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Asymmetry in Polar Interrogatives: An exploratory work *

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1 INTRODUCTION

Also known as *yes/no* questions, polar interrogatives (henceforth PIs) are constructions expressing a question to which the expected answer is 'yes' or 'no'. Based on this definition, different PI constructions can be identified in different languages: in English (1), for instance, the most common *yes/no* question is one where the auxiliary *do* appears before the subject (if the declarative sentence already has an auxiliary, that auxiliary is fronted without *do*-insertion):

(1) English (Germanic, Indo-European)[1]
   a. Mary bakes.
   b. Does Mary bake?

The definition is rather broad, as it encompasses all types of questions that elicit a 'yes' or 'no' answer, including those with non-neutral focus or a bias towards a positive/negative answer (e.g. 'Mary's sleeping, isn't she?' anticipates a positive answer). Although interesting, these constructions (including negative PIs and content questions) are outside the scope of the current study, and they are left for future research. Instead, this short paper will focus – to the extent possible – on focus-/bias-neutral polar questions.

The key concept in comparing structural differences between declaratives and interrogatives is Miestamo's (2005) notion of '(a)symmetry'. It was first developed for standard negation and subsequently extended to other constructions including polar interrogatives (see Miestamo 2007: 302-306). Miestamo (2005) finds that for standard negation, language systems can be classified into being symmetric, asymmetric or both, and different types of asymmetries are attested across the world's languages. The question obviously arises of how polar interrogative structures behave as regards (a)symmetry. The answer is largely unknown due to a lack of research. Most studies have looked at how PIs are marked cross-linguistically (Siemund 2001, König & Siemund 2007, Dryer 2013a,b) and there has been little research on the more fine-grained grammatical (dis)similarities between neutral

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[1] Unless noted otherwise, examples come from personal knowledge.

declaratives (1a) and polar questions (1b) across the world's languages. The only exception to this is Miestamo's own preliminary work (2007, 2009, 2011), which is limited in various ways. Both the 2007 and 2011 papers are based on a small number of languages: the first on 24 languages,[2] and the latter on 20 languages from the Uralic family. Miestamo (2009), however, includes 105 languages, but the study only looks at tense-aspect-mood asymmetries, and a study carefully considering the full range of asymmetries in PIs vs. declaratives that might emerge cross-linguistically is yet to be undertaken.[3] The purpose of this small paper is to probe the crosslinguistic picture in more detail by advancing our insight into the (a)symmetries of PI vs. declaratives in English and six other languages, previously understudied in the previous literature: Romanian, Urdu, Japanese, Mandarin, Cantonese and Basque. The examples and data gathered come from grammars and language descriptions, as well as native speakers.[4]

2 Literature Overview

In the following subsections, I will first deal with the different types of PI marking found in the world's languages (section 2.1). Then, I will present the concept of (a)symmetry and its applications to PIs and other constructions (section 2.2).

2.1 Marking of PIs

Past typological work (Moravcsik 1971, Ultan 1978, Siemund 2001, Miestamo 2007, Dryer 2013a), has uncovered the following types of PI marking: question particles, verb morphology, word order, A-not-A (disjunction), intonation, interrogative auxiliary verbs, absence of declarative morphemes.[5] The last two are attested in very few languages and – for lack of space – they will not be exemplified here (see Dryer 2013a).

Question particles represent the most common type of PI marking, identified in more than half of Dryer's (2013a) sample (585/955 languages). This category is quite broad in Dryer's study, including both clitics and constructions like French's est-ce que (2), which originally derives from a full clause (verb, demonstrative and complementiser; Tailleur 2013). Placed in front of the declarative structure, it produces a polar question:

[2] The list of languages in Miestamo (2007) is given in his 2004 paper, which is, however, not readily accessible. Nonetheless the author has kindly shared it with me. The languages are: Nama, Supyire, Ma'di, Somali, Welsh (Colloquial), Yukaghir, Lezgian, Malayalam, Semelai, Meithei, Hmong Niua, Kambera, Kobon, Maybrat, Lavukaleve, Kayardild, Greenlandic (West), Halkomelem (Upriver), Maricopa, Tarascan, Awa Pit, Mapuche, Trumai, Mosetén.

[3] At the end of Miestamo (2011), the author gives some rough estimations from a survey of 200 languages in order to provide context for his implications on the Uralic languages. However, the data itself remains unpublished and is not available anywhere.

[4] All speakers gave informed consent.

[5] No marking also seems to be attested in several languages (see Dryer 2013a, Miestamo 2011: 5 for example).

(2) French (Romance, Indo-European)
Est-ce que *vous* *voul-ez* *manger?*
Q 2.PL want-2.PL eat

'Do you want to eat?'

In other languages like Maybrat (West Papuan; Dol 1999: 200) speakers need only add the particle a at the end of the declarative sentence to form a question. Question particles have been found to have different positions in PIs in different languages, the beginning and end of the sentence being the most common typologically (Dryer 2013b). However, although interesting, the specific position of the particle is not relevant to Miestamo's concept of (a)symmetry (see section 3).

Moreover, many languages (164/955 languages in Dryer 2013a) express their polar questions through verb morphology. In Nenets, interrogative is classed as a mood and thus the PI construction has specific mood marking on the verb (Miestamo 2011: 12):

(3) Nenets (Samoyedic, Uralic; Salminen 1998: 530)
Nú-sa
stand-Q

'Did (s)he stand?'

Intonation is another common polar-question marking type. Many languages use intonation as one of the multiple types of PI marking that exist in the language. In Dryer's study, 173 languages make use of intonation as their sole way of marking a *yes/no* question. Languages may differ in the way they employ intonation, e.g. in Sesotho, speakers use lowered pitch on the final syllable (Paroz 1946: 208), whereas many European languages employ a rising intonation towards the end of the sentence. Nevertheless, such distinctions – although relevant for future typological studies on intonation in PIs – will not be considered further for the classification of PI structures.

A fourth type of PI-marking is word order, which is rather common in European languages and very uncommon anywhere else: 9 out of the 13 languages that have this marking in Dryer (2013a) are European. In Dutch (4), for instance, the verb typically comes before the subject in *yes/no* questions.

(4) Dutch (Germanic, Indo-European)
Sliep *Marie?*
sleep.PST Mary

'Has Mary slept?'

In Miestamo's (2011) study on PIs in Uralic languages, 3 out of 20 languages employ a different word order – a significant number, though this could be due to their proximity to other European languages.

Disjunction (also called A-not-A constructions) is not distinguished from question particles in Dryer's (2013a) study, but other researchers have approached it differently (see Miestamo 2011, Holmberg 2016). The A-not-A construction is exemplified by (5) in Cantonese (see section 3):

(5) Cantonese (Chinese, Sibo-Tibetan; Matthews & Yip 2013: 360)
Léih sīk-m̀h-sīk ngóh sailóu a?
you know-not-know my brother Q

'Do you know my [younger] brother?'

The negative particle *m̀h* and the same verb *sīk* 'know' are added after the main verb in the declarative (*sīk* 'know') to express the *yes/no* question.

2.2 Miestamo's (2005) (a)symmetry

According to Miestamo's notion of (a)symmetry, the linguistic expression of domain *f(X)* differs from that of X (not) only in the occurrence of the *f()* marker (Miestamo 2005). Apart from standard negation, this notion has been applied productively to other phenomena such as (non)-verbal predicates (Turunen 2011) and imperative negation (Miestamo & van der Auwera 2007, Van Olmen 2019). Miestamo's pilot study has also showed that it can be applied to the domain of polar interrogatives (Miestamo 2007: 302-306). The current section will provide an overview of the types of (a)symmetries we can find in polar interrogatives, drawing on Miestamo's work, information from grammars and personal knowledge.

To begin with, there are (a)symmetries at the level of construction as well as paradigm.[6] Based on the (a)symmetry definition above, in symmetric constructions the presence of interrogative markers is the only difference between PIs and declarative sentences. This is the case in French (sentence 2, replicated as 6b below):

(6) French

a. *Vous voul-ez manger.*
2.PL want-2.PL eat

'You want to eat.'

b. *Est-ce que vous voul-ez manger?*
Q 2.PL want-2.PL eat

'Do you want to eat?'

The only difference between the declarative sentence in (6a) and the PI in (6b) is the addition of the interrogative particle *est-ce que*, which makes the PI construction symmetric in French with respect to declaratives.[7] The paradigm is also symmetric

[6] *Construction* here refers to a specific morphosyntactic pattern that expresses a particular function (e.g. polar question), and *paradigm* is not restricted to tense or inflection (see Miestamo 2005, for examples in standard negation).

[7] I am aware of the other possible types of PI marking in French (e.g. subject-verb inversion, intonation). For the purposes of this discussion, I am only referring to the *est-ce que* construction.

as the members of the paradigms show a one-to-one correspondence and no distinctions are lost in the PI as compared to declaratives (e.g. tense or person-marking differences):

(7) French

a.	*Ils mangent* 'They're eating.'	***Est-ce qu****'ils mangent?* 'Are they eating?'
b.	*Tu mangeais.* 'You were eating.'	***Est-ce que*** *tu mangeais?* 'Were you eating?'
c.	*Vous avez mangé.* 'You ate.'	***Est-ce que*** *vous avez mangé?* 'Did you eat?'
d.	*Je mangerai.* 'I will eat.'	***Est-ce que*** *je mangerai?* 'Will I eat?'
e.	*Elle mangeriez.* 'She would eat.'	***Est-ce qu****'elle mangeriez?* 'Would she eat?'

Although space is insufficient to show the whole paradigm in the language, the sentences in (7) show the one-to-one correspondences between declaratives and PIs with different person, aspect and tense distinctions and their respective PIs.

Languages can also exhibit asymmetries. As exemplified in (4), polar questions in Dutch typically feature a different word order to the corresponding declarative. Although the PI does not contain any polar interrogative markers per se, the construction contains a different structure from declaratives (VSO instead of SVO word order) and it is, thus, asymmetric. In languages with asymmetric paradigms, the correspondences between members of the paradigm are not one-to-one in declaratives vs. PIs. An example from Awa Pit is presented in (8) (see Miestamo 2011: 10): here declaratives can make a distinction between perfect (8a) and imperfective aspect (8b), but the distinction is lost in the PI because the question marker is incompatible with the aspect suffixes and prevents their occurrence in the PI (8c):

(8) Awa Pit (Barbacoan; Curnow 1997: 199, 221, 323)

a. *Nu-na* *juan-ta* *pyan-t-zi*
2.SG-TOP Juan-ACC hit-PST-NLCT

'You hit Juan.'

b. *Demetrio* *a-ka-na* *kal* *ki-mtu-ata-w*
Demetrio come-when-TOP work work-IPFV-PST-LCT

'When Demetrio came, I was working.'

c. *Anshik-na* *a-ma-s?*
yesterday-TOP come-Q.PST-LCT

'Did you come yesterday?'

Only one aspect form is possible in the PI, a 'neutral' one, corresponding to two aspect forms in the declaratives. Thus, the paradigm is asymmetric.[8]

Miestamo (2013b) classifies languages into three categories: Sym, Asy, and SymAsy, depending on whether the language system is: (i) symmetric, (ii) asymmetric, or (iii) it contains both symmetric and asymmetric structures. Different types of asymmetries exist; for polar interrogatives, Miestamo (2007, 2011) identifies the following asymmetry types, which may span over both construction and paradigm:

i. Finiteness (i.e. the lexical verb loses its finiteness in the PI),

ii. Focus/emphasis (i.e. a focus-non-focus distinction is lost in the PI),

iii. Neutralisation of grammatical distinctions (e.g. two distinct aspect forms can be used in the declarative sentence but only one in the PI),

iv. Other purely formal structural differences (e.g. different word order).

The main goal of this essay is to make a tentatively similar classification for the seven languages examined in section 3, building the foundation for future research.

3 Data and Discussion

Besides grammars, native speakers were consulted for every language discussed here.[9] Each of them was asked about the different types of PI markings in their language, as well as any potential difference in (mood, tense, aspect, etc.) distinctions in PI vs. declaratives (with examples). Participants were given examples in order to assess their acceptability and whether the given structures are 'neutral' and non-biased (as the present study is only concerned with neutral PIs; see section 1); they were also asked to construct their own examples (e.g. in Mandarin and Cantonese, using both the question particle and the A-not-A construction). However, it is important to acknowledge that a thorough investigation is very time-consuming, and comprehensive coverage of specific aspects was not possible at this stage.[10] The language sample is quite small (7 languages), hence a thorough classification of (a)symmetries cannot be made, and the sample cannot be expected to have any geographical stratification, which should be the aim of a much larger typological study. I will analyse the PI structure in each language in turn in the following subsections, in view of Miestamo's (a)symmetry notion.

3.1 English

To begin with, although the structure of English PIs is well known, it is included here because of possible mischaracterisations in the past literature. In two papers

[8] This phenomenon is also called neutralisation. However, the reader should know that neutralisation is not necessary for paradigmatic asymmetry (see Miestamo 2005 for further cases).

[9] In this section, unreferenced linguistic examples in any language apart from Romanian and English were constructed with the aid of a native-speaker informant.

[10] Unfortunately, as this was a small study, it was not possible to conduct a detailed questionnaire with each informant.

by Miestamo, English is provided as an example of a language with a symmetric paradigm in PI constructions (2009: 1469 and 2011: 9). However, as I will show below, this is not the case. In English declaratives, one can employ the auxiliary *do* to emphasise the affirmative nature (polarity) of the sentence as compared to the neutral form (9b vs 1a, replicated as 9a):

(9) a. Mary bakes.

b. Mary DOES bake.

Thus, (9b) represents an emphatic version of (9a), where the speaker would like to reinforce the validity of their assertion about Mary baking by using *do*. If they wished to ask the corresponding PI, however, the structure would be the same as for (9a), i.e. the *yes/no* question corresponding to both (9a) and (9b) would be (10), with stress on *Does* being the only difference between these structures.

(10) Does Mary bake?

Comparing (9a) to (10), we can notice how the 3.SG inflection *-s* on the verb *bakes* in the declarative sentence is no longer present on the main verb in the PI, where it appears in the infinitive (*bake*). Instead, the auxiliary *does* is inflected for person, number and tense, representing the finite verb in the sentence (see also *Mary baked* vs. *Did Mary bake?*, where past tense is overtly conveyed through the auxiliary). In other words, the main verb *bake* loses its finiteness in the PI (finiteness asymmetry).[11] The analysis of the construction suggests that the construction is asymmetric in English too: contrasting (9b) to (10) shows an asymmetry not of finiteness (as *does* is the finite verb in both sentences) but of formal structure, through a different word order like in Dutch (the auxiliary *does* is fronted in 10). This asymmetry is observed in English in sentences where an auxiliary verb is already present (e.g. *You are eating* vs. *Are you eating?*), where the only change from declaratives to PIs is the fronting of the auxiliary to the beginning of the sentence. Thus, English is a type of Asy language, with finiteness and formal structure asymmetry.

Of course, like many other languages, English can form *yes/no* questions with the sole use of intonation (raised voice), like in (11):

(11) You're going jogging today?

Drawing on Miestamo's discussion on this, it is considered that if a language uses intonation alone to differentiate between declaratives and PIs, then that construction is symmetric on the basis that intonation is the only marker that gets replaced from (9a) to (11), without affecting any other category (2007: 304-305. However, as intonation is known to be used in most languages (see Dryer 2013a), it will not

[11] An alternative account may point to an emphasis asymmetry, where the emphatic *does* can be argued to be lost in (10) compared to (9a) vs. (9b), thus rendering English a language with emphasis asymmetry (see Miestamo 2005 for a similar classification of English standard negation). However, one cannot ignore the fact that emphasis can still be conveyed through stress on *does* in (10) vs. (9a), which reflects that the emphasis distinction is not lost in the PI.

be considered for the classification unless it is the most common or the only PI construction in the language.[12]

On the other hand, Romanian, Urdu and Japanese are symmetric in both construction and paradigm, as I will now proceed to show.

3.2 Urdu

Urdu, like French and Maybrat, uses a question particle - *kyā* - to form a *yes/no* question (Bender 1967: 92), as in (12):

(12) Urdu (Indic, Indo-European; Schmidt 1999: 26)

Kyā	*ye*	*gharā*	*hai?*
Q	DEM.PROX.NOM	watering-can.NOM	be.3.SG.PRS

'Is this a water pot?'

In Urdu, there are one-to-one correspondences in the paradigm, as is (partly) shown below (data confirmed by my informant):

(13) Urdu

a.	*Mein sothi hoon.* 'I sleep.'	***Kyā** mein sothi hoon?* 'Do I sleep?'
b.	*Tum soey.* 'You slept.'	***Kyā** tum soey?* 'Did you sleep?'
c.	*Wo so-rahey the.* 'They were sleeping.'	***Kyā** wo so-rahey the?* 'Were they sleeping?'
d.	*Hum soyein-ge.* 'We will sleep.'	***Kyā** hum soyein-ge?* 'Will we sleep?'

Note that Urdu resembles languages like French in that the question particle is added at the beginning of the sentence, unlike languages like Maybrat where it is added at the end.

3.3 Japanese

Japanese is in the latter category of languages: the particle ka can be added at the end of declaratives to express yes-no questions, as in (14):

(14) Japanese (isolate; Hinds 1986: 9)

a. *Ano heya wa kirei desu.*
that room TOP clean COPULA

'That room is clean.'

[12] Otherwise, most if not all asymmetric languages will display a SymAsy system using intonation, consequently hiding the distinction between Asy and SymAsy languages.

b. *Ano he awa kirei desu ka?*
that room TOP clean COPULA Q

'Is that room clean?'

As confirmed by my informant, changing the paradigm does not make a difference to any category (tense, person, etc.): the paradigm is symmetric in Japanese. It should be noted, however, that (unlike Urdu) there are multiple particles that can be used to form PIs in Japanese, but they are generally not as neutral as *ka* (e.g. *kke* is used when one tries to remember something, and it expects a positive answer; Hinds 1986). Intonation as a sole way of marking PI is used in both Urdu and Japanese. According to my informant, in Japanese, especially in nonpolite conversation, the particle *ka* is dropped and rising intonation on the last syllable is used instead in PI constructions. Interestingly, although a loss in politeness distinctions (intersubjectivity) is observed in negative imperatives vs. positive imperatives ((thus giving an asymmetric paradigm; Van Olmen 2019), my informant tells me that this is not the case in PIs, e.g. both polite and nonpolite verb forms can be used with *ka* in polar questions. I leave this for further research into politeness and PI constructions in Japanese.

3.4 Romanian

In Romanian, intonation is considered the only way of constructing a polar question (Dryer 2013a). Consider (15):

(15) Romanian (Romance, Indo-European)

a. *Maria doarme.*
Mary sleeps.3.SG.PRS

'Mary sleeps.'

b. *Maria doarme?*
Mary sleeps.3.SG.PRS

'Mary sleeps?'

Thus, both the construction and paradigm are symmetric in Romanian, as the only marker that changes from declaratives to PIs is intonation (rising voice at the end of sentences). An observation is in order, nonetheless. Since Romanian is a pro-drop language (Chiriacescu & von Heusinger 2010: 312) which displays syncretism between 3PL and 1SG/3SG for the present tense indicative in numerous verbs, speakers may be inclined, for instance, to utter the subject at the end of the sentence to make the subject reference explicit in polar questions:

(16) *Merg la tară ei?*
go.1.SG/3.PL.PRS at countryside 3.PL

'Are they going to the countryside?'

In (16), in order to make it known to the listener that the speaker is referring to a third-person plural entity and not to themselves, they may use the overt form *ei* 'they' at the end of the question, where this would not be (as) common in declaratives. This construction is not neutral per se, but it does raise interesting questions about the extent to which neutrality in PI questions can be measured and whether similar forms should be included in the analysis in further research.[13]

3.5 Mandarin and Cantonese

As for Mandarin and Cantonese, the picture is somewhat different. In Mandarin, one can form a question adding the particle *ma* at the end of the declarative sentence, as (17a) vs. (17b) show:

(17) Mandarin (Chinese, Sino-Tibetan; Wiedenhof 2015: 117, adapted)

a. *Jǐngchá lái le.*
police come PRF

'The police are coming.'

b. *Jǐngchá lái le ma?*
police come PRF Q

'Are the police coming?'

The construction here is symmetric, as the only difference between the declarative in (17a) and the PI in (17b) is the interrogative marker *ma*. In Cantonese, Matthews & Yip (2013: 359) state that there is 'no general-purpose question particle counterpart to Mandarin *ma*', other particles being used for specific contexts instead. For instance, they say that the particle *a* is used to indicate surprise or disapproval (2013: 359). This is contested by my informant, who argues that in day-to-day language using *a* does not create a biased question in any sense. This should be assessed in further research. For neutral questions, the A-not-A construction is used, as seen in section 2 (5 replicated in 18):

(18) Cantonese (Chinese, Sibo-Tibetan; Matthews & Yip 2013: 360, adapted)

a. *Léih sīk ngóh sailóu.*
2.SG know 1.SG.POSS brother

'You know my brother.'

b. *Léih sīk-m̀h-sīk ngóh sailóu a?*
2.SG know-not-know 1.SG.POSS brother Q

'Do you know my [younger] brother?'

This structure is used neutrally in Mandarin too:

[13] This form would display asymmetric construction as the 3PL pronoun is likely to occur before the verb in the declarative (if it occurs at all), therefore perhaps rendering Romanian a SymAsy language.

(19) Mandarin (Wang, Song & Bond 2015: 196, adapted)

a. *Zhāngsān xǐhuān gǒu.*
Zhangsan like dog

'Zhangsan likes dogs.'

b. *Zhāngsān xǐhuān bù xǐhuān gǒu?*
Zhangsan like NEG like dog

'Does Zhangsan like dogs?'

Comparing (18a) and (19a) to (18b) and (19b), we notice that the A-not-A structure is essentially the same in both languages, i.e. verb-negation-verb, where negation is expressed by a negative marker. The construction is symmetric, as the only difference between declaratives and interrogatives is the interrogative marker(s), i.e. the negation *m̀h* or *bù* and the repetition of the main verb. The question particle *a* in (18b) is optional, so it is not treated as a (necessary) interrogative marker. Interestingly, according to my informants, inserting the particle *ma* in A-not-A constructions in Mandarin constructions is generally uncommon/ungrammatical. In Cantonese, however, the particle *a* very often appears at the end of A-not-A constructions; without it, the PI has a very direct/aggressive effect. I will leave this for further research.

Looking at the paradigm, we find asymmetries in both languages: in Mandarin (Wang et al. 2015) as well as Cantonese,[14] the standard A-not-A construction does not accept aspectual markers, such as *lè* (Mandarin) and *dzo* (Cantonese) for perfective. An example of this is provided in (20) in Mandarin, where adding *le* after the main verb *qù* 'go' is not possible in an A-not-A structure:

(20) Mandarin (Wang et al. 2015: 198)
* *Zhāngsān qù le bù qù le?*
Zhangsan go PRF NEG go PRF

'Did Zhangsan go?'

To express aspect in PIs in Mandarin, one has to use the *ma* particle instead (e.g. cf. (17) and (20), *Zhāngsān qù le ma?* 'Did Zhangsan go?') or just intonation alone (*Zhāngsān qù le?*). In Cantonese, aside from intonation, one could use a special A-not-A construction with the phrase *haih-mhaih* 'be-not-be' in order to express aspect:

(21) Cantonese
Zhangsan haih-mhaih huih dzo tsisor a?
Zhangsan be-not-be go PRF toilet Q

'Did Zhangsan go to the toilet?'

[14] Matthews & Yip (2013) do not make detailed reference to this in their chapter on polar questions in Cantonese, but it has been confirmed by my informant.

Here, *haih-mhaih* is placed before the main verb *huih* 'go' in order to express a PI with the perfective marker *dzo* (which cannot occur in a standard A-not-A construction, as in **Zhangsan huih-m̀h-huih dzo tsisor a?*, cf. the structure in 18). This construction is asymmetric, as it requires an auxiliary verb (*haih* 'be') which takes the negative marker in the A-not-A construction. Here, *huih* 'go' can be considered to have lost its finiteness, as it is a semantically "light", auxiliary-type verb, *haih* 'to be' which takes the negative particle and occupies the 'finite' position, not the main verb (as in in 18b). Thus, in Mandarin, the aspect distinction is lost in the A-not-A construction (hence the one-to-one correspondences are not the same), whereas in Cantonese, the distinction is not lost but another structure is used which leads to a loss in finiteness (cf. 21). In conclusion, Mandarin has neutralisation asymmetry and Cantonese features finiteness asymmetry.

3.6 Basque

In Basque, the situation is similar to English. A PI can be expressed by intonation alone (22a) or through a different word order in the *yes/no* question, where the verb precedes the subject like in (22b). According to my informant, the latter is seen as very formal. In the case of the different word order, the construction is thus asymmetric (cf. English), though the paradigm remains symmetric. Furthermore, there are two question particles that could be optionally added to the PI in Basque: *a* (Eastern Dialect, as in 23a) and *al* (Central dialect; as in 23b).[15]

(22) Basque (Isolate; Etxepare & Ortiz de Urbina 2011: 467-468)

a. *Jonek liburu hori irakurri du?*
Jon.ERG book that read AUX

'Has Jon read that book?'

b. *Esango al zeniguke zerbait azbenik?*
say.FUT Q AUX something finally

'Would you tell us something finally?'

The particle *a* is not compatible with the allocutive suffix,[16] as in (23b). Here, there is a loss in distinctions in the paradigm, i.e. in declaratives both allocutive and neutral forms are possible, but in the PI only the neutral form is adopted when the question particle *a* is used (23a). This makes the paradigm asymmetric in Basque (Eastern Dialect) when *a* is employed to form the PI.

(23) Basque (Monforte 2018: 31, 37)

[15] My Basque informant, speaker of the central dialect, argues that using the particle is the most common way of forming a PI.

[16] The allocutive suffix marks the gender of the addressee when the speaker uses familiar pronouns.

a. *Nehor ikusi duzu-a?*
anybody see AUX-Q

'Did you see anybody?'

b. **Hire amak ba-daki-(*k)-a*
your mother COND-know.3.SG.ABS.3.SG.ERG-(*ALC)-Q

'Does your mother know that?'

3.7 Summary

To summarise, I have found both symmetric and asymmetric PI structures in the examined languages. Almost all asymmetry types proposed by Miestamo (2007, 2011) have been found: finiteness (Cantonese, English), neutralisation/loss of distinctions (concerning aspect: Mandarin; allocutive case: Basque), and purely formal structural differences (different word order: Basque, English). The subtype asymmetry of emphasis has not been attested in the languages of the current paper. The results are summarised in Table 1, which includes the PI marking type found in each language, as well as a characterisation of the language systems.

4 Conclusion

In this essay, I have looked at seven languages and their PI systems in terms of Miestamo's (2005) asymmetry concept. I have found most of the main types of PI marking in the languages investigated, namely question particle, intonation, A-not-A constructions and different word order. Five out of seven languages can use question particles (Basque, Cantonese, Mandarin, Japanese and Urdu), and two languages (Basque and English) employ a different word order in PIs. Both are not unexpected, given that question particles are the most common way of marking PIs and that the two languages in which a different PI word order was identified are European languages. The A-not-A construction was identified in Mandarin and Cantonese, though in Cantonese it is not clear whether it can be used without the question particle, and I leave this for further study. By contrast, Romanian is a language where intonation is the main way of expressing polar interrogation.

Furthermore, by investigating the fine-grained grammatical differences between PIs and declaratives, I have found nearly all types of asymmetries previously discussed by Miestamo (2007, 2011): finiteness (Cantonese, English), neutralisation (Basque, Mandarin), and purely formal asymmetry (Basque, English). This confirms Miestamo's (2011) classification and points to the value of further study on the (a)symmetry of PIs versus declaratives. Although the number of languages is small and the statistics are thus inconclusive, this study has found asymmetries in four out of the seven languages studied (57%), which goes against Miestamo's findings that only 25% of languages display asymmetries in polar interrogatives in

Language/ Description	PI marking				Asymmetry Type				System
	Intonation	Word order	Particle	A-not-A	Finiteness	Emphasis	Neutralisation	Purely constructional	
English	X	X			X			X	Asy
Romanian	X								Sym
Urdu	X		X						Sym
Japanese	X		X						Sym
Mandarin	X		X	X			X		SymAsy
Cantonese	X		X	X (?)	X				SymAsy
Basque	X	X	X				X	X	SymAsy

Table 1 Summary of the classification of (a)symmetries and marking types in PI structures in my language sample. Note that an 'X' is placed where the category applies to the relevant language. 'Sym' and 'Asy' stand for symmetric and asymmetric systems in languages; SymAsy represents a language which has both. A question mark is placed where more research is deemed to be needed to ascertain the element in question in that language.

his rough estimations from 200 languages (2011: 14).[17] A comparison with standard negation (Miestamo 2013b) to PIs in the languages examined (Table 1), also provides interesting results: (i) Japanese and Basque have asymmetric standard negation but symmetric PI systems, (ii) English is a SymAsy language in terms of standard negation but Asy in PI structure, and (iii) Mandarin and Cantonese are SymAsy for both. Unfortunately, the current sample is too small to draw any firm conclusions from this, but it would be interesting to assess – in a large and balanced typological study – if PI structures prove generally more symmetric than standard negation overall, as we can see from the pattern in Basque and Japanese here. It would also be significant to look at negation in polar interrogatives and compare the results to other structures, such as imperatives and standard negation. In short, a more wide-ranging, systematic investigation of Miestamo's (2005) (a)symmetry notion in further domains, notably including PIs, seems very well motivated.

Abbreviations

1	first person	NEG	negation/negative
2	second person	NLCT	non-locutor
3	third person	NOM	nominative
ABS	absolutive	PL	plural
ACC	accusative	POSS	possessive
ALC	allocutive	PRF	perfect
AUX	auxiliary	PROX	proximal
COND	conditional	PRS	present
DEM	demonstrative	PST	past
ERG	ergative	Q	question particle/marker
FUT	future	SG	singular
IPFV	imperfective	TOP	topic
LCT	locutor		

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[17] These calculations were based on unpublished data in order to provide some context to the results on the Uralic languages (see footnote 2).

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