The Word Order Phenomenon in Maithili Simple Sentences:

A TG Approach

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Introduction

The word order in Maithili has generally been regarded as fairly 'free' (cf. Jha (1958)). In this article we, however, show that this assumption cannot be sustained in the light of the facts about the Maithili data. Instead, we argue that Maithili is a 'configurational' language with a fixed underlying structure and that the permutations of elements within a clause are generally taken care of by transformational rules.

In section 1 we examine the word order phenomenon in Maithili simple sentences. We demonstrate that the word order in the language, which seems to be fairly free at the surface, is in fact 'fixed' at the underlying level, and that the change in word order generally triggers a change in the role of the affected elements, making them either the topic or focus of a clause. (By 'topic' and 'focus' we roughly mean 'given' and 'new' information, respectively. See Pirhas (1969) and Reinhart (1982) for their further discussion.) In section 2 we propose a set of categorial rules to generate the underlying structures of Maithili simple sentences. In section 3 we assume that the role-oriented change in the underlying structures, which involves leftward movement, can be handled by postulating the rules of Focusing and Topicalization in the transformational component of the grammar. In section 4 we observe that the change in the underlying structures may not be sometimes role-oriented. For such cases, we postulate the rule of Scrambling, a reordering rule in the PF component. We conclude by summarizing the observations made in the various sections of this article.

The Word Order Phenomenon in Maithili: A Reappraisal. As pointed out above, the word order in Maithili is generally considered fairly 'free'. By 'free' we mean that the constituents of a sentence can occur in any order, without any semantic effects. For instance, a transitive construction like (i) can have any permutation of Subject (S), Object (O), and Verb (V):

...
The freedom of word order also extends to Indirect Object and adverbials of various types. What is more striking about the word order in Maithili is that even elements like adjectives and auxiliaries within NP constructions (as in (2a)) and auxiliaries within verbal sequences (as in (3a)) can be permuted with the other elements of a sentence:

(2) a. Geetaa hariyar/ saari/ pahirne achi
    Green saree wearing is
    'Geeta is wearing a green saree'.

b. geetaa saari hariyar pahirne achi.
c. geetaa saari pahirne achi hariyar.

(3) a. raam khaait achi.
    Eating is
    'Ram is eating'.

b. khaait achi raam.
c. achi raam khaait.

This does not mean that the word order in Maithili is absolutely free; it has certain restrictions. For instance, the permutation of adjective hariyar in (2) is permissible with the other elements of the sentence (as shown in (2 a - c)) but not with geetaa:

(4) * hariyar geetaa saari pahirne achi.

Jha (1958), who lists such restrictions, arrives at the conclusion that Maithili word order is free, subject to some restrictions.

In the following paragraphs we demonstrate, however, that the facts about the Maithili data do not support this conclusion. Instead of treating Maithili as a language with fairly free word order, we assume that Maithili, like English, is a language with a fixed underlying structure. What we expect from a language with genuinely free word order is that the various permutations of the elements of a sentence have the same meaning. Such an expectation is, however, not fulfilled in Maithili. A sentence in the language can be analyzed into constituents which have fixed positions, stress and intonation patterns as well as meanings. Consider the table in which the different permutations of S, O, and V in (5) result in the
change of their structural positions and also produce different phonological and semantic effects. (A, B, and C in the table indicate the intonation pattern of a sentence; i.e., A stands for middle pitch, B for high pitch, and C for low pitch, as shown in B

<table>
<thead>
<tr>
<th>(5)</th>
<th>Phonological Change</th>
<th>Semantic Change</th>
</tr>
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<tbody>
<tr>
<td>a.(i)</td>
<td>raam kitaab kinat</td>
<td>Ram will buy a book.</td>
</tr>
<tr>
<td>(ii)</td>
<td>raam kitaab kinat</td>
<td>It is Ram who will buy a book.</td>
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<tr>
<td>(iii)</td>
<td>raam kitaab kinat</td>
<td>It is Ram who will buy a book.</td>
</tr>
<tr>
<td>(iv)</td>
<td>raam kitaab kinat</td>
<td>As for Ram, it is a book that he will buy.</td>
</tr>
<tr>
<td>(v)</td>
<td>raam kitaab kinat</td>
<td>What Ram will do is to buy a book.</td>
</tr>
<tr>
<td>b.(i)</td>
<td>kitaab raam kinat</td>
<td>It is a book that Ram will buy.</td>
</tr>
<tr>
<td>(ii)</td>
<td>kitaab raam kinat</td>
<td>It is a book that Ram will buy.</td>
</tr>
<tr>
<td>(iii)</td>
<td>kitaab raam kinat</td>
<td>As for the book, it is Ram who will buy it.</td>
</tr>
<tr>
<td>(iv)</td>
<td>kitaab raam kinat</td>
<td>As for the book, Ram will buy (and not borrow) it.</td>
</tr>
<tr>
<td>c.(i)</td>
<td>kitaab kinat raam</td>
<td>It is a book that Ram will buy.</td>
</tr>
<tr>
<td>(ii)</td>
<td>kitaab kinat raam</td>
<td>It is a book that Ram will buy (and not borrow).</td>
</tr>
<tr>
<td>(iii)</td>
<td>kitaab kinat raam</td>
<td>As for the book, Ram will buy (and not borrow) it.</td>
</tr>
<tr>
<td>(iv)</td>
<td>kitaab kinat raam</td>
<td>As for buying the book, it is Ram who will do it.</td>
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<td></td>
<td>kinat</td>
<td>raam kitaab</td>
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<tr>
<td>(ii)</td>
<td>kinat raam</td>
<td>kitaab</td>
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<td>(iii)</td>
<td>kinat</td>
<td>raam kitaab</td>
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<td>(iv)</td>
<td>kinat raam</td>
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<td>e.</td>
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<td>(i)</td>
<td>kinat</td>
<td>kitaab raam</td>
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<td>(ii)</td>
<td>kinat kitaab</td>
<td>raam</td>
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<tr>
<td>(iii)</td>
<td>kinat</td>
<td>kitaab</td>
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<td>(iv)</td>
<td>kinat kitaab</td>
<td>raam</td>
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<td>f.</td>
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<td>(i)</td>
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<td>raam kinat</td>
<td>kitaab</td>
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Different permutations of S, O, and V in Maithili and their phonological and semantic equivalents.

A comparison of the positions A, B, and C mentioned under the phonological change and their semantic equivalents reveals the following facts:

(i) Position A can be occupied by null to any number of elements from a sentence. As indicated, the elements within this position are pronounced at an even middle pitch and are (normally) followed by a slight pause. They are interpreted as topically zed elements; i.e., paraphrased as: 'As for...', 'About...', etc.
Like position A, position B can also contain more than one element in all these cases (though less frequently than position A). It carries the sentence (i.e., nuclear) stress and is followed by a high fall. It functions as 'focus', which can be paraphrased as: 'It is ... (and not something else) that ...' 

Similarly, position C can contain elements ranging from null to any number. These elements are pronounced at a low pitch and serve no significant functional roles like topicalization and focusing.

These observations lead us to make the following generalizations about the Maithili word order:

(i) The only word order which may remain neutral to phonological changes and their subsequent semantic effects (viz., topicalization and focusing) is SOV, as in (5a1).

(ii) A change in SOV order generally triggers a change in the phonological pattern and the meaning.

(iii) Elements contained in A, B, and C positions are free in order within their respective domains and their freedom does not affect the phonological pattern and the meaning.

On the basis of this analysis, we assume that SOV is the underlying structure for Maithili transitive constructions, generated by categorial rules. Besides, the grammar has transformations like Focusing and Topicalization, which move elements from an SOV structure to the focused and topocalized positions (viz., B and A positions in (5), respectively). (Note that SOV order can also undergo change in meaning and phonological pattern, as shown in (5a ii–v). We discuss this issue in subsection 3.2.) Finally, the freedom of word order within the various positions is taken care of by the rule of Scrabbling in the PF component. Thus, a grammar with these mechanisms can accommodate all the properties of the Maithili word order, listed above. We discuss each of these mechanisms in the sections that follow.

Categorial Rules

To generate the simple sentences of Maithili we propose the following (preliminary) set of categorial rules:

(6) a. $S'' \rightarrow T \ S'$
   b. $S' \rightarrow F \ S$
   c. $\left\{ F \right\} \rightarrow X^n$
   d. $S \rightarrow NP \ VP^3$
   e. $VP \rightarrow (AP^*) \ (NP) \ (NP) \ V$
(By $X^n$ in (6c) we mean any number of categories (i.e., lexical categories or their projections)). For illustration, the categorial rules in (6) will generate the tree in (7b) for the sentence in (7a):

(7) a. raam kailh khusi-sam hamaraa kitaab lautaa delak.
     Ram yesterday happily to me book returned

'Ram happily returned the book to me yesterday'.

b. 

The tree diagram for (7a).

In the tree diagram for (7a) T immediately dominated by $S''$ functions as Topic, while F immediately dominated by $S'$ functions as Focus. Kiss (1981 a, 1981 b, 1981 c) also uses T and F nodes in her analysis of Hungarian and Japanese. But the stipulation of these nodes faces a conceptual difficulty noted by Alec Marantz (personal communication to Probal Dasgupta), who argues that Topic and Focus, which are functional notions, should not, strictly speaking, be permitted to appear as nodes in a categorial tree. However, we, like Kiss, treat T and F as syntactic (not functional) nodes for expository purposes and $X^n$ as any number of elements inside the T and F positions.
Transformations

We assume that the nodes under $S$ are lexically filled, while the nodes under $T$ and $F$ are generated empty with $X^n$ (as shown in (6c)). These empty slots are later filled from among the elements in $S$ by two optional transformations ———— Topicalization and Focusing. These rules are instances of 'Move L', which, following the trace theory, move elements from $S$ to $T$ and $F$ positions and leave behind trace $t$, coindexed with the moved elements, as shown in (8):

(8) a. $[S'] [T X^n] [S'] [F X^n] [S] \text{ram geetaa-keM}$
    \begin{align*}
    \text{Ram} & \quad \text{loves} \\
    \text{Geeta}'
    \end{align*}

b. $[S'] [T X^n] [S'] [F \text{ram}_t] [S] t_1 \text{geetaa-keM pyaar}$
    \begin{align*}
    \text{karaet} & \quad \text{loves} \\
    \text{ach} & \quad \text{(applying Focusing)}
    \end{align*}

It is Ram who loves Geeta'.

c. $[S'] [T \text{geetaa-keM}_j] [S'] [F \text{ram}_j] [S] t_1 t_j \text{pyaar}$
    \begin{align*}
    \text{karaet} & \quad \text{loves} \\
    \text{ach} & \quad \text{(applying Topicalization)}
    \end{align*}

As for Geeta, it is Ram who loves her'.

Topicalization and Focusing need not be ordered extrinsically. Focusing operates on a smaller domain (viz., $S'$) than Topicalization; hence, the former applies earlier than the latter. In the subsections that follow we are going to analyze these rules in detail.

Focusing

The rule of Focusing can move a maximal projection ($= S'$, NP, VP, AP, PP) or any (lexical) element ($= N, V, A$, auxiliary) from $S$ to the focused position marked by $F$ under $S'$. It is superfluous to state the rule in question, since the structure of all movement rules (including Focusing) follows from the general format of 'Move L', i.e., 'move any category anywhere' (Chomsky 1980, 1981, 1982).

As mentioned earlier, the rule of Focusing applies optionally; so the F position may or may or may not be filled, as shown in (9a) and (9b), respectively:
(9) a. \[ S, E, S \] hari upanyaas padhaet achi \]

'Hari is reading a novel'.

b. \[ S, E, S \] hari \[ t \] padhaet achi \]

'It is a novel (and not anything else) that Hari is reading'.

There are, however, a set of specific elements which need to be focused obligatorily. Such elements include interrogatives and words suffixed with focusing operators like -etaa (= 'only for') and -e (= 'It is X that/who...'). Consider (10-12). The structures in (a), which do not involve Focusing, are not permissible and their counterparts in (b), which involve Focusing, are permissible:

(10) a. \[ S, E, S \] ram kota achi \]

Ram where is

b. \[ S, E, S \] kota \[ t \] achi \]

'Where is Ram?'

(11) a. \[ S, E, S \] ramu-etaa jaet \]

Ramu-only will go

b. \[ S, E, S \] ramu-etaa \[ t \] jaet \]

'It is only Ramu who will go.'

(12) a. \[ S, E, S \] ham aai-e jaeb \]

I today-only will go

b. \[ S, E, S \] aai-e \[ t \] jaeb \]

'It is only today that I will go.'

The unacceptable structures in (10-12) must be somehow blocked. Since they result from the optionality of Focusing, we can stipulate a surface filter to rule them out. (See Chomsky and Lasnik (1977)). For the purpose, suppose that the elements which are obligatorily focused (including interrogative elements) have the lexical feature [+F]. To render Focusing obligatory in such cases, we may propose the following filter:

(13). \[ S, E, S \] x* x* [S... x... ] 4 [+F]
It should be interpreted as follows: a structure is unaccepta-
ble if an element with \[\text{f}p\] feature, contained in it, does not
involve the rule of Focusing.

We have so far examined movement of a single element to the
F position. As indicated by \[\text{x}\text{n}\text{s}\] in (6c), it is also possible to
move more than one element to this position. Consider structures
(14 a-c) in this respect:

(14) a. \[S_s, \text{f}p \text{e} \] \[S_s t_1 \text{hamaraa } ii \text{baat kahalak } J J \]

'Ram told me this fact.'

b. \[S_s, \text{f}p \text{raam}_1 \text{e} \] \[S_s t_1 \text{hamaraa } ii \text{baat kahalak } J J \]

'It is Ram who told me this fact.'

c. \[S_s, \text{f}p \text{raam}_1 \text{ii baat}_1 \] \[S_s t_1 \text{hamaraa } t_1 \text{kahalak } J J \]

'It is Ram who told me this fact.'

To summarize, the rule of Focusing can move more than one
element from S to the F position in separate moves. We have
also noted that the rule applies optionally, but it is rendered
obligatory by the surface filter in (13).

Topicalization

The rule of Topicalization proposes a maximal projection or
a lexical category from S to the T position, immediately dominated
by S\[1\]. Consider the structures in (15):

(15) a. \[S_s, \text{f}e \] \[S_s \text{hari } \text{hamaraa } \text{madat } \text{karat } J J J \]

'Hari will help me.'

b. \[S_s, \text{f} \text{hari}_1 \] \[S_s, \text{t}_1 \text{hamaraa } \text{madat } \text{karat } J J J \]

'As for Hari, he will help me.'

Like Focusing, Topicalization can extract any number of
elements from S, including null, as shown in (16):

(16) a. \[S_s, \text{f} \] \[S_s, \text{f} \text{aal-etaaj} \] \[S_s \text{raam } t_1 \text{ghar } \text{jaat } J J J \]

today-only for \text{Ram} home will go

'It is only for today that Ram will go home.'
b. \[ \text{[S} \quad \text{[T ram}_j \text{ e]} \quad \text{[S} \quad \text{[F aai-etaai]} \quad \text{[S} \quad \text{[T}_j \text{ t}_i \quad \text{ghar \quad jaet}] \text{]} \] }

'As for Ram, it is only for today that he will go home.'

c. \[ \text{[S} \quad \text{[T ram}_j \text{ ghar}_k \text{ e]} \quad \text{[S} \quad \text{[F aai-etaai]} \]

\[ \text{[S} \quad \text{[T}_j \text{ t}_i \quad \text{t}_k \quad \text{jaet}] \text{]} \text{)} \text{ } \text{[same as in b.]}

d. \[ \text{[S} \quad \text{[T ram}_j \text{ ghar}_k \text{ jaet}_i \text{]} \quad \text{[S} \quad \text{[F aai-etaai]} \]

\[ \text{[S} \quad \text{[T}_j \text{ t}_i \quad \text{t}_k \quad \text{t}_l \quad \text{jaet}] \text{]} \text{)} \text{ }

'As for Ram's going home, it is only for today.'

Finally, similar to the elements which are obligatorily focused, there are a few elements which undergo obligatory topicalization. One of them is an NP postmodified by the morpheme -ta, where NP -ta can be paraphrased as: 'So far as NP is concerned, ...'. Consider the examples in (17):

(17) a. \[ \text{[S} \quad \text{[T e]} \quad \text{[S} \quad \text{[F aai-etai]} \quad \text{[S} \quad \text{[T ram-ta}_j \text{ t}_i \quad \text{gel }] \text{]} \text{]} \text{)} \text{ }

\text{today-[+T] \text{ Ram-[+T] went} }

b. \[ \text{[S} \quad \text{[T ram-ta}_j \text{]} \quad \text{[S} \quad \text{[F aai-etai]} \quad \text{[S} \quad \text{[T}_j \text{ t}_i \text{ gel }] \text{]} \text{]} \text{)} \text{ }

'So far as Ram is concerned, he went today.'

To make Topicalization obligatory in such cases, let us say that elements modified by -ta and other topicalizing markers (if any) have the features [+T- (topicalization)] specified in the lexicon, and that a grammar of Maithili has the surface filter in (18), which blocks the configuration given in (18):

(18) \[ \text{[S} \quad \text{x}\text{n}^* \quad \text{... \text{[S} \quad \text{... \text{x} \quad \text{...}] 5} \quad \text{[+T]}} \text{ }

As it is obvious from the foregoing analysis, Topicalization is identical with Focusing except that elements are moved to the T position instead of the F position, and also that two processes vary in their lists of elements which are obligatorily moved. We assume that they are the only transformations which can apply in simple Maithili sentences.

Before we conclude this subsection, let us turn to the unexplained issue mentioned in section. We observed that the surface word order in all the sentences in (5ai-w) remains the same, viz., SOV, and yet they vary in their intonation patterns.
and semantic interpretations. Given the two transformations Focusing and Topicalization, it is not difficult to account for such variations.

Following the categorial rules proposed in (6), we can have (19) as the common underlying structure for all the five structures in (5ai-v):

(19) \[ \ell_s, \ell_t, \ell_{p}, \ell_{e}, \ell_s, r\text{aam kitaab kinat} t_j j \]

When no rule applies, (5ai) is derived. To get (5a(ii), Focusing operates on (19), moving r\text{aam} to the F position, as shown in (20):

(20) \[ \ell_s, \ell_t, \ell_{p}, \ell_{r\text{aam}}, \ell_s, t_i j \text{ kitaab kinat} t_j j \]

In the derivation of (5a(iii)), Focusing applies twice to move r\text{aam} and kitaab separately to the F position, yielding the structure in (21):

(21) \[ \ell_s, \ell_t, \ell_{p}, \ell_{r\text{aam}}, \ell_s, t_i j \text{ kitaab}, \ell_s, t_j t_i j \text{ kinat} j j \]

In the case of (5a(iv)), Focusing moves kitaab to the F position, as in (21 a), and then Topicalization moves r\text{aam} to the T position, as in (21 b):

(21) a. \[ \ell_s, \ell_t, \ell_{p}, \ell_{kitaab}, \ell_s, r\text{aam} t_i j \text{ kinat} j j \]

b. \[ \ell_s, \ell_t, \ell_{r\text{aam}}, \ell_s, \ell_{kitaab}, \ell_s, t_j t_i j \text{ kinat} j j \]

Finally, the derivation of (5a(v)) requires three steps: first kinat is moved to the F position by Focusing (as in (22 a)); secondly, Topicalization moves r\text{aam} to the T position (as in (22 b)); and finally, Topicalization again applies, moving kitaab to the T position (as in (22 c)):

(22) a. \[ \ell_s, \ell_t, \ell_{p}, \ell_{kinat}, \ell_s, r\text{aam kitaab} t_i j j \]

b. \[ \ell_s, \ell_t, \ell_{r\text{aam}}, \ell_s, \ell_{kinat}, \ell_s, t_j \text{ kitaab} t_i j j \]

c. \[ \ell_s, \ell_t, \ell_{r\text{aam}}, \ell_s, \ell_{kitaab}, \ell_s, \ell_{kinat}, \ell_s, t_j t_k t_i j j \]

Assuming this analysis, we may justify the variations (semantic and phonological) existing in (5ai-v) on the ground that these structures involve different syntactic processes and do not have a common derivation.
Scrambling

As noted in section 1, elements within the T, F, and S positions can be freely permutated among themselves within their respective domains. Unlike the preposing of elements by Topicalization and Focusing, these permutations have no semantic bearings at all and are, therefore, not relevant for the representations at LF. Within the EST framework, the rule of Scrambling seems to be an appropriate candidate for dealing with such permutations. When the rule applies, it reorders elements within a given domain (namely, T, F, or S). It is a rule in the PF component of grammar and operates on S-structure, an output of transformational rules.

Conclusion

In the preceding sections we have presented a transformational account of the word order phenomenon in Maithili simple sentences. We have first demonstrated that the word order in the language, which appears to be fairly free, is in fact fixed at the base, viz., SOV and that a change in the SOV pattern is due to the change in the functional roles of elements within S, viz., topicalization and focusing. Such a functional change has been accounted for by proposing two transformational rules --- Topicalization and Focusing. There are, however, some exceptions to this generalization, in that certain movements do not involve any functional roles like topicalization and focusing. For such cases, we have suggested the rule of Scrambling, which applies in the PF component and whose output is not relevant to the LF component. In this regard, it is worth exploring other Indo-Aryan Languages to see whether the analysis presented for Maithili simple sentences holds true to them also.

NOTES

1. I would like to thank K. A. Jayaseelan, P. Dasgupta, and K. S. Yadurjan for their comments.

The following abbreviations are used in this paper:

PF = Phonological Form; LF = Logical Form; N = nasalization; and EST = Extended Standard Theory.

2. Maithili is an Indo-Aryan language spoken in the northeastern part of Bihar (India) and the south-eastern part of Nepal.

3. See Hesegawa (1980) and Yadava (1983; to appear) for the arguments supporting the VP constituency in Japanese and Maithili, respectively.

4. This filter is problematic, assuming that the elements involved in a filter must be 'local'. See Chomsky and Lasnik (1977) for a discussion of this constraint on filters.

5. Like (13), this filter is also problematic for the same reason.
REFERENCES


