

An approach via behavioural pragmatics to the contrastive study of 'language' as available to humans and to nonhuman primates

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In this article we shall develop an approach to study behaviour in terms of behavioural pragmatics. Our immediate interest is in the use of this methodology to analyse contrastively behaviour made possible to nonhuman primates through the semiotic systems available to them, and behaviour made possible to humans through the availability of natural language. For this contrastive study to make sense, behaviour should be observed and analysed in their naturally occurring contexts. Thus, we shall not be concerned with behavioural studies involving enculturated apes. Because of the highly variable nature of results of ape-studies in naturalistic settings, we shall be primarily concerned with identifying certain characteristic and pervasive language-based human behaviours and ask whether such behaviours are within the means of the semiotic systems available to nonhuman primates. We shall analyse, in particular, narration (i.e. the composition of narratives), and the applicability of mental state concepts with ideational content to nonhuman primates.

Keywords: Behavioural pragmatics, constructing narratives, mental status with ideational content.

Problem statement

Mounin¹, in his perceptive critique of the early ape-language experiments (specifically the Washoe and Sarah projects), identifies two fundamental flaws. First, it was a basic error to have formulated the leading question as 'Is there language?' instead of 'Is there communication?', and, if so, 'What kind of communication?' Secondly, especially in the Sarah project, the experiment was structured to define explicitly the fundamental nature of language, i.e. the natural language (NL) of humans – to answer the essential question, 'What is language?' The Premacks, in the Sarah project, purposely assigned themselves 'a list of things an organism must be able to do in order to give evidence of language'. According to Mounin, focusing on presumed defining characteristics of NL, and trying to assess to what extent NL, defined thus, is available to apes was a mistake. The experiments should rather have studied ape language and human language as independent semiotic systems and analysed their capabilities. By doing so, perhaps, they might have been able to show the existence of an uninterrupted chain of types of communication, becoming more and more complex, between animal and man.

Replacing the concept 'language' by 'communication', however, does not take us far, for basically the notion 'communication' is as fuzzy as the notion 'language'. Hockett

and Altmann² tried to distinguish between varieties of semiotic (i.e. communication) systems through listing a set of 'design features' which could be used to classify the systems. They confess that 'they retained the term 'communication' in its original vague sense.

Lyons³ criticizes the 'design feature' approach of Hockett for being loose and concealing rather than revealing the salient differences between NL and non-human signalling (i.e. semiotic) systems. According to Lyons, Hockett's classification procedure has little theoretical interest, and the purely definitional aspect of the question must be borne in mind, when one asks whether NL is or is not unique to human species.

Rather than getting embroiled in these controversies, we shall approach the problem of 'uniqueness' and 'continuity' by comparing and contrasting NL as a behavioural modality available to humans with the semiotic systems available to, say, apes to support their communication capabilities. To this end we shall analyse a pervasive and ground-level use of NL-modality by humans and try to determine the features of NL that make this usage possible. We could then ask, and try to probe, whether these features, or analogues of them, are present in the semiotic system of apes. If yes, do apes engage in the kind of behaviour under consideration, and, if not, why not? As our specific example of NL usage by humans, we shall analyse narration i.e. the composition of narratives. But first, to provide a context for dealing with 'narration' as a specific instance of NL modality of behaviour, we shall discuss briefly some characteristic features of the NL modality.

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NL as a semiotic system

Medawar⁴ has persuasively argued that it is not the tool-fabricating know-how that sets apart human beings from other animals, but their ability to communicate this know-how from one generation to the next. He points out that it is because of this communication know-how (i.e. competence) that human beings have come to enjoy a kind of cultural evolution distinct from the Darwinian genetic evolution based on natural selection.

The communication competence of human beings, which directly underlies the cultural heritage of humankind, is pre-eminently a result of their language behaviour. Language is both a communication medium and a representational medium at the same time. This is equally true of animal vocalizations. The difference between them resides in their potentialities. *Instructability* and *reflection* are modes of behaviour which are essentially predicated on the availability of the full potential of NL.

Closely tied to the ability to instruct is the ability to *describe* and *specify*. All animals have capabilities of varying sorts to *recognize* the situational aspects of their environments. The sophistication of this recognizing capability varies over a wide spectrum – from the rigidly programmed to the highly flexible. However, animal vocalizations incorporate restricted means for describing to others what an animal perceives, recognizes or feels.

Animal vocalizations are made use of to indicate need states (e.g. hunger), affect states (e.g. anger), or for purposes such as warning of predators, ensuring mother-child-bond, maintaining social organization and cohesion, announcing the availability of food, and so on. The vocalizations, thus, serve to manipulate the environment (i.e. other members of the community and foes), as well as to describe it. However, we have no evidence that an animal can use its vocalization to caution another member of the community of *potential* threats as opposed to *actual* ones. For example: ‘When you go near the water-hole watch out for tigers’.

However, NL as a semiotic medium makes available precisely the features missing in animal vocalizations. Through language behaviour one is able to deal with a world not necessarily immediately present to the senses. Through NL humans can deal with worlds distanced from them in space and time. Moreover, they are able to deal not only with the actual world out there that is given, but with (imagined) possible worlds and even counterfactual situations. With language behaviour one is not restricted to performing actual experiments, but can take recourse to *gedanken* experiments. These are essential aspects of the reflective mode of behaviour.

NL, thus serves both as a representational medium and as a discourse medium. And as a discourse medium, NL makes it possible to discourse on what has been represented using that very same language. This discourse capability of NL is predicated on the ability of NL to serve as its own *metalanguage*.

In ordinary daily living the following discourse forms would seem to be of central importance:

- (i) Conversation (also, as a variant, monologue).
- (ii) Describing (a situation out there, or a potential or desired situation).
- (iii) Instructing (guiding another through a procedure to perform a task successfully).
- (iv) Narrating (a story, a sample of one’s life experience, etc.).

Use of language behaviour as social action, as exemplified by these discourse forms, is an intrinsic feature of language behaviour acquisition. Children go through well-defined developmental stages in mastering these discourse forms.

As indicated earlier, we shall look at ‘narrating’, ‘narratives’, in some detail and analyse what features of NL play essential roles in facilitating this discourse form.

Narrating and narratives

Narrating is not an esoteric form of language behaviour. On the contrary, constructing narratives (= narrativization) is our standard mode of coming to grips with observed behaviour and experienced events. Narratives enable us to ‘explicate observed actions and events in terms of unobservable goals and motives, thoughts and emotions’, as Kemper⁵ observes. She further elaborates that ‘story-telling is one of the first uses of language... In developing narrative competence, children learn to produce and comprehend causally and temporally structured plots that are organized around a variety of themes and involve a myriad of characters’.

Morford⁶ provides an analysis of a spontaneous narrative of past personal experience, and an elicited fantasy narrative from each of two adolescent home-signers.

Narratives, in the form of stories, serve an essential pedagogic role. To quote Wells⁷. ‘Very young children find it easier to assimilate new ideas when they are presented within the framework of a story. Only gradually do they learn to move from the particularized example to the general principle, and from a narrative mode of expression to an expository or argumentative one... Stories provide a major route to understanding’.

In his paper ‘On self-deception’, Sarbin⁸ argues persuasively that ‘narrative’ can be considered a root-metaphor for ‘thought’. ‘The action of organizing bits and pieces of experience into a coherent story with a beginning, a middle, and an ending, may be called emplotment. Unorganized, chaotic, and unsettled “facts”, images, recollections, fantasies, and records, are ordered into a coherent story, whether in the genre of history, fiction, biography, or autobiography...’

What tools are needed in order to create a narrative? According to Sarbin: ‘It is not necessary to invoke some

postulated “deep structure” within the nervous system to account for the pervasiveness of narrative. The skill in using symbols, in talking about absent things as if they were present, and present things as if they were absent, and the survival value of sharing the meanings of happenings, are enough to account for the universality and pervasiveness of story-telling . . .’

Labov⁹ suggests that ‘we can look at “narrative” as a series of answers to underlying questions:

- a. Abstract : what was this about?
- b. Orientation : who, when, what, where?
- c. Complicating action : then what happened?
- d. Evaluation : so what?
- e. Result : what finally happened?

Significantly missing in this list of questions is ‘why’? The concept of ‘emplotment’ is completely missing. Also, if, as Kemper claims, the principal *raison d’être* for a narrative is to explain experienced agentive behaviour in terms of ‘goals, motives, thoughts, and emotions’, then observational and analytic skills to ferret out these behavioural constituents are central requirements. Ascription of mental states with ideational content to agents is, thus, a basic task in constructing narratives to explain real-life events involving individual agents or social groups of agents.

What can we say about mental states with ideational content?

Mental states with ideational content

One can imagine an animal angry, frightened, unhappy, happy, startled. But hopeful?

Why not?

A dog believes its master is at the door. But can he also believe his master will come the day after tomorrow? – And what can he not do here? – How do I do it? – How am I supposed to answer this?

Can only those hope who can talk? (only those who have mastered a language). That is to say, the phenomena of hope are modes of this complicated form of life.

– Wittgenstein¹⁰

A child has much to learn before it can pretend. (A dog cannot be a hypocrite, but neither can he be sincere.)

– Wittgenstein¹⁰

Kohler¹¹ gives a variety of examples of behaviour of chimpanzees (emotional, affective) towards him and other humans in their day-to-day care. He refers to these by affective terms normally used in the context of describing human–human relationships – for instance, jealousy, remorse, self-pity, pleading for special attention, exaggerated display of hurt, and so on.

Displays of these emotions happen only in the here and now, or in immediate succeeding situations. Can one argue that an animal–human affective relationship carries the same

ideational import as the corresponding human–human relationship? More specifically, in what circumstances can we assert this?

Consider in this context the following comments by Fogelin¹² on Wittgenstein’s treatment of mental states with ideational content. ‘It is not clear where we would draw the line between those emotions (attitudes, etc.) that are open only to creatures that command a language, and those that can be sensibly attributed to creatures with no language. Can an animal feel shame, guilt, rancour, envy, etc.? If Wittgenstein is correct, we should be able to find the ground for each of these feelings in some primitive (i.e. prelinguistic) response to the world and other humans in it. We may share these primitive responses with other animals. Yet, it hardly seems possible that we could differentiate these feelings (shame from guilt, envy from rancour, etc.) at this primitive level. These distinctions depend, in part at least, on subtle and complex distinctions in ideational content, and we attribute such subtle and complex ideas only to creatures that command a language’.

Is having a ‘theory of mind’ equivalent to having the capacity to understand/analyse mental states with ideational content and their implications to behaviour? Premack¹³ the originator of the concept: ‘Theory of mind’, divides all mental states into two groups: simple and not so simple. ‘Simple states are those produced by processes that are hard-wired, automatic or reflex-like, and encapsulated (in the terminology of Pylyshyn and Fodor) While perception is the prototypic simple state, we may add others [The] three states – seeing, wanting, expecting – have in common a restricted and automatic production process that is independent of language . . .’.

‘Complex states, of which “belief” is the prototype, are . . . not automatic, encapsulated, or hard-wired; moreover, [they] definitely depend on language, most certainly at the level of internal representation, though often also at the level of input to the system . . .’.

According to Premack, ‘belief’ prototypically instantiates the following essential characteristics of complex mental states: they need a high level of language competence; they are based on the conscious utilization of causal theories; in an advanced form they are to be found in the personality traits we assign to one another.

Thus, Premack concludes that if chimpanzees ascribe any mental states at all to other chimpanzees, such states are likely to be simple, and certainly not complex.

One can readily identify mental states with ideational content that we discussed earlier with the complex mental states of Premack. Clearly, in both cases, the availability of the language modality – with the full potential of NL of humans – is an essential prerequisite. In addition, discourse capability (i.e. object-level and meta-level usage of the semiotic medium – NL, in the case of humans) in the sense discussed earlier is also an essential requirement for emplotment and, hence, the construction of narratives.

Conclusion

What conclusions can we draw from our analysis of ‘narration’? We saw that to compose narratives, the medium in which the narrative is rendered – NL in the case of humans – must have special features. First, the narrative one composes can be based on observed and/or experienced events, or it can be based on entirely fictitious happenings. In both cases, emplotment is a central feature of composing narratives. Hence, the narrative or story-telling medium must facilitate emplotment. This, in turn, requires that, in the medium, one should be able to talk about events here and now, events distanced in space and time; and actual happenings and fictitious ones. In addition, as we discussed in some detail, emplotment requires the capacity to talk about mental states with ideational content. The medium should make possible not only representation of these details but, more importantly discoursing/ratiocinating about them.

Earlier we saw that the NL modality of behaviour of humans has precisely these very characteristics. As pointed out earlier, the NL modality is not only a representational medium but also a discourse medium. With this background, what can we say about the semiotic systems available to nonhuman animals, for instance, to chimpanzees? Can chimpanzees tell one another stories? Do they do so? If not, why not? Here are two extreme views, exemplifying ‘faith and reason’.

‘Having been to Congo and observed Bonobos in the wild, I find it incomprehensible that they do not have language there. Not only is their vocal repertoire immense, they also utilize subtle gestures, drumming on trees, clicking sounds made with their mouths, whistling noises, and vegetation in their communications. They coordinate their movements in time and space in a manner that would be impossible without a language of some sort Theories of the future will most likely revolve around understanding the communications and the symbolic and social constructions of living primates . . .’¹⁴.

‘What then am I? A thinking being. What is a thinking being? It is a being which doubts, which understands, which conceives, which affirms, which desires, which wills, which rejects, which imagines, and which perceives.’¹⁵

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