

CHAPTER NINE

Consequences of reflexivity in language

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Abstract

Language is widely held to underpin cumulative technology and social institutions. We argue that central to this power of language is one under-acknowledged feature: namely, the reflexivity of language. Language can be used to refer to itself. We first define reflexivity in language, and explicate some of the aspects of language that are made possible by it, including names, reported speech, paraphrase, tense, and pronouns. We then argue that the reflexive property of language has had at least three revolutionary consequences for our species: first, reflexivity enables quoted speech, crucial for reach and reputation management; second, reflexivity enables the building of texts, such as the narratives that build common sense-making as well as legal texts that create social realities; third, reflexivity of language enables social accountability, which is indispensable for the creation of social realities—anything grounded in rights and duties, from ownership to political authority. In the final section, we discuss an apparent paradox arising from the claim that metalanguage is a prerequisite for language, and we speculate that practices of repair in interaction (e.g., saying “Huh?” when one person hasn’t understood what another is doing) may constitute a path by which metalanguage precedes language.

I

Consider two remarkable features of humanity.

The first one is technology. Technological innovations have been central to our species’ staggering series of transformations; not just starting in the eighteenth century with the spinning jenny or the steam engine, but

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further back in time with the printing press, gunpowder, the levered crane, and the outrigger canoe. While *tool use* is observed in animals (Shumaker, Walkup, and Beck 2011), *technology* is uniquely human. Why? Because it requires a way to achieve the ratchet effect that makes cumulative culture possible (Tomasello, Kruger, and Ratner 1993). Each new technology incorporates previous ones and builds on them in flexible, adaptive, and open-ended ways (Arthur 2009). A technology will incorporate natural forces and affordances and encode the intentions of both its designer and the deep lineage of designers who contributed to its development over centuries and millennia.

The second remarkable feature of humanity is social institutions. Humans have highly diverse ways of coordinating behavior with reference to norms. The culturally diverse and locally defined commitments we make in realms of life, ranging from avoidance of moral transgressions to membership in clubs and societies, are the foundation of personhood. One way in which we make sense of each other's lives—for example, when predicting or interpreting behavior—is through our observation of the rights and duties that define social institutions. While technologies incorporate designers' intentions and nature's affordances, social institutions incorporate the rights, duties, and values we attribute to others (though, ultimately, they are also grounded in natural causes, such as those entailed by biology and physics, and the forces that ultimately regiment social institutions through the state's monopoly on force).

Technology and social institutions have been central to the extraordinary upscaling of our modern world. Today, our technologies are capable of transporting a 6.5-meter wide sheet of gold one-thousandth the thickness of a hair to the second Lagrange point, one million miles away from Earth; and our social institutions are capable of imposing norms and values upon billions of people at a time.

Our view is that technology and social institutions have the same fundamental enabling substrate: *language*. But what does it mean to say that language underlies modern civilization? The answer is that language enables social coordination of a unique kind. We focus here on one crucial element of this answer: we argue that a foundationally causal factor by which language has made both technology and social institutions possible is its *reflexivity*.

In the following sections, we first define reflexivity in language and then explain what it enables and how.

II

The reflexive property of language is easily defined: language can be used to communicate about itself. This is a unique property among animal communication systems, as Charles Hockett (1966: 13) wrote: “Bees dance about sites, but they cannot dance about dancing.” That being said, there are precedents in animal behavior: Gregory Bateson (1972: 178) distinguished metalinguistic messages in which “the subject of discourse

is the language” from metacommunicative ones in which “the subject of discourse is the relationship between the speakers” (see also Lucy 1993). Bateson (1972: 178) further suggested that “there occurs a further class of implicit messages about how metacommunicative messages of friendship and hostility are to be interpreted.” This next level of abstraction is illustrated by the famous example of the metamessage “this is play.” Bateson reports on a trip to the Fleishhacker Zoo in San Francisco:

“I saw two young monkeys playing, i.e., engaged in an interactive sequence of which the unit actions or signals were similar to but not the same as those of combat. It was evident, even to the human observer, that the sequence as a whole was not combat, and evident to the human observer that to the participant monkeys this was ‘not combat’.”

As he states (Bateson 1972: 180), “The playful nip denotes the bite, but it does not denote what would be denoted by the bite.” Bateson’s conclusion is that the evolutionary transition from involuntarily produced and recognized “mood signs” to voluntarily controlled and interpreted “signals” presupposes a capacity for metacommunication: “Denotative communication as it occurs at the human level is only possible after the evolution of a complex set of metalinguistic (but not verbalized) rules which govern how words and sentences shall be related to objects and events” (Bateson 1972: 180).

It is not clear why linguists seldom contemplate the importance of reflexivity in language.¹ It could seem trivial or incidental to other celebrated features such as the productivity that a generative morphosyntax provides, however, reflexivity is anything but trivial. In regard to this, Dorte Duncker (2019:1) writes:

“Imagine what it would be like to live in a world without linguistic reflexivity – in a world where it was impossible to ask people what they meant by what they said, or even to ask them to repeat their last utterance; where you could not ask someone about an unknown word, and you had no dictionary to look it up, because written language did not exist; where it was impossible to tell one person what another person had just told you; where there were no ways of talking about words, questions, meanings, promises, etc., etc.; ... where you did not have a name, or any idea about what a name was.”

We now explicate some of these ideas. Consider the following sentence:

¹ It is possible that reflexivity can be derived from referentiality/displacement. It could conceivably follow from a combination of “openness” and “universality,” in Hockett’s terms.

When John F. Kennedy said “*Ich bin ein Berliner*”, he did not mean “*I am a jelly doughnut*.”

There are some ways in which this line could not be possible without reflexivity in language. First, the personal name “John F. Kennedy” is only possible because of a “code about code” function in language: The general meaning of a proper name cannot be defined without a reference to the code [...] in the code of English, ‘Jerry’ means a person named Jerry” (Jakobson 1971: 131). Second, the sentence features quoted speech, making it a sentence about another sentence: it is “speech within speech” (Jakobson 1971: 130). Third, the words in one language—“*Ich bin ein Berliner*”—can be given a gloss of their possible meaning in another language (English: “*I am a jelly doughnut*”). This paraphrase function is also crucial within a language, especially in language learning when we use known words to explain the meanings of unknown ones, a process that plays “a vital role in the acquisition and use of language” (Jakobson 1971: 131). Fourth, the past-tense marking on finite verbs in the sentence (“say” → “said”, “do” → “did”) links language to language in the sense that it specifies the connection between the event being spoken about (JFK’s speech that took place in 1963) and the current speech event (now). Fifth, the semantics of the verbs “say” and “mean” cannot be defined without reference to language. And sixth, the word “he” in the example is easily understood to refer back to Kennedy, who is explicitly named only in the first part of the sentence. Grammatical devices such as this case of anaphora link language to language in ways that provide coherence and cohesion to texts (Halliday and Hasan 1976), allowing us to go beyond mere isolated signals or calls. Without such devices for textual cohesion, we would have no way of building narratives, conversations, instructions, curricula, legislation, or any of the other million kinds of text upon which our social reality depends.

Reflexivity runs deep in human language (Agha 2007; Duncker 2019; Lucy 1999; Taylor 2000), as well as in human interaction (Czyzewski 1994; Enfield and Sidnell 2022; Krippendorff 1989), and it is not found in any other animal communication system (Hockett 1966). Our goal here is to convince you that the consequences of this are significant and that they should be central to any arguments about the evolution of language in our species.

III

We argue that the reflexive property of language had at least three revolutionary consequences for our species; we discuss them in turn.

i.

Reflexivity of language enables quoted speech. This mechanism makes it possible—as a unique effect of language among animal communication systems—to separate the “animator” of a signal, i.e., the one who

physically produces the signal that is perceived, from its “author” and “principal”, i.e., the ones who compose and take responsibility for its content (Goffman 1981). In turn, this means that one person’s message can reach another person without the need for the two people to be in each other’s presence. This arguably brought about the most significant information revolution in the history of our species. It enables a message to reach a recipient who is away from the sender of that message, which in turn has the effect of compressing space and time in social networks and opening the door to potentially infinite upscaling of coordination through communication. We speculate that every information revolution since—including writing, printing, mass media, and the Internet—has been a quantitative upscaling based on this singular qualitative advance.

The possibility of quoted speech plays an important role in reputation management, a foundational aspect of human society (Dunbar 1996; Emler 1990; Haviland 1977). This can occur at the personal level, relating, for example, to remarks about specific things that a person has said, with evaluations of whether those things are good or bad. Or it can occur at group levels, for example, in the sociolinguistics of group-identity badges such as regional origin, level of education, socioeconomic background, age, and racial or ethnic identity. It is not just that these social distinctions are indexed by differences in linguistic behavior, but that the reflexive nature of language allows us to thematize and characterize those differences, focusing joint attention on them and coordinating around them for social purposes. Arguably, all social accountability is grounded in these reflexive elements of language. All social accountability requires that we can jointly and publicly characterize, and thus coordinate around, the behavior that is being held to account or judged (whether for praise or blame). That public characterization and coordination would be impossible without language.

ii.

Reflexivity of language enables the building of texts. Texts, in the broadest sense of that term, facilitate the communication, codification, and coordination that underpin cumulative culture (including science) and institutional structure. At base, language comes in small units, is infinitely flexible, and is highly unpredictable. There needs to be glue between its units if we are to go beyond mere isolated calls, and that glue depends on language-directed bits of language, such as—to return to the JFK/Berliner example—the pronoun ‘he’ (linking back to Kennedy) and the conjunction ‘when’ (linking the two clauses together).

Linguistic tools for textual cohesion are well-studied (Chafe 1980; Foley and Van Valin Jr 1984; Gernsbacher and Givón 1995; Givón 1990; Halliday and Hasan 1976). Grammatical forms such as pronouns provide such glue as part of the machinery for marking reference-tracking across lengthy discourses (Foley and Van Valin Jr 1984; Gernsbacher and Givón 1995). Pronouns are often derived historically from demonstrative ele-

ments (e.g., “*this*” or “*that*”) whose core function is to link language to the immediate context (Dixon 2003; Fillmore 1997; Hyslop (Malau) 1993; Levinson et al. 2018; Talmy 2017); and indeed, these are ultimately derived from the deictic pointing gestures that are prerequisite to language (Enfield and Sidnell 2022; Tomasello 2006). Through historical processes of grammaticalization (Hurford 2012; Traugott and Heine 1991), speakers of a language are provided with complex means by which devices in the language can be used for organizing the language itself into higher-order structures. This applies not only to extended texts such as narratives, recipes, or legal documents, but also to conversational structures such as turn-taking, sequence organization, and repair (Enfield 2017; Levinson 1983; Sidnell and Stivers 2013).

iii.

Reflexivity of language enables social accountability. This is because social accountability is a defining element of *social reality*, in the sense championed by the philosophers of language John Austin (1962) and John Searle (1995, 2010). Social reality refers to facts that are created by virtue of speech acts of a kind known as *status function declarations*. An example is when a marriage celebrant declares that a couple are now legally married. The words become true *by means of* the speech act, which in turn creates new rights and duties for the married couple, that is, accountability to their new normative and legal status. These declarations work when (a) it is publicly agreed that the declaration has been properly made—i.e., that there is a joint commitment among relevant parties—and this can only happen if people’s joint attention is on the act of declaration itself; and (b) it is possible to refer back to the declaration later if it is necessary to invoke the rights and duties created by the speech act, such as when holding someone to account for transgressive behavior. An example is when sanctioning someone on the basis that they are married, either legally (as when prosecuting them for bigamy) or morally (as when condemning them for adultery). This is the possibility of “rebuke” that the philosopher Margaret Gilbert insisted was definitive of joint action. In her example, when two people are engaged in the joint action of going for a walk together, then it is possible for one to rebuke the other for not doing their part, for example, by saying “You are going to have to slow down! I can’t keep up with you” (Gilbert 1990: 3).

As Searle (2010) writes, “*You make it the case that you promise by saying, ‘I promise’.*” Less obviously perhaps, you make it the case that we are walking together by saying “*Let’s go for a walk.*” This is why social reality is linguistic in nature. But it is also necessarily *meta*-linguistic in nature. Why? Because a promise brings with it a form of accountability—the possibility of rebuke—that is also activated through language: “*But you promised!*” Or in the case of bigamy, legal accountability would require linguistic reference to a linguistic act—language about language—in the form of a citation of the linguistically-created

fact that the first couple are in fact married. All social reality is thus not only a linguistic matter in that it was created by language, as Searle (2010) argues, it is also a *metalinguistic* matter.

Sometimes it seems as if social realities can be established without language, as when a row of stones marks a territorial boundary. It can be argued, though, that language is always involved, first because such things as border-marking stones are arbitrary symbols and thus proxies for language, and second because the reality-creating power of the markers is only possible because of the ever-present possibility of talking about it, as when, for example, one states, “*The land on this side of the line is mine.*” In most animals, such territorial disputes are managed solely in the realm of brute reality, while in humans we can first draw attention (using language) to the established rights and duties, tending only later to resort to force. The key point is that any time the relevant rights and duties are invoked in matters relating to social accountability, such invoking is also done through language, indeed, through language about language.

IV

In the above sections, we have explored the implications of the fact that human language has the unique capacity to be directed toward itself. We have pointed to some remarkable consequences of this. But there is more. There is the idea that “without ‘second-order’, reflexive properties, ‘first order’ language itself could not exist” (Taylor 2000: 483). How could this paradoxical statement be true?

The first step is to explain what it means for “first order” language to be dependent on “second-order” reflexive properties. The second step is to speculate as to how language could emerge at all if its ‘second-order’ properties had to be already present. We now take these points in turn.

i.

Let us explain how the existence of the building blocks of language depends on our communications *about* those building blocks.

One type of building block is the *utterance* or *move*, the one or two second burst of noise (Chafe 2018) that captures a basic unit of propositional content and that serves as a brick for building sequences of interaction (Bavelas 2022; Enfield 2013; Enfield and Sidnell 2022; Schegloff 1968, 2007; Sidnell and Stivers 2013). Research on language in social interaction has found that with every move in the progression of an interaction, the participants in that interaction must effectively register their continuing participation in relation to what is said, indicating their attention, understanding, uptake, satisfaction, confusion, or failure in relation to (at least) the last move made (Goffman 1963, 1964). Clark (1996) argues that every move made in a conversation carries an implicit reflexive message: “Have you heard and understood adequately so far?” If the

answer is “no”, this can be signaled using the linguistic system of other-initiated repair, by which we use expressions like *Huh?*, *What?*, or *Who?* to convey that there is some problem with hearing or understanding (Dingemanse and Enfield 2015; Dingemanse et al. 2015; Schegloff, Jefferson, and Sacks 1977). Conversely, if we want to explicitly indicate that we do *not* have any such problem, we can use explicit continuers like *uh-huh*, which give the all-clear for the conversation to continue (Schegloff 1982). And in between those possibilities is the numerically dominant behavior of neither initiating repair nor explicitly indicating that all has been adequately heard and understood (Robinson 2014). But even this “zero” strategy is ultimately metalinguistic, in a secondary sense: every time a person foregoes the ever-present opportunity to initiate repair, indicating some problem of hearing or understanding, by the principle of antithesis (Darwin 1872: 28), they effectively affirm that the interaction remains on track.

These same observations apply *mutatis mutandis* to another kind of linguistic building block: words and other minimal units of conventionalized meaning. At any point in an interaction, the aptness of a particular word may be challenged or negotiated in a variety of ways in an immediate subsequent next turn at talk (Enfield and Sidnell 2022; Sidnell 2014; Sidnell and Barnes 2012). For instance, in one case, when a first speaker says, “Your anger and your hate, I think is coming off as erratic” the other corrects with, “My *passion*” thereby refusing to accept “anger and hate” as an adequate or accurate description of his emotional state and behavior. In another case, when a first speaker says “You stuck it in the sponsorship budget” the other responds with “Pardon?” and the first speaker then reformulates the utterance as “You decided ... to place these purchases in the sponsorship account, correct?” As these examples and many others like them demonstrate, speakers are held accountable for the conventionalized meanings they convey by virtue of word choice. Behaviors such as correction and other-initiation of repair are reflexive operations of language that serve to police the appropriateness of fit between language and context. This affects the circulation of both the linguistic items and the norms of accountability around their usage. And as with moves in sequences of interaction, when people choose *not* to query the appropriateness of a word in a given context, they are tacitly accepting it and endorsing its usage as acceptable. This is only possible in so far as language can be turned in on itself: this reflexive capacity of language allows it to serve simultaneously as the instrument and object of accountability.

ii.

Thus, we have seen that units at the most basic, “first-order” level—including the words we use as bricks for building moves and the moves we use as bricks for building discourses—are grounded in, and shaped

by, “second-order” regulatory metalinguistic actions and interpretations that could not exist without the reflexive quality of language. But if the “second-order” behavior is a prerequisite for the “first order” structures, how could the core system have evolved in the first place? We now briefly speculate about this riddle of reflexivity and the origins of language.

We think that a solution to the riddle can be found in the organization of repair, a universal of human language (Dingemanse and Enfield 2015; Dingemanse et al. 2015; Hayashi, Raymond, and Sidnell 2013; Schegloff, Jefferson, and Sacks 1977). It has been discovered that *Huh?* is a word found in every language for which there is data (Dingemanse, Torreira, and Enfield 2013). We have speculated elsewhere that *Huh?* is “as close as you can get to the core of the human faculty for language” (Enfield 2017: 207). It is the most simple, general, omnirelevant, all-purpose tool for linguistically-oriented accountability. Could *Huh?* have been the first word? We can imagine a stage when early humans were able to draw attention to some element of an action-response sequence, producing an overt interjection of puzzlement (“Huh?”) in a structural slot where a behavioral response was expected to have occurred in the interactional sequence. The interjection would be metacommunicative in so far as it is about the communicative action just made by another agent. Then imagine that this puzzled, meta-communicative response promotes the redoing of the gesture. In turn, the link between the interjection of puzzlement and the re-doing of the not-yet-understood gesture could become ritualized and so may be used repeatedly to bring about the same end—i.e., to elicit a repetition of the previous communicative move—either by this proto-human or by another who happened to witness the events unfold. We can imagine here a shift from learning via ontogenetic ritualization to imitation, i.e., conventional transmission, the beating heart of language and culture.

Thus, we can imagine other-initiated repair as a wedge that introduces metalanguage into a not-yet-linguistic system. It would be communication about communication, which in turn could provide mechanisms of the kind discussed above, providing a context for the cultural evolution of the semantic/referential elements of language.

V

We have considered some far-reaching implications that the reflexive quality of language has had for human social coordination and its products, from technology to institutions and to language itself; in doing so, we have encountered a riddle that any theory of the evolution of language must answer: if reflexivity is definitive of language, how could it have arisen in the first place? Following Taylor (2000), we framed reflexivity as a “second-order” feature; but how could the second thing come first? The solution is to invert the understanding of “first-order” and “second-

order” in this equation. Thus, our argument supports the following conclusion: the primary functions of language are to regulate and facilitate social coordination, while the semantic functions by which language is able to encode information and achieve semantic reference are secondary and derivative.

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