

Question particles and disjunction*

K. A. Jayaseelan

The English & Foreign Languages University (Hyderabad)

April 2008

jayamrit@eth.net

(Comments welcome)

[Note to reader: In the transliteration of Malayalam and Sinhala data, ‘@’ stands for a schwa.]

* This paper was presented (under a different title) at the International Symposium of the Cambridge-Connecticut-Hyderabad-Nanzan-Siena-Tsing Hua Consortium for Linguistics, National Tsing Hua University (Taiwan), December 15-17, 2007. I wish to thank the audience of the symposium for very helpful comments.

Abstract

In many languages the disjunction marker is also a question particle. It is argued that in these languages, what superficially functions as a question particle is the lexical realization of the disjunction operator. If we now say that the disjunction marker is a copy of the disjunction operator, we have an explanation of the homophony of the disjunction marker and the question particle. In these languages, Baker's (1970) identification of the question particle with the question operator could indeed be valid, given our understanding that question semantics involves disjunction.

Contrary to current typological claims about English, it is claimed that English has a question particle, namely 'if'. It is argued – on the basis of cross-linguistic and cross-dialectal evidence – that 'if' is a lexical realization of the disjunction operator, and that it is underlyingly present in the C of both yes-no questions and *wh*-questions.

Looking at languages which have question particles to signal interrogative clauses, we note that in a great many cases – although not universally – the question particle shows a relation to disjunction. For example, the question particle can be homophonous with the coordination marker that signifies disjunction, i.e. the disjunctive connective (disjunction marker) of the language.

(1) question particle \approx disjunctive connective

Here I shall try to show that this homophony is not ‘accidental’ but in fact holds a key to the right analysis of the syntax of questions.

1. The question particle in Malayalam

In Malayalam the disjunction marker is *-oo*; the same *-oo* shows up at the end of a yes-no question as a question particle:

- (2) a. John-**oo** Bill-**oo** Peter-**oo** wannu¹
 John-DISJ Bill-DISJ Peter-DISJ came
 ‘John or Bill or Peter came.’
- b. Mary John-ine-(y)**oo** Bill-ine-(y)**oo** cumbiccu
 Mary John-ACC-DISJ Bill-ACC-DISJ kissed
 ‘Mary kissed John or Bill.’
- (3) Mary wannu-**oo** ?
 Mary came-Q
 ‘Did Mary come?’

As is the case in many languages, the question particle is absent in a constituent question:

- (4) a. aar@ wannu ?
 who came
 ‘Who came?’
- b. Mary aar-e cumbiccu ?
 Mary who-ACC kissed
 ‘Who did Mary kiss?’

¹ The *-oo* must be suffixed to each disjunct. It is suffixed outside Case (if there is overt Case).

But this is true only of the modern language; in earlier stages of the language the *-oo* surfaced even in constituent questions. I give two examples from a fourteenth-century text *Ambariishoopaaakhyaanam* (Narayanapilla 1971):²

- (5) a. entu-kil-**oo** raajya-ttinnu want-a upadrawam ?
 what-be-DISJ kingdom-DAT came-RELATIVIZER trouble
 ‘What is the trouble that has come to the kingdom?’
- b. maharSi nintiruwaDi entu-nimittam-aakil-**oo** iwiDam nookki
 great.sage (hon. title) what-reason-be-DISJ this.place seeing
 ezhunnaLLi ?
 came (hon.)
 ‘For what reason is it that the great sage has been pleased to come to this place?’

It also shows up in some archaic, “literary” types of discourse; the following is an example from a historical novel *Raamaraajabahadur* by C. V. Raman-Pilla (1918):

- (6) it-entu kat^ha-(y)**oo** ?
 this-what story-DISJ
 ‘What story is this?’

It is important to convince ourselves that the question particle of Malayalam is present in the underlying representation of even constituent questions.³ For yes-no questions by themselves are only a weak indicator of the puzzle (problem) presented by (1). Yes-no questions are traditionally analyzed as involving an implicit disjunction of a clause and its negation (see, e.g., Larson 1985). Thus (3) could be analyzed as (3’) prior to the application of a deletion process:

- (3’) Mary wanner-**oo**, illa-(y)**oo** ?
 Mary came-DISJ not-DISJ
 ‘Did Mary come, or not?’

Given the possibility of such an underlying structure, one is tempted to adopt an ‘obvious’ solution of (1); namely that the *-oo* that shows up at the end of a yes-no

² Malayalam (like Sinhala) prefers clefts in constituent questions. Note the preference for clefts even at this early stage of the language. In (5b) the cleft focus, along with the copula, has “floated” into the cleft clause; see Jayaseelan & Amritavalli (2005) for an account of scrambling in clefts in Dravidian.

³ As argued at some length in Jayaseelan (2001).

question is simply the normal disjunctive connective of the language, since two clauses are coordinated here. But if *-oo* is present even in the periphery of a *wh*-question – i.e. if (4a) is underlyingly (4a') – this element cannot be a disjunctive connective, since it does not connect anything; and it calls for a deeper explanation.

(4a') aar@ wannu-oo ?
 who came-DISJ
 'Who came?'

The constituent question data (then) force us to problematize the homophony of the disjunction marker and the question particle.

2. The question particle in Sinhala and Japanese

Sinhala and Japanese are two other languages in which the disjunctive connective is also the question particle:

(7) Sinhala

- a. Mahattee-t@ tee d@ koopi d@ oone ?
 mister-DAT tea DISJ coffee DISJ necessary
 'Does the mister want tea or coffee?'
- b. Chitra ee pot@ kieuwa d@ ?
 Chitra this book read Q
 'Did Chitra read this book?' (Gair 1970)
- c. Siri mokak d@ keruw-e ?⁴
 Siri what Q did-E
 'What did Siri do?' (or 'What is it that Siri did?') (Hagstrom 1998:20)

(8) Japanese

- a. John-ka Bill-(ka)-ga hon-o katta
 John-DISJ Bill-DISJ-NOM books-ACC bought
 'John or Bill bought books.' (Kuroda 1965)

⁴ Hagstrom (1998) rightly analyzes *d@* as a question particle, but generates it as part of the *wh*-phrase (cf. Watanabe's (1992) analysis of the *wh*-operator in Japanese). Actually (however), *d@* is in C; and (7c) is an instance of the cleft construction (see Jayaseelan 2001:91, fn. 35; see also Jayaseelan & Amritavalli 2005).

- b. Dare-ga kimasu-**ka** ?
 who-NOM come-Q
 ‘Who’s coming?’ (Nishigauchi 1990:18)

Note that both in Sinhala and Japanese, the question particle can occur on the surface even in *wh*-questions.

3. The puzzle about the question particle

The puzzle about the question particle (as I see it) is this: If the question particle is a device of clausal typing, as is standardly assumed since Cheng (1991), any marker should be able to fill this function. Then why is it that in so many languages – with a regularity that is far greater than by chance – the question particle is also the disjunction marker? Why does the disjunction marker “double” as the question particle (or the other way round)?

The way I tried to make sense of this in earlier work (Jayaseelan 2001) was to say that the question particle (in these languages) is not a clause-typing device primarily, but is the lexical realization of the disjunction operator. In a ‘plain’ case of disjunction of phrases – e.g. ‘John or Bill or Peter came’, or its Malayalam equivalent (2a) – we get disjunction markers (-*oo* in Malayalam, ‘or’ in English) whose only function is to mark off each disjunct; but the disjunction operator itself has no independent lexical realization.⁵ What we are now saying is that in the IP-periphery of Malayalam questions, the disjunction operator is indeed lexically realized, as -*oo*. We can say something further: namely that the disjunction markers of Malayalam that are affixed to each of the disjuncts are copies of the disjunction operator; and there is some principle of redundancy which deletes the disjunction operator when its copies are present on the disjuncts. Now we have an explanation of the homophony of the (so-called) ‘question particle’ and the disjunction marker in Malayalam. The same analysis can be extended to the ‘question particle’ of Sinhala and Japanese.⁶

⁵ I am making a distinction between the disjunction marker (disjunctive connective) and the disjunction operator. In ‘(Or) John or Bill or Peter came’ – see Munn (1993), Anandan (1993), Kayne (1994) for a discussion of the syntax of connectives – there are three disjunction markers but presumably only one disjunction operator. The latter (I assume) is generated in an operator position.

⁶ We need to say something more about the postulated copying of the disjunction operator onto the disjuncts. (Thanks to James Huang for drawing my attention to this point.) The operator – we are assuming

The relation of questions to disjunction is discussed in the next section.⁷ While both questions and ‘plain’ phrasal disjunction require the disjunction operator – giving rise to the above-mentioned homophony – the disjunction operator is arguably in two different positions in the two cases. A question is constituted when the disjunction operator is the head of ForceP in the IP-periphery (Jayaseelan 2001). On the other hand, in phrasal disjunction, the (covert) disjunction operator could be in a lower position. This lower position could be the left periphery of vP, cf. the clustering of operators above vP in Beghelli & Stowell (1997), Kayne (1998). (See also Jayaseelan 2001, 2004.)

4. Question particle as question operator: Baker (1970)

Besides explaining the above-mentioned homophony, we also gain something else by saying that the Malayalam ‘question particle’ is the disjunction operator. Baker (1970), who was one of the earliest people to look at question particles in the generative framework, suggested the identification of the question particle with the question operator:

(9) question particle = question operator (Baker 1970)

It is perhaps fair to say that this idea was not picked up in any serious way in subsequent work on questions, wherein the dominant line of thinking appears to have been that there is parametric variation as regards the position in which the question operator is generated: thus it has been proposed that it is generated as part of the meaning of the *wh*-word in

– is generated in an operator position that c-commands the disjuncts. But there cannot be ‘downward’ copying, *after* the merge of the operator, especially if we need to create new structure to accommodate the copies. (Cf. the analyses of connectives proposed in the references of fn. 5, which make the coordination marker the head of an X’-configuration in which the coordinated phrase is the complement.)

Let us conceive of the copying operation as follows. When the operator is a member of the Numeration, a copy of it can be merged with each of the disjuncts (presumably in a head-complement configuration) as the phrases are being built up. (The copies on the disjuncts could be the result of a single act of across-the-board merge, if we adopt a multi-tiered structure for coordinated phrases.) Subsequently, a copy will be merged in the operator position also. In this way we can avoid ‘downward’ copying.

The above account should not entail that the operator “stay” in the same phase as the disjuncts. For, the operator-to-disjuncts relation is a long-distance one, which is even indifferent to island boundaries (Jayaseelan 2001). Possibly one can think of the operator and the disjuncts (the latter a multi-tiered structure) as being within a “doubling constituent”, as in Kayne’s (2005) analysis of pronouns and antecedents; and of the operator being moved out of the doubling constituent by the same process that moves away the antecedents of pronouns.

⁷ See Jayaseelan (2001) for an extensive discussion of this topic.

English, in the periphery of the *wh*-phrase in Japanese, and in the periphery of the clause in Chinese (Tsai 1994, Watanabe 1992, and others).⁸

Without going into the merits of the parametric claim, let us make a small claim for Malayalam, Sinhala and Japanese; namely that the Bakerian identification (9) is true for the question particles of these languages. But in these languages we also saw good reason for saying that the question particle is the lexical realization of the disjunction operator:

(10) question particle = disjunction operator (our claim, for some languages)

We can now exploit the Baker idea to good advantage. We now have a three-way identification for these languages (exploiting the transitivity of the identity relation):

(11) question particle = question operator = disjunction operator

The new identification that we get here is that of the question operator with the disjunction operator.

We suggest that the last identification, namely ‘question operator = disjunction operator’, is universal; whereas the Bakerian identification, ‘question particle = question operator’, may be true only of languages whose question particles show an obvious relation to disjunction.⁹

The relation of the question operator to disjunction is an idea that has a long standing in question semantics. Semanticists have translated question words as existential quantifiers (Hamblin 1973, Karttunen 1977). Thus Karttunen (1977: 19):

⁸ Chomsky’s (1993) interpretation rule for (English) questions, which ‘extracts’ an operator from a *wh*-word, can be seen as an endorsement of this position.

See also Cole & Hermon (1998) who use this idea to explain a claimed correlation between *wh*-in-situ and *wh*-indefinites. However see also Bruening (2007) who provides evidence from Passamaquoddy that *wh*-movement and *wh*-indefinites can coexist in a language, suggesting that the correlation is incorrect.

⁹ The reason why Baker’s identification (9) is only sometimes true could be that ‘question particle’ may not in fact be a natural class. In the languages in which his identification happens to be true, we saw that the primary function of the so-called ‘question particle’ is not clausal typing but the role it plays in question semantics. That is, the fact that we can also identify an interrogative clause by the presence of this element may be completely incidental (not part of the syntax). For languages in general, what lexical element or syntactic structure correlates with a certain clause type may be language-particular (cf. subject-auxiliary inversion and English questions).

It may be helpful to realize that the idea of ‘clausal typing’ is basically a functionalist idea. Strictly, the syntax of a language does not employ any device to tell the recipient of a message: “Here comes a question!”

... for semantic reasons, we make *wh*-phrases equivalent to existentially quantified noun phrases. For example, *who* and *what* ... will have the same translation as *someone* and *something*.

The “partition” view of the semantics of questions (Higginbotham & May 1981, Higginbotham 1993), which regards a question as denoting a partition of the possible states of things, also invokes disjunction: we can say that it is the disjunction operator that implements the partition.

In light of the well-established question-disjunction relation (then), the Malayalam-Sinhala-Japanese pattern is very transparent: A disjunction operator is overtly present in the IP-periphery of questions, which outputs the question meaning. (Its overt presence facilitates its being identified by linguistic analysis as a question particle; but this is only an incidental function of this element.)

In the next section we go on to look at English, which is less transparent in all these respects; but we try to show that English also in fact has underlyingly the same pattern.

5. The syntax of English questions

English is taken to be typologically very different from Japanese as regards the syntax of questions. English has *wh*-movement. The English disjunctive connective is ‘or’, which does not “double” as a question particle. In fact the accepted position is that English has no question particle. We were led to expect this by the theory of ‘clausal typing’ (Cheng 1991), which said that languages used either a question particle or *wh*-movement to signal an interrogative clause.

But the ‘clausal typing’ hypothesis may now need to be reevaluated in view of Benjamin Bruening’s survey of languages (Bruening 2007) which seems to show that there is not even a statistical correlation to support the hypothesis: there are as many *wh*-movement languages with, as without, question particles; and conversely, the languages which have question particles are nearly equally divided between *wh*-movement and *wh*-in-situ languages. The Bruening survey comes in handy for us here, for we wish to maintain that English in fact has a question particle.

English has a particle ‘if’ in embedded yes-no questions. There is no ‘if’ in *wh*-questions; but this is not a telling argument against analyzing ‘if’ as a question particle, because it is a known fact that even languages which clearly have question particles tend to drop them in constituent questions; cf. modern-day Malayalam which was discussed above. (Baker 1970 accounted for this fact by postulating a parametrically variable, low-level deletion rule.)

Etymologically, ‘if’ – O.E. *yif*, OS. *ef* (*of*) – has a German cognate ‘ob’, and a Dutch cognate ‘of’. Now interestingly, Dutch ‘of’ is the disjunction marker of the language – cf. *of Jan of Marie* ‘John or Mary’ – and it is also the particle that introduces yes-no questions. That is, Dutch has exactly the Malayalam-Sinhala-Japanese pattern of using the same element as a question particle and as a disjunction marker. And the double function of this element can be explained in the same way: ‘of’ is the disjunction operator of the language, which, when generated in the C-space, outputs the question meaning; and the disjunction markers are copies of the same disjunction operator generated in a lower position (see earlier discussion).

Is the English ‘if’ the disjunction operator? ‘If’ occurs in two contexts, a conditional clause and a polarity question. Both contexts appear to involve a propositional variable; and the function of ‘if’ appears to be to output a disjunction of propositions (alternative scenarios) as values of the variable. If we say that ‘if’ (in fact) is a form of the disjunction operator, we shall be partially assimilating the English pattern to the Dutch pattern. But the difference of English is that it does not use ‘if’ as a disjunction marker.

Looking now at ‘or’, the distinct disjunction marker of English, we note some historical facts: ‘Or’ is a reduced form of ‘other’, which was the disjunctive connective in Old English; cf. (12). (All Old English data are from the *Oxford English Dictionary on Historical Principles* (OED); the glosses are mine.)

(12) ... litell **operr** nohht
 ‘little or nothing’

(c. 1200. ORMIN6480)

But, significantly, OED notes examples where ‘or’ is used as a question-introducing element in yes-no questions, where it has the function of modern English ‘if’, cf. (13):

(13) He asked the lordes ... **or** they wolde thereforre warre
he asked the lords if they would therefore (go to) war
(1510. *Virgilius* in Thoms *E.E.Rom.*23)

‘I wonder whether Ajax will make it to the next round’

- b. Hij weet [**hoe** [**of** [je dat moet doen]]]

he knows how if you this must do

‘He knows how you must do this.’

- c. Ze weet [**wie** [**of** [**dat** [hij had willen opbellen]]]]

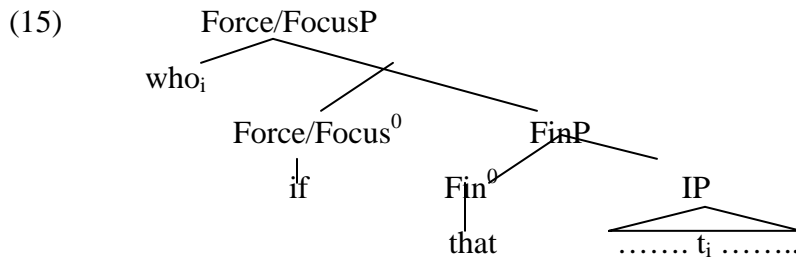
she knows who if that he had wanted call

‘She knows who he wanted to call.’

The embedded question in (14a) is a yes-no question, but the ones in (14b) and (14c) are *wh*-questions. All the questions (uniformly) have the question particle ‘of’ (i.e., ‘if’).

Note (particularly) the ‘who – if – that’ sequence in (14c). How do we generate it?

Assuming Rizzi’s (1997) proposal that *wh*-movement targets a Focus Phrase (FocP) in the left periphery, let us say that in this Dutch dialect, the Force and Focus heads are syncretic; and that the Focus feature on ‘if’ (which – we are hypothesizing – is the head of ForceP) “pulls up” a *wh*-phrase to the Spec position:



We suggest that this could be the structure of English *wh*-questions too; but in English, the ‘if’ is “silent” when there is a *wh*-phrase in the left periphery. (This deletion is of course the low-level deletion rule of Baker (1970).¹²)

In English yes-no questions, there could be an underlying ‘whether if ...’ sequence; and just in this case, either the *wh*-phrase or ‘if’ can be silent:¹³

- (16) a. I don’t know ~~whether~~ if John will come.

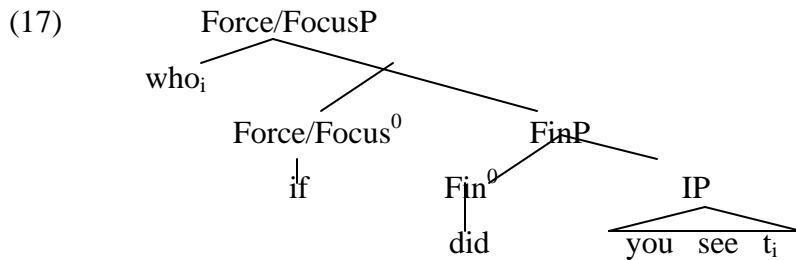
- b. I don’t know whether if John will come.

¹² This deletion is by no means contingent on the Spec-Head configuration shown in (15); it seems to require only the presence of a *wh*-phrase in the clause. Thus in Malayalam, the *wh*-phrase moves to a Focus position in the vP-periphery, while the disjunction operator *-oo* is generated in the C-space; and yet the deletion of *-oo* takes place in a *wh*-question (in the modern language), see Jayaseelan (2001).

¹³ ‘Whether’, like ‘either’, seems to contribute the meaning that there are exactly two disjuncts.

Alternatively we can take ‘whether’ to be an X^0 element that incorporates the meaning of the disjunction operator; in which case it will be generated instead of ‘if’ as the head of ForceP.

There is an ancillary question: In cases of subject-auxiliary inversion, where (one might ask) does the auxiliary move to? If (15) is the right picture of English *wh*-movement, the auxiliary cannot move into the head of the phrase into whose Spec position the *wh*-phrase moves; because the head position (we are saying) is occupied by ‘if’. Let us say that the auxiliary – which is finite – moves into the head of Finiteness Phrase (FinP):



To conclude this section: English too has a disjunction operator as a ‘question particle’, which plays the crucial role of generating the question meaning. And again, it too has a disjunction operator in the vP-periphery, whose copies are present on the disjuncts as ‘disjunction markers’. It is a ‘historical accident’ (as it were) that the language adopted different lexical realizations for the disjunction operator in the two positions. If English had continued to use ‘or’ for both functions (as it in fact permitted at a certain stage of its development), or if it had used ‘if’ for both functions (as Dutch does, with the cognate element ‘of’), the relation between questions and disjunction would have been more transparent. But the relation is nonetheless present in English, in the underlying representation.

A larger conclusion that is suggested by our exploration is that there is much less parametric variation between languages in the syntax of questions than has hitherto been assumed. In particular, it would seem that there is no variation as regards the position in which the question operator is generated: the question operator – which is the same as the

disjunction operator – is always generated in the IP-periphery, presumably as the head of ForceP. (The variation in question syntax seems to be limited to the movement options of *wh*-phrases.)¹⁴

References

- Anandan, K. N. 1993. Constraints on extraction from coordinate structures in English and Malayalam. Ph.D. dissertation, Central Institute of English and Foreign Languages, Hyderabad (India).
- Baker, C. L. 1970. Notes on the description of English questions: the role of an abstract question morpheme. *Foundations of Language* 6:197-219.
- Bayer, Josef. 2004. Decomposing the Left Periphery: Dialectal and Cross-Linguistic Evidence. In Horst Lohnstein & Susanne Trissler (eds.) *The Syntax and Semantics of the Left Periphery*. Berlin/New York: Mouton de Gruyter, pp. 59-95.
- Beghelli, F. & T. Stowell. 1997. Distributivity and negation. In *Ways of scope taking*, ed. A. Szabolcsi, 71-109. Dordrecht: Kluwer.
- Bruening, Benjamin. 2007. *Wh*-in-situ does not correlate with *wh*-indefinites or question particles. *Linguistic Inquiry* 38(1): 139-166.
- Cheng, L. 1991. On the typology of *wh*-questions. Ph.D. dissertation, MIT, Cambridge, Mass.
- Chomsky, N. 1993. A minimalist program for linguistic theory. In *The view from Building 20: Essays in honor of Silvain Bromberger*, ed. by K. Hale & S. J. Keyser, 1-52. Cambridge, MA: MIT Press. [Reprinted in Chomsky, N. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.]
- Cole, Peter & Gabriella Hermon. 1998. The typology of *wh*-movement: *Wh*-questions in Malay. *Syntax* 1:221-258.
- Higginbotham, J. 1993. Interrogatives. In *The View from Building 20: Essays in Honor of Silvain Bromberger*, ed. K. Hale & S. J. Keyser, 195-227. Cambridge, Mass.: MIT Press.
- Higginbotham, J. & R. May. 1981. Questions, quantifiers and crossing. *The Linguistic Review* 1:41-80.

¹⁴ It is now standard to assume that in *wh*-in-situ languages, *wh*-interpretation takes place by means of unselective binding of the *wh*-word(s) by a question operator in C (Baker 1970, Pesetsky 1987, Nishigauchi 1990, Tsai 1994, Reinhart 1998). But in Jayaseelan (2001: § 4.3) I argued that even a *wh*-phrase which has been moved to C must be interpreted by the same mechanism. I cited by way of argument a sentence like (i) in which a complex NP containing a *wh*-word has been moved to C:

(i) [The man who read the novel which WHO wrote] was it, that was punished?
(This is a cleft construction, cf. *It was [the man who read the novel which RUSHDIE wrote], that was punished*. The cleft focus has been moved to C by *wh*-movement.)

Now consider the claim that the English question operator is part of the meaning of the *wh*-word, and must be extracted from the *wh*-phrase to generate a bipartite structure like the following (Chomsky 1993):

(ii) for which *x*, the man who read the novel which *x* wrote
But to obtain this structure, the question operator must come out of a complex NP. This postulated movement however shows no island effect. If we say that the *wh*-word is interpreted by unselective binding even when the *wh*-phrase is in C, we explain the absence of any island effect. We also obtain the interesting result that there is only one mechanism for *wh*-interpretation, namely unselective binding.

- Hagstrom, P. 1998. Decomposing questions. Ph.D. dissertation, MIT, Cambridge, Mass.
- Hamblin, C. L. 1973. Questions in Montague English. *Foundations of Language* 10:41-53.
- Haspelmath, Martin. 1997. *Indefinite Pronouns*. Oxford Studies in Typology and Linguistic Theory. Oxford: Oxford University Press.
- Hoekstra, Eric. 1993. Dialectal variation inside CP as parametric variation. In Werner Abraham & Josef Bayer (eds.) *Dialektsyntax* (Special issue #5 of *Linguistische Berichte*), 161-179. Opladen: Westdeutscher Verlag.
- Jayaseelan, K. A. 2001. Questions and question-word incorporating quantifiers in Malayalam. *Syntax* 4(2):63-93.
- Jayaseelan, K. A. 2004. Comparative morphology of quantifiers. Paper presented at the 'Strategies of Quantification' conference, University of York, July 2004.
- Jayaseelan, K. A. & R. Amritavalli. 2005. Scrambling in the cleft construction in Dravidian. In Joachim Sabel & Mamoru Saito (eds.) *The Free Word Order Phenomenon: Its Syntactic Sources and Diversity*, pp. 137-161. Mouton de Gruyter, New York.
- Karttunen, L. 1977. Syntax and semantic of questions. *Linguistics and Philosophy* 1: 3-44.
- Kayne, R. 1994. *The Antisymmetry of Syntax*. Cambridge, Mass.: MIT Press.
- Kayne, R. 1998. Overt vs. covert movement. *Syntax* 1:128-191.
- Kayne, R. 2005. Pronouns and their antecedents. In R. Kayne, *Movement and Silence*, 105-135. Oxford: Oxford University Press.
- Kuroda, S.-Y. 1965. Generative grammatical studies in the Japanese language. Doctoral dissertation, MIT, Cambridge, Mass.
- Larson, R. 1985. On the syntax of disjunction scope. *Natural Language and Linguistic Theory* 3:217-264.
- Munn, A. 1993. Topics in the syntax and semantics of coordinate structures. Ph. D. dissertation, University of Maryland, College Park.
- Narayanapilla, P. K., ed. 1971. *Praaciina-MalayaaLa-gadya-maatrkakaL*. Thiruvananthapuram, India: Kerala University.
- Nishigauchi, T. 1990. *Quantification in the theory of grammar*. Dordrecht: Kluwer
- Pesetsky, D. 1987. *Wh-in-situ: Movement and unselective binding*. In Eric Reuland & Alice ter Meulen (eds.), *The Representation of (in)definiteness*, 98-129. Cambridge, Mass.: MIT Press.
- Raman-Pilla, C. V. 1918. *Raamaraajabahadur*. [Reprinted by Little Prince Publishers, Kottayam, India. 1983.]
- Reinhart, T. 1998. *Wh-in-situ in the framework of the Minimalist Program*. *Natural Language Semantics* 6: 29-56.
- Rizzi, L. 1997. The fine structure of the left periphery. In *Elements of Grammar: Handbook of Generative Syntax*, ed. L. Haegeman. Dordrecht: Kluwer.
- Tsai, Wei-Tien Dylan. 1994. On economizing the theory of A-bar dependencies. Doctoral dissertation, MIT, Cambridge, Mass.
- Watanabe, Akira. 1992. Subjacency and S-Structure movement of *wh-in-situ*. *Journal of East Asian Linguistics* 1, 255-291.