

# HOW TO TEACH RELATIVE PRONOUNS TO JUNIOR HIGH SCHOOL STUDENTS

— A Transformational Approach —

By

Hirochika OUE

中学英語における関係代名詞の指導法

— 変形文法的アプローチ —

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## I. Introduction — Traditional approach

The clause is traditionally defined as “a group of related words containing a finite verb.” Clauses, thus defined, are classified into two subgroups: main clauses and subordinate clauses. The subordinate clause is, traditional grammarians explain, a sentence in a sentence, which means that a subordinate clause contains a subject and a finite verb in itself and functions as a part of an independent clause or a sentence; as a noun, an adjective, or an adverb. Since subordinate clauses are considered to be sub-sentences attached to independent clauses, they may well be taught in relation to combining two sentences. This is the main reason why complex sentences have been taught through the process of combining two sentences together by using some connectives.

This is also the case with relative pronouns. The most prevalent method of teaching relative pronouns in Japan is to approach them by means of combining two sentences together. The teacher shows two sentences such as *He has an uncle* and *The uncle lives in London*. Writing in this way on the blackboard, he usually explains:

He has *an uncle*.  
    ↓  

The uncle

 lives in London.  
    ↓  
    *who*

(*An uncle* in the first sentence and *The uncle* in the second sentence refer to the same person. *The uncle* in the second sentence functions as subject. Therefore it must be rewritten as *who*. Thus combining the two sentences, we get; *He has an*

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1. Paul Roberts, *Understanding Grammar* (Harper International Edition 1966) p. 304.

Many other definitions have been given by grammarians, but most of them are much alike.

uncle *who* lives in London.)

When *whom* or *whose* should be used, his explanation will naturally be far more complicated — too complicated for slow learners. Though this method of teaching relative pronouns is generally considered to be an old one, it is actually adopted by many teachers even now.

Harold E. Palmer tries to teach relative pronouns in the following way:<sup>2</sup>

At first he shows these four sentences in order to let the students notice the words printed in thick type.<sup>3</sup>

The man **who** caught me was very fat.  
 The dog **which** caught me was very fat.  
 The man **whom** I caught was very fat.  
 The dog **which** I caught was very fat.

Then Palmer explains the three chief things :

- (a) That *who* (*m*) is used for a person and that *which* is used for something not a person.
- (b) That *who* is used for the person who does something and *whom* for the person to whom something is done.
- (c) That *which*, unlike *who*, remains the same instead of changing its form.

Next he tells that the words *who*, *whom* and *which* relate to a noun that comes somewhere in the sentence before them, and that they are used to connect parts of the sentences together, which can be shown in this way :

The man was very fat.  
 The dog was very fat.  
 The man was very fat.  
 The dog was very fat.

*who* caught me  
*which* caught me  
*whom* I caught  
*which* I caught

## II. Transformational viewpoint

Transformationalists relate the process of generating complex sentences to the recursive *S*. If transformational generative grammar provides a precise statement of processes of generating sentences, the old method of teaching relative pronouns is

2. Harold E. Palmer, *The New Method Grammar* (Longmans 1955) pp. 110–112.  
 3. Before each sentence a picture explaining the meaning is shown.

consistent with the processes of sentence formation. According to Owen Thomas,<sup>4</sup> the process of generating a complex sentence containing a relative clause is as follows:

Phrase Structure Rules<sup>5</sup>

- PS 1.  $S \longrightarrow Nom + VP$   
 PS 2.  $VP \longrightarrow Aux + MV$   
 PS 3.  $MV \longrightarrow \left\{ \begin{array}{c} be + Pred \\ V \end{array} \right\} (Loc) (Tn)$   
 PS 4.  $V \longrightarrow \left\{ \begin{array}{c} V_i \\ V_t + Nom \\ V_c + Adj \end{array} \right\}$   
 PS 5.  $Aux \longrightarrow Tn (Modal)$   
 PS 6.  $Nom \longrightarrow Det + N + N^0 (+S)$   
 PS 7.  $N^0 \longrightarrow \left\{ \begin{array}{c} \phi_2 \\ Z_2 \end{array} \right\}$   
 PS 8.  $Det \longrightarrow \left\{ \begin{array}{c} wh- \\ Art \\ Dem \end{array} \right\}$   
 PS 9.  $Tn \longrightarrow \left\{ \begin{array}{c} Pres \\ Pas \end{array} \right\}$

Sentence: Those witches who dance at midnight will become hungry.

Derivation

Matrix Sentence

- $S$
1.  $Nom + VP$  (PS 1)
  2.  $Nom + Aux + MV$  (PS 2)
  3.  $Nom + Aux + V$  (PS 3)
  4.  $Nom + Aux + V_c + Adj$  (PS 4)
  5.  $Nom + Tn + Modal + V_c + Adj$  (PS 5)
  6.  $Det + N + N^0 (+S) + Tn + Modal + V_c + Adj$  (PS 6)
  7.  $Det + N + Z_2 (+S) + Tn + Modal + V_c + Adj$  (PS 7)
  8.  $Dem + N + Z_2 (+S) + Tn + Modal + V_c + Adj$  (PS 8)
  9.  $Dem + N + Z_2 (+S) + Pres + Modal + V_c + Adj$  (PS 9)

By substituting words from the lexicon and applying the appropriate transformations and morphographic rules<sup>6</sup> we get:

10. *those + witches (+S) + will + become + hungry*

4. Owen Thomas, *Transformational Grammar And The Teacher of English* (Holt, Rinegart, and Winston, Inc. 1967) pp. 103-104.

5. Necessary rules only are listed here.

6. The lexicon, the transformations, and the morphographic rules are omitted.

Constituent Sentence

- i.  $wh- + N + Z_2 + Pres + V_i + Tm$

Substituting words from the lexicon and applying the appropriate rules we get :

- ii.  $wh- + witches + dance + at\ midnight$

Embedding this constituent sentence into the matrix sentence we get :

- 11.  $those + witches (+ wh- + witches + dance + at\ midnight) + will + become + hungry$

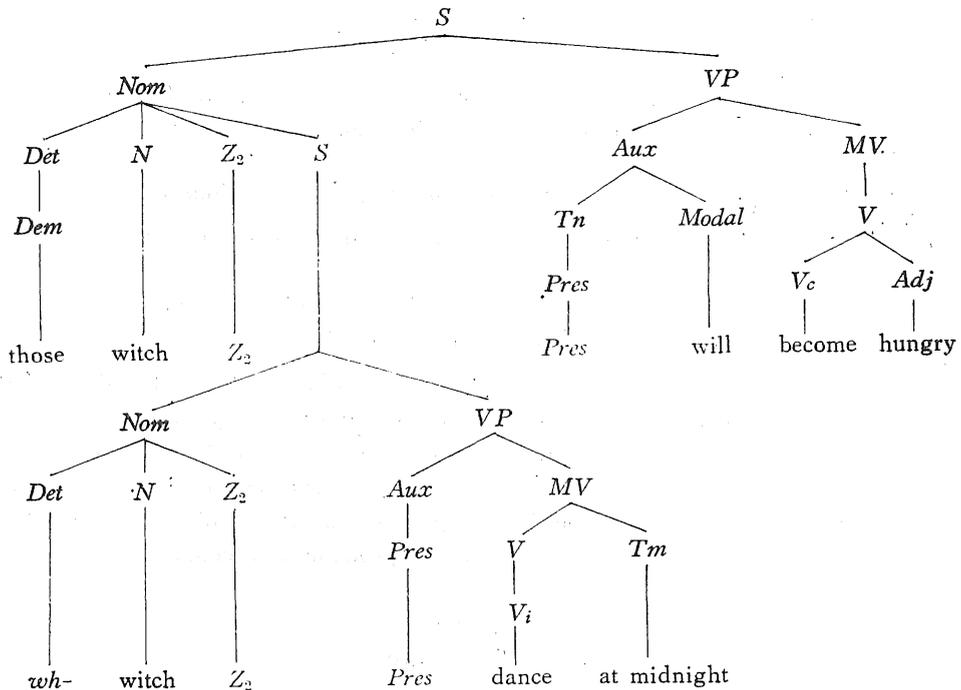
Applying the transformational rule<sup>7</sup> we get :

- 12.  $those + witches + who + dance + at\ midnight + will + become + hungry$

This string underlies the sentence :

Those witches who dance at midnight will become hungry.

The branching tree diagram shows the derivation clearly. It also shows how the recursive *S* is attached to *Nom*.



7.  $wh- + \begin{Bmatrix} N_{hum} \\ N_{in} \end{Bmatrix} \Rightarrow \begin{Bmatrix} who \\ which \end{Bmatrix}$  (where  $N_{hum}$  =human noun,  $N_{in}$  =any noun, except human noun)

As is shown above, transformationalists as well as traditional grammarians relate the process of the development of subordinating clauses to the recursive *S* or the *S* attached to some part of another *S*.

### III. Complexity in combining two sentences by using relative pronouns

When *wh-* + *N* functions as subject, it does not seem very difficult even for slow learners to do the work. In other cases, however, the work assumes complicated aspects. For example, when *wh-* + *N* functions as object of *V<sub>t</sub>*, we need two more rules. One is the rule that changes *who* into *whom*. The other is the rule that changes the position of the relative pronoun. Otherwise we will get ungrammatical sentences such as :

(Matrix)	The girl is my sister.
(Constituent)	You saw the girl.
(Result)	*The girl you saw <i>who</i> is my sister. or *The girl you saw <i>whom</i> is my sister.

Likewise two more rules are needed when the possessive morpheme is added to *wh-* + *N*. *Who* + *Pos* must be changed into *whose*. The relative pronoun *whose* and the following noun must be shifted together to the appropriate position without being separated from each other. Otherwise we will get ungrammatical sentences again.

(Matrix)	The teacher is Mrs. Green.
(Constituent)	They are in the teacher's class.
(Result)	*The teacher they are in <i>who</i> class is Mrs. Green. or *The teacher they are in <i>whose</i> class is Mrs. Green.

In order to get grammatical sentences, the following four questions must be solved.

1. Which *N* in the matrix sentence dominates the constituent sentence?
2. Is the *N* *N<sub>hum</sub>* or *N<sub>in</sub>*?
3. Is the *N* in the constituent sentence nominative, objective, or possessive?
4. What position does the relative pronoun take?

The questions are pretty easy to those who are familiar with the functions of the relative pronouns, but to most students who are going to approach the relative pronouns for the first time they are by no means easy questions. It is supposed to be rather difficult and confusing to solve them at a time. Suppose how the students will work out when they are given the following two sentences and told to put them together to make one sentence by using a relative pronoun as a connective.

(Matrix)	The girl is my sister.
(Constituent)	You saw the girl yesterday.

They will have to work out in this way :

1. To find out the nouns which refer to the same thing or the same person.



e. g.	(Matrix)	$\frac{\phi}{W} + \frac{\text{the girl}}{NP} + \frac{\text{is my sister}}{Z}$
	(Constituent)	$\frac{\text{you saw}}{X} + \frac{\text{the girl}}{NP} + \frac{\text{yesterday}}{Y}$
	(Result)	$\frac{\phi}{W} + \frac{\text{the girl}}{NP} + \text{Rel} + \frac{\text{you saw}}{X} + \frac{\text{yesterday}}{Y} +$ $\frac{\text{is my sister}}{Z}$

The NP of the constituent sentence is  $N_{hum}$  and functions as object. Therefore **Rel** must duly be rewritten as *whom*. Then the string underlies the grammatical sentence :

The girl whom you saw yesterday is my sister.

Generally speaking, the structures of complex sentences are not easy for junior high school students to understand. Especially the sentences containing relative clauses often cause much trouble and confusion to the Japanese students who have just begun to approach relative pronouns. It is chiefly because the Japanese language has no such words as function in the similar way as the English relative pronouns do. It is true that the formula will make the students' work of combining two sentences much easier, but it is not preferable to teach them the formula, which, even when the students do not understand the full function of the relative pronouns, will generate grammatical sentences mechanically. If we teach the formula as it is and direct them to work as the formula tells them, the results will be that they fall into the habit of regarding English sentences as algebraic expressions which are to be transformed by applying appropriate rules the deep meaning of which they are ignorant of, and that they never try to make efforts to form desirable habits of producing English automatically in their speech as well as in their writing.

#### IV. Two major steps

When the students learn how to use relative pronouns, they have to take two major steps. One is how to form noun phrases modified by relative clauses, and the other is where to embed them. These two steps should not be mixed up, or should not be taught at a time. Otherwise the students, especially the slow learners, would feel great difficulty in mastering the usage and function of relative pronouns. It is, therefore, considered to be effective to teach them step by step, that is, to teach, first, how to make noun phrases modified by relative clauses out of independent clauses, and next how to embed them into another sentences.

The following formula is helpful to the formation of noun phrases containing relative clauses.

$$X + NP + Y \Rightarrow NP + \mathbf{Rel} + X + Y^9$$

X and Y stand for anything that occurs in these positions or for nothing. Let us apply this rule to some sentences in order to illustrate how it works.

$$\begin{array}{c} \frac{\phi}{X} + \frac{\text{the girl}}{NP} + \frac{\text{painted the picture}}{Y} \\ \Rightarrow \frac{\text{the girl}}{NP} + \mathbf{Rel} + \frac{\phi}{X} + \frac{\text{painted the picture}}{Y} \end{array}$$

The string underlies the noun phrase :

the girl who painted the picture

The following example illustrates that the rule works when **Rel** is to be objective.

$$\begin{array}{c} \frac{\text{you saw}}{X} + \frac{\text{the girl}}{NP} + \frac{\text{yesterday}}{Y} \\ \Rightarrow \frac{\text{the girl}}{NP} + \mathbf{Rel} + \frac{\text{you saw}}{X} + \frac{\text{yesterday}}{Y} \end{array}$$

The string underlies the noun phrase :

the girl whom you saw yesterday

The rule, however, does not work where **Rel** must be replaced by *whose*, the possessive case.

$$\begin{array}{c} \frac{\text{I know}}{X} + \frac{\text{the boy's}^{10}}{NP} + \frac{\text{father}}{Y} \\ \Rightarrow \frac{\text{the boy}}{NP} + \mathbf{Rel} + \frac{\text{I know}}{X} + \frac{\text{father}}{Y} \end{array}$$

The string underlies the ungrammatical noun phrase :

\*the boy whose I know father

A little remedy added to the formula, however, prevents it from producing ungrammatical strings.

$$X + NP + \mathbf{Pos} + N + Y \Rightarrow NP + \mathbf{whose} + N + X + Y$$

(where **NP + Pos** stands for the possessive case of any noun, and where **N** stands for a noun in this position.)

9. In *English Syntax* by P. Roberts, the rule is described as :

$$X + NP + Y \Rightarrow NP + \left\{ \begin{array}{l} \mathbf{who} \\ \mathbf{which} \\ \mathbf{that} \end{array} \right\} + X + Y$$

Here the symbol **Rel** is used collectively for convenience' sake.

10. Strictly speaking, *the boy's* is not a noun phrase. It will be divided into **NP+Pos** later.

$$\begin{array}{l}
 \text{e. g.} \quad \frac{\text{I know}}{\text{X}} + \frac{\text{the boy}}{\text{NP}} + \frac{\text{'s}}{\text{Pos}} + \frac{\text{father}}{\text{N}} + \frac{\phi}{\text{Y}} \\
 \Rightarrow \frac{\text{the boy}}{\text{NP}} + \text{whose} + \frac{\text{father}}{\text{N}} + \frac{\text{I know}}{\text{X}} + \frac{\phi}{\text{Y}}
 \end{array}$$

The string underlies the noun phrase :

the boy whose father I know

Of the two major steps the first one is the more important for the students. We have to devise simpler rules in order to make the students' work and comprehension easier.

### V. Simplified rules

As is previously mentioned, when we practically teach junior high school students in the classroom, it is not desirable to teach them the formulae as they are. What are signified by the formulae are important because we want our students to gain not superficial but deep comprehension.

The rule,  $\text{X} + \text{NP} + \text{Y} \Rightarrow \text{NP} + \text{Rel} + \text{X} + \text{Y}$ , implies that the NP should be shifted from the middle position to the beginning of the string, and that the Rel should follow the NP. When the Rel is objective, T-del can delete the Rel. In this case, therefore, the rule can be simplified as :

$$\text{X} + \text{NP} + \text{Y} \Rightarrow \text{NP} + \text{X} + \text{Y}$$

$$\begin{array}{l}
 \text{e. g.} \quad \frac{\text{you saw}}{\text{X}} + \frac{\text{the girl}}{\text{NP}} + \frac{\text{yesterday}}{\text{Y}} \\
 \Rightarrow \frac{\text{the girl}}{\text{NP}} + \frac{\text{you saw}}{\text{X}} + \frac{\text{yesterday}}{\text{Y}}
 \end{array}$$

For the beginners, this is a very easy form of work. They only have to shift NP to the beginning. The adjective clauses formed in this way is traditionally called contact clauses. In most cases contact clauses are not taught until the students have mastered the usage and function of relative pronouns to some degree. The oldest type of adjective clause, Paul Roberts<sup>12</sup> says, is that in which there is no connecting word at all. Relative pronouns are a more recent development. Transformational grammar, as well as traditional grammar, says that such a construction results from deletion transformation or an ellipsis of relative pronouns. Anyway such discussion does not matter here. It is enough to say that relative pronouns are more easily understood when they are approached from contact clauses which contain no relative pronouns in themselves but function as relative clauses.

Again let us scrutinize the rule,  $\text{X} + \text{NP} + \text{Y} \Rightarrow \text{NP} + \text{Rel} + \text{X} + \text{Y}$ , where the Rel is

11. Deletion transformation.

12. P. Roberts, *Understanding Grammar*, op. cit. p. 310.

to be nominative. In almost all sentences which junior high school students learn, **X** of the rule is nothing where **NP** functions as subject.

$$\begin{array}{l} \text{e. g. } \frac{\phi}{\mathbf{X}} + \frac{\text{the girl}}{\mathbf{NP}} + \frac{\text{painted the picture yesterday}}{\mathbf{Y}} \\ \frac{\phi}{\mathbf{X}} + \frac{\text{the boy}}{\mathbf{NP}} + \frac{\text{visited me a week ago}}{\mathbf{Y}} \end{array}$$

Of course, in these sentences, the adverbial modifiers can be placed where **X** is situated. *Yesterday the girl painted the picture*, and *A week ago the boy visited me* are grammatically correct sentences. But in normal word order they are placed at the end of the sentences. Where **X** is nothing, the rule can be simplified as :

$$\mathbf{NP} + \mathbf{Y} \implies \mathbf{NP} + \mathbf{Rel} + \mathbf{Y}$$

$$\begin{array}{l} \text{e. g. } \frac{\text{the girl}}{\mathbf{NP}} + \frac{\text{painted the picture yesterday}}{\mathbf{Y}} \\ \implies \frac{\text{the girl}}{\mathbf{NP}} + \mathbf{Rel} + \frac{\text{painted the picture yesterday}}{\mathbf{Y}} \end{array}$$

The string underlies the noun phrase :

the girl who painted the picture yesterday

The simplified rule implies that **Rel** should be embedded between **NP** and **Y** of the string. This is also a very easy form of work for the students.

Of the relative pronouns that the Japanese junior high school students have to learn, *whose* is the most difficult. It is not only because we Japanese have no such words but also because we have no such expressions. We often feel great difficulty in translating into Japanese those English sentences containing *whose*-clause, and *vice versa*. For this reason more necessity for a simple rule concerning *whose*-clause arises.

As is already explained, the rule,  $\mathbf{X} + \mathbf{NP} + \mathbf{Y} \implies \mathbf{NP} + \mathbf{Rel} + \mathbf{X} + \mathbf{Y}$ , does not work as it is where the **Rel** is to be *whose*, but the amended rule,  $\mathbf{X} + \mathbf{NP} + \mathbf{Pos} + \mathbf{N} + \mathbf{Y} \implies \mathbf{NP} + \mathbf{whose} + \mathbf{N} + \mathbf{X} + \mathbf{Y}$ , works. This rule is complicated for the students to apply. Deeper scrutiny, however, tells us that the rule can be simplified when the **NP** on the left side comes at the beginning of the string, that is, where **X** stands for nothing.

$$\begin{array}{l} \frac{\phi}{\mathbf{X}} + \frac{\text{the boy}}{\mathbf{NP}} + \frac{\text{'s}}{\mathbf{Pos}} + \frac{\text{father is a doctor}}{\mathbf{Y}} \\ \implies \frac{\text{the boy}}{\mathbf{NP}} + \mathbf{whose} + \frac{\phi}{\mathbf{X}} + \frac{\text{father is a doctor}}{\mathbf{Y}} \end{array}$$

The string underlies the grammatical noun phrase :

the boy whose father is a doctor

Thus we get the simplified rule :

$$\mathbf{NP} + \mathbf{Pos} + \mathbf{Y} \implies \mathbf{NP} + \mathbf{whose} + \mathbf{Y}$$



make it much easier for the students to study them further — to study them in more complicated sentences, or to study other relatives including relative adverbs.

### List of Symbols

<i>Art</i> : article	$N^0$ : number morpheme	<i>Tm</i> : adverb of time
<i>Aux</i> : auxiliary verb	$\phi$ : null	<i>Tn</i> : tense morpheme
<i>Dem</i> : demonstrative	$\phi_2$ : singular morpheme	<i>V<sub>c</sub></i> : copulative (except <i>be</i> )
<i>Det</i> : determiner	<i>Pas</i> : past	<i>VP</i> : verb phrase
<i>Loc</i> : adverb of location	<i>Pred</i> : predicate	$Z_2$ : plural morpheme
<i>MV</i> : main verb	<i>Pres</i> : present	
<i>Nom</i> : nominal	<i>S</i> : sentence	