

Question particles: Thai, Japanese and English

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ABSTRACT

This article focuses on polar question particles in Thai and Japanese: both languages have a sentence-final polar question particle (*máy* and *ka* respectively). The two languages show considerable similarity in their question-forming strategy; however, differences arise in terms of the type of question in which the particle can occur. I argue that the question particle in each case originates from a disjunctive clause, but, in Thai, the particle retains its disjunctive character, whereas in Japanese it has progressed to a true question particle. The analysis has prediction potential for English, where similar question particles may arise. English does not have polar question particles, but it does have a large number of final discourse particles, as well as what looks like a final disjunction exhibiting some question particle properties. I suggest that, while this is not a final question particle, if it ever were to become one it would be on the model of Thai rather than Japanese. The potential for this development into a question particle to occur, however, depends upon a trigger experience, which at present is absent. Reanalysis has therefore not taken place.

Keywords: polar questions, question particles, English, Japanese, Thai

1. Introduction

Polar questions (also called *yes/no* questions, because they seek an answer of ‘yes’ or ‘no’) can be formed in a number of ways cross-linguistically. English forms polar questions with a word order change, placing a tensed auxiliary clause-initially: *Did you remember to bring the sun tan lotion?* This is extremely rare worldwide, however, with just a handful of languages forming questions in this way. A high proportion of these are familiar Indo-European languages: Czech, Danish, Dutch, English, Frisian, German, Norwegian, Spanish and Swedish, alongside the more ‘exotic’ Hup (from the Nadahup family, spoken in Brazil and Colombia), Manggarai (Austronesian, Indonesia), Palauan (Austronesian, Palau) and Warekena (Arawakan, Brazil/Colombia/Venezuela).

The most common single question-marking strategy is the use of a question particle.¹ 208 genera of the 289-genus sample listed in Dryer (2005) use a question particle,² and in the

¹ Intonation is a more common strategy, with the vast majority of languages having a “question intonation”. Ultan (1978) and Givón (2001) argue that it is universal, although this is not in fact the case in, for instance, Thai, discussed in this article. However, the use of a question intonation is frequently paired with the use of one of the other question-marking devices.

² These data come from the World Atlas of Language Structures (WALS). WALS is a searchable database containing data from descriptive material relating to 2678 languages (449 of which have at least 40 data points (i.e. appear on at least 40 maps), and 180 of which appear on over 80 maps). Each chapter deals with a particular feature (e.g. ‘Order of object and verb’), and authors are asked to include languages from a diverse set of 100 if possible, to give a good genealogical and geographical spread. The (2005) CD-ROM version allows for comparison of genera, but the (2011) online version typically has more data for any given variable, as it is continuously updated. According to Dryer (2011a), the number of languages using a particle to form polar questions is 584, of a sample of 954.

majority of languages, the particle is sentence-peripheral, in either initial position, as in (1)–(2), or final position, as in (3)–(4):

- (1) *Polish (Indo-European, Poland):*
Czy Marta lubi koty?
 Q Martha like.3SG cat.ACC.PL
 ‘Does Martha like cats?’ (Magdalena Sztencel, p.c.)
- (2) *Tzotzil (Mayan, Mexico):*
la k’ol Aa Teeko chjaay?
 Q be youth Diego at.home
 ‘Is Diego at home?’ (Aissen 1987: 330)
- (3) *Mandarin (Sino-Tibetan, China):*
 Zhāng-sān cháng kàn diànyǐng **ma**
 Zhang-san often see movies Q
 ‘Does Zhang-san often see movies?’ (Li & Thompson 1984: 54)
- (4) *Mupun (Afro-Asiatic, Nigeria):*
 wu naa mun-**e**
 3M see 3PL-Q
 ‘Did he see them?’ (Frajzyngier 1993: 360)

Other languages have a second-position particle, as in (5); a particle in either initial or final position, as in (6); or a particle with no fixed position, as in (7), where it focusses the constituent to which it is attached (with no change in word order).

- (5) *Latin (Indo-European, ancient):*
 me-**ne** fugis?
 1SG.ACC-Q flee.2SG
 ‘Is it me you are running away from?’ (Virgil, Aeneid 4.314)
- (6) *Hunde (Niger-Congo, Democratic Republic of Congo):*
 (**mbéni**) á mukátsí mu-lómbe (**h**)
 Q woman NC-lazy Q
 ‘Is the woman lazy?’ (Kahombo 1992: 171, cited in Dryer 2011b)
- (7) *Imbabura Quechua (Quechuan, Ecuador):*
 wasi-man=**chu** ri-ju-ngui
 house-to= Q go-PROG-2
 ‘Are you going to the house?’ (Cole 1982: 15, cited in Dryer 2011b)

In this paper, I focus on languages with final particles, specifically Thai and Japanese. Both languages have a final polar question particle, as illustrated in (8)–(9):

- (8) yàak cà khuy tóo máy Thai
 want NCM talk continue Q
 ‘Do you want to continue talking?’ (Iwasaki & Ingkaphirom 2005: 280)
- (9) Taroo-ga hon-o kaimasita ka? Japanese
 Taroo-NOM book-ACC bought.POLITE Q
 ‘Did Taro buy a book?’ (Hagstrom 1999: 5)

Although the question particle is final in both languages, its use in questions is not subject to the same restrictions in each case. In Japanese, the particle is permitted to occur in negative questions and *wh*-questions, while in Thai this is impossible. I argue that this is because in Thai, the question particle is not a ‘true’ question particle: it is in fact related to a negation, which is a remnant of an elided disjunctive clause. I suggest that this is a common source of peripheral polar question particles but that in most languages, it has undergone reanalysis to a question particle. However, due to the different word order in the two languages (OV in Thai but VO in Japanese), Thai but not Japanese is subject to a restriction on final particles imposed as a result of the Final-Over-Final Constraint (henceforth, FOFC), as in Biberauer, Holmberg & Roberts (2008, 2012). This argument is put forth in Section 2. Furthermore, in section 3, I provide examples of what appears to be final particles in English. I argue that if FOFC constrains the development of final elements into question particles, this leads to the prediction that, should these elements ever start to develop question particle properties, English would follow a Thai-type trajectory rather than a Japanese-type one, because English, like Thai, has VO word order and is therefore also subject to the FOFC restriction.

2. A comparison of Thai and Japanese

2.1. Question particles

Thai and Japanese differ in one of the basic typological word order distinctions: Thai is rigidly SVO, while Japanese is SOV (some variation in this order is permitted, but it is rigidly verb-final and SOV is the most common order, at a ratio of 17:1 according to Kuno 1973). Both languages have a final question particle: *máy*³ in Thai (10) and *ka* in Japanese (11).⁴ As illustrated in (10)-(11), the particle in both languages can be used in neutral (information-seeking) polar questions⁵.

- (10) nát khàp rót máy Thai
 Nath drive car Q
 ‘Does Nath drive?’

³ *Máy* can also surface as *mǎy* (the standard spelling); I show only *máy* (the pronunciation spelling; Iwasaki & Ingkaphirom 2005: 279) for convenience here.

⁴ According to the somewhat controversial word order correlations in Greenberg (1966), VO languages should tend to have initial question particles and OV languages final particles. For fuller discussion of the possible reasons for this disparity with the Greenbergian expectations, see Bailey (2013).

⁵ Thai data is provided by Somphob Yaisomanang; Japanese data by Nami Kaneko, both through personal communication, unless otherwise stated.

- (11) Lucy-wa senshuu kaze-wo hiita-n desu **ka?** Japanese
 Lucy-NOM last.week cold-ACC caught AUX Q
 ‘Did Lucy catch cold last week?’

In addition, in both cases the particle is homophonous with or phonologically similar to the disjunction or negation, suggesting a possible origin in the disjunctive ‘or not’ (discussed further in Section 2.4):

- (12) Nát **mây** khàp rót Thai
 Nath NEG drive car
 ‘Nath doesn’t/won’t drive.’

- (13) Ken-**ka** Naomi-**ka**-ga ki-ta. Japanese
 Ken-KA Naomi-KA-NOM come-PAST
 ‘Either Ken or Naomi came.’ (Harada & Honda 2000: 98)

Note that in Thai, the tones on the negation and question particle are different. Nevertheless, Yaisomanang (2012) argues that they are related, and the tone on the question particle is the same tone as that of the disjunction. This analysis will provide general support for the argument to follow. Japanese *ka* is uncontroversially known to be the same as the disjunction (e. g. Hagstrom 2004, Jayaseelan 2008).

2.2. Negative questions

Thai and Japanese differ in their use of the question particle in negative questions: Japanese allows it, but Thai does not, as in (14)–(15).

- (14) *nát mây khàp rót **máy** Thai
 Nath NEG drive car Q
 (Intended: ‘Doesn’t Nath drive?’)

- (15) Suzuki-san-ga *The Time Machine*-o Japanese
 Suzuki-TITLE-NOM *The time machine*-ACC
 yondakoto-ga nai n desu **ka**
 have.read not AUX Q
 ‘Hasn’t Mr/Ms Suzuki read *The Time Machine*?’ (Jo Lumley, p.c.)

This is consistent with the claim that the Thai particle is derived from the negation, as the second, elided clause should be the negative clause. If it is, then the first clause must be affirmative, as a disjunctive alternative question is anomalous with two negative clauses:

- (16) #Doesn’t Nath drive or not?

It is theoretically possible for the affirmative clause to be elided and the negative one pronounced. However, just as in English, asking a negative question implies bias on the part of the asker, so negative questions are always marked: no language, to my knowledge, uses negative questions as a neutral question-forming strategy. One might argue that this is precisely

the case for languages like Thai and Vietnamese, where there is a negation in questions. However, note that the negation marker is sentence-medial, not final, while the question particle is final. In questions we see only the final negation, not the medial one: *Doesn't Nath drive or not*.

In Tetun, an Austronesian VO language spoken in East Timor, it is in fact possible to use a disjunctive question particle in a negative question:

- (17) Ó la bá sekola **ká**?
 2s not go school or
 (Said to child playing:) 'Didn't you go to school?' (Van Klinken 1999: 212)

As expected, the question is biased: the speaker can see that the child did not go to school and so expects a particular answer.

2.3. *Wh*-questions.

Similarly, *wh*-questions are not compatible with a disjunctive clause (**Who do you like or not*) and again, in Thai the particle is not permitted in *wh*-questions, as shown in (18), while in Japanese it is, as shown in (19).

- (18) náat chòɔp khray **máy** Thai
 Nath like who Q
 'Does Nath like anyone/ someone?'
 (*'Who does Nath like?')
- (19) Suzuki-san-ga dono hon-o Japanese
 Suzuki-TITLE-NOM which book-ACC
 yonde-i-masu **ka**
 read-ASPECT-POLITE Q
 'Which book is Mr/Ms Suzuki reading?' (Jo Lumley, p.c.)

As (18) shows, a *wh*-word can occur with the question particle but it is interpreted as an indefinite (as is also the case in Mandarin, for instance). It cannot be interpreted as a *wh*-word if the polar question particle is also present. This is simply explained away if the particle is a polar question particle, but the analysis proposed here provides an explanation for why the particle should only occur in polar questions. Notably, the Japanese particle allows for the *wh*-word interpretation in the same context, as in (19).

2.4. Question particles as disjunctive elements

The difference between the two languages in terms of the behaviour of their polar question particles is attributable to a difference in the syntactic structure of the question. As noted above, the particle is homophonous with the disjunction in Japanese, and phonetically similar to the negation in Thai. This, combined with the facts noted in Section 0, suggests an analysis on which the question particle is in fact the first element in an elided second disjunct. A disjunctive analysis is briefly proposed in this section, with grammaticalisation evidence given in Section 2.5 and a semantic argument in Section 2.6.

I do not claim that all (final) question particles are actually disjunctive elements, and I do not trace the history of any of these particles. However, I do suggest that this is a plausible source construction for the grammaticalisation of the final question particle (cf. Aldridge 2011, discussed below). Furthermore, I claim that in Thai, this grammaticalisation process is incomplete, and is in fact prevented from occurring, because the particle is actually the head of a disjoined clause, which is elided on the pattern in (20)⁶.

(20) [[Nath drives car] [or [~~Nath not drives car~~]]]?

As noted above, the Thai particle resembles the negation, not the disjunction, and so (20) cannot be exactly right. Yaisomanang (2012) argues that Thai questions are formed from the disjunction of a positive and negative Polarity Phrase, the second headed by NEG, and the disjunction itself is not pronounced. Yaisomanang analyses the underlying form of the question in (10) as in (21).

(21) nát khàp rót rǎu mây khàp rót
 Nath drive car or NEG drive car
 ‘Nath drives a car or Nath does not drive a car.’

Yaisomanang argues that there is an uninterpretable Focus feature on the disjunction head which raises covertly to Foc⁷. The questioned (focussed) information is the Q/polarity variable on the disjunction head, and this variable is bound by a Q operator in C. The VP is elided, recoverable via identity with the first clause.

The Thai question particle retains its disjunctive character because it falls foul of a restriction on the possible combinations of head-initial and head-final phrases. FOFC, as a cross-linguistic generalisation, states that it is impossible for a head-final phrase to immediately dominate a head-initial phrase (this is a very simplified expression of the constraint; see Biberauer, Sheehan & Newton (2010), Biberauer, Holmberg & Roberts (2008), (2012) for further discussion). This constraint holds for any stage of a language, and therefore prevents language change if the resulting structure would violate the constraint.

In the case of Thai, a VO language with a final question particle, the reanalysis of the disjunction as a ‘true’ particle in CP would constitute just such a violation at some stage of the derivation:

- (22) *FOFC-violating structures:*
- a. [CP [TP **T** [VP v [VP V O]]] C] = final C, initial T
 - b. [CP [TP [VP v [VP V O]] **T**] C] = final T, initial v
 - c. [CP [TP [VP [VP **V** O] v] T] C] = final v, initial V

The Japanese question structure has the question particle in a peripheral head⁸, on the pattern in (23), which is similar to Thai.

⁶ The structure of disjunctive sentences is not given here, but see Bailey (2013) for relevant discussions.

⁷ In this analysis, I assume that questions are derived in a Complementizer Phrase (CP), headed by C(omplementizer), and that the CP can be articulated over several projections, as in Rizzi (1997); ie., ForceP > TopP > FocP > FinP.

⁸ The precise position of the particle is not crucial; a head either in Force or just below it has been suggested: Bach (1971), Bresnan (1972), Cheng (1991), Watanabe (1992), Hagstrom (1998), Law (2002), Munaro & Poletto (2005)

(23) [[Lucy cold caught] Q]?

However, Japanese is not prevented by FOFC from gaining a sentence-final question particle because it is a head-final language throughout, meaning that a head-final phrase never dominates a head-initial phrase. The disjunctive element is thus freely reanalysed as a question particle base-generated in C (or Force, or another high head).

The data in this section allow me to conclude that both Thai and Japanese have the polar questions based on disjunctive structures, a conclusion that will be assumed in the rest of the paper. Cross-linguistic differences in the syntactic behaviour of the question particles are the result of the interaction between the properties of the particles with the word order parameter in each language.

2.5. Historical origin

As noted above, in Thai and Japanese, as well as some other languages, the question particle resembles the disjunction or negation. It is unwise to speculate on historical origin based on sound similarity, as only a relatively short time span is required to alter an element greatly, and similarities can be spurious (Colonna et al 2010: 246). However, the transition from these two sources to a question particle has been documented. Heine & Kuteva (2002) note that there are two grammaticalisation paths (common sources for a particular construction) for what they term ‘S-questions’: *Negation* > *S-Question* and *Or* > *S-Question*. They point out that these paths are related, with the two frequently occurring together as ‘or not’. They cite Harris & Campbell’s (1995) suggestion that the construction may be derived from the A-not-A questions found in Mandarin:

(24) tā zài jiā bu zài jiā?
3SG at home not at home
‘Is s/he at home?’ (Harris & Campbell 1995: 295)

This line of reasoning is also followed by Aldridge (2011), who argues that the Mandarin question particle *ma* is derived from a negative existential verb *wu* (‘not have’/ ‘not exist’) with ellipsis, with the structure [_{&P} [_{vP}] [_& & [_{NegP} Neg [_{vP} v [_{VP}]]]] (based on Aldridge 2011: 10, 13). This is related to the A-not-A questions found in modern Chinese, but she argues that the second disjunct was never overt in the older texts. The negative existential, located in *v*, was left stranded sentence-finally. It rose to check a Q feature on the final C head, and over time became less ‘verb-like’ and had only negative content. When it lost this as well, it was reanalysed as base-merged in C. Aldridge traces the history of this element throughout Chinese literature and shows that it steadily became more grammaticalised and consequently more restricted in its use. Although Aldridge analyses *ma* as a C particle, she notes that it ‘seems to retain some of its earlier negative/disjunctive lexical meaning’ (2011: 20) and cannot occur in *wh*-questions, just as we saw in the Thai examples above.

Other languages also have what appear to be particles derived from disjunction or negation: Basque, Estonian, Hausa, Kxoe, Latvian, More, Rotuman and Supyire all have

and Kuong (2008) have argued for the former position; while Rizzi (2001), Garzonio (2004), Soare (2007), Ginsburg (2009) and Aboh (2010) argued for the latter.

disjunction-like particles, while Wolof, Vietnamese, Cantonese, Turkish and Tetun all have particles similar to the negation, in addition to those languages illustrated above. Hausa is shown in (25)–(26), and Vietnamese in (27)–(28). (29) illustrates Tetun, which has the option of using the disjunction, negation, or both together, as shown here and in (17) above.

(25) *Hausa (Afro-Asiatic, Niger/Nigeria):*

kō nī **kī** kai
 either 2SG or I
 ‘Either you or I’

(26) **kō** k̄a s̄ami gyàḍa mài yawà?
 Q you get peanuts many
 ‘Did you get a lot of peanuts?’

(Cowan & Schuh 1976: 216, cited in Heine & Kuteva 2002)

(27) *Vietnamese (Austro-Asiatic, Vietnam):*

chị có mua cái nhà **không?**
 PRN ASR buy CL house NEG
 ‘Did you [elder sister] buy (the) house?’

(28) chị **không** mua cái nhà.
 PRN NEG buy CL house
 ‘You [elder sister] did not buy (the) house.’ (Duffield 2011: 1–2)

(29) *Tetun (Austronesian, East Timor):*

n-ák “Bele? Ita ruas sukat malu bele **ká** **lale?**”
 3S-say can 1PL two measure each.other can or no
 ‘(He) said “Can (we)? Can we two test each other, or not?”’⁹

(Van Klinken 1999: 211-2)

Bencini (2003) claims that diachronic change is the reason that the position of the question particle in many languages is not consistent with the expected word order patterns as described in section 0. As she notes, “Consistency with basic word order [as per Greenberg 1966] is not an explanation [for the word order of question particles] but an accidental side-effect of diachronic change” (Bencini 2003: 604). She puts this down to the pragmatics of questioning, with politeness strategies, doubt and hypothesising leading to three source constructions: *S (or) not S*; *or S*; and *S or*. These source constructions lead to the question particles derived from negation and disjunction in initial and final position.

Although the focus of this article is not historical, this section has shown that there is some evidence that the grammaticalisation from disjunction > Q can and does take place.

⁹ The brackets around the subject pronoun are in the original source, although the person and number are overtly marked on the verb.

2.6. Polar question semantics

In addition to diachronic evidence, there has long been a semantic analysis of polar questions as being disjunctive. Hamblin (1958: 162-3) notes that “knowing what counts as an answer is equivalent to knowing the question” and that “the possible answers to a question are an exhaustive set of mutually exclusive possibilities”. This entails that the disjunction of the complete set of answers to a question is necessarily a tautology. A polar question has two answers, and so $A \vee B$ is a tautology. If they are mutually exhaustive, $B = \sim A$, and $(A \vee B) = (A \vee \sim A)$. The possible answers to a polar question are therefore $A \vee \sim A$, and to know this is to know the polar question $A?$, according to Hamblin. More recently, Farkas & Bruce (2010), following Karttunen (1977), have formalised this and argue that the denotation of a polar interrogative is $\{p, \sim p\}$. The utterance is a question because the future ‘common grounds’ contain both p and $\sim p$, rather than the single item denoted by a declarative. This, for Farkas & Bruce (2010: 95), ensures that the resultant context state is inquisitive: it has to be returned to a stable state by the addressee, who provides the answer to the question. In Hamblin’s (1958: 166) terms, “A yes-no question divides the possible universes in two... [But it] merely draws the dividing line, it does not polarise.”

Hamblin’s early work is extended by AnderBois (2011) to explain some interesting facts in Yucatec Maya, in which disjunction acts as a focussing device and allows interpretation of an utterance with a disjunction as either an assertion or a question. When the disjoined subject appears in the non-canonical (focussed) position, an utterance as in (30) can be interpreted as an assertion, if there is some other possible atole drinker, or an alternative question if there is not:

- (30) [Juan or Daniel] drank the atole
 a. It was Juan or Daniel (not anyone else) who drank the atole.
 b. Was it Juan or Daniel who drank the atole?
 (Juan and Daniel are the only possibilities.)

The interpretation is due to the fact that on the (b) reading, the assertion is tautologous: both speaker and hearer know that either Juan or Daniel drank the atole, because there are no other possibilities. Juan and Daniel are thus the “exhaustive set of mutually exclusive possibilities” (Hamblin 1958: 163) that constitutes the answer to the question ‘Who drank the atole?’. In a polar question, where the answers are ‘yes’ and ‘no’, the disjunction focuses the polarity of the clause, with no other overt disjunct:

- (31) táan-wáaj u yuk’-ik le sa’-o’ Juan
 PROG-or A.3 drink-STATUS DEF atole-DISTAL Juan
 ‘Is Juan drinking the atole?’ (AnderBois 2011: 13)

The ‘empty disjunct’ (i.e. the one that is not said) is interpreted as “the exhaustive set of like elements which is mutually exclusive from the overt disjunct”: in other words, the clause of the opposite polarity ($\sim p$) (AnderBois 2011: 53). This is tautologous, and is interpreted as a question.

AnderBois explicitly states that he does not consider there to be ellipsis in the syntactic structure. His analysis does not require ellipsis to be present, and the more parsimonious explanation is therefore for the interrogative interpretation to come from the disjunction alone, as he describes. To investigate Yucatec Maya further is beyond the scope of this paper, but it may

constitute another language type. One question is what the syntactic status of the disjunction is, in that case: it is often considered a head. Here it looks very much like the Latin-type second-position question particle clitic, which follows and focusses some constituent (as in (5) above). Alternatively, the disjunction may be head of a disjunctive phrase, with the single disjunct its complement (and subsequent roll-up movement in an Antisymmetry analysis, as in Kayne 1994).

However, other authors have argued that the semantic interpretation reflects the syntactic structure, or *vice versa*, in some languages. Specifically, leaving Yucatec Maya aside, I agree that in Japanese-type languages, there is no (longer) ellipsis, but in Thai-type languages, there is. In this I follow Yaisomanang (2012), discussed in the next section.

Having made the claim that polar question particles may be derived from disjunctive structures, I turn now to English. English does not, of course, form polar questions with a particle in standard registers, but it appears that a polar question-specific particle *or* is used in colloquial registers. I suggest that, were it to develop any further, it would be comparable to the Thai particle. However, in Section 0, I suggest a reason why this development might not occur.

3. Emergent particles in English?

3.1. Final particles in English

There are very many final ‘discourse particles’ in English, particularly in colloquial and dialectal registers (I use the term ‘discourse marker’ here in a fairly loose way, intended to mean some element that is pragmatic rather than grammatical in its function). For instance: Meyerhoff (1994) discusses a politeness marker *eh* in New Zealand English; Miller & Weinert (1995) show that final *like* is used in Scottish English to counter objections; D’Arcy (2005) argues that final *like* in (Toronto) English is a sentence adverbial; and Tan (2010) discusses *right* and other final particles in Singapore English.¹⁰ There are of course many more final discourse markers in general use, such as *then* (as distinct from its temporal adverbial use), *yeah*, *right*, *lol*. Tag questions are also relevant here, as they may become more ‘particle-like’, as in the case of *innit*, and are a plausible alternative source for question particles. For instance, Thai has, as well as *máy*, a range of tag-like particles with meanings such as ‘true or not true’ and ‘right or not right’. Portuguese has a final tag *não é* ‘not is’, Swedish has *eller hur* ‘or how’, and most languages seem to have something similar. However, tag questions *per se* are not the topic of this paper, as they are used in biased questions (and this is really the definition of a tag as opposed to a question particle).

Some of these final particles are derived from conjunctions and disjunctions: Mulder & Thompson (2008) found widespread use and acceptance of final *but* in Australian English, and Hancil (2010) found instances of final *but* in the NECTE corpus (Tyneside) and the Scottish Corpus of Texts and Speech. Mulder & Thompson (2008) analyse the development of this final *but* as having three stages: it begins as the initial conjunction, and goes through a ‘Janus-faced’ stage, during which it can be interpreted as stranded preceding ‘tailing-off’ of implied material, before becoming a truly final discourse particle. In this final stage it differs in its intonational

¹⁰ There is also literature on cross-linguistic influence on English final particles: Chan (forthcoming) is a detailed investigation of sentence-final particles in Cantonese-English intra-sentential code-switching. Wakefield (2010) links intonation in English to Cantonese particles, and James (2001) considers ‘smilies’ to perform the same function as Cantonese particles in written communication.

contour from the Janus-faced ‘tailing off’ stage, indicating that it truly is sentence-final. This process is the same as that proposed above for question particles: initially, the second clause is elided, and eventually the disjunction may become reanalysed as a question particle, as in Japanese. As we will see in the next section, English also makes use of the disjunction *or* in questions.

3.2. Possible source for a question particle

Examples in this section are drawn from social media, including Facebook, Twitter and Tumblr (social networking and blogging sites of various types). The examples were obtained in an *ad hoc* manner, rather than through the systematic analysis of a corpus. While this methodology is not as rigorous as more reliable sampling methods, it is fit for purpose. I am not concerned with the precise quantification of any particular construction, nor in charting change in use. Rather, it is enough that examples exist, and exist in such numbers that they are not hard to collect if one spends a short time browsing the relevant type of website (namely those where informal communication takes place).

Examples of other final particles were also identified, including *just* and *so*, as in (32)–(33):

(32) Why have what-I-call ‘spider bastards’ started appearing? One had the temerity to shoot across my desk just!! (Twitter, 23/04/2013)

(33) Well this has been me for four months so. (Tumblr, 14/05/2013)

However, here I focus on those particles that are homophonous with the con/disjunctions *but* and *or*. Examples of *but* and *or* in sentence-final position are reproduced below, with original punctuation, spelling and paragraphing preserved. Where a hash symbol (#) precedes an example, this indicates that it is a ‘hashtag’ (Twitter) or ‘tag’ (Tumblr). Tags were introduced to enable searching and categorising, but are frequently used to add commentary following a post, or as ‘expressive punctuation’ (Page 2012: 184). The source website is given following the example, and the date of the post where available. The written examples date from 2012–13, with the majority collected between April and May 2013, indicating that this is a reasonably common phenomenon in colloquial English. The examples from *Whatever Happened to the Likely Lads* and *Auf Wiedersehen, Pet* date from 1973 and 1984 respectively.¹¹ Examples were collected from speakers of American English, Australian English, Scottish English, Irish English and Northeast England English among others.

Final *but*:

(34) [Post about constructed languages]
#i love game of thrones and star trek and lotr [Lord of the Rings – LB] but
(Tumblr, 03/04/2013)

¹¹ I do not mean to suggest that this is a particularly new phenomenon: the authors cited in section 3.1 above describe final particles dating back to at least the early 1990s, and the *Likely Lads* and *Auf Wiedersehen, Pet* examples show that it was in use many decades previously, as ‘Terry’ and ‘Neville’ (and the actors who played them, James Bolam and Kevin Whately) acquired their variety of English in northeast England in the 1930s–50s. The examples collected here reflect current usage. It is possible that this is a dialect form that is spreading, but I do not speculate on that point.

- (35) Nice show, but. Laugh out loud for real. But how are you feeling?
(Twitter, 26/02/2013)
- (36) certain people need to learn the art of irony but (Facebook, 14/01/2011)
- (37) It's funny but, isn't it? ('Buster' in *Mrs Brown's Boys*, series 1/5, 2011)
- (38) By, there's been some changes round here though but!
(‘Terry’ in *Whatever happened to the likely lads*, series 1/4, 1973)
- (39) Aye, he seemed like a canny lad but.
(‘Neville’ in *Auf Wiedersehen, Pet*, series 1/8, 1984)
- (40) Aye, you cannot beat it but.
(‘Neville’ in *Auf Wiedersehen, Pet*, series 1/13, 1984)

Final *or*:

- (41) wait just to be clear
when you said “do the math”
did you mean “the math”
like the dance move or
(A meme, parodying those in which an inspirational quotation and photograph combined,
posted on Facebook, 20/04/2013)
- (42) is talking like a pirate a function of epiglottal coarticulation or
(Tumblr, 19/09/2012)
- (43) A: Iron man 3 next week or?
B: Defo schmeffo. (Facebook, 14/05/2013)
- (44) Oh yeah Ghost Whisperer. I thought it was called Medium. that's different, or?
(Tumblr, 03/03/2012)
- (45) I have never seen a wedding where the bride was dressed more casually than her bmaids
like... this is sort of odd, or? (Tumblr, 13/04/2012)
- (46) [comments on a photo posted by ‘Ben’]
‘Andy’: Going a bit thin on top [Ben] orrrrrrr
‘Ben’: I hope not [Andy] as this was taken like 4 years ago and I would surely be bald as
a coot by now!
‘Andy’: Had a rooney or? Ha (Facebook)

The final *but* in these examples appears to mean something similar to final *though* (but not identical, as both are used together in (38)). It shows contrast, but a contrast with the material

that precedes the clause it appears in, rather than what follows it. For instance, in (35) both kinds of *but* are used: the second is the usual type, which indicates contrast between how good the show was and how the addressee is feeling now. The first *but* in this example does not indicate any contrast between the material before and after it, both of which are compliments on a show. Additionally, this tweet (by a well-known author, who might be expected to be careful about written language, although this cannot be assumed) includes a full stop after the sentence-final *but*. (34), conversely, although it includes a sentence-final (and ‘turn-final’) *but*, may be contrastive, as the hashtagged commentary expresses an opinion which differs from the main point of the post. The examples in (37)–(40) are all spoken, in the dialogue for three television programmes featuring characters (and actors) from Dublin and Northeast England. In all of these examples, the speakers can be heard to use the characteristic sentence-final intonation contour identified by Mulder & Thompson (2008), indicating that this is not the ‘Janus-faced’ *but*.¹² (37) is followed by a final tag, showing that *but* must be clause-final.

Taking the examples of final *or*, a source for the development of an English particle suggests itself. The disjunction is used in questions, either full sentences (41)–(42) or fragments (43). (43) has a question mark, as do (44)–(45), and (43) is answered, making it unambiguously a question. (41)–(42) have question word order. Note that none of these requires the disjunction in order to be interpreted as a question: (43) could be uttered as a question fragment *Iron man 3 next week?* (with an interrogative intonation, if it were spoken), and (44)–(45) with declarative word order would be interpreted as (biased) questions if written with a question mark (or spoken with interrogative intonation). (41)–(42) have the primary question marking strategy of auxiliary-fronting. ‘Question particles’ are most emphatically not obligatory in English, and I therefore do not consider the disjunction to be a true question particle. However, it is used in questions, and as such is clearly related to this utterance type.

The example in (46) is more ambiguous in terms of whether the utterance is a question, and this may represent the context for reanalysis that is necessary for change to occur. The second instance of *or* occurs with a question mark, but the first does not, and it is a fragment, so no interrogative word order is evident. The second instance of the disjunction indicates that the first is also likely to be a question, and context makes this a plausible question: *Are you going a bit thin on top?* However, it is also possible to interpret this as a statement: *You’re going a bit thin on top*. As a question, it promotes an apparent state of affairs and then asks for an alternative explanation (*or what?*), like a tag question does. As an utterance, it is tautologous (what is A saying, when he states that B is going bald or something else?). This is precisely the type of utterance that AnderBois cites as allowing a semantic interpretation as a question. It is also the type of utterance that can provide the trigger experience for grammaticalisation: these elements are ambiguous between the disjunction and a question-related discourse adverbial, and potentially a question particle. This is discussed in the next section.

3.3. The development of question particles

In section 2, I argued that Thai and Japanese differ in the use of their polar question particles because FOFC prevents the reanalysis of the disjunction as a final question particle in VO

¹² It is an unfortunate consequence of my sample that the spoken examples here are all from television programmes, and that the older examples are all from Northeast England. This is not intended to imply any distinction in usage. I have not attempted to record instances of final particles in natural speech, but they can be found in corpora, as noted above.

languages. English is also VO and fairly rigidly head-initial throughout, and as such should be expected not to gain a final question particle. Although English does have sentence-final particles, these are generally considered to be adjoined to CP, and as adjuncts are not subject to FOFC, which acts over the heads in a single extended projection (Biberauer, Holmberg & Roberts 2012). D’Arcy (2005) notes, for instance, that when *like* was originally used as what she terms a sentence adverb (*We need to smarten it up a bit like*; D’Arcy 2005: 206), it was more often final than initial or medial, although she states that these uses of *like* have now overtaken the final form in most areas. In the northeast of England and in Scotland it is still frequently found in final position, however (Miller & Weinert 1995, Hancil 2010). The OED provides examples of final *like* dating back to 1778, in the sense glossed ‘as it were’, ‘so to speak’ (cited in D’Arcy 2005: 4):

- (47) Father grew quite uneasy, *like*, for fear of his Lordship's taking offence.
(1778 F. Burney *Evelina* II. xxiii. 222)
- (48) If your Honour were more amongst us, there might be more discipline *like*.
(1838 E. Bulwer-Lytton *Alice* I. ii. iii. 157)
- (49) He hasn't passed his examinations *like*... He has that Mr. Karkeek to cover him *like*.
(1911 A. Bennett *Hilda Lessways* i. vi. 49)
- (50) As we say pragmatically in Huddersfield, ‘C'est la vie, *like*!’
(1966 *Lancet* 17 Sept. 635/2)

D’Arcy analyses this use of *like* as a sentence adverbial, adjoined to CP. A question particle, on the other hand, is taken to be a high head in the CP, following the previous work cited above.

One indication that the English disjunction is not developing into a question particle is that, when it appears in full sentences, it occurs with question syntax, as in (51) rather than (52):¹³

- (51) Did you mean...or?
- (52) You meant...or?

Furthermore, it is never obligatory, and is not used in the majority of questions. Neither of these characteristics are expected of a true question particle. Following work by Soare (2007) and Ginsburg (2009), as well as Roberts & Roussou (2003), I assume that a question feature Q in a particular language is realised either overtly or covertly and by either Merge or Move (Merge being preferred for reasons of economy).¹⁴ A question particle is the instantiation of an overt Q feature (Q*, for Roberts & Roussou 2003) realised by Merge. English, with auxiliary fronting, has an overt Q feature realised by movement (T-to-C). If the particle is the realisation of a Q* feature, it must be obligatory. In those languages with an optional question particle, it is expected

¹³ German *oder* appears to be similar to *or* in this respect, and is used as a type of question tag.

¹⁴ Soare (2007) discusses *wh*-questions and argues for [+/-overt] and [+/-EPP], which triggers Agree or Agree+Move of the focussed *wh*-phrase. Ginsburg (2009) considers the relevant features to be [+/-overt] and [+/-affix], giving an overt free morpheme (particle), covert free morpheme (realised as intonation), overt affix, or covert affix (realised as movement of a lexical item to C).

that some other question-marking strategy – usually intonation, but in English the question word order – realises Q (see [author] (2013) and [author] et al (2010) for further discussion of this point).

Because Merge is preferred over Move, it is possible for a new question particle to develop in a language, as I suggested above, as a lexical item is interpreted as base-generated in its ultimate position. This depends on there being a ‘robust cue’ in the ‘trigger experience’ of children acquiring language (Roberts & Roussou 2003: 41). In the case of disjunction to question particle, the cue would be the presence of (a) a disjunctive question with (b) an elided second clause and (c) no other overt question morpheme present. Such a cue might be an utterance like (46) above: the fragment means that question word order is not evident. The highly specific nature of this type of utterance (having to meet all three criteria (a-c)), combined with the fact that it may have question intonation in spoken language, is likely to provide the explanation for why the disjunction is not already used to signify polar questions in English. After all, if the hypothesis above is correct, this process is common among languages and in most cases, happened before recorded language. In Thai, a lack of question intonation (declarative and interrogative intonation are identical) would help to provide the cue for reanalysis (or, alternatively, the lack of interrogative intonation provides the lack of a cue to analyse the disjunction as something other than a question marker).

In addition, of course, recall that English could only develop along the lines of Thai, in which the ‘question particle’ is in fact still a disjunction. Although Thai behaves very differently from English in that it has a question particle, I argue that it is not truly a question particle. Japanese, Thai, and English can therefore be seen as having taken the reanalysis to different points: Japanese has gone the full journey and *ka* is a question particle merged in a CP head. Thai and English both have the disjunction in questions, but in Thai it is required to signify a question in the same role as a question particle, perhaps in the sense of AnderBois (2011), while in English it is optional and adverbial, used for some other pragmatic function.

4. Conclusion

While the grammaticalisation of disjunction > polar question particle is common among languages, and found in Japanese, it is not a uniform process. Thai appears to have trodden such a ‘grammaticalisation path’, but its particle still bears many of the characteristics of the disjunctive element from which it originated. This is a result of the different restrictions imposed on languages with VO and OV word orders by the Final-Over-Final Constraint, which prevents the full grammaticalisation of the Thai particle. This results in a ‘semi-particle’, which is obligatory in (neutral, affirmative) polar questions but lacks the full distribution of the Japanese-type particle. English has the potential source for a particle like the Thai-type, and it occurs in the right contexts, but the trigger experience is apparently missing, and the grammaticalisation process has not taken place in English.

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