Genitive	-en	-en	-en	-en
Dative	-en	-en	-en	-en
Accusative	-en	-es	-e	-en

Recall that the presence of determiner is obligatory in the Dissimilation Rule (25). With this in mind, consider the following examples which appear to lack determiners.

(28)

a. gutes/*guten Bier 'good beer (neuter nominative)'
   S W
b. kaltem/*kalten Bier 'cold beer (neuter dative)'
   S W

What is it that the above well-formed examples have in common? The adjectives are in the strong form. In such an environment, the adjective acts like the definite determiner and case-inflects according to the paradigm recorded in (26a).[9] As we shall see shortly, it is not coincidence that the adjective in the strong form and the definite determiner in the strong form exhibit the same case-inflection.

In order to account for the above phenomenon, I suggest the zero determiners as shown in (29). Here, the zero determiners are uniformly specified to bear the feature [-strong]. The gender feature is irrelevant to the subject under consideration.

(29) Zero determiners

a. $|\underset{[\text{-strong}]}{\Lambda}, D^{\phi}_{\{sg,nom\}}|\ A_{0n}, N_n >$

b. $|\underset{[\text{-strong}]}{\Lambda}, D^{\phi}_{\{sg,gen\}}|\ A_{0n}, N_n >$

c. $|\underset{[\text{-strong}]}{\Lambda,D^{\phi}}_{\{sg,dat\}}|\ A_{0n},N_n>$

d. $|\underset{[\text{-strong}]}{\Lambda,D^{\phi}}_{\{sg,acc\}}|\ A_{0n},N_n>$

e. $|\underset{[\text{-strong}]}{\Lambda,D^{\phi}}_{\{pl,nom\}}|\ A_{0n},N_n>$

f. $|\underset{[\text{-strong}]}{\Lambda,D^{\phi}}_{\{pl,gen\}}|\ A_{0n},N_n>$

g. $|\underset{[\text{-strong}]}{\Lambda,D^{\phi}}_{\{pl,dat\}}|\ A_{0n},N_n>$

h. $|\underset{[\text{-strong}]}{\Lambda,D^{\phi}}_{\{pl,acc\}}|\ A_{0n},N_n>$

There are three reasons why I believe that there are zero determiners. First, the well-formed strings of (28) cannot be induced if there is no zero determiner. Adjectives do not select arguments. It is the determiner which selects arguments such as adjectives and nouns. Second, the well-formed vs. ill-formed categorization of (28) naturally follows from the Dissimilation Rule if there is the zero determiner. Third, if there is no zero determiner, then we would not obtain the symmetrical paradigm of the strong/weak alteration as pictured in (30), where D^w represents the zero determiner.

(30) Symmetrical paradigm of the strong/weak alteration

$$\frac{D^S \mid A^W}{D^W \mid A^S}$$

With respect to the well-formed weak/strong alteration in the determiner phrase, there are four possible patterns: (i) the strong definite determiner followed by the weak adjective; (ii) the weak zero determiner followed by the strong adjective; (iii) the strong indefinite determiner followed by the weak adjective; (iv) the weak indefinite determiner followed by the strong adjective. The four combinations fit in beautifully with the symmetrical paradigm of (30), as shown below.

(31)

$$\begin{array}{cc|cc} D^{def}\text{-}A & & D^{indef}\text{-}A & \\ S & W & S & W \\ \hline D^{\phi}\text{-}A & & D^{indef}\text{-}A & \\ W & S & W & S \end{array}$$

The reader might raise a question at this point: Is there a strong

zero determiner? If there isn't, why? The reason why there is no strong zero determiner is obvious. The strong adjective acts like the definite determiner in terms of the case-inflection, therefore the zero strong determiner is superfluous and unnecessary.

Given the specifications of zero determiners, the well-formed examples of (28) can be induced straightforwardly as shown below.

(32)

a. $|\Lambda, D^{\phi}_{\{pl,nom\}} | A_{0n}, N_n > (|gutes, A_{\{pl,neu,nom\}}|) =$
$|gutes, D^{\phi}_{\{pl,nom\}} A_{\{pl,neu,nom\}} | N_n >$

b. $|gutes, D^{\phi}_{\{pl,nom\}} A_{\{pl,neu,nom\}} | N_n > (|Bier, N_{\{pl,neu,nom\}}|) =$
$|gutes\text{-}Bier, D^{\phi}_{\{pl,nom\}} A_{\{pl,neu,nom\}} N_{\{pl,neu,nom\}}|$

Unlike French, German lacks the subject-predicative adjective agreement. Consider the examples below.

(33) Das Buch ist klein/*kleine/*kleines/*kleinen. 'The book is small.'

Adjectives in the bare forms such as *klein,* however, can occur in the predicative environment as shown above. Those predicative adjectives are specified to carry [+pre] feature, where +pre means +predicative.

(34) $|klein, A_{[+pre]}|$

Given the lexical specifications in (34) and (35), the well-formed example of (33) can be induced as illustrated in (36).

(35)

a. $|\Lambda, \Sigma | \$D_n, VT^x_n >$

b. $|\Lambda, \$ | D >$

c. $|das, D_{\{sg,neu,nom\}} | A_{0n}, N_n >$

d. $|Buch, N_{\{sg,neu,nom\}}|$

e. $|ist, VT^o_{\{sg\}} | A_{[+pre]} >$

(36) Das Buch ist klein.

a. $|das, D_{\{sg,neu,nom\}} | A_{0n}, N_n > (|Buch, N_{\{sg,neu,nom\}}|) = |das\text{-}Buch, D_{\{sg,neu,nom\}} N_{\{sg,neu,nom\}}|$

b. $|\Lambda, \$ | D > (|das\text{-}Buch, D_{\{sg,neu,nom\}} N_{\{sg,neu,nom\}}|) = |das\text{-}Buch, \$D_{\{sg,neu,nom\}} N_{\{sg,neu,nom\}}|$

c. $|\Lambda, \Sigma | \$D_n, VT^x_n > (|das\text{-}Buch, \$D_{\{sg,neu,nom\}} N_{\{sg,neu,nom\}}|) =$

$|das\text{-}Buch, \Sigma\$D_{\{sg,neu,nom\}}N_{\{sg,neu,nom\}} | VT^{x}{}_{n} >$

d. $|das\text{-}Buch, \Sigma\$D_{\{sg,neu,nom\}}N_{\{sg,neu,nom\}} | VT^{x}{}_{n} > (|ist, VT^{o}{}_{\{sg\}}|_{[+pre]} A >) =$
$|das\text{-}Buch\text{-}ist, \Sigma\$D_{\{sg,neu,nom\}}N_{\{sg,neu,nom\}}VT^{o}{}_{\{sg\}}|_{[+pre]} A >$

e. $|das\text{-}Buch\text{-}ist, \Sigma\$D_{\{sg,neu,nom\}}N_{\{sg,neu,nom\}}VT^{o}{}_{\{sg\}}|_{[+pre]} A > (|klein, A|_{[+pre]}) =$
$|das\text{-}Buch\text{-}ist\text{-}klein, \Sigma\$D_{\{sg,neu,nom\}}N_{\{sg,neu,nom\}}VT^{o}{}_{\{sg\}}A|_{[+pre]}$

With respect to the agreement involving the predicative adjective, German and French are poles apart. In the former language the subject does not agree with the predicative adjective, whereas in the latter language it does. Consequently, French is subject to the n-Continuation, while German is not. What we see here is a parameter of variation between languages. The phenomenon is language particular to the French language and hence it has to be learned.

V. Concluding Remarks

It has been shown that the RCS approach accounts for agreement in English, French and German in a uniform and general fashion. Of innovations introduced in the analysis are the Definition of n, n-Continuation, n-Discontinuation and Dissimilation Rule. The first device is presumably universal, while the second and third mechanisms are probably semi-universal. The last rule is language specific to German.

FOOTNOTES

*I wish to thank Peter Goldsbury, Peter Skaer, and two anonymous *Gengobunkakenkyu* reviewers for their valuable comments and suggestions on earlier versions of this paper.

1. Agreement can involve the sequence of tenses. This paper does not deal with the sequence of tenses since it is outside of its scope.

2. The reader might produce another possibility, whereby the noun agrees with the adjective. I take the position that what appears to be a determinerless phrase in fact contains a zero determiner which selects

arguments such as adjective and noun. This point is discussed in detail in section IV of this paper.

3. I assume that the reader is familiar with the theory of Recursive Categorical Syntax (RCS) originated and being developed by Brame (1984, 1985, 1987, 1988). If not, the reader is referred to the aforementioned Brame (1984, 1985, 1987, 1988), Takano (1994), and Aniya (1993, 1994, 1995) for detailed discussions of the theory and analyses.

4. In Brame (1987: 172), the *wh*-word in question is specified as $|\textit{what}, Q_xD3|UX_xD>$. Since the verb-complement agreement is irrelevant in this case, I eliminated the person feature 3 from the intrinsic category in (9b).

5. The examples are taken from Pollard, C. and I. A. Sag. (1995: 62).

6. Nouns are irrelevant to the subject under consideration.

7. In the case of the definite article, it is *-as*.

8. In the case of the definite article, it is *-as*.

9. The following two exceptions are observed: (i) the masculine genitive suffix is *-en*; (ii) the neuter genitive suffix is *-en*.

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