

Re: Singing as prerequisite (or aid) to language.

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- *From:* "Glen M. Sizemore" <gmsizemore2@xxxxxxxxxx>
 - *Date:* Fri, 17 Jun 2005 12:51:08 -0400 (EDT)
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WM: But since you put it so, I am happy to learn that gibbons and > nightingales (to name a few) have language.

> GS: Yes, I was a little careless. Modern singing humans are engaging
> in verbal behavior, it seems to me, but that does not mean that what
> we call "singing" in every species is verbal. Incidentally, a short
> definition of verbal behavior would be something like "verbal behavior
> is operant behavior for which the reinforcers are alterations in the
> behavior of the listener, and the antecedent stimulus function of the
> speaker's behavior (or the product of the behavior), with respect to
> the listener's behavior, is not primarily unconditioned elicitation."
> Now, the question of whether or not non-human animals in the wild show
> behavior that has verbal function should be examined in this light.
> There seems to be no doubt that non-humans can acquire behavior that
> has verbal function by Skinner's definition, though the discovery of
> emergent equivalence classes in humans, and the near-complete failure
> to demonstrate them in non-humans, suggests to some that some aspects
> of verbal behavior are completely out of reach for non-humans. I am on
> the fence wrt emergent equivalence classes - I don't know if we need
> some other behavioral process (or rather whether emergent relations
> constitute a behavioral process) to account for emergent classes, or
> if they can be explained by pointing to the known behavioral processes
> that Skinner used in 1957 to interpret "language."

WM: As you may know, I am not a big fan of Skinner, but then mostly what I know of him is what I have read from critics. And what you write above makes sense (to the extent I can follow the lingo) in understanding how human ancestors got from the primitive verbal behavior exhibited by gibbons[]

GS: For the record, "vocalizations" are not necessarily (and usually are not) "verbal behavior." That was a main point. Also, vocalizations established through operant conditioning are not necessarily "verbal behavior."

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WM: []to our current ability to have endless discussions on the internet. It may be true that postulating an innate language instinct is necessary to understand modern humans, but absent magic there must have been a time when human ancestors did not have such an instinct. Without learning and reinforcement there is simply no way to expand upon primitive verbal behavior to get to modern verbal behavior.

GS: You seem to be mostly agreeing with me, sans the terminological differences just noted. Or are you restating my position? I hope you are not suggesting that I am arguing for the usefulness of a notion of "an innate language instinct."

> WM: The alternative hypothesis is that we had singing before we became
> linguistic, and our ancestors coopted and expanded the vocal control
> mechanisms to enhance their linguistic capabilities.

> GS: This could be seen as very close to what I am arguing, actually,
> except for the "psychological creationism" contained in "our ancestors
> coopted and expanded the vocal control mechanisms to enhance their
> linguistic capabilities."

WM: Here I was being careless. I meant of course that evolution affected our ancestors, not that our ancestors decided to become human.

GS: But the question is: "What is the specific translation of 'coopted and expanded the vocal control mechanisms to enhance their linguistic capabilities'?"

>The question I would have is "Do you think,
> in your scenario, that vocal behavior was modifiable by its
> consequences and do you think this played a role in 'singing?'" And if
> it did, is it the behavior of a listener that is the reinforcer? And
> is it a reinforcer because the "singing" controls the behavior of the
> listener in ways that are not subsumed under "unconditioned
> elicitation"? Or are you saying that "singing" was basically like many
> animal cries, i.e., elicited by certain aspects of the world, and any
> effects it has on "listeners" is also unconditioned elicitation?

> On the other hand, it may be that there was a time when "singing" was
> like some kinds of birdsong where the form of the song clearly
> involves operant conditioning. In some song acquisition, it appears
> that hearing the song establishes the form as a conditioned
> reinforcer. Then, when the bird starts to sing, its vocalizations
> gradually converge on the "target" through a sort of automatic
> reinforcement. Something like this may have gone on in humans. So the
> song content is "useful" only because all members of the group share

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- > a song form, but the form of the "speaker's" behavior is not produced
- > by the behavior of "listener" in the relation we call operant
- > conditioning. Here, the "content" of the song is "meaningless" (to use
- > inefficient, but sometimes necessary, ordinary language) – its only
- > important property is that it is shared by all members of a local
- > group. Complicated stuff, to be sure, and I will have to spend some
- > time thinking about it. Thanks for your response, though, Bill.

WM: Again I am unused to the terminology – but it seems that singing in non-human primates has a very strong correlation to monogamous social arrangements. The examples are gibbons, siamangs, and another that escapes me at the moment. ISTM this only makes sense if the song is what you call a conditioned reinforcer, and the content is relatively unimportant. In other words, I am suggesting that human ancestors sang because they were monogamous. At the same time they may have been developing other non-verbal forms of communication into symbolism. The two eventually merged into language.

GS: It seems to me that you are agreeing with me, and that puzzles me. I would only say that the statement "they may have been developing other non-verbal forms of communication into symbolism. The two eventually merged into language" illustrates a taste for vagueness, and willingness to jump back and forth between proximate and ultimate causation, that I do not share. To "develop other non-verbal forms of communication into symbolism" does not point consistently to any sort of mechanism. Given a "sufficient level of operant conditioning" (admittedly vague) there is always the potential for the behavior of one animal to be reinforced by the behavior of another, and for the behavior of that animal to be non-elicited behavior (i.e., operant behavior). Such a possibility is not played out, in general, for any species but (currently) modern humans. This is because other variables are not "in line" for this possibility to be generally amplified into culture. This is not a matter of "instinct" – just the opposite. It is a matter of natural selection producing an animal where its learning mechanisms have become increasingly "generalizable," and where large parts of its behavioral repertoire are not "tied to stimuli" on the pattern of elicitation and, thus, modifiable by its consequences. There really are no useful translations of this notion that are not full of baggage from mentalism where processes are simply invented on the spot to explain any finding. "Language" (or at least "use of language") is not "symbolic," it is operant behavior reinforced by the behavior of a suitably trained listener. The term "symbolic" conflates too many different behavioral mechanisms, and this error quickly produces speculation that spirals out of control.

Cordially,

Glen

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<tail snipped>

"William Morse" <wdmorse@xxxxxxxxxxxx> wrote in message
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• **References:**

- ◆ ***Singing as prerequisite (or aid) to language.***
 ◇ From: Anthony Cerrato
- ◆ ***Re: Singing as prerequisite (or aid) to language.***
 ◇ From: Glen M. Sizemore
- ◆ ***Re: Singing as prerequisite (or aid) to language.***
 ◇ From: William Morse
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 ◇ From: Glen M. Sizemore
- ◆ ***Re: Singing as prerequisite (or aid) to language.***
 ◇ From: William Morse

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