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Wh-scope-marking in Tamil

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Abstract. This study shows that Tamil exhibits *wh*-scope-marking constructions that share general properties with those found in other languages such as German and Hindi. In the literature, *wh*-scope-marking has been analyzed such that the embedded question functions as a restriction on the matrix propositional *wh*-phrase, with the two forming a constituent in the underlying structure. However, this constituent structure has been motivated solely on semantic grounds and lacks direct syntactic support. I argue that Tamil *wh*-scope-marking provides syntactic support for the constituency between the matrix *wh*-phrase and the embedded questoin, using a Proper Binding Condition (PBC) effect as a diagnostic. These findings thus provide empirical support for the constituent structure assumed in previous semantic analyses and help bridge the gap between syntax and semantics in the analysis of *wh*-scope-marking.

Keywords. *wh*-scope-marking, constituency, Proper Binding Condition (PBC), Tamil

1. Introduction. This paper investigates *wh*-scope-marking constructions in Tamil. The goals of the study are twofold: (i) to show that Tamil has *wh*-scope-marking constructions, and (ii) to provide syntactic evidence for the structure proposed in semantic analyses, from the perspective of Tamil *wh*-scope-marking constructions. *Wh*-scope-marking is a cross-linguistically attested phenomenon, found in languages such as Bangla (Bayer 1996), Hindi (Dayal 1994, a.o), Kashmiri (Manetta 2010), Romani (McDaniel 1989), Dutch (Strik 2008; Schippers 2016), Frisian (Hiemstra 1986), German (Riemsdijk 1983, a.o.), Polish (Stepanov 2001), Russian (Stepanov 2001; Rojina 2011), Albanian (Turano 1998), Iraqi-Arabic (Wahba 1992), Hungarian (Horvath 1997), Japanese (Fujiwara 2021), Passamaquady (Bruening 2001), Warlpiri (Legate 2011). (1) illustrates examples from a *wh*-movement language, German, and a non-*wh*-movement language, Hindi.[1]

(1) a. Was glaubst du, [$_{CP}$ **mit wem** Maria gesprochen hat]? [German]
What think you with whom Maria spoken has
lit. 'What do you think: who Maria spoke to.'
≈ 'among the possible answers to 'who did Maria speak to?', what do you think?'

b. raam kyaa soctaa hai, [$_{CP}$ (ki) ramaa **kis-se** baat karegii]? [Hindi]
Ram what think that Ramaa who-ins talk do-future
lit. 'What does Ram think: who Ramaa will talk to.'
≈ 'among the possible answers to 'who will Ramaa talk to?', what does Ram think?'

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[1] The construction under investigation is the subordinate type of *wh*-scope-marking. Another type, known as sequential *wh*-scope-marking, involves two separate matrix questions, as illustrated by the English example in (i):

(i) What do you think? Who will Mary see? (Dayal 2000, 171)

For further details on this type of *wh*-scope-marking, see Dayal (2000).

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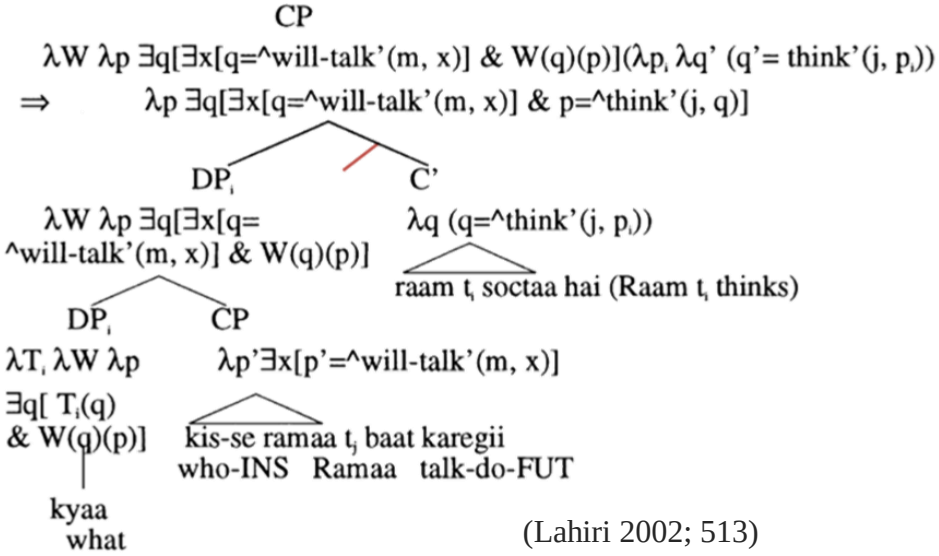
Wh-scope-marking constructions consist of two interrogative clauses: a matrix propositional *wh*-question and an embedded question. Together, these clauses form a single question that seeks an answer to the embedded question.

This construction has been analyzed such that the embedded question functions as a restriction on the matrix propositional *wh*-phrase (e.g. Dayal 1994, 2000; Stepanov 2001; Lahiri 2002; Stepanov and Stateva 2006; Legate 2011).[2] Semantically, (1b) poses the question of what Ram thinks, with possible answers restricted to those of the embedded question, namely, who Ramaa will talk to. To derive this interpretation, these accounts assume that the matrix propositional *wh*-phrase and the embedded *wh*-question form a constituent in the underlying structure, as shown in (2a). The surface syntax is then derived from that structure. In Hindi, the embedded question is extraposed to sentence-final position, as in (2b). In German, in addition to extraposition, the matrix *wh*-phrase moves to Spec,CP, as shown in (1a). The underlying structure in (2a) yields an LF like (2c) and supports a semantic representation, such as Lahiri's (2002) proposal shown in (3), which captures the idea that the embedded question functions as a restriction on the matrix propositional *wh*-phrase.

(2) <Underlying Structure>
a. Ram [$_{NP}$ what$_{PROP}$ [$_{CP2}$ who Ramaa will talk to]] think
<Surface Syntax>
b. Ram [$_{NP}$ what$_{PROP}$ t$_{CP2}$] think, [$_{CP2}$ who Ramaa will talk to]
<LF Structure>
c. [$_{CP1}$ [$_{NP}$ what$_{PROP}$ [$_{CP2}$ who Ramaa will talk to]] [$_{C1'}$ Ram think t$_{NP}$]]

(3)



(Lahiri 2002; 513)

In the literature, however, as far as I am aware, the structure that assumes constituency between the matrix propositional *wh*-phrase and the embedded question has been motivated solely on semantic grounds, and lacks explicit syntactic support. This study provides syntactic support

[2] An alternative analysis of this construction considers it a variant of long-distance *wh*-questions (Hiemstra 1986; McDaniel 1989; Cheng 2000; Sabel 2000; Stechow 2000, a.o.). In this approach, the matrix *wh*-phrase is treated as a *wh*-expletive or as an articulated *wh*-feature of the embedded *wh*-phrase, serving only to mark the scope of the embedded *wh*-phrase. However, several studies argue that this construction cannot be adequately treated as a variant of long-distance wh-questions (Dayal 1994; Herburger 1994; Pafel 2000; Reis 2000; Stepanov 2001; Lahiri 2002; Legate 2011; Fujiwara 2021). See these works for relevant arguments supporting this perspective.

for the constituent structure assumed in previous semantic analyses by introducing Tamil *wh*-scope-marking, thereby helping to bridge the gap between syntax and semantics in the study of this construction.

The organization of the paper is as follows. Section 2 establishes that Tamil exhibits *wh*-scope-marking constructions by showing that they share core properties with those found in other languages. Section 3 presents syntactic evidence for the structure proposed in the literature. In particular, I show that the matrix propositional *wh*-phrase and the embedded clause form a constituent, using a Proper Binding Condition (PBC) effect as a diagnostic for constituency. Section 4 concludes the paper.

2. Tamil *wh*-scope-marking. Tamil is a head-final language that allows relatively free word order due to scrambling, and permits *wh*-in-situ (Sarma 1999; 2003). In this section, I argue that Tamil examples in (4) instantiate *wh*-scope-marking, as they exhibit general properties shared with *wh*-scope-marking constructions in other languages.[3] As in the German and Hindi examples in (1), the sentences in (4) contain two *wh*-phrases, one in the matrix clause and one in the embedded clause, with the embedded *wh*-phrase providing the core question content, as reflected in the translations.

(4) a. {Ankita} [Sinduja **enna** sapta-nu] {Ankita} enna sonna?
Ankita Sinduja what ate-C Ankita what said
lit. 'What did Ankita say: what did Sinduja eat?'
≈ 'among the possible answers to 'what did Sinduja eat?', what did Ankita say?'

b. [neṯi(kki) ɾaṯiri Rahul **ɛnga** irɯ-nḏ-aa-n endru] enna son-n-aa-n?
yesterday night Rahul where was C what say-past-3.sg-masc
lit. 'What did (he) say: where was Rahul last night?'
≈ 'among the possible answers to 'where was Rahul last night?', what did he say?'

In Tamil, there are two complementizers used in embedded clauses: *nu*, which is common in informal speech, and *endru*, which occurs in more formal registers. As shown in (4), both complementizers can appear in the *wh*-scope-marking constructions. According to my consultant, however, sentences like (4) are often perceived as somewhat unnatural, as the matrix *wh*-phrase is considered redundant as it can be omitted, as illustrated in (5), where the embedded *wh*-phrase alone takes matrix scope.

(5) a. [Sinduja **enna** sapta-nu] Ankita sonna?
Sinduja what ate-C Ankita said
'What did Ankita say that Sinduja ate?'

b. [neṯi(kki) ɾaṯiri Rahul **ɛnga** irɯ-nḏ-aa-n endru] son-n-aa-n?
yesterday night Rahul where was C say-past-3.sg-masc
'Where did he say that Rahul was last night?'

While the constructions in (4) are judged to be grammatical, they are typically perceived as marked or stylistically awkward. As will be shown below, however, there are contexts in which the matrix *wh*-phrase is not optional. These cases suggest that *wh*-scope-marking in Tamil is not merely a redundant or marked construction, but a grammatically productive construction in the language.

In what follows, I show that sentences like (4) exhibit core properties of *wh*-scope-marking attested cross-linguistically, as summarized in points (A) through (G).

[3] My consultant grew up in Chennai, the capital city of the Indian state of Tamil Nadu.

A. Any *wh*-phrases can be embedded:

Examples from German (6a) and Hindi (6b–c) show that a wide range of *wh*-phrases, such as *who, what, how, where, when, why*, and yes-no questions, can be embedded in *wh*-scope-marking constructions.[4] Tamil exhibits the same flexibility, as illustrated in (7a–f).

(6) Ger: a. Was glaubst du [**wo/wann/warum/wie** Maria getanzt hatte]?
what think you where/when/why/how Maria danced had
'What do you think: where/when/why/how did Maria dance?'
(Beck & Berman 2000, 19)

Hin: b. Jaun kyaa soctaa hai [Meri **kahaaN** jaayegii]?
John what think-PRES Mary where will-go
'What does John think: where will Mary go?' (Dayal 1994, 140)

c. Tum kyaa socte ho [ki **kyaa** vo aayegaa]?
you what think be that **whether** he come-FUTURE
'What do you think: will he come?' (Fanselow & Mahajan, 2000, 214)

(7) Tamil: who/what/how/where/when/why

a. [**Yaaru** malailendu tirumba vanda-nu] Ankita enna sonna?
Who mountain.from return came-C Ankita what said
'What did Ankita say: who returned from a mountain?'

b. [Sinduja **enna**/**edha** sapta-nu] ni enna nenaikkara?
Sinduja what/what$_{OBJ}$ ate-C you what think
'What do you think: What did Sinduja ate?'

c. Avan [malail-endu **eppidi** tirumba vandan-nu] enna sonnan?
he mountain-from how return came-C what said
'what did he say: how did he return from a mountain?'

d. Ankita [**Eng**-endu aval-oda akka vanda-nu] enna sonna?
Ankita where-from she-poss sister came-C what said
'What did Ankita say: where did her elder sister return from?'

e. Avan [malailendu **eppo** tirumba vandan-nu] enna sonnan?
he mountain-from when return came-C what said
'What did he say: when did he return from a mountain?'

f.[Sinduja **yen** apple sapta-nu] ni enna nenaikkara? -yenna avalukku pasi
Sinduja why apple ate-C you what think because she.poss hunger
'What do you think: why did Sinduja eat an apple? -Because she was hungry.'

[4] It is controversial in the literature whether German *wh*-scope-marking can embed yes-no questions. For example, Fanselow and Mahajan (2000) argue that it cannot, but Sternefeld (2002) judges examples like (i) to be marginally acceptable, or even fully acceptable in echo contexts.

(i) ?Was sagtest du, ob Hans kommt?
what said you whether John comes
lit. 'What did you say: does John come?' (Sternefeld 2002: 298)

In the Tamil examples in (7), each sentence contains both an embedded *wh*-phrase and a matrix *wh*-phrase *enna* 'what.' As noted above, the matrix *wh*-phrase can be dropped in these cases, allowing the embedded *wh*-phrase to take matrix scope on its own. Crucially, however, when the embedded question is a polar question, as in (8), then the matrix *wh*-phrase cannot be dropped.

(8) Tamil:

a. Ni [Sinduja apple sapta-**la**-nu] *(enna) nenaikkara?
you Sinduja apple ate-Q-C what think
'What do you think: did Sinduja ate an apple?'

b. [[neṯi(kki) ɾaṯiɾi aval viʈɯ-læ iɾɯnḏaa-**la**-nɯ] *(enna) sonna?
yesterday night she home-at was-Q-C what said
int. 'What did she say: was she at home last night?'

This is because the polar question particle, when attached to a verb, cannot take matrix scope on its own unlike other *wh*-phrases. The ungrammaticality of (8) thus indicates that the matrix *wh*-phrase is not optional in these constructions. Rather, it signals that the embedded question constitutes the main content of the entire question, which is a defining property of *wh*-scope-marking.

B. More than one *wh*-phrase can appear in the embedded clause:

Wh-scope-marking constructions in languages such as German and Hindi allow multiple *wh*-phrases to appear within the embedded clause, as shown in (9). Tamil exhibits the same pattern, as illustrated in (10).

(9) Ger: a. Was glaubst du [**wann** Hans an **welcher** Universität studiert hat]?
what think you when Hans at which University studied has
'When do you think Hans studied at which university?'(Dayal 1994,140)

Hin: b. Raam-ne kyaa kahaa thaa [ki mohan-ne **kab kis-ko kEse** maaraaa]?
Ram-ERG what said that Mohan-ERG when whom how hit
'How did Ram say that Mohan hit whom when?' (Mahajan 1990, 170)

(10) Tamil:[avan **enga enna** pannaran-nu] ni enna nenaikkara?
he where what do-C you what think
'What do you think: What is he doing where?'

C. Scope can extend across multiple embedded clauses:

In *wh*-scope-marking constructions, an embedded *wh*-phrase can take matrix scope across multiple clauses, provided that each intermediate clause also contains a propositional *wh*-phrase, as shown in (11). Tamil conforms to this cross-linguistic pattern as well, as shown in (12).

(11) Ger: a. Was meinst du [was/%daß sie glaubt [**wen** Fritz liebt]]?
what think you what/that she believes who Fritz loves
'Who do you think that she believes that Fritz loves?'

Hin: b. Tum kyaa socte ho [ki us-ne *(kyaa) kahaa [ki **kɔOn** aayegaa]]?
you what think be that he-ERG what said that who come-FUT
'Who do you think he said will come?' (Fanselow & Mahajan 2000, 212)

(12) Tam: [[neṯi(kki) ɾaṯiɾiaval viʈɯ-læ iɾɯnḏaa-**la**-nɯ] *(enna) solluva-nɯ]
yesterday night she home-in was-Q-C what say.future-C

kavaladigari enna sonnan?
policemen what said
'What did the policemen say: what she would say: was she at home last night?'

In (12), the most embedded clause is a polar question. In this context, the presence of the intermediate scope marker *enna* is not optional, since the Q-particle attached to the verb cannot independently take scope beyond its own clause. The intermediate *wh*-phrase is therefore necessary to mediate the scope dependency.

D. The embedded clause must be interrogative:

In *wh*-scope-marking constructions, the embedded clause must be interrogative. If the embedded clause is declarative, the construction becomes ungrammatical, as illustrated in (13) for German and Hindi, and in (14) for Tamil.

(13) Ger: a. *Was glaubst du [daß Maria mit Hans gesprochen hat]?
what think you that Maria with Hans spoken has

Hin: b. *Jaun kyaa jaantaa hai [Meri Ravi-se baat karegii]?
John what know-PRES Mary Ravi-with will-talk (Dayal 1994, 141)

(14) Tam: *Avan [malai-lendu tirumba vandan-nu] enna sonnan?
He mountain-from return came-C what said

It should be noted that many *wh*-scope-marking languages also allow declarative counterparts of these constructions, where the matrix clause contains a propositional pronoun or demonstrative in place of a propositional *wh*-phrase. Examples from German and Hindi are given in (15). Tamil also permits this type of construction, as shown in (16).

(15) Ger: a. Fred hat es behauptet, [dass Wilma wegfährt].
Fred has it claimed that Wilma leave
'Fred has claimed that Wilma is leaving.' (Truckenbrodt 2016, 118)

Hin: b. Siitaa yeh jaantii hai [ki Ravi-ne Anu-ko dekhaa].
Sita this knows that Ravi-ERG Anu-ACC saw
'Sita knows that Ravi saw Anu.' (Dayal 2017, 160)

(16) Tam:?[Ankita malai-lendu tirumba vanda-nu] Sinduja idhu sonna.
Ankita mountain-from return came-C Sinduja this said
'Sinduja said that Ankita came from a mountain.'

E. The matrix predicate must be able to take a declarative complement:

In *wh*-scope-marking constructions, the matrix predicate must be compatible with a declarative complement. The construction is ungrammatical when the matrix verb is one that does not permit declarative complements, such as *ask*. This constraint is illustrated in German and Hindi in (17), and in Tamil in (18).

(17) Ger: a. *Was fragst du [**mit wem** Maria gesprochen hat]?
what ask you **with whom** Maria spoken has

Hin: b. *Jaun kyaa puuchhtaa hai [Meri **kis-se** baat karegii]?
John what ask-PRES Mary who-with will-talk (Dayal 1994, 141)

(18) Tam: ?*[Sinduja **enna** sapta-nu] ni enna ketta?
Sinduja what ate-C you what asked

F. The matrix clause must be affirmative:

In *wh*-scope-marking constructions, the matrix clause must be affirmative. When the matrix clause contains negation, the construction becomes ungrammatical. This restriction is illustrated in German and Hindi in (19), and in Tamil in (20).

(19) Ger: a. *Was glaubst du nicht [**mit wem** Maria gepochen hat]?
what think you not with whom Maria talked has
'Who don't you think Maria has spoken to?' (Dayal 1994, 145)

Hin: b. *Jaun kyaa nahiiN soctaa hai [Merii **kis-se** baat karegii]?
John what not think-PRES Mary who-with will-talk
'Who doesn't John think Mary will talk to?' (Dayal 1996, 57)

(20) Tamil: *[**Yaaru** virakku varuvanga-nu] ni enna nenaikkala?
who to.party come-C you what think.not
'Who didn't you think would come to the party?'

This property further distinguishes *wh*-scope-marking from regular long-distance *wh*-questions in Tamil. As shown in (21), negation is permitted in the matrix clause of regular long-distance *wh*-questions, without resulting in ungrammaticality.

(21) Tamil:[**Yaaru** vira-kku varuvanga-nu] ni nenaikkala?
who party-to come.will-C you thought.not
'Who didn't you think would come to the party?'

G. Principle C: R-expressions in the embedded question must be free.

Principle C effects provide evidence that the embedded clause in *wh*-scope-marking constructions is syntactically embedded. As shown in (22) for German and Hindi, an R-expression inside the embedded clause cannot be coreferential with a pronoun in the matrix clause. The Tamil data in (23) exhibits the same pattern: when the matrix subject is a pronoun, it cannot corefer with the embedded R-expression subject, due to Principle C. This supports the view that the embedded question is structurally embedded within the matrix clause.

(22) Ger: a. *Was sagt er$_i$ [**wo** Kai$_i$ wohnt]?
what says he where Kai lives
'Where did he$_i$ say Kai$_i$ lives?' (Haida 2007, 138)

Hin: b. *Us$_i$-ne kyaa socaa [ki Ravii$_i$-ne **kis-ko** dekhaa]?
he-ERG what thought that Ravi-ERG who saw
'Who did he$_i$ think that Ravi$_i$ saw? (Mahajan 2000; 324)

(23) Tamil: a. *{Avan$_i$} [neṯi(kki) ɾaṯiɾi Rahul$_i$ **ɛnga** iɾɯnḏaan-nɯ] {avan$_i$} ennə sonnaan?
he yesterday night Rahul where was-C he what said
'What did he$_i$ say: Where was Rahul$_i$ last night?'

b. {Rahul$_i$} [neṯi(kki) ɾaṯiɾi avan$_i$ **ɛnga** iɾɯnḏaan-nɯ] {Rahul$_i$} ennə sonnaan?

Rahul yesterday night he where was-C Rahul what said
'What did Rahul$_i$ say: Where was he$_i$ last night?'

Based on the data above, I conclude that Tamil exhibits *wh*-scope-marking constructions, with properties similar to those found in German and Hindi.

3. Constituency of "what$_{prop}$" and "CP$_2$". Recall that the current analysis of *wh*-scope-marking assumes that the matrix propositional *wh*-phrase and the embedded question form a constituent in an underlying structure, as illustrated in (24).

(24) <Underlying Structure>
a. John think [$_{NP}$ what$_{PROP}$ [$_{CP2}$ **who** Mary will talk to]]
<Surface Syntax>
b. John [$_{NP}$ what$_{PROP}$ t$_{CP2}$] think, [$_{CP2}$ **who** Mary will talk to] (Hindi: extraposition of CP2)
c. [$_{NP}$ what$_{PROP}$ t$_{CP2}$] John think t$_{wh}$, [$_{CP2}$ **who** Mary will talk to] (German: +wh-movement)
<LF Structure>
d. [$_{CP1}$ [$_{NP}$ what$_{PROP}$ [$_{CP2}$ **who** Mary will talk to]] [$_{C1'}$ John think t]]

This structure is motivated purely by semantic considerations, specifically, the need for the embedded question to function as a restriction on the matrix propositional *wh*-phrase. However, no syntactic evidence has been presented to support the constituency of these two elements. This is because, in the *wh*-scope-marking languages examined so far, the matrix *wh*-phrase and the embedded clause are separated on the surface by *wh*-movement or extraposition of the embedded clause. For example, German exhibits overt *wh*-movement of the matrix *wh*-phrase, whereas Hindi involves extraposition of the embedded question, as shown in (25).

(25) a. German: wh-movement (+ extraposition of CP)
[$_{NP}$ Was t$_{CP2}$] glaubst du, [$_{CP2}$ **mit wem** Maria gesprochen hat]?
What think you with whom Maria spoken has
lit: 'What do you think: who did Maria talk to?'

b. Hindi: extraposition of CP
Jaun [$_{NP}$ kyaa t$_{CP2}$] soctaa hai, [$_{CP2}$ (ki) merii **kis-se** baat karegii]?
John what think that Mary who-ins talk do-future
lit. 'What does John think: who will Mary talk to?'

In this regard, Tamil offers particularly suggestive evidence: the matrix *wh*-phrase and the embedded question can appear adjacent to each other at the surface, as shown in (26).

(26) Tamil:
Ankita [$_{NP}$ [$_{CP2}$ Sinduja **enna** sapta-nu] enna] sonna?
Ankita Sinduja what ate-C what said
lit. 'What did Ankita say: what did Sinduja eat?'

This surface adjacency may suggest that the matrix *wh*-phrase and the embedded question form a constituent, as assumed in semantic analyses of this construction. However, the question is whether the matrix *wh*-phrase and the embedded question truly form a constituent. In what follows, I argue that they do, based on a movement restriction observed in this construction.

Tamil allows relatively free word order, commonly attributed to scrambling (Sarma 2003; Leung 2018). Examples (27a–c), drawn from Leung (2018), show that both single scrambling (27b) and multiple scrambling (27c) are permitted. Additionally, my consultant judges (27d), in

which the adjunct and the object are fronted in reverse order before the subject, to be acceptable, further supporting the view that Tamil exhibits a degree of non-configurationality.

(27) Tamil:

a. yaar enge et-ai vaang-in-aan?
who where what-acc buy-past-3sm
'Who bought what where?'

b. et-ai yaar enge t_{Obj} vaang-in-aan?
what-acc who where buy-past-3sm

c. enge et-ai yaar t_{place} t_{Obj} vaang-in-aan?
where what-acc who buy-past-3sm (Leung 2018, 46)

d. et-ai enge yaar t_{place} t_{Obj} vaang-in-aan?
what-acc where who buy-past-3sm

However, scrambling in Tamil is not unconstrained. Consider (28). In (28a), a VP is embedded under the verb *pona* 'went'. As shown in (28b) and (28c), either the entire VP or the embedded object can undergo scrambling to sentence-initial position. Crucially, however, the word order in (28d) is ungrammatical. In this example, the object first moves out of the VP, and the remnant VP is then fronted to sentence-initial position, crossing over the extracted object.

(28) Tamil

a. Sinduja [$_{VP}$ apple sapda] pona.
Sinduja apple eat went
'Sinduja went to eat an apple.'

b. [$_{VP}$ apple sapda], Sinduja t_{VP} pona.
apple eat Sinduja went
'To eat an apple, Sinduja went.'

c. Apple Sinduja [$_{VP}$ t_{NP} sapda] pona.
apple Sinduja eat went
'An apple, Sinduja went to eat.'

d. *[$_{VP}$ t_{NP} sapda], apple, Sinduja t_{VP} pona.
eat apple Sinduja went

This configuration constitutes a classical Proper Binding Condition (PBC) violation in scrambling (Saito 1989). The PBC blocks the type of configuration schematically illustrated in (29), where remnant movement crosses over an extracted element.

(29) *[$_{YP}$ … t_X … Y] … X … t_{YP}

Crucially, this analysis presupposes that X and Y form a constituent in the base structure. Accordingly, classical PBC effects can be used as a diagnostic for constituency.

Keeping this in mind, it is crucial to note that Tamil *wh*-scope-marking constructions exhibit a similar restriction on word order, as illustrated in (30). As shown in (30b) and (30c), scrambling of the embedded question alone, or of both the embedded question and the matrix *wh*-phrase, is possible. In contrast, the "what-CP-Subj-V" order in (30d) is ungrammatical, indicating a classical PBC effect.

(30) a: Subj [CP_2] [what] V

Ni [$_{CP2}$ Sinduja apple sapta-**la**-nu] enna nenaikkara?
you Sinduja apple ate-Q-C what think
lit. 'What do you think: did Sinduja eat an apple?'

b: [CP_2] Subj t_{CP2} [what] V

[$_{CP2}$ Sinduja apple sapta-**la**-nu] ni enna nenaikkara?
Sinduja apple ate-Q-C you what think

c: [CP_2] [what] Subj t_{CP2} t_{wh} V

[$_{CP2}$ Sinduja apple sapta-**la**-nu] enna ni nenaikkara?
Sinduja apple ate-Q-C what you think

d: *[what] [CP_2] Subj t_{CP2} t_{NP} V

*Enna [$_{CP2}$ Sinduja apple sapta-**la**-nu] ni nenaikkara?
what Sinduja apple ate-Q-C you think

The PBC effect observed in (30d) can be schematically illustrated in (31). In (31b), the embedded question first moves out of the constituent [$_{NP}$ CP what], and the matrix propositional *wh*-phrase then moves across it, resulting in a configuration that violates the PBC, as in (31c).

(31) The derivation of (30):

a.		Subj	[$_{NP}$ [CP]	what]	V	(= 30a)
b.	[CP]	Subj	[$_{NP}$ t_{CP}	what]	V	(= 30b)
c.	*[$_{NP}$ t_{CP} what]	[CP]	Subj	t_{NP}	V	(= 30d)
(cf. d.	[$_{NP}$ [CP] what]	Subj		t_{NP}	V	(= 30c))

The ungrammaticality of (30d) thus provides direct syntactic evidence that the embedded question and the matrix propositional *wh*-phrase form a constituent in the underlying structure, as in (31a). If this were not the case, such a word order restriction would not be expected, given that (27) shows no constraint on the relative order of an adjunct and an object.

In sum, while previous semantic analyses of *wh*-scope-marking have assumed this constituent structure, they lacked direct syntactic support. The present data from Tamil fills this gap by providing independent syntactic evidence based on a PBC effect on movement, showing that the embedded question and the matrix propositional *wh*-phrase indeed form a constituent. This finding bridges the gap between syntax and semantics in the analysis of *wh*-scope-marking, and contributes to a more unified and empirically grounded theory of the phenomenon.

4. Summary. This study has shown that Tamil exhibits genuine *wh*-scope-marking constructions that share general properties attested in languages such as German and Hindi. I have argued that Tamil *wh*-scope-marking provides novel syntactic evidence for the constituency of the matrix propositional *wh*-phrase and the embedded question. Although Tamil generally allows flexible word order through scrambling, *wh*-scope-marking constructions exhibit specific restrictions. In particular, certain surface orders are ruled out due to a Proper Binding Condition (PBC) effect, which arises only when the matrix *wh*-phrase and the embedded clause originate as a single constituent. This restriction, in turn, provides direct syntactic evidence for the constituent structure posited in previous semantic analyses of *wh*-scope-marking. Tamil thus fills a gap in the cross-linguistic literature by aligning syntactic structure with semantic interpretation, contributing to a more unified and empirically grounded account of *wh*-scope-marking.

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