Animal Perception in Early Stoicism: A Response to Richard Sorabji

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I. The problem  

In his well known article, "What's it like to be a bat?", Thomas Nagel demonstrates the difficulties involved in understanding the subjective experiences of creatures that share few obvious conceptual starting points with human beings. Although we might try imagining ourselves in a bat's world, hanging upside down, perceiving the world by echolocation, and eating insects, we will be limited by our very conceptual framework, sensory apparatus, and the language of our thoughts. Even if I could mimic a bat's behavior and perceive through its sensory mechanism, the results would most likely, as Nagel puts it, "tell me only what it would be like for me to behave as a bat behaves. But that is not the question. I want to know what it is like for a bat to be a bat."¹ This same question of what it is like to think like an animal arises in several ancient models of mind.  

Do animals and human beings think alike? Xenophanes tells us that if animals could represent the gods artistically, their gods would take the form and shape of animals (B15). Heraclitus emphasize how alien animal values and behavior are to human beings: donkeys prefer refuse to gold, sows enjoy filth more than pure water, and that animals must be driven to pasture by blows (B9, 13, 11). Pythagoras and Empedocles see an eschatological link between animal and human minds by means of their theory of metempsychosis.² The issue of animal minds, however, became more explicit (and more serious) in the epistemologies and psychological works of Aristotle and the Stoics. In this paper, I shall reexamine the Stoic position on this question, particularly in light of Richard Sorabji's recent criticisms of the so-called traditional view.³  

Sorabji is concerned with a view common in the literature regarding the status of animal perception and thought attributed to the Stoics. He is especially concerned since this view is "likely to become an orthodoxy."⁴ This view, defended by scholars such as Frede, Inwood, Long and Sedley, and Labarrière, states that for the Stoics human thought is defined as being  

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² If the theory of metempsychosis is true then Nagel's claim is invalidated. We could in fact know what it is like to be something by accessing the memory. Who knows? He may have been a bat in a previous incarnation. I will not be entertaining metempsychosis as a legitimate candidate for the solution to the problem of animal minds in this paper.  
propositional in nature, whereas animal thought takes a non-propositional form. This contrast between propositional and non-propositional thinking is sometimes described as the difference between "thinking that" as opposed to "thinking as."

Sorabji points out that there is no such clear distinction between "thinking that" and "thinking as" in Stoic texts. In fact he is doubtful whether there is such "a neat distinction" between "that" and "as" for us.\(^5\) Sorabji's greatest concern, however, is that if the Stoics did teach that animals think non-propositionally, it would mean that animals do not have beliefs, and consequently the Stoics would not be able to provide a reasonable account of much of animal behavior.

For an animal to act upon a stimulus it is necessary that the animal think that the stimulus is of a certain kind, quality, or nature. The dog must believe that the hare is food (or tasty) if it is to go to the trouble to chase it down. Since it seems necessary for animals to hold beliefs and hence propositions, Sorabji must come up with an alternative way to distinguish animal and human thinking. He argues that both rational animals (human beings and gods) and non-rational animals possess propositional attitudes. Human beings, however, have the additional faculty of drawing inferences from signs. We can rationally manipulate propositions and make inferences from our beliefs; animals can form them, act upon them, and even demonstrate limited analogous behavior (see Chrysippus' dialectical dog) but they cannot truly make rational inferences.

Did the Stoics deny animals propositional attitudes? Despite Sorabji's concerns, I argue that indeed they did. Sorabji asks "whether we should compare the Stoics with Donald Davidson or Daniel Dennett?" He chooses Dennett. I will defend a modified version of the orthodox view that leans toward Davidson's approach while remaining faithful to the surviving evidence.

At this point I should add that I am not alone in a number of my concerns and criticisms of Richard Sorabji's solution to the problem of animal minds. I first published my criticisms of Sorabji in my 1997 dissertation.\(^6\) I delighted to see that Glen Lesses, in his 1998 article "Content, Cause, and Stoic Impressions," came to very similar conclusions regarding objections to Sorabji's argument. The main difference between our positions is not so much the recognition of problems with Sorabji's argument. Rather, we differ primarily regarding the actual solution to the problem of if and how it would be possible to explain the most elementary forms of animal behavior without appealing to propositional attitudes. Lesses supports a version of the orthodox position in which he distinguishes the thinking processes of rational and non-rational animals on the basis of the scope of perceptual content. As Sorabji predicted Lesses found himself compelled to acknowledge that the Stoic position "might turn out muddled" and that perhaps the Stoics "did not notice the problem."\(^7\) I, however, believe that I have found a reasonable solution to the problem that is not only consistent with Stoic texts and provides a plausible account for animal behavior, but also sheds light on several related issues in Stoic logic and grammar.

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II. The Stoics on perceptual content

The Stoics explained mental events in terms of *phantasiai*, that is, mental appearances or impressions. A *phantasia* can be formed either directly by the senses (aisthetikη *phantasia*) or by the manipulation of previously experienced *phantasiai*. *Phantasiai* are also categorized according to the agent. Diocles of Magnesia reports that the Stoics held that some *phantasiai* are rational (logikai), and some are non-rational (alogoi). The rational *phantasiai* are those that belong to rational animals (human beings, gods), and the non-rational *phantasiai* are those that belong to non-rational animals.8 The passage adds that rational *phantasiai* are thoughts or *noêseis*, while non-rational *phantasiai* have no distinctive name.9

This definition, however, does not tell us what it means for *phantasiai* to be rational (logikai). We are told that the rational *phantasiai* are thoughts, but it is not clear how to translate the term *noêsis* without begging the question. Sextus Empiricus tells us that a *noêsis* is something different than perception, since perception and experience are conditions for *noêseis*.10 But knowing what it is not is not the same as knowing what it is. Certainly, there must be a qualitative difference corresponding to the species-identification. Sextus Empiricus provides additional information. He states:

*λεκτόν δὲ ύπάρχειν φασί τὸ κατὰ λογικὴν φαντασίαν ύφιστάμενον, λογικὴν δὲ εἶναι φαντασίαν καθ’ ἣν τὸ φαντασθέν ἐστι λόγῳ παραστήσαi.*

They [the Stoics] say that a 'sayable' [λέκτον] is what subsists in accordance with a rational impression, and a rational impression is one in which the content of the impression can be exhibited in language.11

Diogenes Laertes also links the rational *phantasia* with the *lekton*.12 It is usually inferred from these texts that what distinguishes the rational and non-rational *phantasiai* is whether they are thoughts or whether they are simply saying that thoughts are the characteristic form of mental experience in rational animals. Long (1971) states, "'Rational presentations' are thoughts (*noêseis*) and peculiar to men, though it is not, I think, implied that every species of human *phantasia* is *logike*" (p. 83). Annas (1992) argues that there "are no perceptions which do not involve conceptualization and thinking" (p. 78). Kerferd (1978) argues, "It is clearly implied that this distribution is complete -- thus all human *phantasiai* are *logikai* ... and as such are *noêseis*" (p. 253).

8 As modern reader we most likely question the dichotomy of rational and non-rational animals. We tend to see a gradation of rationality in the world. The Stoics, however, took the dichotomy very seriously. In fact, Diocles of Magnesia uses the dichotomy between rational and non-rational animals as an example indicating the proper use of *diairesis* (D.L. VII.61).

9 D.L. VII.51. It is not immediately clear if these definitions demand that all *phantasiai* in rational animals be thoughts or whether they are simply saying that thoughts are the characteristic form of mental experience in rational animals. Long (1971) states, "'Rational presentations' are thoughts (*noêseis*) and peculiar to men, though it is not, I think, implied that every species of human *phantasia* is *logike*" (p. 83). Annas (1992) argues that there "are no perceptions which do not involve conceptualization and thinking" (p. 78). Kerferd (1978) argues, "It is clearly implied that this distribution is complete -- thus all human *phantasiai* are *logikai* ... and as such are *noêseis*" (p. 253).

10 SVF II.88.


rational *phantasia* is that the former entails a subsisting *lekton* or "sayable' and that the latter do not. Sorabji objects that the text does not actually say that *lekta* subsists only with rational *phantasiai*, and that the text may be presenting a sufficient condition for the *lekta* and not a necessary condition. In other words, a *lekton* is what subsists with a rational *phantasia*, but it also subsists with non-rational *phantasiai*. This would not be the natural reading of the text. I know of no other case of a Stoic text where the expression rational *phantasia* is used to refer to *phantasiai* in general. Clearly these texts are specifying the *phantasia* to make a point: a *lekton* subsists with a rational *phantasia* but not with a non-rational *phantasia*. Sorabji must appeal to the unnatural reading since he is dissatisfied with what he believes are the implications. I am presenting an interpretation wherein we can save both the text and the phenomena.

III. Perceptual content and Lekta

It is clear, then, that the rational *phantasia* is intimately tied to the *lekton*, and hence to Stoic grammar and logic. A better understanding of the *lekton* will therefore be useful here. A *lekton* is sometimes identified as a "meaning", but more accurately, a *lekton* is something said or something that *can* be said, hence, a 'sayable' in Long and Sedley parlance. The *lekton* can be most easily represented by examining intentional content of a truth-claim [άξιομα]. I am avoiding translating áξιομα as "proposition" lest we confuse this sense of proposition with Sorabji's use of the term. To understand a *lekton*, one needs to understand its structure. *Lekta* are said to be either complete or incomplete. The basic structure of a complete *lekton* consists of a subject and a predicate. In the case of a propositions or truth-claims [άξιωματα], it is this structure that allows *lekta* to be the bearers of truth; incomplete *lekta* such as predicates alone carry no truth value. The predicate "is running" is neither true nor false. The same follows for a non-predicated subject such as "the dog."¹³ Truth claims can only be found in complete *lekta*: "A dog is running" is either true or false.

The traditional position is that human beings think linguistically. Our thoughts share a common syntax with our speech. While it may be possible that certain human *phantasias* are non-linguistic, our *phantasias* are characteristically linguistic. Just as animals do not share the capacity of speech, they do not share the linguistic syntax in their perceptions and sensory impressions.

The idea that rational creatures think linguistically, of course, need not mean that we think and perceive in words. Though the language of thought has a linguistic structure, it does not follow that thoughts must be internal verbalizations. The propositional structure of language and thinking rests on a specific syntax: the subject and predicate relation within an epistemological context. All propositional attitudes require this syntax at least minimally. We think and perceive that certain things are the case. Animals as non-rational creatures, the orthodox view argues, must then think non-propositionally and hence cannot have propositional attitudes.

Richard Sorabji objects to this interpretation of the difference between rational and non-rational *phantasias* on several grounds. As we have seen, his

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¹³ See Frede (1994b) for a discussion of whether a subject of a predication contains an incomplete *lekton*. 

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main concern is that this view would substantially weaken the Stoic theory's ability to explain the phenomena of animal behavior. His generosity to the Stoics is admirable. Certainly the Stoics were no fools. As perhaps the greatest logical minds of their day, we should be suspicious of an interpretation that flounders while dealing with fundamental phenomena such as animal behavior. However, for Sorabji to "save" Stoic philosophy of mind he must first get around the lekta issue.

If Sorabji is right that animals do hold propositional beliefs, it would follow that lekta would subsist with these beliefs. Even if we grant him that the subsistence of lekta with rational phantasiai is a sufficient condition and not a necessary condition for a lekta, thereby opening the door to lekta also subsisting with non-rational, animal phantasiai, we still have another problem: If animals cannot speak, how can their thoughts contain lekta or 'sayables'? Sorabji responds that a lekta need not be verbalized but just verbalizable. This is a point with which most of his opponents would agree since we frequently think without speaking (as well as the converse which tends to get us into trouble). But this in itself does not take Sorabji far enough; for propositions are neither verbalized nor verbalizable by animals. He therefore suggests that the lekton may not even need to be verbalizable by the agent but verbalizable by a rational agent. Hence, it may be sufficient that the thoughts can be verbalized in principle or that their thought can be verbalized by us.

I don't find this position helpful. What would it mean for me to verbalize or have the capacity to verbalize the thoughts of another species? First of all I question whether I could, even in principle have access to the thought of another species outside of observing its behavior and imagining what I would think if I behaved like the animal. Nagel is very germane here. In principle my access to an animal's thoughts, what ever that means, would not be the same as its experience of its own thoughts. Davidson makes a lot of sense here since he recognizes that there is no such thing as an isolated thought. Thoughts derive their very meaning from their epistemologically rich context. Every thought acquires its meaning in relation to the universe of a wider range of thoughts and experience. Thus an animal's thought in my mind wouldn't be the same as in its own mind.

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15 In fact the argument seems to beg the question. The issue at hand is the nature and structure of animal thought and whether it is propositional or not. To say that an animal's thoughts are verbalizable in principle seems to be saying that if a rational agent could understand or access animal consciousness, it would be able to articulate it. This begs the questions since the possibility of a rational agent comprehending an irrational animal's mind is the very issue under investigation. I agree with Nagel that to do such an operation would not be informing us what it is to be (or think like) a bat but what it is like for us to imagine ourselves as a bat. My argument is that there may be no translation matrix between irrational and irrational agents since the very structure and grammar of thinking are on the Stoic model fundamentally different. cf. Quine (1969). The challenge to my position is, as Sorabji points out, how to account for simple animal behavior without attributing propositional attitudes (and without having recourse to modern alternatives such as the Churchland kind of eliminative materialism, which depends so heavily on a scientific context wholly unknown to the Stoics.
Davidson's position here fits nicely with the Stoic concept of the \textit{hegemonikon} and the Stoic theory of perception. The \textit{hegemonikon} may be a blank slate at birth but after the first impression the writing surface has its own texture and content. Thus no subsequent \textit{phantasia} ever strikes a blank surface (I am speaking in metaphor here). Thus no two perceivers will ever see the same sense-object in exactly the same way. The object may be the same, but the memories, experiences, values, and other \textit{phantasiai} are all written and preserved in the \textit{hegemonikon} so that the newly imprinted \textit{phantasia} will have subject-specific content which is defined in part by the personal history of the agent.

Here I've been speaking primarily of two members of the same species. The issue gets much more complicated when comparing different species who by definition have different kinds of \textit{phantasiai}. A rational animal and a non-rational animal will not only have such radically different histories and background to make verbalization in principle impossible, but in addition they will have a different sort of grammar which delineates the two major kinds of \textit{phantasiai}.\footnote{I will support this last claim in the next section.}

It seems then that saying that a non-rational \textit{phantasia} may have a \textit{lekton} on the basis that it might be verbalized in \textit{principle} or that their thought can be verbalized by \textit{us} is not a feasible solution to Sorabji's attempt to save the phenomenon of animal behavior.

IV. A new solution to the old problem

In this final section I will argue how we can make sense of the Stoic position on animal perception without representing the Stoic theory of animal behavior as inane and implausible. First let me reiterate my basic position: I argue that according to the Stoics animals \textit{do not} have what we would call propositional attitudes. How then can I account for a dog's behavior when it follows the scent of a hare? Surely it the dog believes \textit{that} it is hungry, \textit{that} the hare is tasty, and \textit{that} if he follows its scent it will lead him to the hare, thereby satisfying its hunger. Moreover, my solution is not to return to the worn-out "thinking that" versus "thinking as" paradigm. Sorabji is correct that the distinction is not always clear in contemporary thought and that there is no indication that it would be a likely tack for the Stoics. Therefore, I need an alternative theory that finds that covetous middle ground which saves both the text and the phenomena. My reconstruction will be sufficient to account for animal behavior without attributing to them a mental syntax and epistemological framework characteristic of experienced language-users.

The main weakness in Sorabji's argument is that he conflates predication, proposition, and connectivity. He argues that even the most basic animal behavior connects presentations and thoughts, such as when an animal perceives a scent coming from a certain direction. He states:

But this already involves \textit{predication}: the scent is \textit{connected} with a direction. We can put this by saying \textit{that} the animal has the perceptual appearance that the scent comes from that direction, or the perceptual appearance of it as coming from there (these are not sharply distinguished by the Stoics). I shall describe such appearances as

\footnote{I will support this last claim in the next section.}
propositional, meaning no more than that one thing is predicated of another.\(^{17}\)

This, however, is overworking the concept of predication. Whereas predication is a kind of connection, not all connection entails predication. I will return to this point shortly.

The Stoics cannot deny that animals perceive things in relation to each other things (e.g. the scent coming from that direction). The dog must minimally connect the scent a direct if we are to explain the animal following an animal's trail. And it is also true that if the animal is to act on a stimulus it must connect the stimulus with a desire or experience. The dog must connect the scent with its desire or hunger. However, I do not agree that the animal must believe that the scent is coming from a given direction or even believe that it is hungry (though that is how we would interpret and articulate the grumbling and sensation from our stomach if we dogs). But by Sorabji's account the connection implies predication which in turn implies, syntactically, a proposition, hence the "that-clause" and his view that animals must have propositional attitudes.

Sorabji fails to recognize that connectivity need not imply predication. Predication is a certain kind of connection. Indeed, the most obvious example of non-predicative connectivity comes from the Greek language, something that the Stoics as grammarians would certainly be familiar with. I refer to the distinction between the predicate and attributive position in Greek grammar. An adjective in the predicate positions affirms that something is the case of its subject: "The rabbit is tasty" (ό λαγός ἡδύς). However, if the adjective is placed in the attributive position the result is simple connection or description: "Tasty hare" (ό ἡδύς λαγός). "Tasty hare" is not a complete lekton by Stoic standards since it is a modified subject without a predicate. It is therefore not a proposition and contains no truth claim.\(^{18}\)

But is the attributive syntax sufficient to describe animal behavior? Let's return to the dog and the prey example. The dog has the experience of hunger. It does not know that it is hungry, it simply is hungry. In other words, an impulse is present. The dog also has a memory (and/or possibly an innate impulse) of hunger-satisfaction connected with a hare. The hare-memory is also connected to a certain scent. This is not the same as saying that the dog knows that hares smell like this. The hare and the scent simply accompany each other. The scent then is connected with a direction. The dog then connects its hunger with the direction (along with the residual associations of the hare). This connection or association, without predication suggesting a truth value, is sufficient for the animal to pursue its prey. The Stoic theory of impulse should be able to get the dog moving.\(^{19}\)

How then does this differ from Sorabji's position? Does it not still imply that the animal has a belief? In my theory the dog does not believe anything

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18 It is also important to remember here that truth-claims (ἀξιώματα) are not the only kind of lekta. Questions, commands, and oaths are also lekta. While these are not truth-claims, they do imply and require a predicational framework and propositional attitudes to operate.

19 The relationship between perceptual content and impulse is outside of the scope of this paper and is not the problem that I am presently trying to solve. This subject requires much more attention. See Inwood, 1985.
to be the case since no predication has been made. Instead, the dog has a
collection or cluster of memories and associations. The animal's attributive-
thought associates memories and experiences without reference to an
validating epistemological framework. The propositional thought
characteristic of human beings, on the other hand, embodies a truth claim. As
a complete lekta, it bears a truth value. The issue is not verbalizability in itself
but the presence of a syntax that suggest a condition of fulfillment in an
epistemologically rich context. Animals simply have no such syntax and no
such epistemological context. Therefore, nothing is either true or false for an
animal.

Let's take one more look at the issue from the epistemological angle. A
propositional thought presents a claim in the context of a coherent and rich
world-picture which creates conditions of fulfillment. Propositions entail the
possibility of error; propositional thinking likewise recognizes the conception
of truth (at least tacitly). The non-rational, attributive experience
characteristic of animal thinking, however, is immediate and does not declare
a relation outside of the immediacy; it is epistemologically neutral. If a dog
has a phantasia cluster of a "tasty-hare" and hunts down the prey only to find
a porcupine, the tasty-hare phantasia would be replaced by the prickly-hare
phantasia. If a residual memory of the "tasty-hare" remains it might sniff
around some more. Eventually a more pressing phantasia will replace it such
as the "tasty-squirrel" phantasia in another tree. The important thing is not
that the dog, as far as we can tell, will not face any epistemological crisis as a
rational animal exercising predicative thinking would. Instead the perception
and its entailing expectation is replaced by a new immediacy. The question of
truth is not implicit in the claim or even within the cognitive vocabulary of
the animal. This is why it is so important that we avoid using "it is the case" or
"that" language when speaking of animal phantasai. I argue that the Stoics
knew better and that Sorabji's interpretation does not save the Stoics but
undermines an important insight regarding animal psychology and
epistemology.

This takes us back to Nagel. We want to know what it is like to be a dog
chasing a hare. Nagel warns us of the difficulties and limitations of simply
extending our concepts and forms of thinking to animal behavior. That would
only tell us what it would like if we were dogs chasing hares. We cannot
imagine thinking without our own conceptual language, void of an
epistemologically rich context. The Stoics, however, seemed to have realized
the implications of denying animals reason. It means that animal thought is
but analogous to human thought and does not even have a name (ou
tetuchêkasino nomatos). It also means that animals have no concept of truth
or falsehood. They may run into conflicting associations and memories but
they do not have the cognitive capabilities, at least according to the Stoic
model, to determine the truth, and recognize it as such. This last fact may
explain why my dog Max never seemed startled when I performed magic tricks
in front of him. He seemed far more interested in the rabbit that I pulled out
of the hat than the fact that it appeared to come from an empty hat.

20 Chrysippus' "dialectical Dog" is explicitly said not to reason but to do
something analogous. All interpretations, including Sorabji's, faces a problem
with the dialectical dog. If Sorabji's interpretation is correct then there is no
reason to claim that what the dog does not actual reason by only does
something analogous.
21 D.L VII.51
Works Cited


