

NPI/FCIs of Malayalam: Division of labour between *wh-engilum* & *wh-um*

A PRIOR ANALYSIS: Jayaseelan (2001) notes that Malayalam has two sets of forms with the conjunction suffix *-um* that function as polarity items –*wh-um* & *wh-engil-um*. Further, *wh-um* forms are licensed by negation, but not in polar questions or antecedents of conditionals; only *wh-engil-um* forms are licensed here. He concludes that the domain of NPI *any* is divided between the two forms, and that this split goes right through the domain of FCI *any* too: imperatives disallow *wh-um*, and permit *wh-engil-um*. Interestingly, he finds that in one part of the domain of FC, possibility modals, both forms are allowed, (1) (showing Jayaseelan’s glosses).

- (1) \bar{i} kuppāyam ār-kk-um / ār-kk-engil-um pākam āk-um He goes on to say
 this dress who-DAT-CONJ / who-DAT-if-CONJ fitting be-will that while the litera-
 ‘This dress will fit anybody/somebody.’ ture makes a cut be-

tween two *anys*, NPI and FCI, which is cross-linguistically validated by two different morphemes (in Spanish, Greek, etc), the Malayalam forms cross-cut this divide, going against the NPI vs. FCI *any* analysis. He proposes that *wh-um* is a \forall quantifier, and *wh-engilum* is an \exists quantifier, because in the English translation, *aar-um* corresponds to ‘anybody’ and *aar-engil-um* corresponds to ‘somebody’. Jayaseelan then tries to derive the meanings of *wh-um* and *wh-engil-um* from their morphology. For him, in *wh-um*, *-um* is the \wedge operator which applies to the variable signified by the *wh*-item, and interprets it as an infinite \wedge ($= \forall$). Similarly *-engil* ‘if’, the \vee operator, makes *wh-engil-um* an infinite \vee ($= \exists$). The *-um* in *wh-engil-um* is, for him, not the \wedge operator, but contributes a meaning like ‘also’. Finally, for Jayaseelan, English *any* also has two instantiations, \forall quantifier and \exists quantifier, which Malayalam nicely separates by using two different forms. This \forall vs. \exists quantifier division has been repudiated by current theory for *any* (Dayal 2013, among others), so the Malayalam division also needs to be rethought.

***wh-um* & *wh-engilums* DISTRIBUTION:** Based on our fieldwork, this is tabulated in (2).

	wh-um	<i>any</i>	wh-engilum	<i>irgendein</i>	OUR ANALYSIS: <i>wh-um</i> is
generics/habituals	\forall -FCI	\forall -FCI	no	no	not a \forall quantifier, nor
possibility modal	\forall -FCI	\forall -FCI	\exists -FCI	\exists -FCI	is <i>wh-engilum</i> merely
(2) imperatives	no	\exists -FCI	\exists -FCI	\exists -FCI	an \exists quantifier. They
necessity modal	no	no	\exists -FCI	\exists -FCI	are obligatorily alter-
modal verb: <i>want</i>	no	no	\exists -FCI	\exists -FCI	native activating indef-
negation	yes	yes	no	no	inites, whose \forall and \exists
other DE operators	no	yes	yes	yes	force comes from inter-

play with other sentential operators. The *wh*-item has no ordinary semantic value, but introduces alternatives in the alternative dimension (we adopt a two-tier alternative semantics *wh*-in-situ model, Beck 2006, Kotek 2014). These alternatives enter the ordinary dimension copied by the attached *-um/-engilum*, but cannot be handled by the semantic composition mechanism, and a repair strategy of folding the alternatives into a single (\exists) element kicks in, forming indefinites out of *wh*-words (Uegaki 2018). This is how *wh*-indefinites are formed. The attached *-um/-engilum* have another effect. They also activate scalar alternatives and modify the alternatives activated by the *wh*-item into either a rich scale (numeral/quantifier scale > 2 members), *-engilum*; or a reduced scale $\langle \exists, \forall \rangle$, *-um*. This has a consequence on the type of exhaustification, wide-scope vs. low-scope, leading to \forall and \exists construal respectively, even though both forms are exhaustified by the same alternative sensitive exhaustification operator. This exhaustification based model (Chierchia 2013), along with a local blocking effect between the two forms in DE contexts, derives the right distribution for them —a strict division as \forall -FCI and \exists -FCI.

DIVISION OF FC SPACE AMONG *wh-engilum* & *wh-um*: The difference in quantificational force between *wh-engilum* & *wh-um*, (2), the former as an \exists -FCI and the latter as a \forall -FCI, is because of the scope difference between the FCI and a modal in its local environment, (3), with an exhaustification operator, covert *only* –O (and various flavors of it) at the highest position.

- (3) a. O \square / \diamond *wh-engilum*_[\sigma,D] ... $\Rightarrow \exists$ -FCI b. O *wh-um*_[\sigma,D] \diamond ... $\Rightarrow \forall$ -FCI

Chierchia (2013) correlates sopal possibilities with richness of scalar alternatives. A rich scale with a low-scoping modal is not economical because all the scale members yield identical results, and the richness of the scale is lost. This correlation works for Malayalam, as *wh-engilum* is compatible with rich scales like numerals, whereas *wh-um* is not, (4)-(5).

- (4) ēdā-engilum randā pustakam eDukkām (5) *ēdā pustaka-v-um randā eDukkām
 which-ENGILUM two books take.may which books-UM two take.may
 ‘(You) may take some two books or other.’ ‘Int: (You) may take any two books.’

Like Italian *un NP qualsiasi* or German *irgendein*, given the parallels (2), we propose that *wh-engilum* allows pre-exhaustification of its D-alternatives. Thus it survives in both DE and modal contexts. A modal intervening between O and *wh-engilum* leads to its signature FC interpretation, (3a), as high-scope modals resolve the clash between scalar and FC-implicatures.

The \forall force of *wh-um*, like *any*, comes from the wide-scope constraint w.r.t modals and a weakening of scalarity in modal contexts (modal containment), following Chierchia (2013), (3b). It also derives the ungrammaticality of *wh-um* with low-scope \square modals. In generics, GN plays the role of a low-scope \square modal, but because of built-in tolerance for exceptions, allowing the context variable to be set differently, it enables a resolution of implicature clashes.

But *any* and *wh-um* differ in licensing in imperatives. *Any* is licensed in imperatives where it gets an \exists construal. Chierchia proposes that the ban against low-scope construal of FC *any* is lifted in such contexts where movement across a high-modal is syntactically prohibited. Clearly, this ban is not lifted in the case of *wh-um*, thus preventing it from occurring in imperatives. But while *wh-um* is bad with plain imperatives (which involve \exists -FCI construal), it is good when a subtriggering clause is present, (6), because a \forall -FCI construal is possible here.

- (6) kāN-un-a ēdā button-um amartu DIVISION OF NPI SPACE: Besides the restriction of *every* and in if-clauses, *wh-engilum* is also licensed in other DE contexts, (7), where *wh-um* is not. On the other hand *wh-um* is licensed in clausemate negation and *without* contexts, where *wh-engilum* is not, (8). To explain this distribution in the NPI space between *wh-um* and *wh-engilum* we propose that *wh-engilum* is blocked by *wh-um* in clausemate negation/*without* contexts, as scalar implicatures disappear under negation, and the two forms become equivalent, but the simpler form *wh-um* blocks the complex *wh-engil-um*. Further, *wh-um* is blocked by *wh-engilum* in non-negative DE contexts, as here scalar implicatures are active and strengthen.

- (7) kurach kuttikal ēd-engilum HW ceytu (8) pān ār-e-(y)-um kūtt-āte wannu
 few kids which-ENGILUM HW did I who-ACC-um bring-NEG came
 ‘Few kids did any HW.’ ‘I came without bringing anyone.’

CONCLUSIONS: The Malayalam items constitute a new cross-linguistic pattern in the NPI/FCI domain, a strict division between \forall -FCI and \exists -FCI construal. While \exists -FCIs cross-linguistically do not have \forall construals because of scope economy (Fox 2000), \forall -FCIs have \exists construals when wide-scope for them is syntactically unviable (*any*). Here we have an obligatorily \forall -FCI, *wh-um*. We attribute this strict behavior of *wh-um* to the wide-scope constraint being inviolable with it, unlike say *any*, a cross-linguistic parametric difference. The cut in the NPI domain between *wh-um* and *wh-engilum* with *wh-um* blocking *wh-engilum* in clausemate negation contexts and being blocked by *wh-engilum* in other DE contexts is the hole (*wh-um*) and bagel (*wh-engilum*) pattern of complementary distribution that is cross-linguistically well attested (Progovac 1994). But even in the NPI space, *wh-um* and *wh-engilum* shed new light on cross-linguistic patterns, because even though it combines with numerals, (4), *wh-engilum* occurs as an NPI. Chierchia (2013), based on the fact that the FC morpheme *qualsiasi* combines freely with any numeral in Italian and the FC morpheme *irgend-* in German combines only with weak indefinites or *wh*-words, and the former has no NPI uses but the latter does, proposes that the FC element that does not occur with higher numerals has NPI uses and that which occurs with numerals does not. Based on the Malayalam data with *wh-engilum*, this generalisation needs to be revisited.