There is considerable language-dependent variation in relative clause attachment preferences, which is puzzling given an otherwise universal preference for local attachment:

Relative clause attachment in English shows a preference for local attachment: in the X of Y construction (1), the RC preferentially attaches to the second noun actress.

1. Someone hit the maid of the actress who was on the balcony.

However, in Spanish (2) the preference is for non-local attachment to the first noun criada.

2. Alguien pegó a la criada de la actriz.

Some other languages that behave like Spanish are French (Mitchell et al. 1990), Italian (Vincenzi and Job 1993), German (Hemforth et al. 1994), and Dutch (Brysbaert and Mitchell 1996).

The position of the relative clause also varies cross-linguistically. Consider the head-final language Japanese (3). Here, the X of Y complex can only be realized as Y’s X, and RCs appear prenominally. In Japanese, during real time processing the RC attaches to the more local noun (Kamide and Mitchell 1997), but in offline judgements there is a reversal in attachment preference, i.e., attachment to the non-local noun is preferred.

3. a. Dareka-ga barakoni-kun iru someone-Nom balcony-Loc is joyu-no mesutkai-o utta actor-Gen-Gen servant-Acc shot ‘Someone shot the actress’ servant who was on the balcony.’

b. kisii-ne (balkonii par kharii) someone-erg (balcony on standing) caaye pii rahi us abhinetrii-kii us drinking tea was that actress-K that naukaraami-ko maaraa maid-ACC hit ‘Someone hit that maid of that actress who was standing on the balcony drinking tea.’

The two optional locations of the RC in Hindi, as well as their ambiguity regarding attachment sites, allow us to investigate the effect on attachment preferences of proximity to a noun (head or modifier) as well as RC length.

60 Hindi native readers read 24 × 4 ambiguous target sentences (5a,b) each followed by a question like (6) probing RC’s interpretation. Target materials combined factorially the manipulations illustrated: RC’s Length (short/long) and RC’s Placement (participial/post-nominal).

6. caaye kaam pi rahi thi? (a) abhinetrii (b) tea who drinking was (a) actress (b) naukaraami maid ‘Who was drinking tea? (a) actress (b) maid.’

### Results

An omnibus ANOVA was computed of the data expressed as percent attachment to the complex NP’s head, “naukaraami”. An alternative method for binary responses is logistic regression, but this also yielded essentially identical results, so we report only the former.

The omnibus ANOVA shows a main effect of Position (F1=164.75, p<0.0001; F2=132.33, p<0.0001), a by-subjects main effect of Length (F1=3.84, p=0.0550; F2=2.30, p=0.145), and a Length × Position interaction in the by-subjects analysis (F1= 3.20, p=0.0789; F2=2.31, p=0.144).

A paired comparison of length for participial and postposed RCs showed that in participial RCs, the length effect was significant by-subjects (F1=4.44, p=0.0395; F2=2.65, p=0.119). With postnominal RCs, length did not reach significance (F1=0.02, p=0.885; F2=0.02, p=0.881).

In line with findings in other languages, participial RCs are interpreted as attached to the complex NP’s head; 61% for long, 53% for short. In contrast, postnominal RCs are invariably interpreted as attached to the complex NP’s head noun, regardless of RC’s length, at a rate of 93%.

### Discussion

The results are consistent with Fodor’s Implicit Prosody Hypothesis. More generally, these results provide further support for the view that human parsing decisions are driven by all available sources of linguistic knowledge, not merely structural constraints.

Underway is a study examining the overt prosody of participial and postnominal RCs, in order to determine whether prosodic differences are responsible for the apparent differential behavior of the two RC types.

### References


### Experiment design

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<th>Three important properties of Hindi:</th>
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<td>1. RCs can occur either prenominally (5a) or postnominally (5b).</td>
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<td>2. The X of Y NP complex is realized as Y’s X, as in Japanese (Kamide and Mitchell 1997).</td>
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<td>3. Both types of RC can in principle modify either one of X or Y.</td>
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