

Interjections at the Heart of Language

Mark Dingemanse

Centre for Language Studies, Radboud University, Nijmegen, The Netherlands;
email: mark.dingemanse@ru.nl

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Keywords

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Abstract

Interjections, the words that come between sentences, are easily overlooked and usually treated as peripheral to the language sciences. This review surveys work from disparate disciplines that suggests an inversion of perspective: from interjections as marginal items to interjections at the heart of language. Around one out of every seven turns in conversation is an interjection, and the most common ones are not the involuntary exclamations that typically feature in examples; instead, they form a small set of agile and adaptive interactional tools that streamline everyday language use. Continuers like *mmhm* help people co-construct complex interactional structures, repair initiators like *buh?* help people calibrate mutual understanding on the fly, and change-of-state tokens like *oh* display knowledge as it evolves in interaction. Interjections emerge as words that help us talk and think, scaffolding the complexity of language as we know it. The review critically considers received views of interjections as primitive grunts, affect bursts, or symptoms of strain and provides a number of alternative ways of thinking about interjections.

And indeed where will you look for the Interjection? Will you find it among laws, or in books of civil institutions, in history, or in any treatise of useful arts or sciences? No.

—John Horne Tooke (1786, p. 33)

INTRODUCTION

Take all the words in a typical text corpus and sort them by frequency. Out will come the usual suspects: pronouns, determiners, and other recurring grammatical elements that hold sentences together. No grammar is considered complete if it does not treat them in detail. Now do the same for all turns in a typical corpus of everyday conversation. Out come the most frequent interjections: words like *mmhm*, *yeah*, and *oh*. One level up from sentential structure, these items play similar cohesive roles: These are the words that help us talk and think and that combine with other turn-constructional units to hold our conversations together. And yet they are noticeably absent from grammars (Lahaussais 2016) and indeed from most work in linguistics.

This review focuses on interjections and their role in human language. It sketches a potentially radical reversal: from interjections at “the outskirts of real language” (Müller 1861) to interjections at the heart of language. Multiple developments conspire to make this possible. Technological advances provide direct access to interaction at the subsecond grain (Allwood 2008, Mondada 2018). Observational work shows the importance of interjections in language development and language use (Corrin 2010a, Nikolaus & Fourtassi 2023). Methodological innovations give us a handle on their sequential and comparative analysis (Zimmerman 1999, Thompson et al. 2015, Casillas 2023). And finally, theoretical advances that center on interjections and interactional language open up possibilities for consilience across diverse approaches to language (Ginzburg 2012, Widlok 2016, Wiltchko 2021).

If interjections seem at first sight unlikely to inspire such an overhaul, it is because there is a long-standing tradition in linguistics of giving them short shrift. They are something whose existence one tends to acknowledge with a few throwaway examples before moving on to serious territories. The nature of these examples is telling. For Müller, interjections are forms like “ugh! tut! pooh!” (Müller 1861, p. 354); for Bloomfield, “ouch!”, “pst!”, and “whew!” (Bloomfield 1914, p. 74); for Jespersen, “pooh,” “pish,” “whew,” and “tut” (Jespersen 1922, p. 415); for Givón, “yes, no, hey, oh, hi, wow, ouch, etc.” (Givón 1984, p. 84); for Dixon, “oh,” “wow,” “yippee,” “ooh,” “ouch,” and more (Dixon 2010, p. 27). What these examples have in common is that they represent the prototypical interjection as an affective outburst, maximally distinct from other aspects of language in both form and function. In fact, affect bursts are far from the most typical interjections, and they provide a dramatically impoverished view of what one-word utterances are and what they do.

One aim of this review is to replace the stock examples of interjections—in the reader’s mind, and ultimately in grammars and textbooks—by a more representative sampling of the class. As we will see, the real workhorses of the interjectional class are items like the continuer *mmhm*, the repair initiator *huh?*, and the change-of-state token *oh*. Items corresponding to these functions top the list of most frequently recurring turn formats in any language. Every moment, they are at hand to streamline our conversations. They support such fundamental functions of language as telling stories, asking for clarification, and exchanging information. For the language learner, they provide resources that guide and structure the process of language development. And they intersect with grammatical structure in consequential ways.

Despite all this, interjections are easy to miss, especially the more interactionally central ones. (*No* in the epigraph above is one, apparently overlooked by its author.) In part, this is the result of a legacy of privileging text over talk, but even then it is remarkable that the tools we use in every conversation rarely reach our awareness. Perhaps they are so fundamental to the functioning of

language that thematizing them stands in the way of use (Silverstein 1981, Zuckerman & Enfield 2023). Perhaps their sheer ubiquity makes us overlook them, much like it is easy to overlook the significance of basic sociocultural technologies like footwear or carrier bags (Le Guin 2019). In any case, as I aim to show, recent empirical research can provide a jolt to reorient our attention.

An influential definition of interjections characterizes them as words or short phrases “which can constitute an utterance by themselves and do not normally enter into constructions with other word classes” (Ameka 1992, p. 105). I adopt this definition with slight revisions. First, even if words can constitute an utterance “by themselves,” that utterance will typically be part of a larger interactive sequence, and any analysis of interjections will benefit from taking into account this sequential context (Evans 1992, Kockelman 2003). Second, while many linguistic elements “can” constitute an utterance by themselves (e.g., one-word answers to questions, abandoned utterance beginnings, and requests for clarification), few typically do (Dingemanse 2023). Here I am primarily interested in the latter, which also obviates the need for the “do not normally enter into constructions” delimiter. Our focus, then, is on words or short phrases that typically constitute an utterance in a larger interactive sequence. Defined like this, interjections form a fairly well-circumscribed class of items whose frequent use betrays a high functional load in social interaction.

One of the most inclusive takes on interjections is Ameka’s (1992) functional typology, which distinguishes expressive interjections (expressions of emotion like *ouch* and *wow*), conative interjections (calls to action like *shh* and attention seekers like *hey*), and phatic interjections (interactional words like *mmmhm*). The functions are not equally attested: In a spoken corpus of Dutch (Huls 1982), expressive interjections make up only 7% of tokens, and the great majority are interactional words with phatic functions (Hofstede 1999). Oddly, their treatment in the literature has been inversely proportional, with expressive interjections catching most attention and phatic interjections all but ignored (Ponsonnet 2023). Here I reverse the trend and focus on those interjections that are most frequent in corpora of social interaction. It may seem unusual to impose this kind of scope delimitation at the outset, but I am making and defending an explicit choice that is otherwise too often implicit and undefended. The metatheoretical effect, I hope, is a step toward a restored balance and a better view of the significance of interaction for the structuring of language.

Some of the resources considered here are also known by other terms. Relevant neighboring notions include, among others, “backchannel activity” (Yngve 1970, Bavelas et al. 2000), “discourse markers” (Schiffrin 1987), “response cries” (Goffman 1978), devices for “speech management” (Allwood et al. 1990), “collateral signals” (Clark 1996), “nonlexical conversational sounds” (Ward 2006), “response tokens” (O’Keeffe & Adolphs 2008), “freestanding particles” (Couper-Kuhlen & Selting 2017), and “pragmatic markers” (Norrick 2009). Although in this review I sometimes use more specific terms when they map onto particular functions, I use “interjection” as the most general overarching term. I do so for three reasons. First, it is the most widely used (Ameka 1992, Kockelman 2003). Second, many of the alternatives refer either to narrower subsets or to broader functional domains (Ameka & Wilkins 2006). Third, it is agnostic about form and function; it refers only to the interstitial nature of these items.

A CONCISE HISTORY

In *Epea Pteroenta, or the Diversions of Purley* (1786), philologist John Horne Tooke devotes a chapter to the question of whether to admit interjections as a category on par with nouns, adjectives, and other venerable parts of speech. His verdict against “the brutish inarticulate Interjection which has nothing to do with speech, and is only the miserable refuge of the speechless” (Horne Tooke 1786, p. 30) is a resounding no. Quite simply, the interjection does not get to be a part of speech

because it is not speech. A staged interlocutor then asks, “But why such bitterness against the Interjection?” The author responds:

Because the dominion of Speech is erected upon the downfall of Interjections. Without the artful contrivances of Language, [hu]mankind would have nothing but Interjections with which to communicate orally any of their feelings. The neighing of a horse, the lowing of a cow, the barking of a dog, the purring of a cat, sneezing, coughing, groaning, shrieking, and every other involuntary convulsion with oral sound, have almost as good a title to be called Parts of Speech, as Interjections have. Voluntary Interjections are only employed when the suddenness or vehemence of some affection or passion returns [people] to their natural state; and makes them for a moment forget the use of speech; or when, from some circumstance, the shortness of time will not permit them to exercise it. (Horne Tooke 1786, pp. 32–33)

I quote this passage at length because it efficiently presages all of the key themes of the next 200-odd years of mainstream linguistic thought about interjections. It offers the familiar equation of interjections with emotional outbursts or response cries (Goffman 1978). It lists a parade of neighboring phenomena that today still are often taken to be in the same class of noise-like things not worthy of serious inquiry [as Meinard (2015) shows]. It holds that interjections amount to a “return to the natural state” with a clear subtext of primitivity [echoed by Müller (1861)]. It charges interjections with falling short of the artful nature of language and puts them outside the bounds of articulate speech, as Sapir (1921), Jespersen (1922), and many others did. In all these ways and more, the passage presents a microcosm of received views on interjections that would keep circulating virtually unchanged well into the twentieth century.

But perhaps the most unwittingly foreboding observation is the very last one, where Horne Tooke does allow for one more condition in which people may “forget the use of speech.” This is when “from some circumstance, the shortness of time will not permit them to exercise it.” What was perhaps not so obvious to a Georgian era philologist writing in the comfort of a home library was that “the shortness of time” is pretty much the natural habitat of all language use. From birth to grave, we spend much of our waking lives under the incessant chatter and rapid-fire turn-taking of everyday social interaction. Here, under constant pressures of turn-taking, timing, and mutual monitoring, is where we first learn language, where we use it most, and where it evolves. The psycholinguistic ramifications of this are only now beginning to be understood (Enfield 2008, Bavelas et al. 2012, Levinson 2016), and the consequences for linguistic structures are still mostly uncharted territory. This is the diversion I wish to pursue here.

Origins in Fieldwork and Empirical Observation

While the research history of interjections within linguistics is well documented (see, e.g., Elffers 2007, 2008; Poggi 2009; Wharton 2009), it mostly features a small set of recurring themes already prefigured by Horne Tooke. To get a broader, more constructive view of interjections, we need to venture outside of linguistics proper; we need an alternative history of interjections that draws on work in anthropology, microsociology, psychology, and human interaction. This is what I aim to sketch in the remainder of this section.

Our starting point is anthropologist Bronisław Malinowski, who had more opportunities than most for the careful observation of casual speech on account of his long-term fieldwork on the Trobriand Islands. Ever ahead of his time, he called for the careful recording of “the data of daily life and ordinary behavior” (Malinowski 1923) well before the advent of portable audio and video recorders. Describing the small talk that characterizes informal copresence in any society, he coined the term “phatic communion” for this “type of speech in which ties of union are created by a mere exchange of words” (Malinowski 1923, p. 315). But not all interaction was quite so leisurely; Malinowski also recounted a fishing expedition in which crews exchanged salvos of

“words of command” and “short, telling exclamations” to coordinate their vessels until they glided across the lagoon as one. As he noted, “The structure of all this linguistic material is inextricably mixed up with, and dependent upon, the course of the activity in which the utterances are embedded” (Malinowski 1923, p. 311).

Malinowski’s innovations would prove to be consequential in multiple ways. The notion of phatic communion would later be adopted by Jakobson (1960) for the “phatic function” of language, the metacommunicative use of linguistic resources to maintain contact between participants. And Jakobson’s functions later made their appearance in Ameka’s (1992) typology of interjections. Malinowski also influenced his contemporary J.R. Firth, who called for the study of conversation to take off: “Neither linguists nor psychologists have begun the study of conversation; but it is here we shall find the key to a better understanding of what language really is and how it works” (Firth 1935, p. 71).

Around this period, recording technology was becoming capable of recording stretches of speech and even telephone conversations. One outcome was the first structuralist description of English based entirely on language as used in recorded social interactions: Fries’s (1952) *Structure of English*. A striking feature of this work is that in true structuralist fashion, its rigorous bottom-up distributional analysis avoids any mention of familiar word classes like noun, verb, adjective, adverb, or indeed interjection, instead strictly identifying a handful of form classes based solely on distributional patterns. This principled decision does not make for easy reading and likely dampened the reach and reception of the work.

As part of this analysis, Fries (1952, p. 51) identified a set of response types whose function was “continued attention, conventionally signaled.” The top five single-word examples by frequency were “Yes,” “Unhhunh” (nowadays more often spelled *uh-huh* or *mmhm*), “Yeah,” “Good,” and “Oh.” Here was one of the first systematic corpus-driven investigations of language in interaction, and it brought to the surface a small set of metacommunicative words whose main business was not at the level of the sentence but at the level of the conversational interaction. In a parallel allohistorical universe, this work would have been paired with contemporary insights from cybernetics, where Leavitt & Müller (1951) showed the importance of free feedback for reliable communication, and Gregory Bateson (1955) had just started to note the crucial importance of metacommunicative signals in the ethology of communication.

Finding Structure in Talk

However, these were the heady early days of the cognitive revolution, and linguistics was soon to veer away from the study of language in interaction. In keeping with the allohistorical flavor of this discussion, I might hint at a fork in the road where things could have taken a different turn. Chomsky (1959, p. 31), in his famous review of Skinner, pointed out that in response to a painting on the wall, one might say any of a range of things: “Clashes with the wallpaper; I thought you liked abstract work; Never saw it before; Tilted; Hanging too low; Beautiful; Hideous; Remember our camping trip last summer?”

This was an excellent critique of Skinner’s (1957) program to bring behavior “under stimulus control”: It makes no sense to reduce the expressive freedom of language to a set of conditioned reflexes. At the same time, the examples offered are far from random. Any user of language will recognize how these examples are relevant and how they shape and constrain the response space for what comes next. Any conversation analyst will see that they form a structured set of social actions, most prominently assessments and noticings. So, they point to a special kind of orderliness and social normativity observable in human interaction. Chomsky’s positioning vis-à-vis a simple-minded form of behaviorism made it hard to see this point and made it easy to think that the only interesting thing about language was its mental aspects. As he wrote a few years later, “Observed

use of language. . . may provide evidence as to the nature of this mental reality, but surely cannot constitute the actual subject matter of linguistics” (Chomsky 1965, p. 4). And so, the social life of language, shaped by a sophisticated normative accountability and playing out in orderly sequences of public talk, eluded both Skinner and Chomsky.

New developments had to come from outside linguistics as it was then (narrowly) understood. As mentioned above, Bateson (1955) noted the importance of metacommunicative messages in his work on human and animal interaction. Computational linguist Victor Yngve (1970) suggested that “back channel messages” are crucial in conducting conversation and provide a layer of communication separate from the main channel, introducing a distinction that to this day lives on in the notion of backchanneling. And in the same period, it fell to a band of renegade sociologists pioneering a new field called conversation analysis to make headway on the problem of finding structure in talk (Jefferson 1972, Sacks 1972, Schegloff & Sacks 1973). For conversation analysts, any kind of talk counted, from the smallest vocalizations all the way to fully fledged turns. They found that it was rare to get one without the other.

Two sets of findings from this era are worth highlighting. The first is from a study of the human turn-taking system that would go on to be the most cited paper ever to appear in *Language* (Sacks et al. 1974). This paper put the interactivity of language use on full display, and it was impossible to escape the conclusion that short turns, often of one word or phrase only, play a key role in just about any interaction. This work showed that many complex linguistic structures are realized collaboratively by participants across turns and that interjections are woven throughout them, doing interactional work of various kinds. The second finding worth highlighting is from work by Gail Jefferson, one of the founders of conversation analysis. In the course of exploring overlap phenomena, Jefferson observed that some of the most frequent single-item turns in English—the same class of response tokens that Fries had laid eyes on earlier—differed from one another in systematic ways. As she noted, “Roughly, ‘Yeah’ can exhibit a preparedness to shift from reciprocity to speakership, while ‘Mm hm’ exhibits what I will call ‘Passive Reciprocity’” (Jefferson 1984, p. 201). Here then was emerging evidence that interjections were not merely a sideshow to the more complex structures realized in talk; they directly interfaced with the realization of these structures, providing the scaffolding to support them and the tools for picking them apart.

Toward Grammars of Use

As conversation analysis grew into a methodological center of gravity for work on “things that come between sentences” (Schegloff 1982), linguistics was still mostly looking the other way. An instructive way to quantify the neglect is to look at the *Lingua Descriptive Studies Questionnaire* (Comrie & Smith 1977). This document, used as the template for multiple decades’ worth of descriptive grammars, presented a structured questionnaire consisting of an impressive 502 questions, with many topics represented by multiple layers of questions and subquestions. Amid this largesse, interjections received exactly one prompt: “4.4.2. Does the language make use of interjections that do not conform to the regular principles regarding the phonological structure of words? If so, give as many examples of such forms as possible.” By encouraging a focus on listing irregular forms, this helped solidify the notion of interjections as marginalia hardly worthy of further study.

Nonetheless, empirical work on interjections in linguistics continued to happen in monographs and special issues focusing on the theme. For instance, the 1980s saw important work on discourse markers in American English (Schiffrin 1987) and on interjections in German (Ehlich 1986). A landmark special issue of the *Journal of Pragmatics* edited by Felix Ameka (1992) collected a number of papers that would grow to be classics, among them a study that highlighted the need to

look at interjections in their sequential context (Evans 1992) and a comparative study that focused on similarities and differences in interjections across languages (Wierzbicka 1992). Particularly significant is the degree to which Ameka's work was rooted in direct experience of everyday language use: His grammar of Ewe remains one of the earliest and most expansive examples of a "grammar of use," with a substantial portion devoted to "illocutionary devices and constructions used in interpersonal communication" (Ameka 1991, pp. 396–698).

This pioneering work is now given a new lease on life by a growing convergence between work in descriptive linguistics, linguistic anthropology, and interactional linguistics (Fox et al. 2013, Thompson et al. 2015, Couper-Kuhlen & Selting 2017). For instance, work on "sound objects" (Reber 2012) has been influenced by Ameka's argument that interjections have propositional content and build speech acts (Reber & Couper-Kuhlen 2010). Work on turn structure has built on the observation that interjections can occur turn-initially (Rühlemann 2020) and has shown how they can be combined with other turn-constructive units, belying the assumption that interjections do not enter into relations with other elements of the linguistic system. Work on the semantic typology of interjections has proposed an extension of Ameka's functional typology with "constative" and "social" interjections (Ponsonnet 2023). Recent work in this domain has supplied important descriptions in languages other than English—for instance, Danish (Sørensen 2021), Egyptian Arabic (Marmorstein & Matalon 2022), Nigerian English (Unuabonah 2020), Norwegian Sign Language (Skedsmo 2023), and Wa'ikhana (Williams et al. 2020).

FORMS AND FUNCTIONS OF FREQUENT INTERJECTIONS

One goal of this review is to provide a view of interjections grounded in direct observation of social interaction, the natural habitat of language. Already we have seen that they are common in conversation. Most evidence so far, however, has been from English. To offset this, and to show the true crosslinguistic significance of this new picture of interjections, here I consider data from at least 18 languages (9 phyla) for which there are conversational corpora containing at least 5,000 turns (for details, see <https://osf.io/vpesm>). This kind of comparative perspective is only possible because of the growing availability of digitized audiovisual corpora of language in everyday use (Liesenfeld & Dingemanse 2022).

In this data set, I look for interjections—or words that typically occur on their own—by selecting those turn formats transcribed as single units (including *oh* but excluding *oh good*) that recur at least 20 times in the corpus (capturing only clearly conventionalized and regular formats). Since corpora differ in magnitude, and larger corpora feature a longer tail of diverse interjectional formats, here I consider only the top 10 most frequent items in each language. **Figure 1** shows the results of this query for a subset of six diverse languages: Catalan (Garrido et al. 2013), Egyptian Arabic (Canavan et al. 1997), Hausa (Caron 2016), Japanese (Canavan & Zipperlen 1996), Hungarian (Hunyadi et al. 2018), and Pite Saami (Wilbur 2009). The panels represent stretches of 10 min of dyadic conversation for each language, with units of talk as they unfold over time from left to right (per line) and top to bottom (per minute). Immediately we can see that barely a minute goes by without multiple interjections, undermining at one blow the received view that "speech is erected upon the downfall of Interjections" (Horne Tooke 1786, pp. 32–33).

How frequent are interjections, so defined? In a total of 693 hours (1.3 million turns) of speech in 18 languages, we find 197,927 turns that belong to the top 10 interjections in their respective language. This works out to 14% of all turns—on average, one interjection every 12 s. In other words, in spoken languages around the world, roughly one out of every seven turns in informal conversation will be an interjection, and we can expect to encounter about five of them every minute. There is no reason to believe the frequency would be lower in signed languages

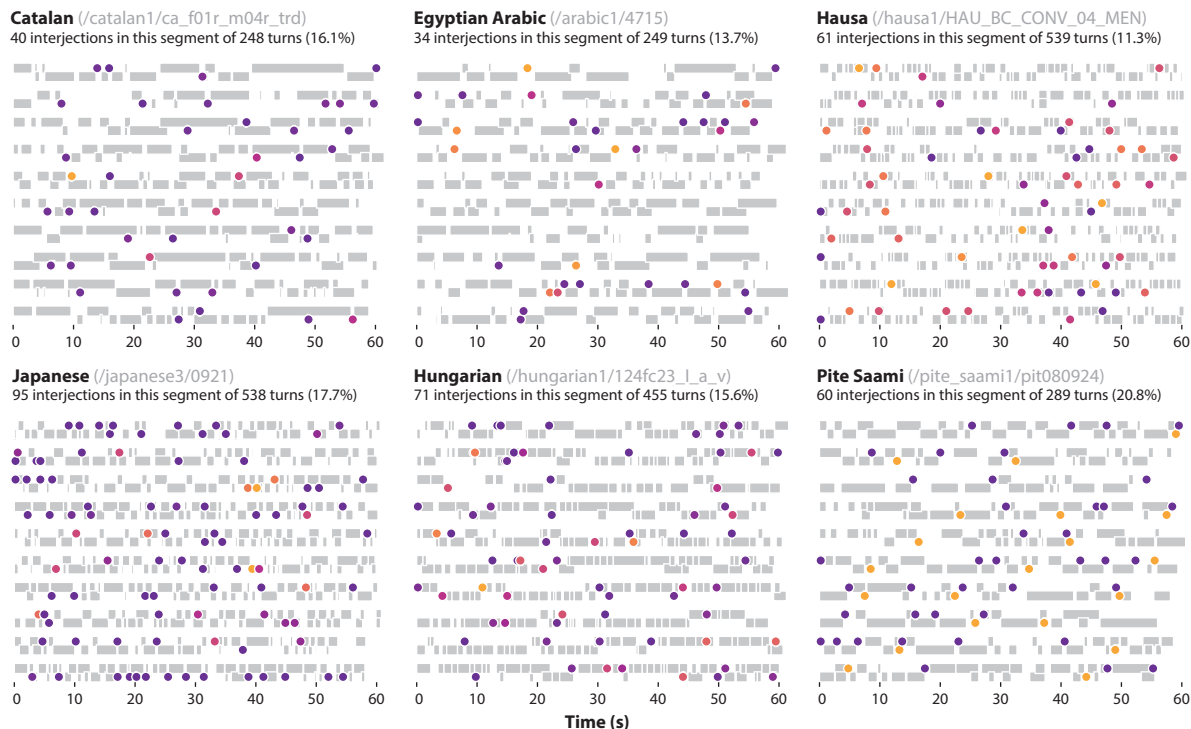


Figure 1

The occurrence of interjections in 10-min excerpts of informal dyadic conversations in six spoken languages. Every panel shows the turns of a dyadic exchange; colored dots indicate turns that belong to the top 10 most common one-word standalone turn formats in the language. These excerpts cannot support strong comparative or typological inferences; they are only meant to give an impression of the prevalence of interjections across unrelated languages.

(Mesch 2016, Skedsmo 2023). Of course, simple averages like these should be taken with a grain of salt, as speech rates differ, corpora are not always transcribed in comparable ways, and our interactive conduct is not organized by the clock (Schegloff 1993). The main point is that interjections cannot be ignored in any complete account of language structure and social interaction.

One impulse might be to write all this off as interactional detritus: mere symptoms of performance limitations, the squeaks of a system under pressure. Clearly, interaction is a highly demanding environment, where turns at talk follow in quick succession and form complex sequences of communicative moves (Fox 2007, Du Bois 2014, Levinson 2016). But in the face of our striking communicative competence, the assumption that we should write off anything as mere flotsam and jetsam seems exactly the wrong way around: We should be asking how our languages adapt to the demands of split-second turn-taking, mutual monitoring, and social accountability.

Consider a brief excerpt of conversation like that shown in **Figure 2**, from a telephone call recorded originally in the 1960s and transcribed by Gail Jefferson. Clearly visible is a mix between simpler and more complex turns that relate to each other in socially normative ways, forming orderly sequences, often recursive (Levinson 2013). Conversation analysts and interactional linguists have documented many of the structural positions and social actions of conversation, including the preproposal of line 1 (Houtkoop-Steenstra 1990); the assessment and counterassessment in lines 2 and 5 (Heritage & Raymond 2005); the repair initiation with *Hub?* in line 6, which starts a side sequence (Jefferson 1972); displays of alignment like *Mmbm* in line 3 (Schegloff 1982); the

1 John Well I'm sure we c'get on at San Juan Hills,
 2 that's a nice course, I only played it once.
 3 Guy °Mhm.°
 4 (0.6)
 5 It's not too bad.
 6 John Huh?
 7 Guy 's not too bad.
 8 John (n)o:.
 9 (1.0)
 10 What time you wanna go?

Figure 2

Excerpt of an English conversation showing the natural habitat of some common interjections. Transcript adapted from the Newport Beach corpus transcribed by Gail Jefferson, reference NB:1:1:19, timecode 4m57s.

sequence-closing third in line 8, hearable as either a *no* or an *oh* [Schegloff (1997, p. 507) transcribes it as “Oh”]; and the proposal in line 10, for which we now can see that the way was paved by the preproposal at line 1. A technical rendition of conversation like this shows how turns weave in and out of one another like traffic at a busy intersection, and reveals the pivotal role played by interjections, the traffic signals of conversation (Enfield 2017). Here we see interjections in their element, and they are as far from involuntary grunts as one can get.

A noncommittal signal of assent like *uh huh*; a quick and painless request for clarification like *huh?* that prevents misunderstanding; an efficient “over and out” signal like *oh* to signal that the sequence can run its course—each of these appears well adapted to its task. In what follows, I discuss three broad types of interactional resources that appear to be available in any language and any modality: continuers, repair initiators, and change-of-state tokens. These three types, and a few more, form part of a basic interactional tool kit: a set of devices designed to help streamline interaction and scaffold complex language.

Continuers

By far the most common type of one-word utterance in any language is a sign that displays an understanding that part of a multiunit turn has been received and that more is expected: a continuer (Goodwin 1986). These items come under many names; some of the more common ones are backchannels (Yngve 1970), response tokens (Gardner 2001), feedback (Howes & Eshghi 2021), and, as here, continuers (Goodwin 1986, Müller 1996). Though he did not name them, Fries (1952, p. 51) already observed them in English and described two of their key properties: They “do not interfere with the continuous flow of the utterances of the speaker,” and they serve to signal that the producer is “is listening attentively.” Their form appears well adapted to this purpose: Many languages make available a continuer format that is little more than a vowel-less nasal, which does not require opening the mouth and therefore at one blow achieves a minimum of disruption with a maximally easy-to-produce signal of continued attention. Signed languages likewise feature forms that minimize the use of the main articulators (the hands) and instead recruit the most minimal of facial actions like blinks and nods (Mesch 2016). Across modalities, nonverbal conduct like gaze behavior, nods, and blinks serves similar goals in even more minimal ways (Lutzenberger et al. 2024). However, the existence in both spoken and signed languages of conventionalized continuer forms suggests that precisely positioned and on-record displays of reciprocity have interactional utility of their own.

One context in which continuers are particularly frequent is storytelling. Stories present an interesting challenge: Under a turn-taking system that, in informal social interaction, provides all

participants with opportunities for taking turns, a story involves one participant (the teller) holding the floor across multiple places where transition could otherwise occur (Sacks 1974, Jefferson 1978). Continuers are one of the interactional resources addressed to this challenge: They display alignment with the storytelling activity by providing evidence of attention without attempting to take the conversational floor. But continuers are not just passive tokens of reciprocity: Audience involvement has a direct impact on how tellings are produced, making them an interactional achievement (Goodwin 1984).

Now, stories are one of the places where complex syntax shines. As Tomasello (2008, p. 284) has proposed, “many of the seemingly inordinate complexities of modern grammars derive specifically from devices that, on the current hypothesis, were created to deal with the problems created by narratives and other forms of extended discourse.” Good storytelling requires mastery of a range of devices that promote cohesion across narrated events, help to keep track of participants, and relate events in time. Any recording of stories told in conversation shows the key role that recipients play in helping to realize these layers of complexity (Jefferson 1978, Goodwin 1984). While some early accounts made it possible to think of continuers as maximally generic tokens that signal little more than a passing of the floor while an extended turn is underway (Schegloff 1982), recent work has characterized them as “responses within activities” and has revealed a subtle interplay between the prosodic shape of continuers and the way they contribute to the unfolding of a story (Marmorstein & Matalon 2022).

Experimental work shows that when listeners are dissuaded from using continuers, storytellers blunder through their tellings, cutting corners and fumbling for words (Bavelas et al. 2000). The resulting stories are more repetitive and are lower in syntactic complexity and coherence. Importantly, the difference is not between having an audience or not; the experimental manipulation compares having an actively participating recipient with having a highly motivated listener instructed (unknown to the teller) to count the number of words in the story that start with “t.” Nor is this kind of effect limited to adults: 6-year-old children prefer telling stories to a social robot that produces continuers where they would be expected, instead of to one that produces the same kinds of continuers randomly (Park et al. 2017). Indeed, they are distracted by the latter and frequently interrupt their stories to deal with displaced responses, a set of findings that demonstrates the delicate interactional work carried out by these small words.

There is also developmental evidence that points toward possible roles for continuers in early language learning. An early finding, buried at the end of a riveting paper on child-directed speech, is that the frequency of the main caregiver saying “Yes” or “Mm-hmm” in response to the child’s utterances correlates positively with vocabulary growth, verb inflections, and auxiliaries; as the authors note, ‘an “mm-hmming” mother may be of use to the language learner’ [Newport et al. 2020 (1977)]. In the same vein, an intervention study with preschool children showed that caregivers’ production of continuers and other strategies of eliciting narratives was correlated with improvements in vocabulary and narrative skills (Peterson et al. 1999). Other work found that observing response tokens like *mm-hm* in interaction may boost indirect word learning for 4-year-olds (Tolins et al. 2017) and that school-aged children quickly reach adult-level mastery in the use of continuers (Bodur et al. 2023).

In sum, continuers, nods, and other aspects of active reciprocity appear to be directly consequential for the development and realization of complex language structures. In everyday language use among adults, continuers are one feature of the constant cooperation that makes complex narratives possible. In early language learning, continuers provide confirmatory evidence that can selectively reinforce the linguistic choices of learners, and their orderly production goes hand in hand with signs of growth in receptive and productive knowledge of lexicon and grammar. We

might not see so much complex syntax if it were not for these humble words that help build its interactional home.

Repair Initiators

While continuers provide positive feedback, mutual understanding is not always a given, and the work of fixing or forestalling troubles of communication falls to a system of interactive repair (Schegloff et al. 1977). Comparative linguistic work has shown that all languages for which we have interactional data make available at least one type of one-word utterance that appears optimally adapted for the task of asking for clarification: an interjection like *huh?* or *mm?* (Enfield et al. 2013). The similarity of this item across unrelated languages calls for an explanation. One proposal is that it is a result of convergent cultural evolution: The exigencies of conversation, similar everywhere, provide for a set of common selective pressures that pull this interjection into the same part of the phonological space even across unrelated languages (Dingemanse et al. 2013).

Here, too, the real story is not so much the interjection itself but its sequential environment, where it serves as a pivot between an original turn and its revision. A repair initiator like *huh?* is the most generic way of asking for clarification, and children encounter it often from early on (Garvey 1977, Golinkoff 1986). **Figure 3**, from Mary Catherine Bateson (1975), shows a protoconversation between Mackie (98 days old) and his mother; the mother's turns are transcribed, and the infant's are shown visually. Two facts stand out about this stretch of interaction: First, even at this early age, it is clearly turn-organized, with the caregiver patterning her turns around the infant's vocalizations, thereby constructing the infant as a participant. Second, many of the turns feature interactive interjections and especially repair initiations like *huh?* and *what?* and other requests for clarification. There is no expectation that a 3-month-old infant can reply to a complex question like *You gonna be a good boy?* or indeed repair initiations. Yet the contingent production of this complex interactional structure, with the linguistic and metalinguistic functions interwoven, provides

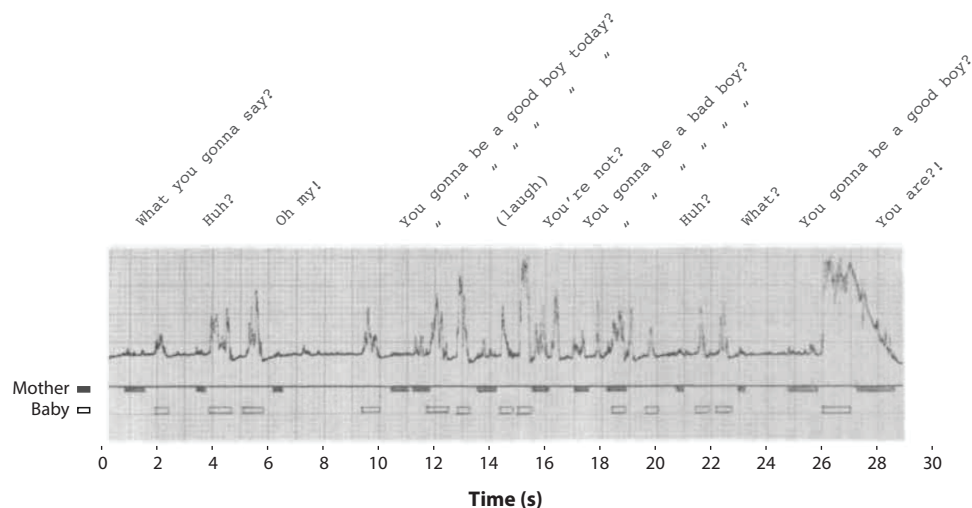


Figure 3

A 30-s stretch of interaction between Mackie (aged 98 days) and his mother. The contour line records overall sound levels, and the rectangles below it partition it into vocal activity by Mother and Baby (only the mother's turns, indicated by dark shaded rectangles, are transcribed). Figure adapted from Bateson (1975) with permission from John Wiley and Sons.

for a powerful learning environment. This is the primary ecology of language development and socialization, and interactive repair is there right from the start.

More recent work has confirmed the role of repair in language development (Clark 2020). One qualitative study of 4 hours' worth of play sessions between a mother and child found 87 sequences of other-initiated repair featuring *hm?* or *what?* directed at the child's utterances (Corrin 2010b). These one-word utterances invite the child to redo or revise their turn, after which the caregiver often selectively reinforces the result by affirmation or repetition. Such repair sequences provide a place to learn how repair is done. These sequences also provide the child with a clearly bounded environment in which to practice the production, interpretation, revision, and calibration of speech. This makes the side sequence (Jefferson 1972) one of the earliest places for learning and experimentation. It is exactly the generic nature of this kind of repair initiation, Corrin (2010b, p. 39) argues, that makes it such a strong pedagogical tool: "The child is required to consider the adequacy of his prior turn—to reprocess it *as* a trouble-source within prior sequential context, invoking skills such as working memory, turn-tracking and perspective-taking." So here we see, again, how a humble interjection can be bound up intimately with the ontogenesis of more complex language structures.

Change-of-State Tokens

The final type of interactional resource we consider in this highly selective overview is one that has been known as a change-of-state token since a classic study of English *oh* by Heritage (1984). As with *mmhm* and *huh?*, many spoken languages appear to make available broadly similar forms, often featuring an open syllable, a mid or open back vowel (/o, ɔ, ɒ, a/), and an intonation pattern that is more definite and declarative than the typically noncommittal prosody of the continuer and the questioning prosody of the repair initiator. However, superficial formal similarities should not lead us to assume a simple universal form–function mapping. Extensive research on a range of languages has unearthed a diversity of forms and functions that is hard to do justice to in the scope of a broad review like this one (Couper-Kuhlen 2009, Heinemann & Koivisto 2016).

Change-of-state tokens harbor important lessons about the combinatorics of interjections. That phrase may seem a contradiction in terms if one thinks of interjections as by definition devoid of syntax. However, the ability of interjections to be at least paratactically linked to other elements has long been noted (Ameka & Wilkins 2006, Thompson et al. 2015). A fairly common type of construction is one where a change-of-state token is combined with an affirmative response particle, as in Finnish *ai nii* (Koivisto 2013) and Dutch *oh ja* (Seuren et al. 2016), in both cases functioning as a display of now-realizing or now-remembering. Work on Japanese provides an indication of how often change-of-state tokens occur in constructions with other elements: Among a collection of 71 tokens of Japanese *aa*, there are 30 freestanding tokens and 41 prefacing ones (e.g., *aa so desu ka*, *aa bontoo*), which are comparable to English constructions like *oh really* and *oh my gosh* (Thompson et al. 2015, Endo 2018). One reason that change-of-state tokens display this combinatory behavior (perhaps more so than some of the other interjections reviewed) is that they are primarily "backward-looking" (Heritage 1984, p. 336) yet occur at moments in which there is often more to say than just *oh*.

A strong indication of linguistic organization in the combinatorics of interjections is that the ordering of elements is not random but structured (Sacks 1992, Hakulinen 1993). For instance, writing about a construction like Finnish *ai joo niin* (translated as 'oh I see,' glossed as 'oh yes so'), Hakulinen (1993, p. 154) notes that "the chain of three particles may form one single prosodic unit, and they can be seen as composing one utterance. . . . [T]here are clear restrictions on the privileges of occurrence for different particles in the respective positions, and the alternative orders carry different meanings." This kind of regular ordering has also been documented for English

(Tao 2003) and Japanese (Endo 2018). It seems possible to abstract a pattern whereby change-of-state tokens precede acknowledgments that in turn precede what Sacks (1992, lecture 4, Fall 1965) identifies as tying—that is, material that ties the present turn to a prior one (Tao 2003). This functional hierarchy (CHANGE OF STATE > ACKNOWLEDGMENT > TYING) represents one element of what could be called a grammar of interactional resources, and if it is more widely attested, it would not be a far stretch to compare it to hierarchies known to organize clause-level regularities in grammar [Silverstein 1986 (1976), Keenan & Comrie 1977].

With this kind of evidence in hand, we can be more specific about how the combinatorics of interjections may relate to other levels of linguistic structure. Scholars of interaction have long pointed out that next to the syntax of sentences as traditionally understood, we need a grammar for turns and parts of turns (Schegloff 1996, Lindström 2006, Ginzburg & Poesio 2016). Interjections are a central pivot between these levels of organization because they have it both ways: Even if their primary business is at the level of the interaction, they always have a foot in the door of sentential structure (Reber 2020, Rühlemann 2020, Wiltschko 2021). The word *oh*—with its potential to occur alone, in combination with other interjections, and as a preface to more complex turns—is merely one example of a larger class of such items. It shows how interjections help forge informational and relational bonds between turns at talk and between the participants who produce and perceive them. The many ways in which interjections intersect with the anatomy of turns represent a key area for future research.

ALTERNATIVE WAYS OF THINKING ABOUT INTERJECTIONS

I have surveyed three broad areas in which interjections carry a heavy functional load. From continuers we learn that complex grammatical structures would likely be hard to realize without the interactional scaffolding provided by interjections, repair initiators show us how interjections can help learners break into morphosyntax, and change-of-state tokens point to an intricate grammar of turn-constructive units. There is no reason to think the interactional, developmental, and linguistic relevance of interjections is limited to these particular resources or that the topical foci chosen here exhaust their linguistic interest (for other directions, see Lahaussais 2016, Levisen 2019, Keevallik & Hofstetter 2023, Meinard 2023). As one linguistic anthropological account has it, interjections feature in small places but involve big issues (Widlok 2016).

Our ways of thinking are often shaped and constrained by images and metaphors introduced in prior work. If the views presented here are even a little bit on the right track, the most frequent one-word utterances in human interaction are not involuntary affect bursts, not primitive grunts, not prelinguistic fossils, and not the squeaks of a system under pressure. Then what are they? The goal of this section is to supply some alternative ways of thinking about interjections that key us in to the interactive functions they serve. Like all metaphors, they will break when pressed too hard, but when wielded constructively, they can inspire new ways of looking and stimulate new questions.

Words Below the Waterline

As we have seen, interactive interjections are as easily overlooked as they are exquisitely adapted to their particular functions. A nautical metaphor provides one way to capture this insight. Consider a sailboat as we normally experience it. We may admire its elegant lines, the lacquered woodwork of the cabin, the complexities of its rigging. What we do not see, and therefore rarely stop to appreciate, is everything below the waterline. The bow, optimally shaped to minimize hydrodynamic drag. The sleek rudder that makes the boat nimble and maneuverable. Deepest in the water, the streamlined fin keel providing counterbalancing and stability. If language as typically thought

of is what we see above board, interjections are the elements below the waterline. They are the technologies that help keep language balanced, agile, and easy to steer while in motion. Below the waterline there is no place and no need for ostentatious complexity—just sheer adaptiveness, form following function. This is why these items, more perhaps than many other linguistic resources, present the impression of an optimally streamlined ensemble.

Seeing things this way suggests a view of interjections quite different from that of most prior work: one that considers them an integral part of language, yet a part that is shaped most directly by interactional exigencies. These pressures at the level of interactional infrastructure can help explain crosslinguistic similarities, just as the need to minimize hydrodynamic drag while balancing agility and stability helps explain similarities in keel design across vessels. A syllabic nasal that can be produced with a closed mouth is a perfect fit for the continuer function, and a monosyllable with questioning intonation is easy to produce when misunderstanding looms and time is in short supply. Sleek and waterworn, these words show how language is shaped by, and for, social interaction.

A closer look at words below the waterline also suggests new questions. What is the balance between language-general pressures of sequential environments and language-specific demands on linguistic form? How does the process of streamlining play out at other timescales, from the ontogenetic to the diachronic? How do the more streamlined parts of interactional grammar attach to and interact with syntax as traditionally understood? How can we best characterize the complex interactions between the biological, cognitive, cultural, and semiotic processes shaping interjections? Addressing these questions will require fundamental research on the structure of language in interaction.

A Swiss Army Knife

While interjections may vary in form and function, they do form a tightly integrated subsystem: a small set of well-adapted, heavily used linguistic items dedicated to the smooth running of the interactional machinery. One image this suggests is of interjections as a Swiss Army knife of interactional tools. As mentioned above, little words like *mmbm*, *oh*, and *huh?* easily occupy around one-seventh of all our turns at talk. Each of them has its own function and is well adapted to it, like the blades and tools of a Swiss Army knife. And just as such knives have at least some tools in common—blade, file, saw, scissors—so there seems to be a small set of interactional functions for which every language seems to mobilize interjections.

Swiss Army knives tend to share some basic functions, but they can differ in design and composition, just as each language can put its own spin on the conventional forms in its set of interactional tools. Two kinds of difference are worth distinguishing, each of them generating new questions. First, the range of tools on offer may differ (Wierzbicka 1991). Not every speech community may have an interjection to mark the moment after downing a shot of liquor (Korean *khu*; Winter et al. 2019) or to help convey the words of a prayer to the gods and ancestors (Siwu *yoho*; Agawu 1995). Is there a minimal set of interactional functions catered for in every language? Are some forms or functions more easily shared or adopted than others (*okay* comes to mind; Betz et al. 2021)? What are possible paths for extending or paring down inventories of interjections?

Second, it seems there is always room for customization even in basic interactional tools. For instance, across languages, continuers tend to be used at points where speaker change could occur (Howes & Eshghi 2021). Japanese *aizuchi* (Kita & Ide 2007) conform to this pattern but see wider and more frequent use, including during others' turns, requiring an analysis that is sensitive to linguistic diversity. How much room for language- or culture-specific tuning is there among interjections? Do some interactional tools offer more leeway for such liberties than others, possibly as a function of their sequential freedom? More research is needed here.



Figure 4

The Grand Mosque of Djenné, Mali, during the 2023 annual replastering. Perched on the wooden toron, people work to resurface the mud plaster of the walls. Interjections are like the toron: dotting the surface of language and helping to ensure its continued structural integrity. Photo reproduced with permission from Ousmane Makaveli.

The Toron of Language

The final metaphor I propose is an architectural one: interjections as a scaffold for complex linguistic structure. I have in mind here a particular kind of scaffolding, quite different from temporary structures erected during the construction of a more permanent edifice. After all, little in language is truly permanent: Every part of every language that exists today has had to pass through countless cycles of formulation, articulation, interpretation, and memorization (Bybee 2010, Enfield 2014). To capture this process of continuous renewal, picture a structure like the Great Mosque of Djenné in Mali (**Figure 4**), one of many examples of an architectural style found in an area extending at least from Mopti to Agadez (Bourgeois 1987, Birabi & Nawangwe 2011).

The adobe mud walls of the Mosque of Djenné are punctuated with wooden stakes called toron,¹ which fulfill at least two roles: They are an integral visual element of the design, and they serve as scaffolds to enable the periodic upkeep of the building. In an annual resurfacing process, the toron support masons who climb on them to apply a fresh layer of mud plaster to the walls. In other words, the building embodies in its design the material structures for its own upkeep. This is what interjections are. They may at first sight seem a “mere decorative edge” (Sapir 1921), but on closer study they emerge as crucial supports for the realization of increasingly elaborate linguistic structures. Interjections are the toron of language, helping to scaffold its resilience and complexity. They remind us of the artisanal, renewable nature of linguistic structures as they come alive in social interaction.

¹ Cf. *toro* ‘wooden spike’ in the Djenné Chiini variant of Songhay (Heath 1998).

There is perhaps a larger lesson here, one that may help us cut loose from overly atemporal, static and text-based conceptions of language (Ameka & Terkourafi 2019, Ngué um 2020). Exposed to the elements, earthen structures erode under rain showers, sandstorms, and scorching sun. If they exist today it is because each time anew they are restored by human hands. The people who climb the toron to make and remake these buildings are the same who sit in their shade and pray in their halls. And so it is with our languages. If they exist today it is because they have passed through countless hands and heads and because each part of them has been propped up, picked apart, and put together again with the crucial support of interjections.

CONCLUSION

A classic of recreational mathematics is the grazing goat problem. A goat is tethered to a shed by a rope of some length, and the problem is how to compute the area that can be grazed by the goat as a function of the length of the rope and the shape of the shed. Borrowing this image, I want to propose that linguistics has something of an inverse grazing goat problem. The inverse grazing goat problem of linguistics concerns the area the goat cannot graze by virtue of being tethered to the shed, where *tethered* means tied to written-language biases and unexamined language ideologies. How strongly has linguistic inquiry been shaped and constrained by being text-focused and tongue-tied? We will likely never know. But we can make a fresh start by untethering ourselves (Henner & Robinson 2023).

The mathematician is wise enough to ask only about the area that can be grazed, as that can at least be computed. There is something to be said for definitions that clearly delimit a phenomenon. However, as linguists, we are not primarily in the business of demarcating terminological boundaries, and we should never forget that any act of definition is also one of exclusion, and any act of illustration is one of selection. In the case of interjections, I hope to have shown that these territorial acts, over time, have sometimes led to us exploring an overly narrow section of much larger, greener pastures.

Fortunately, the work reviewed here also shows how to escape the self-reinforcing work of stock examples and received views: by always keeping the actual data close at hand. A century ago, Malinowski (1923, p. 307) noted that “it would be hardly an exaggeration to say that 99 per cent of all linguistic work has been inspired by the study of dead languages or at best of written records torn completely out of any context of situation.” Our outlook today is different: There are rich records of data, robust methods to study the social life of language, and plenty of puzzles to pursue. If we are still at risk of being misled by the superficial permanence of language reduced to written records, then interjections, the toron of language, are there to remind us of its interactional foundations.

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