Polar answers[1]

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How do people answer polar questions? In this fourteen-language study of answers to questions in conversation, we compare the two main strategies; first, interjection-type answers such as *uh-huh* (or equivalents *yes*, *mm*, head nods, etc.), and second, repetition-type answers that repeat some or all of the question. We find that all languages offer both options, but that there is a strong asymmetry in their frequency of use, with a global preference for interjection-type answers. We propose that this preference is motivated by the fact that the two options are not equivalent in meaning. We argue that interjection-type answers are intrinsically suited to be the pragmatically unmarked, and thus more frequent, strategy for confirming polar questions, regardless of the language spoken. Our analysis is based on the semantic-pragmatic profile of the interjection-type and repetition-type answer strategies, in the context of certain asymmetries inherent to the dialogic speech act structure of question–answer sequences, including sequential agency and thematic agency. This allows us to see possible explanations for the outlier distributions found in ‡Ākhoe Hai‖om and Tzeltal.

KEYWORDS: conversation, interjections, polar questions, pragmatics, typology

1. INTRODUCTION

For a given expressive problem, a language will often provide one of a number of available solutions, and typically, one solution will be more frequently used, across languages, than others. For example, in ordering the main constituents

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of clauses, 89 percent of the world's languages put subjects first, while only ten percent put verbs first, and only one percent put objects first (Dryer 2013a). Another example: In constructing polar questions, languages are far more likely to use particles than verb morphology, word order, or only intonation; and if a language has a polar question particle, the particle is far more likely to be placed utterance-finally than in any other position (Dryer 2013b).

Researchers have often been able to show that certain solutions are cross-linguistically dominant because they are easier or more natural to learn and use (Hawkins 1988; Enfield 2014, 2017a; Himmelmann 2014), or, relatedly, that they have developed historically through similar language-internal processes (Cristofaro 2017), thus leading to their higher frequency in the world's languages. When there is a statistical preference for one strategy over others, the question arises: What motivates the preference? Here, we pose this question in relation to the statistical preference for interjection-type answers for confirming polar questions.

2. ALTERNATIVE STRATEGIES FOR ANSWERING POLAR QUESTIONS

2.1 *The two main options: Interjection-type and repetition-type answers*

What alternatives do languages provide for answering polar questions? Sadock & Zwicky (1985: 189) propose a three-way distinction, summarized as follows:

I. a 'yes/no system', in which an interjection answer such as 'yes' or 'no' matches the question's polarity (e.g. as found in English, e.g. Q: *Do you not see them?* A: *No* [= 'No, I do not see them']);

II. an 'agree/disagree system', in which an interjection answer codes the truth or falsity of a proposition, regardless of how it was phrased in the question (e.g. as found in Japanese; Q: *Do you not see them?* A: *Yes* [= 'Yes it's true, I do not see them']);

III. an 'echo system', in which 'no special answer words are used at all' (1985: 191); instead, 'positive and negative responses to questions involve repeating the verb of the question, with or without additional material that varies from language to language' (1985: 191) (e.g. Q: *Do you not see them?* A: *I do not see them*).

Here is their example of an 'echo system' answer from Welsh, in which the answer repeats the verb used in the question:

(1) *Welsh*
    Q: *A   welwch chwi hwy?*   'Do you see them?'
       Q   you   see   them
    A: *Gwelaf*   '(Yes) I see (them).'
       Na welaf   '(No) I don't see (them).'
                                (Sadock & Zwicky 1985: 191 ex. (140))

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While Sadock & Zwicky's (1985) three-way distinction is a frequent point of reference, there are two problems with it. First, it obscures a more basic two-way distinction. The yes/no and agree/disagree strategies are variants of the same basic approach to answering the question: They both use an interjection or particle as opposed to some form of repetition. Sadock & Zwicky's 'agree/disagree' is not of the same order as 'echo'. Rather, 'echo' is distinguished from 'interjection', where interjection has two sub-types (yes/no and agree/disagree), distinguished not on grammatical grounds, but on the polarity principle by which the interjection is used.

The second issue is that Sadock & Zwicky's proposal is often assumed to distinguish types of LANGUAGE, rather than types of SYSTEM or strategy (though Sadock & Zwicky spoke only of types of system that a language may have, not ruling out that a language may have more than one system). It is likely that no language relies solely either on interjection-type answers or on repetition-type answers. While English is said to be a yes/no language, it obviously allows both strategies. Raymond (2003) shows that when English speakers use repetition-type alternatives (e.g. *I don't see them* or *I don't*), marked pragmatic effects are introduced (see also Stivers et al. 2009). Similarly, while Welsh and Finnish are often said to be canonical 'echo' languages, their speakers also use interjection-type answers (see Jones 1999 on Welsh and Hakulinen 2001; Sorjonen 2001a, b; Holmberg 2016: 116–117 on Finnish).

In a more recent exploration of polar answer systems, Holmberg (2016) focuses on 'verb-echo' type answers. These are a subset of Sadock & Zwicky's broader category of 'echo' answers. On Holmberg's definition, a 'verb-echo' answer is done 'by echoing the verb of the question' (2016: 2).[2] As an answer to the question *Has he gone?*, for example, the complete clause *He has gone* is outside of Holmberg's scope because the subject *he* is present. Such answers spell out entire propositions, and as such, Holmberg (2016: 8) says that 'from a syntactic point of view they are uninteresting'. Holmberg's interest – the hypothesis that verb-echo answers are syntactically derived by movement of a verb out of a clause followed by ellipsis of the clause, leaving just the verb as answer – is orthogonal to our interest here. Our interest is the speaker's choice between an interjection strategy versus a strategy that involves repetition of any form, independent of whatever language-specific syntactic operations may be involved.

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[2] When Holmberg (2016: 65–67) distinguishes between 'languages employing verb-echo answers' (e.g. Finnish) and 'languages not employing verb-echo answers' (e.g. English), he does not mean that languages such as English never use repetition-type answers, nor that any of the languages in either group lack interjection-type answer forms.

It is sometimes said that there are languages in which ONLY the repetition-type answer strategy is used, and no interjection-type answers occur.[3] Holmberg ([2016](#)) risks inviting this reading when he states that there are languages 'which just do not have any designated affirmative particle', citing Thai, among other languages. However, he shows that the polite particles *khrap* and *khaa* can be used as polar answers, meaning 'yes' (Holmberg [2016](#): 118; see Iwasaki & Ingkaphirom [2005](#): 179). He does not refer to the many other interjection-type answers that Thai speakers use for answering polar questions, such as the frequent informal variants [mː], [ʔəː], and [ʔɯː].[4] We see no reason to propose a category of 'designated' answer interjections distinct from the many 'stylistic variants' that occur (Sadock & Zwicky [1985](#): 196; see also Gardner [1997](#)). In terms of the linguistic phenomena we are studying here – how people answer polar questions – forms such as *mm*, *uh-huh*, *yep*, and head nods must be recognized and included in the set of interjections that mean, essentially, 'yes'. We include them in the present study.

2.2 *Pragmatic markedness*

When multiple options are available for serving a communicative function within a system, one option typically emerges as the pragmatically unmarked one (see Haspelmath [2006](#)). Unmarked forms are used in dialogue more frequently, more quickly, and more straightforwardly than marked forms (Schegloff, Jefferson & Sacks [1977](#), Schegloff [1996](#), Clayman [2002](#), Stivers & Robinson [2006](#), Stivers et al. [2009](#)). In speech act terms, unmarked forms of utterances are designed to perform a simple action and nothing more, raising no red flags in the flow of communication (Grice [1989](#)). For example, in English, when people in informal conversation want to refer to a person who they both know well, first-name reference is the unmarked option. Searle ([1958](#)) argued that this was in order to avoid introducing aspects of the DESCRIPTION of a person, which could 'raise issues' in the conversation by risking distraction from the basic act of referring. Alternative ways to refer to a person, such as *the birthday boy*, are used when the speaker wants to refer to someone AND wants to add something to the linguistic action they are performing (see Stivers [2007](#) for a case study). We will argue that interjection-type answers represent a solution to the problem of how to answer

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[3] We have not found a written source in which this is stated unequivocally, but we have heard it said categorically in informal academic settings. Oft-cited examples are Welsh and Brazilian Portuguese. But evidence shows that both of these languages make extensive use of interjection-type answers (for Welsh, see Jones [1999](#), for Brazilian Portuguese, see below).

[4] We do not agree with Holmberg that these particles are 'not designated' for the purpose of answering polar questions (although we note that Holmberg does not define what is meant by 'designated' here). Regarding the 'polite particles' in Thai, as Iwasaki & Ingkaphirom ([2005](#): 179) show, these words occur by themselves as interjections that confirm answers to polar questions (*khaa* spoken by women, *khrap* by men). To be sure, they have other functions, such as their occurrence in utterance-final position to mark polite or formal register, but this does not mean that answering polar questions isn't one of their designated functions.

a polar question and do nothing more than that, while repetition-type answers are marked relative to this simple function.

2.3 *The structure of question–answer sequences*

While questions have been extensively studied for their syntactic and semantic properties across languages, less is known about the answers that questions elicit, and almost no attention has been paid to the structural relationship BETWEEN questions and their answers. We want to shed new light on research in this domain by drawing attention to precisely that relationship. To do this, we invoke the concept of the ADJACENCY PAIR (Schegloff & Sacks 1973, Schegloff 2007; see also Clark 1996 on 'projective pairs').

The structure of an adjacency pair spans utterances that are produced by two people in interaction. An adjacency pair has two PAIR-PARTS. The first pair-part is spoken by Person A, the second by Person B. Examples include sequences in which a greeting elicits a return greeting, or in which a question elicits an answer. In the following extract, we see a canonical example, a polar question eliciting an answer, in lines 2 and 3:[5]

(2) *English*

   1   (0.4)

   2 SUL: **All do:ne?,=**hhh

   3 HEL: **Yeah.**

   4   (.)

   5 HEL: Thank you dea:r,

   6   (0.2)

   7 HEL: Excellent.

   8   ((Sully takes plate and cup and walks away))

In an example from Lao (spoken in Laos, Thailand, and Cambodia), a polar question in line 1 elicits an answer in line 3:

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[5] English transcripts follow Jefferson conventions (Hepburn & Bolden 2013). Glossing abbreviations for language examples in this paper are as follows: 1, 2, 3 = first, second, third person; A = absolutive; ADV = adverb; ART = article; B = bare reference; CLI = clitic; COP = copula; DEIC = deictic; DEM = demonstrative; DIM = diminutive; DIST = distal; E = ergative; F = female; FA = familiar; HL = high level (pitch); HUM = human; ICP = incomplete; INCL = inclusive; INDEF = indefinite; INFER = inferred; INT = interjection; LOC = locative; NEG = negation; PC = participle; PL = plural; POSS = possessive; PREP = preposition; PRF = perfect; PST = past; PT = particle; Q = question; QPLR = polar question; SG = singular; TPC = topic.

(3) *Lao*

1 A: **lèø hun1 laaw2** [**ngaam2 mèèn1 bòò3**]
        PRF   figure 3SG.FA   beautiful COP   QPLR
        'And her figure is beautiful, right?'

2 B: [phom3   niø-   ]
                               hair   TPC
                              [the   hair   ]

3   (0.5)

4 B: **hun1 ngaam2**
        figure beautiful
        '(Her) figure is beautiful'

A first pair-part is an initiating type of speech act. It is a kind of action that, in turn, projects a responsive type of speech act that Person B is required to make next (Sacks 1992, Clark 1996). The first pair-part obliges Person B to provide a response of a normatively defined sort, such that if they do not produce an appropriate second pair-part, then it will be regarded as 'officially absent' (Schegloff 1968). If Person B does nothing, or says something unrelated to the question, this will result in the pragmatic cousin of an ungrammatical sentence, drawing surprise, sanction, or other turbulence in the context of the conversation.

The adjacency pair is the core structural ingredient for the formal analysis of sequence structure in dialogue (Schegloff 2007, Sidnell 2010, Stivers 2013, Clift 2016). A minimal sequence consists of a single adjacency pair (a BASE PAIR), as shown in example (3) (where the pair in question is made up of lines 1 and 4; note that strict contiguity is not criterial for 'adjacency' in the sense meant here). Minimal expansion, in the form of the *Thank you* after the second pair-part, is shown in (2). More complex sequences are built on the foundation of a base pair, with various forms of expansion, such as is illustrated with the following:

(4) *Lao*

1 B: mèèn1 phaj3   paj3 haa3 nòò1-maj4 khùù2 maa2 vaj2
        COP   INDEF.HUM go   seek shoots   like   come fast

        thèè4 niø
        real   TPC
        'Who's been collecting bamboo shoots, why back so fast?'

2   (1.5)

3 A: **juu1 naj2 thaj1 hanø   vaa3**=
        be.at in   sack   TPC.DIST QPLR.INFER
        'In the sack there, you mean?'

4 B: =**qee5**
        'Yeah.'

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5 A: muat5 qii1-pòk2 hanø
         group F.B-NAME TPC.DIST
         'Pok's lot.'

Here, lines 1 and 5 constitute a base pair, dealing with a main line of action. Line 1 launches a request for new information, and line 5 gives that information, closing the sequence. But a two-part sequence is inserted, in lines 3 and 4, between the two elements of the base pair. This insert expansion (Schegloff 2007) is subordinate to the main line of action in this sequence. The expansion itself consists of a question–answer sequence, and it has the function of dealing with a matter of clarification that is required before the questionee can deal with the question that was asked in line 1. This is an example of other initiation of repair (Schegloff et al. 1977, Dingemanse & Enfield 2015). It seeks to clarify the proposition that the questioner wants to put on the table. This kind of subordinate action sequence momentarily halts the progression of the main action sequence, and thus goes against a general preference for conversation to move forward without undue delay or derailment (Schegloff 1979, Stivers & Robinson 2006, Enfield 2017b).

2.4 *The difference in semantic–pragmatic division of labour in polar answers*

How do polar answers convey their meanings? While approaches may differ as to the technical details of their semantics, many analysts agree on the basic elements of a polar answer.[6] When someone asks a polar question, they put a proposition on the conversational table to be confirmed as true or otherwise (Farkas & Bruce 2009: 86). In turn, a confirming answer to a polar question must do both of the following two things:

(5) (a) assert that the proposition put on the table by Q is true

     (b) signal that this assertion is a response to Q with information that Q was seeking

Compare the highlighted polar answers in examples (3) (a repetition-type answer) and (4) (an interjection-type answer) above. These two answers each convey the two things in (5), but they do so in distinct ways. The difference between (3) and (4) is in the division of labour between which of these two meaning elements is semantically coded and which is contextually implicated. We will refer to this as their SEMANTIC-PRAGMATIC PROFILE.

The interjection-type answer in (4) semantically codes 'I answer and confirm that the proposition you put on the table is true'. But it does not in itself convey

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[6] See Farkas & Bruce (2009), Roelofsen & Farkas (2015), and references therein, for analyses of 'polarity particle' responses from a formal semantic perspective (see also Goddard 2002). Here, we adopt the view of Farkas & Bruce (2009) that a polar question puts a proposition 'on the table' and asks whether it is true or false; we acknowledge the alternative possibility, widely attributed to Hamblin (1973), that a polar question puts two alternative propositions on the table and asks the addressee to choose the true one.

the propositional content in question (i.e. 'I mean the bamboo shoots in the sack there'). Just what is being confirmed must be contextually retrieved, by accessing the question itself, and thus drawing on the specific formulation offered by the prior speaker. This can be diagrammed like so:

(6) qee5 *'Yeah'* (from ex. (4), line 4)

	Makes assertion 'I mean the bamboo shoots in the sack there'	Signals 'I hereby answer and confirm the truth of the proposition you put on the table'
Semantically coded	−	+
Found in context	+	−

By contrast, a repetition-type answer semantically codes the assertion of a specific proposition (which happens to be the proposition put on the table by the question), but the meaning 'I answer and confirm that the proposition you put on the table is true' is implied by the context, in particular from the fact that this assertion is placed in the second pair-part position immediately after a question has been asked:

(7) hun1 ngaam2 *'(Her) figure (is) beautiful'* (from ex. (3), line 4)

	Makes assertion '(Her) figure (is) beautiful'.	Signals 'I hereby answer and confirm the truth of the proposition you put on the table'
Semantically coded	+	−
Found in context	−	+

Some types of linguistic expression are intrinsically designed to act as second pair-parts. Interjection-type answers such as *Yeah* are classic examples (alongside a range of other expressions; e.g. *You're welcome*). To see this, imagine that you turn on the TV and the first thing you see is someone saying *Yeah* to another person (e.g. at line 4 of example (4)). Simply by understanding what the word *Yeah* means, you will surmise that it is an answer to a question, and that it asserts that a proposition is true, but you will not know what that proposition is. But if you turn on the TV and the first thing you see is someone saying *Her figure is beautiful* (as at line 4 in example (3)), you will know what the speaker is asserting; however, because the assertion is not intrinsically marked as a second pair-part, you may never realize that it was an answer to a question.

On this basis, we observe different forms of alignment between the design of an expression and the sequential slot into which it is placed in a dialogue. Interjection-type answers show congruency between meaning and position because both are responsive. Repetition-type answers are less congruent, being assertive in meaning but responsive in position.

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2.5 *Interpersonal asymmetries in question–answer sequences*

Question–answer sequences provide a bridge between semantico-syntactic organization (in the words and constructions involved) and pragmatic organization (in interpersonal dynamics). Because of this, question–answer sequences cannot be properly understood without taking into account the social-relational aspects of an exchange. Here, we want to emphasize the status of the interpersonal ASYMMETRIES between individuals that question–answer sequences create (see Enfield 2013: Chapter 10). We note three asymmetries that will be relevant below.

The first asymmetry is EPISTEMIC GRADIENT (Enfield, Brown & de Ruiter 2012, Heritage & Raymond 2012). In the classical Austin/Searle model of speech acts, participants must fulfil certain conditions for a speech act to be felicitous. When a questioner puts a proposition on the table (test questions aside), such as 'Her figure is beautiful' in (3), it is assumed that the questioner does not know whether the proposition is true, and that Person B is likely in a position to know. A question has an epistemic gradient that is tilted away from the questioner, given their unknowing state. Depending on the way in which a question is phrased, and also on aspects of the context, that gradient can be more or less steep (Enfield et al. 2012: 220; Heritage & Raymond 2012: 181).

The second asymmetry is SEQUENTIAL AGENCY. As noted above, a first pair-part is a form of social coercion. When Person A asks a question, she is unilaterally directing the course of the conversation, by setting constraints on what the other person should or can say next. This coercion is so minor and low-cost that we hardly notice it, but it is there. When Person B (HEL) says *Yeah* in (2), above, he is effectively yielding to Person A's sequential agency, acquiescing to Person A's unilateral imposition on him to produce an utterance of a certain kind, at that moment.

The third asymmetry is THEMATIC AGENCY. By contrast with epistemic gradient, this asymmetry provides a slight tilt in favour of the questioner. By putting a proposition on the table, a questioner thematizes it, and thus declares their interest in the proposition, not because they know its truth value (they openly claim not to), but because they are the one who initiated the sequence that put this particular proposition on the table, and chose the specific linguistic formulation that was chosen in the question (see Stivers 2018: 9). We suggest that when Person B responds with a designated interjection-type answer such as *Yeah*, they are designedly not pushing back against the questioner's thematic agency, their claim to primary interest over this particular proposition. By using the interjection, the yes-answerer allows the proposition to be wholly formulated through the voice and words of the questioner. But when Person B responds with a repetition-type interjection, they may be understood to be pushing back against the implicit claim by the questioner to primary interest in thematizing this proposition, for example if the questionee has some independent reason to claim 'ownership' over the domain of the proposition, if, for example, it is in their special realm of knowledge (Raymond 2003; Heritage & Raymond 2005, 2012). This pushing-back is done by

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the mechanism that defines repetition-type answers: When an answerer repeats, she is at the same time independently articulating the proposition in the course of confirming its truth, as if she were the one putting it on the table.

2.6 *Summary: The two alternative strategies are not equivalent*

Given the qualitatively distinct semantic-pragmatic profiles of the alternative answer types, there is prima facie evidence to suggest that speakers' choices between them cannot be arbitrary. The two options are not equivalent for performing the same communicative action. When you select one of these options over the other, you are not just answering a question, you are answering it in a certain way. In defining the difference here, we have drawn on features of how responses are formulated, the sequential structures they occur in, whether they are subordinate to a main line of action, and the pragmatic asymmetries that are inherent to these sequences, to provide the tools to analyze the distribution of polar answer types across languages. We now turn to our empirical study.

3. DATA AND METHOD

We compare polar answers in a sample of fourteen languages, spoken (or signed, in the case of Sign Language of the Netherlands) on five continents (see Appendix). Each researcher contributed video recordings of maximally informal, spontaneous everyday data, all with participants' informed consent. The type of interaction was controlled for maximum comparability: All data were from informal conversations occurring among family, friends or neighbors. This ensured three things. First, this maximized our likelihood of tapping into underlying, natural principles through which human interaction self-organizes in the absence of explicit stipulations for how talk should proceed (e.g. as in formal debates where there is overt regulation of who is to talk when). Second, by sampling multiple interactions involving diverse activities, we ensured a broad representation of language usage within each language. The full data set of fourteen languages draws on 172 distinct interactions, and thus variation due to differences in exact activity type (e.g. eating together versus doing handicraft together) is represented within languages as much as across them. Thus, we have done as much as possible to ensure comparability while insisting on maximal naturalness of the data. Third, we rely here exclusively on evidence from the direct coding of instances of usage across multiple speakers in spoken data, rather than on metalinguistic beliefs about how people answer questions in the languages of study. Before systematically coding our data, some of us had strong expectations about what would happen in certain languages. In the cases of Lao and Japanese, for example, the responsible researchers had expected that speakers would primarily rely on repetition-type answers, but this turned out not to be the case. Metalinguistic beliefs are no substitute for empirical data on questions of statistical distribution in language usage.

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We rely on two types of analysis. First, all authors coded questions and their responses in the respective language corpora. We focus on questions that function to solicit answers, since rhetorical type questions make different sorts of responses relevant (Koshik 2005). In the coding for this study (for details of coding scheme, and instructions, see Stivers & Enfield 2010), we defined interjection-type answers as those answers that do not assert a proposition in and of themselves but do confirm one. These range from variants of *yes* (*yeah*, *yep*, *uh-huh*, *mm-hm*, and head nods) to interjections such as *of course* or *certainly* (Stivers 2011). We identified repetition-type answers as answers that fully or partially repeat elements of the question, without qualitative semantic alteration (irrespective of whether a verb is used in either the question or the answer). Thus, as an answer to the question *Is John coming?*, a repetition-type answer could be any of the following: *John's coming*, *John is*, *He is*, *He is coming*, *He's coming*. However, answers that add or replace elements of the question were coded as 'transformative' responses (Stivers & Hayashi 2010) and were thus not included in the scope of the present study. Transformative responses to the question *Is John coming?* would include responses such as the following: *It's Tom who's coming*, *John's coming later*, *John's in London*.

We coded for three main types of speech act that polar questions perform. Questions were coded as REQUESTS FOR INFORMATION if 'there was no other primary action to be coded' (Stivers & Enfield 2010: 2623), i.e. if the only business of the question was to get a piece of new information. Ambiguous cases were excluded. For example, the action performed by the question *Are you busy tonight?* is likely not only to be aimed at getting a piece of information, but is likely a preliminary to the main business, i.e. making an invitation or request. Questions were coded as OTHER INITIATION OF REPAIR when they were dealing with a problem of hearing or understanding what was just said (e.g. 'In the sack you mean?' in example (4) above). These are, by definition, subordinate types of conversational action. Questions were coded as REQUESTS FOR CONFIRMATION when the questioner appears to assume that the proposition being put on the table is likely true, and merely requires confirmation. Requests for confirmation are often formally constructed as declaratives, not interrogatives, yet they are responded to with confirmation, as if they had been polar questions (e.g. A: *You'll be there tomorrow night*, B: *Yes*). Requests for confirmation are the most constraining of these three main types of actions, in that they are most strongly presupposing of a certain type of answer. In all 14 languages, requests for confirmation were the most common speech act type performed by polar questions, followed by requests for new information, and then initiations of repair.

In our quantitative study of responses, we examine only confirming answers (rather than non-answers such as *I don't know*, *I can't remember*, or laughter; or disconfirming answers). This is because confirmations are more frequent than disconfirmations – a fact that holds across languages (Stivers et al. 2009) – thus yielding more data, and because disconfirmations are socially dispreferred, thus meaning that they might be pragmatically marked across the board

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(Heritage 1984). Non-answer responses are also dispreferred relative to answers (Stivers & Robinson 2006).

We noted all occurrences of combination answers (interjections followed by repetitions, or vice versa; see Holmberg 2016: 68), and we found that they occurred in less than 4% of answers.[7] Because of the scarcity of combination answers, we re-coded these answers based on the first occurring answer type in the combination. This decision was grounded in the logic of turn-taking norms (Sacks, Schegloff & Jefferson 1974): at the end of each unit of talk, another speaker may begin speaking; the first unit of talk produced by a next speaker (i.e. the first of the two answer forms, in our case) must therefore be the respondent's priority form, given that the other speaker could start talking in overlap when the second form is starting up. In other words, when an answerer gives two types of response one after the other, the second-given form is effectively deemed by the speaker to have been dispensable.

Our coding of question–answer sequences from interactional corpus data allows us to examine broad distributional patterns, while remaining grounded in qualitative analytic distinctions (Stivers 2015).

4. ANALYSIS

4.1 *Distributional evidence*

Figure 1 shows the distribution of interjection-type responses and repetition-type responses in confirming answers to polar questions in the 14 languages.

As this distributional pattern shows, in a majority of languages people rely on interjection-type answers over repetition-type answers to polar questions. Only three of the 14 languages drop below an 80% reliance on interjections: in Brazilian Portuguese, people rely on interjections 63% of the time; in ǂĀkhoe Hai‖om, people rely on interjections and repetitions virtually equally (51% vs. 49%); in Tzeltal, people rely on repetition-type answers a majority of the time (66%), but still far from an inverse of the pattern seen in most other languages.

The empirical findings reported in Figure 1 establish the global predominance of the interjection-type answer strategy. What might account for this predominance? We argue that this correlates with their being pragmatically unmarked. We argue that the semantic-pragmatic design of interjections (see Section 2.4 above) makes them intrinsically better suited to serving as an unmarked answer type, regardless of cultural or linguistic context. Because the interjection answer type semantically codes the function of confirming, it can be said to be a dedicated answer form. By contrast, a repetition in itself codes an assertion, independent of the fact that someone happens to be using it to answer a question.

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[7] Our empirical finding that combination answers are low in frequency goes against many people's metalinguistic belief that combination answers (e.g. 'Yes, he is') occur often. Here, we follow the facts derived from our corpora.
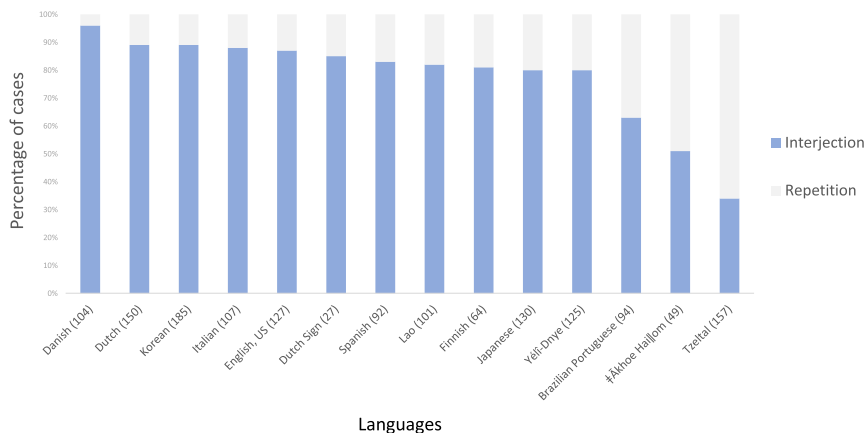
Figure 1
Percentage of interjection-type vs. repetition-type confirming answers to polar questions,
by language (total number of questions follows language name).

This independence means that repetition-type answers should be better fitted to pragmatically marked functions, because they do something other than what was projected by the first pair-part in a sequence, with the result that inferences can be drawn. To get a sense of what this means, we now look more closely at our findings in relation to the distribution of the two answer type options WITHIN languages.

4.2 *Where interjection-type answers occur*

Interjection-type answers are more common than repetition-type answers across each of the three speech act contexts we coded for: (i) requesting new information, (ii) requesting confirmation of topical information, and (iii) initiating repair through understanding checks. That said, interjection-type answers take up a greater proportion of answers within (ii) and (iii) than they do in (i). The distinguishing features of (ii) and (iii) are that they tend to occur in actions that are subordinate to a main line of action in a sequence.

Consider (8), from Brazilian Portuguese. The polar question of interest (in line 6) asks whether Alice knows where 'FAAP' is. This question is part of a local sequence which is subordinate to the main question at hand:

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(8) *Brazilian Portuguese*

1 Alice: Mar<u>i</u>a   mora   aqui   ^p<u>e</u>rto;
          [name.F] live.3SG ADV.LOC   close
          'Does Maria live here close?'

2   (0.5)

3 Maria: eu   mor<u>a</u>va   aqui   perto.=ag<u>o</u>ra eu   moro
          1SG live.PST.1SG ADV.LOC close   now   1SG live.1SG

          mais l<u>o</u>nge.
          more far.away
          'I lived here close=now I live further away'
          (.)

4   eu   moro   perto de   F<u>A</u>AP.
          1SG live.1SG close PREP [name]
          'I live close to FAAP'

5   (0.4)

6 Maria: **s<u>a</u>be   onde é   ^F<u>A</u>AP.**
          know.2SG where be(*ser*).3SG   [name]
          'Do you know where is FAAP?'

7   (0.2)

8 Alice: **Mm hm,**

9 Maria: °eu moro   ali   p<u>e</u>rto°.
          1SG live.1SG ADV.LOC close
          'I live close to there'

Lines 6 and 8, while constituting a question–answer sequence in themselves, serve structurally as an expansion sequence, subordinate to the base question–answer pair, which seeks to determine whether Maria lives close to here (answer: 'no, I live close to FAAP'). We find that interjection-type answers are particularly common in these subordinate-action contexts, allowing the dialogue to move quickly back to the main line of action. In (6), that main line of action is determining whether Maria lives close by, not whether Alice knows where FAAP is. Examples like this one support the view that interjections are the unmarked way to confirm; they are designed not to introduce any pragmatic turbulence, thus allowing the dialogue to get quickly back on track. This, we argue, is why people are most strongly inclined to use interjection-type answers when confirming requests for confirmation and understanding checks.

4.3 *Where repetition-type answers occur*

Although there is no sequential, action, or morpho-syntactic context that we could identify where repetition-type answers were more likely than interjections, we

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find that they show their highest relative frequency in response to requests for new information, and in response to non-declarative questions. Because repetition-type answers make assertions in and of themselves, independent of their placement in dialogue as answers, they should be better suited to contexts in which the answerer aims not only to confirm the proposition that has just been put on the table by the questioner, but to claim a degree of thematic agency, or independent interest over that proposition. As Heritage & Raymond (2005, 2012) note, when repetition is used for confirming, this does not just confirm but also asserts some prior or independent claim to 'ownership' over a proposition that has been put on the table (see also Schegloff 1996).

If our hypothesis is correct that interjections are best suited to confirming-and-doing-nothing-more, and that this holds across languages, what accounts for the fact that some languages – Brazilian Portuguese, ǂĀkhoe Hai‖om, and Tzeltal – show distributional profiles that differ markedly from the norm?[8] For this, we turn to a multivariate statistical analysis of the data.

4.4 *Multivariate model*

In order to examine possible effects on answer types (interjection-type versus repetition-type) of the language spoken, the action type of a question, or the question's lexico-syntactic design, we used a logistic regression model (in STATA 13.1). We used the production of a repetition-type answer as the dependent variable. We find that among confirming answers, independent of the language spoken, the odds of providing a repetition-type answer increased two times if the question was a request for new information (rather than a request for confirmation or an initiation of repair done as an understanding check).[9] The probability that confirmation of a polar question is done using a repetition-type strategy also increased over four and a half times if the language spoken is Brazilian Portuguese, seven times if the language spoken is ǂĀkhoe Hai‖om, and eleven times if the language spoken is Tzeltal.[10] See Table 1.

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[8] An anonymous *JL* referee asks as to the difference it makes for the distribution of repetition-type answers if a language 'has or doesn't have a conventionalized/grammaticalized form of repetition answers'. This is an interesting question for subsequent research.

[9] This finding is independent of the type of morpho-syntactic marking used in the question (e.g. whether the question was delivered using declarative syntax, or with explicit interrogative marking). Morpho-syntactic marking of the question did not have an independent effect on answer type.

[10] Finnish did not appear among the exceptional languages, although it is often said to rely heavily on repetition-type answers (Sorjonen 2001a, Holmberg 2016). We find that repetition-type answers occur only 19% of the time in Finnish, in line with most other languages in our study. Sorjonen (2001a, b) shows that Finnish is a mixed system, though she suggested a higher reliance on repetition-type answers than we report here. We note that Sorjonen's analysis is strongly in line with our own: She argues that a repetition-type response in Finnish treats the question as requesting new information, where the action is to be continued, while interjection responses treat the information as already thematic and therefore only to be confirmed, where the subordinate sequence is to be closed. While Sorjonen focused primarily on interjections *joo*

	Odds Ratios	Standard Error	Confidence Intervals
Information request	2.10***	0.36	1.51, 2.93
No lexico-morpho- syntactic marking	1.33	0.20	1.00, 1.79
Brazilian Portuguese	4.57***	1.02	2.95, 7.08
‡Ākhoe Hai‖om	7.19***	2.64	3.51, 14.75
Tzeltal	11.33***	2.09	7.89, 16.27

*** = $p < .001$

Table 1
Logistic regression predicting the odds of a speaker producing a repetition-type answer to
a polar question in the context of confirmation.

This suggests that the language spoken is a factor that contributes significantly
to speakers' relative reliance on repetition-type versus interjection-type answers.
We now turn to examining the three stand-out cases: Brazilian Portuguese,
‡Ākhoe Hai‖om, and Tzeltal.

4.5 *The case of Brazilian Portuguese: Evaluating methodology and analysis*

Brazilian Portuguese has been analyzed as a repetition-dominant language
(Urbano et al. 2002, Guimaraes 2007). The most comprehensive examination
of responses in spontaneous naturally occurring language use in Brazilian Por-
tuguese claims that repetition-type answers are the unmarked type (Guimaraes
2007). The argument is that repetition-type answers are provided more straight-
forwardly and more frequently than interjections. However, there are reasons why
Guimaraes' analysis cannot be taken at face value.

The first is that Guimaraes underestimates the number of interjection-type
answers. She focuses on one interjection: the word *sim* 'yes'. Only 55 of around
2000 polar questions in her corpus are answered with *sim* (Guimaraes 2007: 115).
Our data are consistent with this: Only two instances of *sim* were identified in our
set of 94 confirming answers. However, there are other interjection-type answers
in Brazilian Portuguese, and speakers use them far more frequently than *sim*.
These include 'mm hm' as well as head nods (not observable unless the corpus
includes video-recorded face-to-face interaction, as ours does). Together, these
interjections make up a majority (63%) of answers in our sample of Brazilian
Portuguese. We agree with Guimaraes that *sim* is a marked kind of answer in

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and *nii*, these accounted for less than two thirds of answers in our Finnish data (we also found
kyllä, *mm*, and head nods). Moreover, it is unclear whether all of the requests for confirmation
that we included would have been included by Sorjonen as questions. In our data, including all
types of polar answers, Finnish speakers do not behave significantly differently from speakers
of most other languages, on either a quantitative or qualitative basis.

Brazilian Portuguese, but it does not follow that INTERJECTIONS are a marked kind of polar answer in Brazilian Portuguese.[11]

Alongside this under-counting of interjection-type answers, Guimaraes also inflates the category of repetition-type answers. She counts all polar answer uses of forms of the stative verb *ser* ('to be'; usually in the third person singular form *é* '(it) is') as repetition-type answers. But only some of these are actually repetitional. *Ser* is a repetition-type answer form when the (auxiliary) verb *ser* was used in the question. This is shown in example (9), in which Julia has been setting up a 3D DVD documentary about Grand Canyon. She is handing 3D glasses to two participants, when Ana asks about the DVD. The auxiliary verb *é* from the question (in line 1) occurs as the repetition-type answer in line 2.

(9)   *Brazilian Portuguese*

    1   Ana: **esse é   três dê Julia?**
               DEM be(*ser*).3SG three d   [name.F]
               'Is that 3D Julia?'

    2   Julia: **é.**
                 be(*ser*).3SG
                 '(It) is.'

    3   Ana: ^que histó:^ria deixa   ver.
                 INT   let.2SG see
                 'Wow let me see.'

But *ser* forms are also used as answers when *ser* did not appear in the question at all (Santos 2003, Guimaraes 2007, Armstrong 2008). In these cases, it cannot be said that *ser* is a repetition-type answer. As Armstrong (2008: 297) observes,

> [w]hile the *Ser* response is indeed a verb, a verb must not [sic = 'need not'] be present in order for the *Ser* response to occur. ... Both the presence and frequency of use of these responses offers evidence for Brazilian Portuguese as a mixed response system, much like the Finnish case.

This type is illustrated in (10). Here, Luiza and Sara are in a third party's kitchen, where Luiza sometimes helps cook. Sara's (declaratively-phrased) question at line 2 asks Luiza whether she keeps her things organized at home equally well. At line 4, Luiza requests confirmation that she is correct in her understanding of *tudo* 'everything', namely that refers to *as coisa* 'the stuff'. This is confirmed by Sara in line 5 with *é*, even though Luiza's question did not feature the verb *ser* in any form.

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[11] Pragmatically marked members of the set of interjections are also found in English – e.g. *certainly*, *absolutely*, and *of course*. A corpus-based study of English (Stivers 2011) shows that *of course* accounts for less than 1% of answers to polar questions in English, and that it has a particular communicative function above and beyond merely confirming.

(10)   *Brazilian Portuguese*

   1 Luiza: mas lá   °em casa°,
                 but ADV.LOC PREP house
                 'But there at home'

   2 Sara: tudo   de   separadinho   também?
                 everything PREP separate.PC.DIM also
                 'Everything nice and tidy too'

   3   (0.3)

   4 Luiza: **o**   **que** **as** **^coisa;**
                 ART what ART thing
                 'What the stuff'

   5 Sara: **é.**
                 be(*ser*).3SG
                 'Is'

   6   (0.2)

   7 Luiza: ah mais ou menos.=minha casa   é
                 INT more or less   POSS1 house be(*ser*).3SG
                 meio bagunçada.
                 rather messy
                 'Ah more or less=my place is kind of messy.'

Because *ser* 'be' can be used as an answer to questions that include it AND to those that do not, an argument could be made, as has been made for Japanese (Ono & Suzuki 2018), that the existential verb is polysemous.[12] The possibility that the Brazilian Portuguese polar answer *é* has now evolved to become an interjection and is no longer a verb (in the polar-answer function) may find further support in the fact that when *ser* appears outside of a repetition-type context, only *é* (third singular present) is used and not the plural-marked *são* 'are' or past tense-marked *foi* 'was', for instance.

A final point is that Guimaraes' data involve extensive questioning, by police officers and counselors, of women who have experienced abuse. This means that many questions are about events that are well within the epistemic domain of the questionee, thus clashing with the thematic agency that a question introduces, and making marked repetitional answers more likely, as a form of push-back against any implied claim by the questioner to primary interest or investment in the proposition put on the table by the question.

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[12] In our study, 36% of Brazilian Portuguese answers were *ser*-answers, and of these, 82% (n = 28) WERE NOT REPETITIONS, as there was no 'be' verb in the proposition that the question put on the table. For coding purposes, we took the conservative option of treating *ser*-answers as repetitions when they responded to a question that used *ser*.

When these issues are taken into account, Guimaraes' claim that interjection-type answers are a marked strategy in Brazilian Portuguese is not supported. We conclude that Brazilian Portuguese does not show the aversion to interjection-type answers that is often suggested. This is because (i) the infrequent answer form *sim* is not the only interjection-type answer available (though paradoxically, it appears to be regarded as the canonical 'yes' answer), and (ii) the frequent answer form *ser* (*é*) is often not actually repetitional. The Brazilian Portuguese distribution of interjection-type and repetition-type answers turns out not to be far from the global norm.

4.6 *The case of ‡Ākhoe Hai‖om: A cultural account?*

‡Ākhoe Hai‖om is spoken by a hunter-gatherer group in Namibia (Hoymann 2010). As shown in Table 1 above, ‡Ākhoe Hai‖om speakers rely on interjections and repetitions with nearly equal frequency. We have proposed that because of their semantic-pragmatic profile, interjection-type answers facilitate the progress of a question–answer sequence. When questionees use interjection-type answers, they acquiesce to questioners' sequential and thematic agency, allowing them to set the agenda of the local conversational sequence. Our data suggest that ‡Ākhoe Hai‖om speakers are more likely to avoid doing this, resulting in a higher rate of confirming by repetition in ‡Ākhoe Hai‖om. There is evidence to suggest a cultural explanation.

Researchers of social life in related hunter-gatherer groups have documented a strong norm against interpersonal constraint or coercion in these societies (Kitamura 1990; Sugawara 1996, 1998). There is a distaste for overly constraining others, and for allowing oneself to be overly constrained. This norm is manifest in a range of ways in ‡Ākhoe Hai‖om language usage. Hoymann (2010) has argued that questions and answers in ‡Ākhoe Hai‖om conversation should be posed in ways that leave recipients relatively free of constraint. This is visible in several key respects of ‡Ākhoe Hai‖om speakers' questions and their responses.

First, whereas speakers of many languages rely on more constraining polar questions most of the time – usually hovering around three quarters of questions (Stivers et al. 2009) – ‡Ākhoe Hai‖om speakers rely primarily on content questions (59%) (Hoymann 2010).

Second, when ‡Ākhoe Hai‖om speakers ask polar questions, they rarely use them for making the most constraining of the various action functions, namely requesting confirmation. Rather, when ‡Ākhoe Hai‖om speakers use questions, it is primarily to request new information or to initiate repair. Hoymann (2010) notes that in other languages, non-repair requests for confirmation constitute 20–50% of questions whereas they constitute only 2% of questions in ‡Ākhoe Hai‖om. Thus, in terms of both question form and action, ‡Ākhoe Hai‖om speakers prefer questions to be less coercive.

Third, speakers of ‡Ākhoe Hai‖om are less likely to respond to questions at all than speakers of other languages. They respond to questions only 80% of the time,

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leaving 20% of all questions without any response. In most languages, speakers respond to questions 87–96% of the time (Enfield, Stivers & Levinson 2010a). Although ‡Ākhoe Hai‖om speakers do pursue answers when they are missing, the frequency of non-response in the first instance is consistent with a cultural distaste for coercion.

Finally, ‡Ākhoe Hai‖om speakers were relatively more likely to tolerate longer silences than speakers in most other languages. A study of the timing of responses to polar questions showed a mean delay in ‡Ākhoe Hai‖om of more than 400 ms (compared to a global average of around 200 ms; Stivers et al. 2009).

In Section 2 above, we described how interjection-type answers facilitate a questioner's course of action, and thus acquiesce to the questioner's sequential agency, while repetition-type answers can push back against this asymmetry. We suggest that this explains ‡Ākhoe Hai‖om speaker's relatively strong preference for repetition-type answers. There is a tension between the inherently acquiescent semantic-pragmatic profile of interjection-type answers, on the one hand, and the cultural norm against coercion, on the other. Our hypothesis is that the ‡Ākhoe Hai‖om case shows a skewing away from the natural motivation for interjection-type answers (based on their intrinsic semantic-pragmatic profile). This skewing may be motivated by culture-specific norms, which we see manifest in a set of interactional phenomena, as well as more broadly in norms of social interaction and cultural life among ‡Ākhoe Hai‖om speakers.

4.7 *The case of Tzeltal: A cultural account?*

The Mayan language Tzeltal, spoken in the highlands of Chiapas in Mexico, is the only language in our corpus in which speakers are MORE likely to answer with a repetition-type answer than with an interjection-type answer (Brown 2010). Again, we propose that a cultural explanation is possible.

Repetition in Mayan-language conversation is well known to be salient both in ritual speech and narrative (e.g. Gossen 1974, Norman 1980), as well as in everyday conversation (e.g. Brown 1979, Brody 1986). Brown (1998) has documented children being corrected to use repetition in response to questions in Tzeltal. Still, Tzeltal speakers use interjection-type answers much of the time. We hypothesize that, as we have seen for ‡Ākhoe Hai‖om, the global motivations for using interjection-type answers may be countered by culture-specific norms in Tzeltal-speaking communities, which push against a universal tendency for interjection-type answers. This would result in the distribution we see, one that is overwhelmingly reliant neither on interjection-type answers nor on repetition-type answers.

In Section 2 above, we argued that when people use interjection-type answers, they are allowing a strong asymmetry to stand between participants, by choosing the option that does not resist the questioner's sequential agency, nor their implicit claim to greater thematic agency, both of which are introduced by virtue of their having put the proposition on the table using a first pair-part

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– the question. That asymmetry has the effect of heightening the distinctness between individuals in interaction, distinct both in terms of epistemic gradient and communicative agency. We hypothesized, above, that ‡Ākhoe Haiǁom speakers resist that asymmetry because of an egalitarian social norm against interpersonal coercion. The issue for ‡Ākhoe Haiǁom speakers is the desire to avoid putting people on different levels. Tzeltal speakers appear to have a slightly different motivation to push back against the inherent asymmetry of question–answer sequences, namely, a desire to share a single position on matters, to be as one in relation to pragmatic matters of knowledge and stance. Evidence for this can be seen in the following example of the kinds of repetition sequences that are common in Tzeltal conversation. Here, M is telling a visitor (A) about her illness, about which A knows nothing:

(11) *Tzeltal*

    6 M: [pero ma ba   nix a   s-mil-on   tz'i
                but NEG NEG PT ICP 3E-kill-1A PT
            'but that's not killing me' ((her belly))

    7 A: ma   nix kati[HL]
            NEG PT PT
            'It's not!'

    8 M: ja'   lom   °k'ux-0 i   °j-chux-tik   i.°
            it's.that very.much hurt-3A DEIC 1E-pee-1PLINCL DEIC
            'It's that my °pee really hurt.°'

    9 A: ja:'
            'It's that'

  10 M: ja'
            'It's that'

  11 A: ja' lom k'ux.
            'It's that it really hurt'

  12 M: ja' lom k'ux.
            'It's that it really hurt'

M's assessment – that it is not her 'belly' that is the worst (line 6) – receives a partial repeating acknowledgement from A in line 7. Then her assessment that her pee really hurt is responded to with a partial repeat (line 9), and there is yet another round of repetition as well (lines 11–12). In this context, there is a clear epistemic tilt away from A, because A has zero epistemic access to evaluate the truth of M's assertion that her pee really hurt. It is noteworthy that A still acknowledges the new information by repeating it, which is also to independently assert it.

    The greater the asymmetry between participants in a question–answer sequence, the less those participants might appear to be 'as one' in relation to what they are talking about. Using repetition-type answers provides a way to push

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back against this separation of stance-taking agents. In some cultural contexts (e.g. among the English speakers analyzed by Heritage & Raymond 2005, 2012 and Stivers 2018), repetition-type answers can come across as competitive. But if a questionee can use a repetition-type answer to redress a questioner's implicit claim to greater sequential and thematic agency, this may also have the effect of prosocially leveling the epistemic playing field so that now speaker and recipient are SHARING agency and access in the exchange.

Consider the following example:

(12) *Tzeltal*

    1 AO: **aj ja'   tz'i te   mamal Intzin=e – laj-0   bal ek**
                ah it's.that PT   ART old.man NAME=CLI die-3A Q   PT
                tz'in—
                PT
                'Ah, so as for old man Intzin – did he die too then?'

    2 Atz: **^laj^**
                'He died.'

    3 AO: [laj
                'He died.'

    4 Atz: [laj
                'He died.'

With the question in line 1, Speaker AO shows sequential and thematic agency by asking a question that puts the proposition 'He died too' on the table, obliging Atz to respond. By providing a repetition-type answer in line 2, Atz is able to confirm that it is true, by way of independently asserting the proposition, thus to some degree redressing the questioner's claim to greater thematic agency. But now see that, in lines 3 and 4, the two speakers then make the ultimate claim to co-ownership of a proposition: they utter it in unison (see Lerner 2002). Rather than the questioner now having simply been informed by the questionee as to the truth of the proposition that they put on the table, the two speakers have effectively become one in relation to their state of knowledge and communicative agency over that proposition.

Brown, Sicoli & Le Guen (2010) estimate that half of all such sequences in Tzeltal involve the additional, follow-up repetition by a questioner after a questionee has produced their repetition-type response. They show that the same occurs in two other languages of the region: Yucatec (Mayan) and Lachixío Zapotec (Otomanguean), and they argue for a common cultural basis to the phenomenon.

In sum, repetition in response is a mechanism that Tzeltal speakers can use at the micro-level in conversation to display a value of symmetry of knowledge and epistemic access and thus co-membership in the making of, and commitment to, assertions in interaction. The same mechanism has been observed and remarked

upon in other cultures as well. For instance, Mannheim & van Vleet (1998: 332) state that 'Quechua's conversation-like co-participation structure [in narratives] guarantees that no one has final authority over a set of narrated events. This is so even if the narrator personally experienced the events!'. This is illustrated in our example (11), above.

We have argued that interjection-type answers, by their nature, function to confirm a proposition and facilitate the questioner's sequential, thematic, and action agenda. On the one hand, Tzeltal speakers often use interjection-type answers, serving this function. But on the other hand, because of their positive valuation of displaying common ground and shared epistemic access, Tzeltal speakers also often use repetition-type answers. We hypothesize that there is a tug-of-war at work in the Tzeltal-speaking cultural context between the universal functionality of interjection-type answers and a culture-specific desire to avoid asymmetry between individuals in sequential agency and thematic agency. When this desire takes priority, it is well served by the choice of repetition-type answers.

5. CONCLUSION

Advances in linguistic typology come when typological generalizations are held accountable to new data. In the functional domain of answering polar questions, a widely-held view among linguists has been that languages will either choose to rely on interjections or on repetitions for answering polar questions, as if these were interchangeable alternatives (see. Sadock & Zwicky 1985, Holmberg 2016). We have tested this claim against new corpora of spontaneous language usage in conversation in 14 languages, and we have found that it is not borne out by the data. Data from natural conversation have hardly figured in linguistic typology to date, though there are signs that this is changing (Stivers et al. 2009, Dingemanse & Enfield 2015, Dingemanse et al. 2015). We hope that this shift may signal an empirically grounded approach to the typology of pragmatic aspects of language.

Our analysis suggests that as we learn more about the pragmatics of language in social interaction across the diverse languages of the world, we will not find many languages in which speakers will mostly rely on 'echo' or repetition-type strategies for answering polar questions. When speakers confirm using repetition-type answers, we expect that this will be either pragmatically marked, and reserved for specific communicative purposes, or it will reflect a countervailing cultural norm. We submit that not even strong pragmatic motivations or cultural norms will overwhelm the natural tendency for people to use interjection-type answers to polar questions, especially when those questions serve pragmatically subordinate functions in dialogue. Thus, we predict that no language will mirror the norm for dominance of interjection-type answers, consistently relying on repetition-type answers, say, 90% of the time. As our analysis of the semantic-pragmatic profile of the two answer types shows, the system of two polar answer options is an inherently asymmetrical one. Repetition-type answers and interjection-type answers are not two ways of doing the same thing. They do different things.

<mark>The difference explains the strong typological preference in the world's languages for using interjection-type answers to polar questions.</mark>

APPENDIX

Researchers responsible for data collection and language-specific analysis

RESEARCHER	LANGUAGE
Brown	Tzeltal
Enfield	Lao
Englert	Dutch
Harjunpää	Brazilian Portuguese
Hayashi	Japanese
Heinemann	Danish
Hoymann	‡Ākhoe Hai‖om
Keisanen & Rauniomaa	Finnish
Levinson	Yélî Dnye
Raymond	Central and South American Spanish
Rossano	Italian
Stivers	American English
Yoon	Korean
Zwitserlood	NGT (Sign Language of the Netherlands)

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