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Pragmatics-First Approaches to the Evolution of Language

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Many prominent researchers have adopted a *pragmatics-first* approach to linguistic communication. Their hope is to show that an account of how we use and understand language can be built upon a foundation of nonverbal communication. This approach aims to shed new light on both the evolution of language in phylogeny (e.g., Moore, 2016, 2017a; Scott-Phillips, 2014, 2015, 2017; Tomasello, 2008), and children's development of language in ontogeny (e.g., Bloom, 2000; Tomasello, 1999, 2008). Seemingly in this tradition, Andrea Scarantino (this issue) proposes a systematic account of how language might develop on the back of what he calls the theory of affective pragmatics (TAP). The proposed theory is “a general framework for the study of what emotional expressions ‘do’ from a communicative point of view” (p. 171).

Scarantino's account has two goals. The first is to “foster progress in the experimental study of emotional expressions by providing a new taxonomy of the communicative moves emotional expressions make available” (p. 165). The second stated goal is to set the stage for a better understanding of language evolution, by showing that even at the nonverbal level, the content of an utterance can be separated from its force and expressed through affective embodied behaviors. As a result, many language-like abilities are available to nonverbal creatures. The theory is pragmatic because, in a way that Scarantino (this issue) identifies as analogous to the study of pragmatics in linguistics, it is a study of what “what emotional expressions mean in a context” (p. 165), and the implications of this for linguistic communication. In particular, Scarantino argues that illocutionary acts like using language to make assertions or give orders characteristically have nonverbal correlates that can serve as a foundation for language.

It is the second goal of TAP with which I concern myself here. In particular, I want to push the question of how exactly Scarantino's theory can inform work in language evolution—by relating the article's claims to an argumentative framework put forward by myself and others.

I start by raising what I think is a serious objection to the view that Scarantino develops—by way of characterizing a key difference between his account and other pragmatics-first approaches to language evolution. At the heart of these approaches lie two subtly but crucially different uses of the words “meaning,” “communication,” and “pragmatics.” I argue that although pragmatics-first approaches are the right ones to adopt in language evolution research, Scarantino's pragmatics-first approach is built on the wrong sort of pragmatic

phenomena to make progress on the issues that others have identified as crucial. Although it therefore avoids some objections to standard versions of the pragmatics-first approach, it cannot explain language origins in the ways that these approaches promise to do. Nonetheless, I argue that although Scarantino's approach cannot supersede other varieties of pragmatics-first approach, it can complement them in important ways. Consequently his account is very valuable. However, its true value may lie in an area slightly different from the one envisaged by Scarantino, and so its contribution needs to be elaborated in a way that is more nuanced than Scarantino's writing makes clear.

From Nonverbal Communication to Language

Since the pioneering work of Paul Grice, an influential view of language and communication holds that human communication succeeds because interlocutors engage in *pragmatic interpretation*. That is, they act with and attribute communicative intentions. Appreciating this is important for linguistic communication, because the sentences of a language are ambiguous and so could be used to assert any number of propositions. For example, the sentence “Richard looks great” could be used to compliment my dress sense in one instance and to offer a damning indictment of my philosophical ability in another (Grice, 1989; Sperber & Wilson, 1995). Despite this ambiguity, human interlocutors communicate (mostly) unproblematically. They can do this because hearers excel at tracking the communicative intentions with which speakers utter words and sentences.

Pragmatic interpretation plays a fundamental role not just in developed linguistic communication but also in language development. Developmental psychologists have argued that infants learn to use the words and sentences of a language only because they can figure out the communicative intentions with which others are uttering them (Bloom, 2000; Csibra, 2010; Csibra & Gergely, 2009; Tomasello, 1999, 2008). The same idea has also been used to explain the emergence of linguistic tools for communication in phylogeny (Moore, 2016, 2017a; Scott-Phillips, 2014; Tomasello, 2008). These accounts differ in many of their details. However, they share a “pragmatics-first” approach to the development of language. The approach is pragmatics-first because it explains the emergence of conventional *semantic* properties of linguistic items (such as words and sentences)

from the prior emergence of utterances produced with communicative intentions.

What Are Communicative Intentions?

The philosopher who did most (at least in the recent canon) to emphasize the role of pragmatics in language comprehension was Grice. His approach to the subject started with an attempt to analyze the phenomenon of acting with communicative intent. In his 1957 seminal article “Meaning” (reprinted in Grice, 1989), Grice distinguished between two uses of the word “meaning,” as a way of isolating the property that he took to be central to understanding communication. What he called “non-natural” meaning is a property of one subclass of intentional actions, namely, actions performed with communicative intent. It is contrasted with “natural meaning.” Natural meaning is not a property of intentional action but an entailment relation: *if P, then Q*. Natural meaning is the sort of meaning implicit in statements like *Those dark clouds mean rain*. A state of the world (e.g., the presence of dark clouds) is naturally meaningful if its holding can be used to predict the occurrence of another (e.g., rain). In contrast, non-naturally meaningful acts are not entailment relations. They are those that we intuitively place in quotation marks, as a way of indicating what a speaker intended to communicate on a given occasion, for example, *By saying that it’s “It’s going to rain” he meant that he thought it would rain*. A speaker’s saying that it will rain does not entail that it will. The speaker could have been wrong.

According to Grice (1957; see also Moore, 2016a, 2017), for a speaker (or gesturer) *S* to act with communicative intent, she must intend, through her utterance of *x*,

- (1) to elicit in her interlocutor *H* some response *r* (usually the formation of a belief, or the performance of an action),
- (2) to intend that *H* recognize that she intended (1), and
- (3) to fulfill her intention (1) in part *by means of H’s* recognition of (2).

It is the second clause of this analysis that Grice thought pointed to a distinctive property of communicative actions, namely their “overtness.” Although non-communicative acts (like digging a hole) can be performed without the knowledge of others, communicative acts (like asking someone to dig a hole) are not successful unless recognized by their audience. As a way of giving expression to her communicative intention, *S* *ostensively* produces her utterance *x*; and her interlocutor *H* *infers* *S*’s communicative goal because he recognises that *S* has an intention to communicate.¹ The content of *S*’s communicative intention is closely related to *r* in (1), and it is fulfilled just when *H* succeeds in inferring the goal with which *S* uttered..

From Communicative Intentions to Language

Grice’s earliest formulation of the psychological states that he took to be necessary and sufficient for acting with

communicative intent makes it evident that language is not a prerequisite for communication. Although an utterance of *x* may be linguistic, it could be performed in principle using any action or combination of actions. As a result, the Gricean approach can potentially help to explain language development. If nonverbal creatures can use and understand utterances performed nonverbally, then in principle this might bootstrap their acquisition of linguistic forms.

One way in which this bootstrapping process might work is illuminated by a second move that Grice makes (Grice, 1989, Chapter 6). In addition to an account of the nature of communicative intentions, he also sketched an account of the relationship between acting with communicative intent and the meanings of words and sentences. He distinguished between what speakers intend to communicate by their utterances (the “speaker’s message,” or *what is meant*) and the meanings of the words and sentences that they utter (*what is said*). What speakers say and what they mean can coincide, or it can come apart. A speaker might utter “Richard looks great” as a way of communicating the message either that *Richard looks great* or that *Richard is a bad philosopher*. Acknowledging the distinction between what is meant and what is said is important in its own right for understanding the functioning of language. Appropriately supplemented, the distinction can also be used to support an account of language acquisition. Although Grice only sketched this addition, it has proved influential.

Grice took the notion of the speaker’s message to be basic to the characterization of the meanings of words and sentences because he thought that an account of word and sentence meaning could be given only by leaning upon the conceptual framework laid out in the analysis of speakers acting with communicative intent but that an account of the latter could be given independently of any account of the former. In particular, what Grice had in mind was that an account of the meanings of words and sentences should ultimately specify their meanings just in terms of something like what it is that speakers paradigmatically seek to communicate by uttering those words (Grice, 1989, p. 101). Words get their meanings just because speakers systematically use them to communicate some messages rather than others.

It is because of this relationship that the pragmatics-first approach to language development seems promising. If we can give an account of how interlocutors can act with and understand communicative intentions, an account of how speakers’ intentions can give rise to stable uses of words and sentences, and an account of how interlocutors can come to learn these regularities, then we can build an account of how speakers who lack language can come to use and understand it. Nonetheless, although some think this approach central to understanding language development, it comes with a flaw that many take to be insurmountable.

Objections to the Pragmatics-First Approach

At least on traditional accounts, acting with and attributing Gricean intentions requires a host of sophisticated sociocognitive abilities, including (a) possession of a concept of belief, (b) the ability to make complex inferences about others’ goal-directed behavior, and (c) the ability to entertain high-order

¹Because of the central roles of ostension and inference, Gricean communication is sometimes called “ostensive-inferential” communication (e.g., Scott-Phillips, 2014; Sperber & Wilson 1995).

(typically fourth-order) metarepresentations. (See Moore, [in press](#), for an extended discussion of these issues.) These abilities cannot be attributed uncontroversially to nonverbal creatures like animals and young children. Grice (1986) himself worried that non-natural meaning is “too sophisticated a state to be found in a language-destitute creature” (p. 85), and subsequent empirical research supports this view. For example, children start to use words around 14 months, but they seem to develop a full-blown concept of belief only around the age of 3 or 4 (Wimmer & Perner, 1983; see Apperly, 2010, for discussion). Worse still, our best evidence suggests that 11 year old children fail to understand fourth-order metarepresentations (Liddle & Nettle, 2006). In that case, not even they could be Gricean communicators, let alone preverbal children. The ability to act with and attribute Gricean intentions could not, then, support an account of language development in ontogeny.

The problem of explaining language development in phylogeny is yet more acute. If children lack the cognitive sophistication required for Gricean communication, then it seems inevitable that nonhumans would too. Yet language-like communication appears to have been used not just by early humans but also by Neanderthals—around 350,000 years before the advent of behavioral modernity in humans (around 50,000 years ago). Moreover, in studying the origins of human communication, psychologists often start by looking at the communicative abilities of nonhuman great apes, with whom we last shared a common ancestor 6 to 7 million years ago. Great apes may possess a concept of belief (Krupenye, Kano, et al., 2016), but they surely cannot grasp fourth-order metarepresentations. If this is right, then a pragmatics-first story about language development in phylogeny may be even less plausible than it is for ontogeny. For this reason, it is commonly argued that in the 6 million years since our hominin ancestors split from our last common ancestors with chimpanzees, our ancestors (but not the recent ancestors of the nonhuman great apes) underwent adaptation for a suite of sociocognitive abilities that gave us what was needed for acting with and attributing communicative intentions (Scott-Phillips, 2014, 2015). However, it is an open question whether even children possess the cognitive abilities that standard pragmatics-first approaches seem to require.

Given the supposed intellectual demands of pragmatic interpretation in this sense, some take the prospect of a Gricean account of language origins to be hopeless. Consequently, they look for non-Gricean alternatives to language development that do not incur its sociocognitive debt (e.g., Bar-On, 2013; Green, 2007; Skyrms, 2010). Although Scarantino (this issue) leans on the pragmatics-first vocabulary that is characteristic of Gricean approaches to language evolution, in fact this vocabulary is misleading. His approach lies firmly in the camp that seeks a non-Gricean account of language origins. Scarantino offers not an account of the origins of our ability to act with and understand communicative intent; rather, it is an account of an ability to do something that is in important respects functionally like acting with and attributing communicative intentions but without the cognitive burden this is thought to incur. As he puts this,

The core idea here is that non-linguistic creatures can provide natural information about mental states that are relevantly similar to the mental states expressed by speech acts (pleasure

for the Expressive_L “I am pleased.” and desire for the Directive_L “Let me out.”). (p. 175)

However, they do this without being able to act with or attribute the communicative intentions that are, on the neo-Gricean view, needed for language development.

From Affective Pragmatics to Language

This affective-pragmatics-first approach to language evolution is fundamentally different from those that take the production and comprehension of communicative intentions to be the starting point on the way to language. Rather than being built on Grice’s account of *non-natural meaning*, Scarantino takes his starting point to be Grice’s idea of *natural meaning*, that is, of the statistical regularities that hold between emotional expressions and states of mind. In important ways, these statistical regularities (when appropriately localized to the context of their presentation) give nonverbal communicators powerful insights into one another’s mental states. They thus allow quite sophisticated predictions about how others are likely to behave. Creatures sensitive to the information conveyed by naturally meaningful states would thereby have an adaptive advantage: Knowing how others are going to act is vital for surviving in their presence.

The appeal to natural meaning as opposed to non-natural meaning is the fundamental source of discontinuity between Scarantino’s approach and the Grice-inspired approaches just described. The “Gricean” conception of pragmatics takes as its starting point the production of utterances with communicative intent and their interpretation by interlocutors, and the significance of this interaction for language development. By contrast, Scarantino’s work lies firmly in what might be called the Carnapian tradition of pragmatics, which studies the variation of the significance of signals with the context of their production (Bar-On & Moore, 2017). The category of Carnapian pragmatic phenomena is far more inclusive than that of Gricean pragmatic phenomena, as it includes the contextual interpretation of many environmental phenomena that were not produced with communicative intent. Accordingly, the approaches differ substantially in the cognitive demands they make on agents. For one thing, on Scarantino’s view, emotional states need not be produced intentionally in order to function with communicative effect. Moreover, they need not be produced with the complex network of sociocognitively demanding intentions that classical Gricean accounts suppose. The consequences of this are twofold.

First, Scarantino’s (this issue) account is immune to some of the objections that have been raised against standard Gricean accounts. Although there may be discontinuities between the abilities of humans and animals to act with and attribute communicative intentions, there seems to be a great deal of continuity with respect to our understanding of emotional expressions. In that case, Scarantino’s account does not seem vulnerable to the sorts of developmental concerns that threaten other versions of the pragmatics-first approach. Even cognitively unsophisticated creatures can engage in language-like interactions, to the extent that they unintentionally provide and are sensitive to information about others’ emotional states.

For those skeptical of the Gricean approach, this ease of the cognitive burden of communication is a great virtue. However, it leads to the second difference. For although it is clear what standard Gricean approaches can offer to the study of language evolution, it is not yet clear what TAP does. Indeed, although Scarantino's account talks of "meaning," "pragmatics," and "communication," all of these words are used in subtly different ways from the standard Gricean approach. The variety of meaning in play is natural and not non-natural meaning; the pragmatic phenomena are Carnapian and not Gricean; and to the extent that the communication described is unintentionally produced, it is only functionally related to distinctively human forms of communication. If linguistic communication is grounded in acting with and attributing communicative intent, then to the extent that Scarantino's theory does not require this, it seems to lack the resources needed to marshal an account of the origins of language. It is simply an account of the evolution of something language-like; not of language proper.

Consequently, although Scarantino shows that nonverbal creatures may be capable of doing more than was once thought without using language, it is not clear how TAP can support an account of our ancestors' coming to use language, not at least without additionally appealing to the emergence of abilities for the Gricean form of pragmatic interpretation.

Reconciling the Views

Although others may be more sympathetic, I think this objection is insurmountable. At least on its current formulation it's just not clear how Scarantino's affective-pragmatics approach can shed light on the evolution of agents who can act with and understand communicative intentions. To do this, it must be combined with a Gricean approach. However, this combination is likely to be very fruitful—and could lead to important new insights for explaining language development.

To see why this is the case, we can divide questions about the origins of linguistic communication in two. One question asks about the *form* of communicative intentions: (a) What intentional structure is needed for interlocutors to act with and attribute communicative intentions? A second question asks, (b) How do interlocutors discern the *content* of the communicative intentions with which others act? We might call (a) the *Grice problem*. By contrast, (b) points to a deep and important challenge raised by a different but similarly distinguished philosopher, Donald Davidson. Davidson (1973) posed what he called the problem of *radical interpretation*, according to which two propositions seem to be both true, and together to pose a deep challenge for any theory of language development. The first proposition states that we understand what others are thinking only because we understand the words and sentences that they utter. The second proposition is that we understand what others say only because we know which thoughts their utterances typically express.

Together these propositions seem to make language development intractable because they make knowing others' minds and knowing the meanings of their words and sentences codependent. Without knowing both, one cannot grasp either. How, asked Davidson, could one overcome this interdependence, to

come to know the minds of those whose language one did not speak? Scarantino's TAP helps to answer that question by showing that the insights we can get into others' minds vastly outstrips what Davidson believed. Davidson constructed a theory of interpretation on the idea that even when we cannot figure out what others are saying, we can determine—on the basis of nonverbal evidence—that they are committed to its truth. This provides us with a hermeneutic tool for starting to identify a range of candidates for what they might be asserting. Scarantino extends this work by arguing in compelling terms that the nonverbal evidence available to linguistic interpreters is far greater than this. Using a wealth of embodied behaviors and expressive states as our evidence, we can gain great insight into the minds of others without knowing anything of their language. In this respect Scarantino's project is similar to Bar-On's (2013)—although Bar-On's "expressive communication" is, unlike Scarantino's emotional communication, intentionally produced.

Accounts of emotional expression like those described by Scarantino (and Bar-On) can contribute greatly to explaining the possibility of language development, because even if we can make sense of the idea that children (and perhaps some animals too) can in general attribute communicative intentions, for an account of language development to work we must still explain how they can interpret the particular contents of others' utterances. By showing that there is a range of illocutionary forces that can be identified independently of language, Scarantino illuminates a key instrument for scaffolding language development. If preverbal infants know, for example, that an utterance is being produced by an agent who is expressing his commitment to doing something rather than asserting something, the range of possible utterance interpretations that they must consider is thereby reduced. Explaining their language development now becomes much more developmentally tractable. Similarly, if the prelinguistic communicative interactions of our ancestors took place against a shared background of easily interpretable emotional behaviors, the messages underlying experimental gesture forms might have been more easily identifiable. As Wittgenstein (1953) put it, "The common behaviour of mankind is the system of reference by means of which we interpret an unknown language" (§206).

The importance of affective cues for interpreting communicative intentions can be illustrated with empirical data. Tomasello (2008) argued that one reason that humans but not apes acquire language is that humans are much better able to interpret pointing. Because the same gesture can be used to communicate many different messages, points are highly ambiguous. This ambiguity is likely to explain why great apes fare poorly in pointing comprehension tasks (Moore, 2013). Recent research, however, suggests that infants of 12 months are able to pick up on small differences in the intonation and gesture shape of otherwise similar points to infer different underlying messages (Esteve-Gibert, Prieto, & Liszkowski, 2017). These differences correspond to the particular goals with which the points are produced. The sorts of unreflectively produced naturally meaningful accompaniments that Scarantino describes may therefore be crucial to language development.

Conclusion

I want to finish by saying something about how Scarantino's project relates to my own work. Whereas I take Scarantino's contribution to lie in addressing (b) Davidson's problem of radical interpretation, the bulk of my research has addressed question (a), that is, the cognitive framework needed for humanlike intentional communication. I have argued that many of the issues thought to raise challenges to Gricean approaches to language evolution are misguided. In short, Gricean communication just does not require the complex suite of sociocognitive abilities that others have supposed (Moore, 2016, 2017a, 2017b). In that case, I argue, there is no deep issue with thinking that children or chimpanzees, and maybe even fish might be Gricean communicators. Further, because I think that Gricean communication does still require psychological states for which Scarantino's approach cannot account, I am skeptical that affective pragmatics can illuminate answers to question (a). In that case, his account cannot displace or replace Gricean and neo-Gricean approaches to language evolution. Nonetheless, the combination of Gricean approaches with Scarantino's TAP provides us with a powerful set of tools for explaining the possibility of language development. Answers to both questions (a) and (b) are needed for a complete account.

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