CHIMPANZEE PHENOMENOLOGY:
A Beginning for the Phenomenological Theory of Primate Ethology

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INTRODUCTION

The reader has certainly watched primates – either directly at a zoo, or indirectly through videos or films – and has thus seen them in attitudes that are playful, serious, aggressive, submissive, etc. The non-human primates include bonobos, chimpanzees, gorillas, and orangutans and primate ethology is the science that investigates them. Chimpanzees have been most fully investigated and will also be focused on here. The expression "chimpanzee phenomenology" refers, of course, not to phenomenology practiced by chimpanzees, but to phenomenology practiced indirectly as well as directly upon chimpanzees.

This essay has two parts. The first summarizes how some phenomenological philosophers have used some psychological investigations of chimpanzees. The second relates such efforts to an aspect of the work of Aron Gurwitsch and Alfred Schutz to inaugurate the phenomenological methodology, or better, the theory – the *Wissenschaftstheorie* – of primate ethology. "Theory" is preferable to "methodology" here since, following Schutz, it can cover not only reflection on method in a strict signification but also the classification and the basic concepts or categories of the science in question. Phenomenological science theory, as it can also be called, appears not to have been previously extended to primate ethology; hence this essay attempts to start something.

I. EARLIER PHENOMENOLOGISTS AND OTHER PRIMATES

Interest in non-human animals might seem a new theme in the phenomenological tradition, but it is actually a renewed one. The Gestalt psychologist Wolfgang Köhler investigated chimpanzees and began publishing his findings in 1917.[1] This work was soon widely discussed. Max Scheler appears the first philosopher associated with phenomenology to comment on it in print, which he did in his last book, *Die Stellung des Menschen im Kosmos* (1928). He explained how chimpanzees are capable of simple intelligent behavior rather than merely associative memory:

> Köhler's experiments were conducted as follows: Between the animal and its goal-object (a fruit, usually a banana) were interposed complicated

detours, obstacles or objects that could serve as "instruments" – for example, boxes, ropes, sticks, even sticks that had to be fitted together, procured or made. It was then observed if, how and by what (presumably) mental capacities the animal knew how to achieve its goal, and what were the fixed limits in its performance ...

I shall briefly sketch what seems to me to be involved in this kind of practical intelligence. As the goal-object – say, a fruit – lights up in the visual field of the animal and is set off as an independent entity, the surrounding visual field and all of the objects in the environment are peculiarly restructured, especially the visual field between the animal and fruit. It is restructured in its objective relations. It is thrown into a relatively "abstract" perspective so that objects which, perceived by themselves, are either indifferent to the animal or have characteristics such as "something to bite into," or "something to play with," or "something to sleep on" assume the abstract dynamic characteristic of "something to get the fruit with" – for example, a blanket which the animal fetches from his sleeping quarters in order to bring within reach the fruit lying outside the cage. Moreover, it is not only objects like actual sticks similar to branches on which fruits might hang in the normal arboreal habitat of the animal which are used for this purpose. This might still be attributed to instinct. It may also be a piece of wire, pieces of straw, the brim of a straw hat or a blanket – anything that satisfies the abstract representation of "movable and elongated." It is the dynamic energy of the drive itself that is here objectified and projected into constituents of the environment. The object used by the animal acquires (only in this case, to be sure) the dynamic functional value of an "instrument," an "object for bringing the fruit nearer." It acquires the characteristic of being focused upon the goal in the visual field: The rope or the stick itself seems to point to the goal, if not actually to move toward it.[2]

Scheler then connects Köhler's work with a speculative explanation about how drives influence perception, offering an interpretation that is not especially phenomenological: "Thus it is not impossible to imagine that the displacement of the drive onto the thing-world of the environment (as if the things themselves were driven toward the fruit, not only the animal) should also bring about changes in the perceptual field which makes the 'stick' move toward the fruit..." (idem).

Aron Gurwitsch related Köhler's work to phenomenology more clearly. His doctoral thesis, published in 1929, was accepted by Scheler, who died before it could be defended, but Gurwitsch certainly knew of Scheler's remarks just quoted and in the thesis refers in passing to Köhler's work.[3] Then in his 1932 review of Husserl's "Nachwort zu meinen 'Ideen...'," Gurwitsch goes on to assert that "Gestalt-theoretical investigations which are not limited to 'normal adult civilized men' but extend to animals (Köhler), children (Koffka, K. Lewin), and brain-injured patients (Gelb and Goldstein)... lead to problems which are also of significance for Husserl's phenomenology, although he has not pursued them."[4] Finally, an interpretation different from Scheler's is offered in the main publication of Gurwitsch's lecture course at the Sorbonne in 1933–34:

From the observations on higher apes made by P. Guillaume and I. Meyerson, Köhler, and R. M. Yerkes, it appears that these animals are capable of intelligent

> actions. By "intelligent" is meant the aptitude to react to a new situation and to make use of things, without any previous training, in the way most suitable for the concrete situation and at times alone permitting the animal to reach a goal. The distinctive characteristic of such actions – which, to a considerable extent, occur only in certain particularly favorable conditions and in the best moments of the chimpanzee's life – is that the result is not obtained by means of "trial and error" behavior. In trial and error, the final result which the animal obtains is happy only by chance. The conduct leading to the desired effect is *one mode of conduct among others*, all of which are employed and tried by the animal equally; hence, none of them has any intrinsic distinction. The fact that other modes of conduct are not useful, whereas one certain reaction yields a favorable result, is entirely the result of the objective constellation and situation; it is external and even alien to the behavior of the animal. With intelligent actions, on the contrary, the animal may also begin by making random motions; yet at a certain moment he abandons this blind groping and adopts only a single manipulatory conduct that will allow him to solve the problem, just as if he understood the given situation. If at a later time the animal is placed in the same situation, he will immediately, or almost so, make use of the same procedure which resulted in the favorable effect. This procedure will have been learned by him through his experience; whereas, had he followed the method of trial and error and were placed in the same situation, he would have begun again to grope and make random motions.[5]

And Gurwitsch immediately provides concrete observations on the basis of which such a general claim is established:

> In the cage there is a tree, and in front of the cage, at a distance greater than the length of the animal's arms from the bars, lies a piece of fruit. The chimpanzee in the cage already knows how to make use of a stick to draw objects near to himself. Perceiving the fruit, he goes to the bars and stretches out his hand, then seeks for a stick. There is no stick in the cage or any object which could be used as a stick. The chimpanzee is perplexed; the situation in which he finds himself consists of the tree (a very solid object) on the one hand and on the other hand the field of action oriented towards the fruit. For the animal, this field of action is open and presents a gap which has to be closed. This is indeed the essential structure of what is called a problem of a practical nature. Suddenly, the chimpanzee rushes up to the tree, breaks off a branch, and uses it as a stick. What happens and permits the animal to master the situation is the radical transformation which the branch undergoes by becoming a stick. The branch, which was a part of a solid form (the tree), is detached and becomes the intermediary that the chimpanzee needs in the field of action to close the gap.[6]

Gurwitsch is ultimately concerned, however, not with chimpanzee life, but with how "when it is a matter of practical problems, the behavior of man is of the same psychological structure as that of animals, as far as the shaping principles are concerned."[7] He offers no speculative talk about the dynamic energy of drives objectified and projected into the environment; instead, he alludes to noetico-noematic correlations, a core theme of his work as a whole.[8] (Observable perplexity in the ape and the correlative perplexing situation will be considered later in this essay.)

Maurice Merleau-Ponty attended the lectures of Gurwitsch just quoted from and helped polish the French for the publication based on them,[9] but he had a somewhat different philosophical purpose when he discussed chimpanzees. He included Köhler's book, its French translation of 1927, and also Scheler's *Die Stellung des Menschen im Kosmos* in the bibliography of *La structure du comportement* (1942), but curiously nothing by Gurwitsch, whose thesis he had already cited in a grant proposal.[10] Merleau-Ponty is concerned not with something shared by humans and apes, but with their difference:

> What defines man is not the capacity to create a second nature – economic, social, or cultural – beyond biological nature; it is rather the capacity of going beyond created structures in order to create others. And this movement is already visible in each of the particular products of human work. A nest is an object which has a meaning only in relation to the possible behavior of the organic individual; if [an ape] picks up a branch in order to reach a goal, it is because it is able to confer a functional value on the object of nature. But [apes] scarcely succeed at all in constructing instruments which would serve only for preparing others; we have seen that, having become a stick for the [ape], the tree branch is eliminated as such – which is the equivalent of saying that it is never possessed as an instrument in the full sense of the word. Animal activity reveals its limits in the two cases: it loses itself in the real transformations which it accomplishes and cannot reiterate them. For man, on the contrary, the tree branch which has become a stick will remain precisely a tree-branch-which-has-become-a-stick, the same *thing* in two different functions and visible *for him* under a plurality of aspects.
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> This power of choosing and varying points of view permits man to create instruments, not under the pressure of a *de facto* situation, but for a virtual use and especially in order to fabricate others. The meaning of human work therefore is the recognition, beyond the present milieu, of a world of things visible for each "I" under a plurality of aspects, the taking possession of an indefinite time and space; and one could easily show that the signification of speech or that of suicide and of the revolutionary act is the same. These acts of the human dialectic all reveal the same essence: the capacity of orienting oneself in relation to the possible, to the mediate, and not in relation to a limited milieu; they reveal what we called above, with Goldstein, the categorial attitude. Thus, the human dialectic is ambiguous: it is first manifested by the social or cultural structures, the appearance of which it brings about and in which it imprisons itself. *But its use-objects and its cultural objects would not be what they are if the activity which brings about their appearance did not also have as its meaning to reject them and to surpass them.*[11]

Both Merleau-Ponty and Gurwitsch recognized the constitution of objects as useful by chimpanzees, but neither is explicitly concerned with how primate ethologists gain knowledge of chimpanzee consciousness and things as encountered in it. Neither refers to Köhler's methodological writings.[12] Rather, they both proceed on the basis of his results.[13] (It seems also worth mentioning that in posthumous publications Edmund Husserl not only reflected on non-human animals, contending among other things that they too are embodied transcendental consciousnesses,[14] but went so far as to comment on social interaction among Köhler's chimpanzees.[15])

II. FROM SCHUTZ TO PRIMATE ETHOLOGY

The following discussion begins with Alfred Schutz's theory of science, where scientific practice is analyzed under three headings: methodological postulates; disciplinary definition; and clarification of basic concepts.[16] Schutz also remarked on the ideal relationship between methodologists (qua theorists of science) and scientists. The science theorist consults scientists in a discipline – possibly in person, but certainly through study of their publications – in order to understand scientific thought and in the hope that her results will be of use to the scientists consulted. As he wrote to a colleague in 1955, "It is my conviction that methodologists have neither the job nor the authority to prescribe to social scientists what they have to do. Humbly he has to learn from social scientists and to interpret for them what they are doing."[17] And Schutz also puts it that the scientist be considered a teacher in relation to whom a science theorist is a student: "In this role, the methodologist has to ask intelligent questions about the technique of his teacher. And if those questions help others to think over what they really do, and perhaps to eliminate certain intrinsic difficulties hidden in the foundation of the scientific edifice where the scientists never set foot, methodology has performed its task."[18]

A thorough study of the literature of primate ethology would, of course, be necessary for a positive contribution to the theory of that science. Here, however, the task is to show how *phenomenological* science theory might make such a contribution. Schutz's concern is with how human life is investigated in specifically social sciences, as well as in various historical sciences, archaeology included. Though it is doubtful that primate ethology can fit his model of cultural science in all respects, some interesting connections can nevertheless be found and perhaps his model can be adjusted.

A. Methodology

"Methodology" has a strict and a broad signification in Schutz. The latter includes the former and can be called "science theory"; the former includes over a dozen postulates that he characterizes as the "accepted rules of procedure of thinking called the method of science."[19] Some postulates hold for all the sciences, others hold for species of science, and yet others hold only for particular disciplines. The general postulates certainly hold for primate ethology, e.g., the implicit general postulate whereby the theoretical attitude is to be adopted as well as the explicit general postulate of logical consistency whereby "the system of typical constructs designed by the scientist has to be established with the highest degree of clarity and distinctness of the conceptual framework implied and must be fully compatible with the principles of formal logic."[20]

Other rules postulated by Schutz are not so easily related to a science of non-human animals. He appreciated Max Weber's basic concept of *subjektiver Sinn* above all. This expression is best rendered by Schutz in English as "subjective interpretation" and refers to how "any phenomenon of the social world has a different aspect for the sociologist and for the man who acts and thinks within it."[21] This might seem pertinent since the world has a different aspects for the ethologist and for the primate. Yet the two contrasts are not fully parallel.

> What is really meant by the postulate of subjective interpretation is that the actor understands what he is doing and that, in daily life as well as in science, the observer who wants to grasp the meaning of an action observed has to investigate the subjective self-understanding of the actor. Strictly speaking, it is only the actor who knows where his action starts and where it ends. The observer sees merely the segments of the ongoing course of action which became manifest to him...[22]

The ethologist can certainly see segments of ongoing courses of action. But does or can a chimpanzee reflectively understand what she is doing, and, if she does, can she communicate her subjective interpretation to the scientist investigating her behavior? Schutz's postulate of subjective interpretation would not seem valid in primate ethology.

Then there is Schutz's postulate of adequacy:

> Each term used in a scientific system referring to human action must be so constructed that a human act performed within the life-world by an individual actor in the way indicated by the typical construction would be reasonable and understandable for the actor himself, as well as for his fellow-men. This postulate is of extreme importance for the methodology of social science. What makes it possible for a social science to refer at all to events in the life-world is the fact that the interpretation of any human act by the social scientist might be the same as that by the actor or by his partner.[23]

Again, it does not seem that a chimpanzee could understand a scientific model of her actions, much less communicate to the ethologist whether or not she found it understandable and reasonable.

In both these connections the problem is one of access to an ape's interpretation of actions, those of others as well as of her own – if, that is, apes do interpret their actions, products of action, relationships, etc., which is something humans undoubtedly do. A social scientist gains access to human subjective interpretations with questionnaires and interviews and adequacy is judged on the same basis. Where chimpanzees are concerned, these means are precluded; nevertheless, it is difficult to doubt that chimpanzees live conscious lives in which there is, for example, perplexity and intelligent action. How are perplexity, or for that matter, excitement, anger, and many other attitudes observed?

Some investigators go to the physicalistic extreme of behaviorism in which somatic movements alone are considered observable. But an ethologist can abide by a theoretical version of the sociocultural attitude originally found in everyday life and observe that the ape is perplexed when there is a piece of fruit beyond her unaided reach and no tool in view and also observe a change in the situation for the ape when she breaks off a tree branch and uses it to draw the fruit close enough to grasp. Things of this sort can also be recognized in humans without recourse to language. This is the observation that Gurwitsch and Merleau-Ponty as well as Scheler pondered. Although philosophical purposes prevailed for them, their approaches were akin to those of Köhler and some ethologists. This approach can be said to be phenomenological in that it relied on the distinction between, and correlation of, noesis and noema, e.g., the perplexity and the intentionally correlative perplexing situation.[24]

Phenomenologists typically analyze and describe their own conscious lives reflectively, which may be considered unfortunate. In the case of the ethological observation just mentioned, however, the conscious lives of others are reflected on in so-called empathy – and not just on one level but on two. In the first place, there is the perplexed conscious life in which the chimpanzee encounters a situation, and correlatively, there is the perplexing situation as she encounters it. Because a noetico-noematic correlation is in effect described, the observation can be called reflective, and if that observation is also conducted within a theoretical attitude, it can be called phenomenological in a basic signification. Reflection has two forms, self-observation and reflection on others.

In the second place, there is reference above to what Köhler, Scheler, Gurwitsch, and Merleau-Ponty engage in, i.e., reflective observation of the chimpanzee who is first perplexed and then intelligent with regard to a given situation But from what standpoint is such reference made? If one recognizes that the ethological observation made by Köhler and adopted by Gurwitsch and Merelau-Ponty is itself not only theoretical, but also noetico-noematic – e.g., an observing whose correlate is the constellation composed of ape, fruit, branch, stick, etc. – then one's recognition is not only phenomenological, but also science-theoretical. In other words, it is one thing to reflect on how apes encounter objects and another thing to reflect on how ethologists encounter apes encountering objects.

It seems unlikely that primates reflect, e.g., recognize their own perplexity and their situation as perplexing. Conversely, it is obviously possible for ethologists to reflect. But it is not necessary. An ethologist could also consider the situation as somehow causing the ape to transform branches into reaching-sticks and the stick as causing the fruit to be brought closer. Then any perplexity and correlative perplexing situation that the ethologist might notice is disregarded; causal relations rather than intentional correlations are recognized; and the ethology is behavioristic rather than phenomenological.[25] The attitude of the scientist in this case can be called unreflective or straightforward and compared with that of the chimpanzee, even though the scientist's attitude is devoted exclusively to understanding what chimpanzees do and thus theoretical while the chimpanzee's attitude is devoted to getting the fruit and is thus practical.

The method Köhler used – which Gurwitsch and Merleau-Ponty also relied on vicariously, as it were – might be formulated as the first postulate proposed by a phenomenological science theorist to primate ethologists: *Focus on the attitude of the ape toward her situation and on that situation as it is encountered by her*. Whether or not this is genuinely an insight into the foundations of their approach is ultimately for primate ethologists to decide.

B. The Classification of Primate Ethology

Alfred Schutz's work includes classification of the sciences. He actually has little to say about logic and mathematics or about the naturalistic sciences per se. But he is emphatic about two fundamental points. The first concerns the difference between the broadly social and the physical sciences and the derivation of the subject matter of the latter from that of the former. "As it is the basic

methodological postulate of the natural sciences to investigate events within nature independently of any human factors involved, so it is the basic postulate of the social sciences to investigate what occurs on the social scene in terms of the human factor."[26] And the second point concerns the derivation of the subject matter of the natural sciences:

> The concept of Nature, for instance, with which the natural sciences have to deal is, as Husserl has shown, an idealizing abstraction from the *Lebenswelt,* an abstraction which, on principle and of course legitimately, excludes persons with their personal life and all objects of culture which originate as such in practical human activity. Exactly this layer of the *Lebenswelt,* however, from which the natural sciences have to abstract, is the social reality which the social sciences have to investigate.[27]

Here it must be noted that for Schutz, the expression "social sciences" has a broad signification as well as a strict one. In the strict signification, he includes cultural anthropology, economics, jurisprudence, linguistics, political science, and sociology; in the broad signification, he also includes archaeology, biography, and history, including history of art and history of law. In his Austrian writings he uses both *"Geisteswissenschaften"* and *"Kulturwissenschaften"* to express the broad signification. The former of these expressions is currently rendered in English as "human sciences," but "cultural sciences" has its advantages. For example, the social and historical sciences and the particular disciplines in those species can all be said to thematize aspects of the cultural world, and the importance of cultural objects for the cultural sciences is more distinct with the shared adjective.[28]

From the standpoint of Schutz's science theory, it can now be asked what sort of a science primate ethology is. The primate ethologists certainly consider themselves biologists, but a case can also be made for considering their science a cultural science; if so, then there is more reason to prefer the title "cultural science" over "human science." To make this case, there is, to begin with, a basic concept used by Köhler that is explicitly adopted both by Gurwitsch and by Merleau-Ponty to characterize things as encountered by humans: "The nature of the objects which constitute the environs is determined by the 'functional values' they take on, either in typical situations or in some particular state of affairs. These values are acquired from the total situation and its structure as a whole. This is why we refer here to *objects of use* or, better still, *functional objects*."[29] Then in one of his early Sorbonne lectures probably also heard by Merleau-Ponty, Gurwitsch also writes:

> The things that we know and use in our everyday life do not appear to us only as substrates of visual, tactual, thermal, olfactory, and the like qualities that are observed in them. Rather, these things present themselves to us as useful to such and such ends, and manipulable in such and such a way, as able to serve such and such purposes, as made in a certain way from such and such original materials, as destined for such and such practice, etc. They are perceived in the light of and in the perspective of the use that one can make of them in situations in which one employs them, according to the attitudes that the observers take up toward them...

> It is in the nature of objects of this type that they are defined not by the qualities and properties said to be objective, but by the employment to which they are fitted in concrete situations... With these it is a question not of material and reiform things, but – to adopt a term created by Mr. Köhler – functional objects *(Funktionellegegenstände)*, a word that has the same sense as is expressed by the term "*Zeug*" used by Mr. Heidegger.[30]

Moreover, in the section of his *Esquisse* entitled *"Les sciences humaines,"* Gurwitsch asserts that the cultural sciences are theoretical and in building his case, he employs Köhler's category again:

> Let us now examine the contemplative attitude, which cannot be permanently adopted and can be applied only to one domain of the surrounding world at a time (no matter how this region be delimited) so that the chosen domain may then become the object of scientific inquiry. In dealing with a past epoch, we must reconstruct the surroundings as they were for those living then. In this orientation of scientific thought, the mechanisms of the environment in question must be established, the laws determining their functions must be ascertained, the formations of social institutions and the changes they have undergone in the course of history must be investigated. Thus the historical, archaeological, philological, economic, sociological, and similar sciences are constituted. In these moral or human sciences, the objects are not considered in terms of their physical and chemical determinations or according to their purely qualitative and perceivable properties – even when they are objective, as in the case of material things. That is, in the human sciences, the objects remain functional objects.[31]

Thus Gurwitsch converges with Schutz (and Husserl) on the difference between the natural and the cultural sciences. He is also in agreement with Schutz concerning the derivation of the subject matter of the former from the latter: "If by a purely mental operation, one cuts away and suppresses the relations and references from which an object draws its character and existential sense as a functional object, what remains is the physical thing, characterized solely and exclusively by perceivable and qualitative determinations, such as length, breadth, depth, color, shape, weight, hardness, and so on."[32]

The difference here between Gurwitsch and Schutz, however, lies in how cultural objects are cultural. For Schutz, this is due to interpretation, while for Gurwitsch it is a matter of perception in a broad signification by which perceptual objects include not merely color, shape, hardness, etc., but also values and functional characteristics or uses. Objects can clearly be cultural in both of these ways. And it might even be contended that neither way is sufficient where humans are concerned, so that the referents of common-sense and then cultural-scientific interpretations are objects already encountered as having uses. In this way, the positions in science theory of both Gurwitsch and Schutz can be combined into something more adequate.

Setting aside such an interesting issue in the phenomenological theory of science, how is primate ethology ultimately to be classified? If chimpanzees also live in cultural worlds composed of cultural objects (in Gurwitsch's Köhler-based signification if not Schutz's) and if the species of science are

determined by their subject matters, then primate ethology is a cultural science. Chimpanzees do seem to have culture in the non-linguistic way Gurwitsch recognized on the basis of Köhler. Whether primate ethologists would see any benefit in accepting such a position is up to them, but they do recognize that chimpanzees have culture in some signification. In an astonishing letter to *Nature* entitled "Culture in Chimpanzees,"[33] ten leading figures summarize 151 years of research showing sixty-five patterns of behavior thirty-nine of which are found in some wild chimpanzee communities in Africa but not in others. "Among mammalian and avian species, cultural variation has previously been identified only for single behavior patterns, such as the local dialects of songbirds... The extensive, multiple variations now documented for chimpanzees are thus without parallels. Each chimpanzee community is itself highly distinctive, a phenomenon characteristic of human cultures... but previously unrecognized in non-human species."[34]

C. Basic Concepts *(Grundbegriffe)*

The third heading in Schutz's theory of science has to do with the clarification of basic concepts, which may also be called categories. *Der sinnhafte Aufbau der sozialen Welt* (1932), for example, is devoted to clarifying the most important basic concepts of Max Weber's interpretive sociology.[35] These include the concepts of experience, motive and project, social action, social relationship, etc. Whether such or similar concepts are also used in primate ethology seems likely and can be ascertained through study of the literature. But given how different non-human primates are from humans, the identification and clarification of the basic concepts in primate ethology seems best accomplished by the science theorist who sets out to learn from her teachers, i.e., the scientists concerned.[36]

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Phenomenological science theorists will truly be able to make positive contributions when they go beyond the mere beginning explicated here and consult the literature and practices in the discipline itself but still adhere to their own reflective-descriptive interest in noetico-noematic correlations.

Notes

1 "Intelligenzprüfungen an Anthropoiden I," *Abhandlungen der Königlichen preussischen Akademie der Wissenschaften,* phys.-math. Klasse (Berlin, 1917); cf. Wolfgang Köhler, *The Mentality of Apes* (London, 1956).

2 Max Scheler, *Man's Place in Nature,* trans. Hans Meyerhoff (New York: Noonday Press, 1971), pp. 31–32.

3 Aron Gurwitsch, "Phenomenology of Thematics and of the Pure Ego: Studies of the Relation between Gestalt Theory and Phenomenology," trans. Fred Kersten, in his *Studies in Phenomenology and Psychology* (Evanston, IL: Northwestern University Press, 1966), p. 212.

4 Aron Gurwitsch, "Critical Study of Husserl's *Nachwort,*" trans. Fred Kersten, in *Studies in Phenomenology and Psychology,* p. 114.

5 Aron Gurwitsch, "Some Aspects and Developments of Gestalt Psychology," trans. Richard M. Zaner, in *Studies in Phenomenology and Psychology,* pp. 50–51.

[6] Ibid., pp. 51–52.
[7] Ibid., p. 53.
[8] Cf. Lester Embree, "Some Noetico-Noematic Analyses of Action and Practical Life," in *The Phenomenology of the Noema*, ed. John Drummond and Lester Embree (Dordrecht: Kluwer Academic Publishers, 1992), 157–210.
[9] See *Studies in Phenomenology and Psychology*, p. 3, n.1.
[10] Maurice Merleau-Ponty, "The Nature of Perception [1934]," trans. Forrest Williams, in *Texts and Dialogues*, ed. Hugh J. Silverman and James Barry, Jr. (New York: Humanities Press, 1992), p. 78.
[11] Maurice Merleau-Ponty, *The Structure of Behavior*, trans. Alden L. Fisher (Boston: Beacon Press, 1963), pp. 175–76 (trans. corrected).
[12] "Die Methoden der psychologischen Forschung an Affen," in Emil Abderhalden, ed., *Handbuch der biologischen Arbeitsmethoden* (1921), and "Über eine Methode zur psychologischen Untersuchungen von Menschenaffen," *Psychologische Forschungen* 1 (1922), 390–97. Both translated in *The Selected Papers of Wolfgang Köhler*, ed. Mary Henley (New York: Liveright, 1971).
[13] For an application of the entirety of Merleau-Ponty's position specifically to bonobos, see Scott D. Churchill, "Intercorporeality, Gestural Communication, and the Voices of Silence: Toward a Phenomenological Ethology," *Somatics*, (Fall/Winter 2000–01): 28–32.
[14] Javier San Martíin and María Luz Pintos, "Animal Life and Phenomenology," chapter 15 in *The Reach of Reflection*, ed. Steven Crowell, Lester Embree, and Samuel J. Julian, electronically published at www.electronpress.com (2001); cf. Javier San Martín, "La subjetivitad transcendental animal," *Alter* 3, *L'animal* (1995): 383–406, and see also Natalie Depraz, "Y a-t-il une animalité trascendantale?" *Alter* 3, *L'animal* (1995): 81–110.
[15] Edmund Husserl, *Zur Phänomenologie der Intersubjektivität, Dritter Teil: 1929–1935*, ed. Iso Kern (Den Haag: Martinus Nijhoff, 1973), p. 478. I thank Ion Copoeru and Elizabeth Behnke for calling attention to this passage.
[16] Cf. Lester Embree, "A Problem in Schutz's Theory of the Historical Sciences with an Illustration from the Woman's Liberation Movement," *Human Studies*, forthcoming.
[17] Alfred Schutz, *Collected Papers IV*, ed. Helmut Wagner and George Psathas in collaboration with Fred Kersten (Dordrecht: Kluwer Academic Publishers, 1996), p. 146.
[18] Alfred Schutz, *Collected Papers II*, ed. Arvid Brodersen (The Hague: Martinus Nijhoff, 1964), p. 88.
[19] Alfred Schutz, *Collected Papers I*, ed. Maurice Natanson (The Hague: Martinus Nijhoff, 1962), p. 5; cf. Lester Embree, "The Explicit and Implicit Postulates in the Theory of Science of Alfred Schutz" (ms. 2003).
[20] Schutz, *Collected Papers I*, p. 43.
[21] Schuitz, *Collected Papers II*, p. 92.
[22] Alfred Schutz, "Positivistic Philosophy and the Actual Approach of Interpretative Social Science: An Ineditum of Alfred Schutz from Spring 1953," ed. Lester Embree, *Husserl Studies* 14 (1997):138.
[23] Schutz, *Collected Papers*, II, 85–86.
[24] Concerning the phenomenological concept of intentionality, cf. Aron Gurwitsch, "On the Intentionality of Consciousness," in *Studies in Phenomenology and Psychology*, pp. 124–40.
[25] This is not to imply that causal explanation is precluded in phenomenology; cf. "Introduction," in *Gurwitsch's Relevancy for Cognitive Science*, ed. Lester Embree (Dordrecht: Kluwer Academic Publishers, 2004).
[26] Schutz, "Positivistic Philosophy and the Actual Approach of Interpretative Social Science," p. 135
[27] Schutz, *Collected Papers I*, p. 58.
[28] Cf. Embree, "A Problem in Schutz's Theory of the Historical Sciences," part I.
[29] Aron Gurwitsch, "An Introduction to Constitutive Phenomenology," trans. Bethia S. Currie, in his *Phenomenology and the Theory of Science*, ed. Lester Embree (Evanston, IL: Northwestern University Press, 1974), p. 171. In the note, Gurwitsch cites not only Köhler but also Gelb and Goldstein.
[30] Aron Gurwitsch, *Esquisse de la phénoménologie constitutive*, ed. José Huertas-Jourda (Paris: Vrin, 2002), p. 323. The present writer would prefer the term "use" rather than

"functional value" because values belong to different but coordinate species of noematic thetic characters discernible in objects-as-encountered and correlative to what can be called "valuational encountering" or "valuing in a broad signification," while the uses discernible in objects-as-encountered are correlative to what can be called "volitional encountering" or "willing in a broad signification." Cf. Lester Embree, *Análisis reflexivo/ Reflective Analysis* (Morelia: Jitanjáfora, 2003), Ch. 6.

31 Ibid., p. 177. Cf. Lester Embree, "Gurwitsch's Theory of Cultural-Scientific Psychology," *Husserl Studies* (2003): 19: 43–70.

32 Ibid., 179. Of course, Husserl, Gurwitsch, and Schutz are not the only phenomenologists for whom the cultural sciences have a methodological priority over the naturalistic sciences.

33 *Nature* 399 (17 June 1999): 682–85.

34 Ibid., p. 682.

35 Alfred Schutz, *The Phenomenology of the Social World*, trans. George Walsh and Frederick Lehnert (Evanston, IL: Northwestern University Press, 1967), p. 340.

36 One could do worse than start with W. C. McGrew, *Chimpanzee Material Culture* (Cambridge: Cambridge University Press, 1992); Anne Pusey, Jennifer Williams, and Jane Goodall, "The Influence of Dominance Rank on the Reproductive Success of Female Chimpanzees," *Science* 277 (8 August 1997), 828–831; and Julio Mercader, Milissa Panger, and Christophe Boesch, "Excavation of a Chimpanzee Stone Tool Site in the African Rainforest, *Science* 296 (24 May 2002): 1452–1455.