Philosophy as Meaningful Science: The Subject and Objective Knowledge in Husserl and Popper

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ABSTRACT: Both Husserl and Popper share the sentiment that philosophy should model itself after something called "science," despite their differing attitudes toward the Galilean tradition. I begin by describing their respective approaches to the problem of objectivity by examining their accounts of the origins of science in Husserl's *Vienna Lecture* and Popper's *Conjectures and Refutations*. Each of them explicitly takes up the problem of objectivity in *The Origin of Geometry* and *Epistemology Without a Knowing Subject*, respectively, and it is here that they develop their notions of the role played by subjectivity in science. I argue that Popper suffers from a commitment to subjectivism even in the course of renouncing the subject as irrelevant for science. Husserl, on the other hand, sees in the possibility of crisis the need to reinstate subjectivist concerns in order for *any* discourse to be capable of saying something about the world. Husserl thus proposes a scientism which takes account of the fact that the world is, first and foremost, experienced by subjects. I contend that Popper can ultimately be held to the same position, and thus be forced to qualify his strong dismissal of subjectivity.

My thesis in its most general form, that Popper has a great deal in common with Husserl, may seem at best superficial and at worst untenable. Popper, after all, is a great champion of Galilean science, and Husserl, despite his call for a true and universal science of phenomenology, is an earnest critic of science as we know it, science since Galileo. I propose, however, that the *scientism* they share, namely the normative position that philosophy should model itself after science, is motivated by what we might describe as the possibility of identifying the discourse most adequate to experience. This paper is an attempt at outlining the details Husserl and Popper have in common in their scientism. It is furthermore an attempt to account for the differences in their attitudes to science as we know it by means of these details. Finally, it is a critique of Popper from an Husserlian perspective-an attempt to show that Husserl's account of science is more rigorous and sensitive than Popper's, and thus that Husserl's mistrust of science as we know it results in a better scientism, a better call for reform in philosophical method.

As I have indicated, both Popper and Husserl seek to identify the discourse most proper to experience, one which will best speak to and about our human experiences, one in which we can most adequately and fully characterize our world. In the*Crisis*, at the time in his career when Husserl is most concerned with science, he accounts for his mistrust of science by means of this criterion. Science, he writes, "excludes precisely the questions which man,

given over in our unhappy times to the most portentous upheavals, finds the most burning: questions of the meaning or meaninglessness of the whole of this human existence." (1) For all its machines, medicine, and explanatory power, science has nothing to say to our most human questions, questions concerning the meaning of human existence. Husserl, of course, calls on phenomenology to answer these questions, and thus be the discourse most adequate to experience.

Popper, on the other hand, uses the criterion of adequacy in characterizing the world to demarcate science from non-science. What he calls his "criterion of demarcation," falsifiability, isolates science as the only discourse which can say something about the world. What differentiates scientific discourse from all other discourses is that scientific claims are open to falsification, or refutation on empirical grounds. When a theory is refuted on empirical grounds, this "implies that events of a certain kind cannot happen; and so it asserts something about reality." (2) Science proves to be the only discourse capable of characterizing the world, since it is the *only* one of which we can say that its claims, insofar as they are falsifiable, assert something about reality.

Despite this difference in attitude towards science, Husserl and Popper account for the origin and transmission of science in strikingly similar ways. In an essay called "The Vienna Lecture," written a few years prior to the *Crisis*, Husserl asks about the beginnings of the spirit which makes Europe, or the West, what it is. He names it philosophy, or Greek-European science, and characterizes its origin as the birth of a "theoretical attitude." (3) This attitude distinguishes Greek-European philosophy from Oriental philosophies, as well as from everything which came before it in the West, which he calls the "religious-mythical attitude." The religious-mythical is an entirely "practically interested world-view," whereas in the theoretical, "man becomes gripped by the passion of a world-view and world-knowledge that turns away from all practical interests, and . . . strives for and achieves pure *theoria*." (4) The products of the religious-mythical attitude are real, but "what is acquired through scientific activity is not something real but something ideal," imperishable, and identical throughout its instantiations. (5)

Popper, too, locates the beginning of science in the advent of an attitude, the appearance of the "critical" beside the "dogmatic." These are for him psychological, not historical, categories, which are not distinguished by means of their products or world-views. The dogmatic attitude, "an uncontrolled wish to impose regularities" upon the world, is succeeded by the critical attitude, "which shares with the dogmatic attitude the quick adoption of a schema of expectations- a myth, perhaps, or a conjecture or hypothesis- but which is ready to modify it, to correct it, and even to give it up." (6) Popper's scientist is not entirely removed from praxis, but takes a different attitude to his products and experiences. For example, he writes, "The method of trial and error is applied not only to Einstein, but, in a more dogmatic fashion, by the amoeba also. The difference lies not so much in the trials as in a critical and constructive attitude towards errors... ." (7)

In the essay "Science: Conjectures and Refutations," Popper describes his distinction as belonging to the psychology of experience, (8) while Husserl describes his as the "genuine" history of philosophy, but in spite of this, each ends up describing his respective "attitudes" in both historical *and* psychological, or subjectivistic terms. Popper, despite his initial psychological description, credits the Greeks with the "discovery of the critical method," indicating that the adoption of the critical attitude by the human psyche took place at a specific point in history, namely with the Presocratics. (9) Husserl, in turn, while being primarily concerned with historical description of the origin of science among the Presocratics, ends up ascribing "prescientific" properties to the minds of children, while scientific rationality is the mark of a mature mind. (10) For Popper, the prescientific attitude is "characteristic of primitives and children; and increasing experience and maturity

sometimes create an attitude of caution and criticism rather than of dogmatism." (11) In both investigations into the origins of science, the scientific attitude ends up in the hands of members of a certain society at a certain point in history, members who have certain psychological characteristics, which make them relate to their surroundings in an entirely novel way. Popper credits Thales, the first scientist, with the institution of the critical attitude, which is "the attitude of reasonableness, of rationality." Husserl marks with Thales, the first philosopher, the advent of "a new humanity"-perhaps a more dramatic description than Popper's, but one which results from the same sentiment: Thales, or rather what he represents, is the beginning of the rationality, the very humanity, we take to be proper to us today. (12)

Popper's and Husserl's accounts of the transmission of science through history are at least as strikingly alike as their accounts of the origins of science. Both rely on the notion of a world of knowledge which is "objective" in the sense that it is independent of any possible subject. Popper calls this the "third world"-as opposed to the first, that of physical objects or states, and the second, that of states of consciousness. (13) The third world, the world of "objective theories, objective problems, and objective arguments," is precisely the world of Husserl's theoretical attitude, the world of the ideal products of that attitude. (14) Husserl, in the essay "The Origin of Geometry," explores the transmission of science through history by means of the question, *how is an ideal object possible?* Objective knowledge, according to Husserl, must be accessible to any subject at any time. But how, he asks, is this possible in the case of objects which are products of the mind?

For both Popper and Husserl, then, the philosophical question concerning science must address the issue of objectivity. Popper does precisely this in the aptly titled "Epistemology Without a Knowing Subject." As far as Husserl's corpus is concerned, however, this form of epistemology, the one he shares with Popper, marks a departure. This becomes clear as we look at Popper's critique of traditional epistemology, in which Husserl may perhaps be the most ardent participant. Popper writes, "Traditional epistemology has studied knowledge or thought in a subjective sense-in the sense of the ordinary usage of the words 'I know' or 'I am thinking.' This, I assert, has led students of epistemology into irrelevancies: while intending to study scientific knowledge, they studied in fact something which is of no relevance to scientific knowledge." (15) Popper thus formulates his first thesis: subjectivist considerations are irrelevant in the study of scientific knowledge.

According to this account, most of the work Husserl did during his lifetime is irrelevant, if indeed the question of ideal objectivity is the most pressing question of epistemology. His work, with the exception of the *Crisis* period, is addressed entirely to what Popper calls the "second world, " the world of subjects (insofar as the question "how is any object in general possible" is always answered with an account of subjectivity). In "The Origin of Geometry," Husserl would be forced to abandon all subjectivist considerations. According to Popper's first thesis, recourse to knowledge as psychically constituted in some subject is disqualified in any study of objective knowledge. Instead, the epistemologist must address the question in terms of what knowers produce-she must think of knowledge as materially instantiated, as a collection of things in the world. Husserl struggles with precisely this challenge.

Of course, Husserl never actually strays very far from subjectivist concerns in "The Origin of Geometry." Neither, however,-and this is less obvious-does Popper, in his "Epistemology Without a Knowing Subject," despite his own prescriptions. I devote the rest of this paper to support for that claim, as well as to showing that Husserl in fact strays even farther from subjectivist concerns than does Popper. He strays far enough to see what Popper cannot see about science, the very same thing which will make Husserl suspicious of science forever: the structural possibility, and for Husserl, the grim reality, of crisis.

I propose that Husserl outdoes Popper in shedding subjectivistic tendencies on the basis of Popper's second thesis: "the study of a largely autonomous third world is of decisive importance for epistemology." (16) As a provisional illustration of the autonomy of the third world, the independence of objective knowledge from its possible knowers, Popper offers two thought experiments. (17) In each of them, a global catastrophe destroys our machines, tools, and our subjective knowledge about those tools . However, in one catastrophe, our libraries, the banks of objective knowledge, remain intact, while in the other, our libraries are wholly destroyed as well. Since in the first case, our civilization could rebuild itself, and in the second, it possibly could not, the world of objective knowledge proves to be independent of the world of subjective knowledge.

For Husserl, too, the third world is characterized by libraries, books-in short, by writing. Husserl's account of the origin of science is, as I have mentioned, a subjectivist account, concerning certain modifications of the psyche which result in the theoretical attitude, and in the products of that attitude, ideal objects. How do these ideal structures gain objectivity, how do they become accessible to any subject at any time? Husserl turns to language, in which the original geometer can make present in someone else's mind the object in his own mind. This, by his account, is an event akin to recollection. Even if I no longer have the ideal structure before me in self-evidence, I can "reawaken" it to self-evidence. Language functions in the same way for the geometer-he can awaken the structure in another mind. (18)

What is important for the present discussion is that language, understood as speech, does not suffice to account for objectivity. Husserl takes it as a merely intersubjective step on the way to objectivity. Language, in so far as Husserl takes words to be the expressions of psychic states, still depends on the presence of users in a simple way: the intersubjectively constituted cultural object will simply disappear with the death of all of the speakers in the community. The geometrical object, then, must be accounted for with more than just language. Here Husserl turns to writing, to books, and to libraries. Only with the possibility of being recorded on paper does the product of the theoretical attitude gain objectivity. It becomes accessible by anyone, anytime, long after the death of the "Thales of geometry" and everyone with whom he spoke. (19) For Husserl, however, the autonomy of the geometrical object from its psychic reawakening in a subject is precisely what leads to the crisis of the sciences. His account indicates that "a universal conflagration, a world-wide burning of libraries, or a catastrophe of monuments and 'documents' in general" would result in the disappearance *in fact* of objective knowledge from the surface of the world. (20)

Husserl's main concern is that, due to its structural independence from its producer, writing allows ideal objects to be reawakened less and less fully, until their original meaning is lost, and we perform manipulations with them, which completely fail to take this meaning into account. He calls this phenomenon the "sedimentation" of meaning, and considers all the objects of the third world subject to it. This is why he has no faith in the possibility that science as we know it can speak about the human world: the objects of the third world were originally supposed to describe the world of the humans who thought them, but have since lost this human, meaningful dimension. Writing, that which makes objectivity possible, is that which puts subjectivity in crisis. Husserl's final commitment to subjectivist concerns is on normative grounds: we have a responsibility to avoid the "seduction of language," to reconstitute the original meanings of the ideas handed down to us, to make scientific expressions as univocal as possible. (21) In the course of considering objectivity in this radical sense, he insists that we maintain an access to the subject in scientific discourse-in the form of access to the original meanings intended by the scientist. Only in maintaining this access can science be the discourse most proper to experience, since we experience, necessarily, as subjects. No discourse which completely disregards the subjective dimension of description can ever adequately describe the world in which we live as people, as subjects of experience. To reform science in the way he describes in "The Origin

of Geometry" would be to be able to really talk about the world as the ancient philosopher-scientists did; it would reinstitute philosophy as the source of truth about the world.

Popper, I suggest, suffers from a commitment to subjectivism in the course of denouncing it as irrelevant. He plays with the image of a world-wide conflagration, but his second thesis concerns not an autonomous, but a "largely" autonomous third world. He then adds a third thesis: "An objectivist epistemology which studies the third world can help to throw an immense amount of light upon the second world, . . . especially upon the subjective thought processes of scientists, but the converse is not true." (22) The autonomy of the third world, then, is not as complete as it would seem from his thought experiment, in which objective knowledge was unimpeded by the worldwide destruction of subjective knowledge. Indeed, his argument for the second thesis shows an *un*willingness to commit to a completely autonomous third world, and this, I propose, is why he ultimately fails to meet the demand of his first thesis: that the study of scientific knowledge make no use of subjectivist concerns.

The argument for the second thesis begins with a bare-bones theory of language. Popper writes that human languages have in common with animal languages something he calls the "self-expressive" function. The "higher" functions of language, those we do not share with animals, are the "descriptive" and "argumentative." "With the evolution of the argumentative function of language, criticism becomes the main instrument of further growth. The autonomous third world of the higher functions of language becomes the world of science." (23) For Popper, as for Husserl, the very objectivity of third world objects depends on their autonomy, but Popper characterizes autonomy not in terms of written language, but in terms of language in its argumentative function: "the objectivity, even of intuitionist mathematics, rests, as does all of science, upon the criticizability of its arguments." (24)

This kind of autonomy, I propose, is different than the autonomy he describes by recourse to the destruction of all the world's libraries. Like Husserl, Popper commits himself to a notion of language as the expression of psychic states. In maintaining the low, self-expressive function as a basic, animal faculty of uttering sounds in order to communicate psychic contents, he characterizes the most basic function of language as expressive of mental states. The higher, descriptive and argumentative functions, differ from the self-expressive in some respects, but insofar as they are *linguistic*, they are, according to Popper's schema, expressive. With a notion of language as the expression or communication of psychic states, the argumentative function of language takes place only on an *intersubjective*, not an *objective* level. The third world may be autonomous as far as any *particular* subject is concerned, but it continues to be accessed by some subject, as long as it is in the critical sphere. In other words, if its ability to be criticized literally *constitutes* the "objectivity" of a thing, that thing must be under constant critical reworking to remain "objective." And if critical reworking is a function of a language with which people communicate subjective states, then the objectivity of the thing is maintained by an access to it by some subject.

Popper's account is indeed of a third world which is only "largely" autonomous. His third thesis depends on it. How else could the study of the third world tell us anything about the subjective processes of scientists? Husserl's thesis of crisis rests on the impossibility of this: once the third world has autonomy, we *lose* access to the subjective processes of scientists. Popper does not go as far with the second thesis as does Husserl, in order, perhaps to be able to posit the third. He writes toward the end of the essay that what is at stake for him is "the relation between ourselves and our work." "Everything depends upon the give-and-take between ourselves and our work; upon the product which we contribute to the third world, and upon that constant feedback that can be amplified by conscious self-

criticism." (25) Popper appears to have a great deal at stake in the possibility of interaction between the third and second worlds.

I suspect, however, that the reason Popper qualifies the autonomy of the third world has at least as much to do with his notion of the critical attitude. If indeed critical activity marks the subjective state of the scientist, accessibility through criticism marks the world of scientific products or objects. In other words, if science can only be done in the critical attitude, some subject must have access to the third world by means of the critical faculty. His commitment to the notion of the critical attitude, *insofar as it is described as a subjective state*, costs Popper his first thesis. He cannot maintain the thesis that subjectivist concerns are irrelevant to third world epistemology, because, as I have tried to show, his own subjectivistic account of the critical attitude determines his qualification of the autonomy of the third world, as well as his thesis that the world of objective, scientific knowledge tells us something about subjective states of scientists. Neither, finally, can he maintain that the second and third world are ontologically distinct.

Popper's faith in self-criticism, self-observation, and access to the products of our sciences is just what Husserl seeks to maintain by means of his normative demand to return to subjectivist concerns. For Husserl, it is precisely critical access to the self and to the ideal that the objectivity of science precludes. Popper, in his insistence that the objectivity of science gives critical access to the self and to ideas, falls back on a weaker notion of objectivity than the one on which he insists, an objectivity maintained as what Husserl might call an intersubjective illusion. This is why Popper's scientism points to the Galilean tradition as a model for theoretical discourse about the world. Popper fails to see how far this tradition departs from the one instituted in the advent of the critical attitude. Husserl's notion of the crisis which all modern scientific discourse faces, even that of the human sciences, the crisis of the loss of access to subjectivity, shows Popper's scientism as ultimately mistaken. In his effort to model philosophy after the discourses of the ancient natural philosophers, Husserl precisely rejects the Galilean tradition, the one which forgets that is we humans who do science, humans who are subjects of experience before we are scientists. Philosophy, Husserl seems to say, should be like science, but not in the way Popper thinks-not science as a body of knowledge independent of knowing subjects. Indeed, Popper's position, carried to the fullest extent of his prescriptions, would result in the same conclusion-and we can catch glimpses of the same general sentiment we find in Husserl in Popper's insistence that "*everything* depends upon the give-and-take between ourselves and our work." (26) Popper puts it so dramatically, I think, because the discourse which is best able to say something about the world has to be the discourse which we can claim as our own. A scientism, then, which is concerned with the possibility of finding the discourse most proper to experience, must take into account that the claims of Thales are the claims of someone for whom the world was a world-for-him.

Notes

(1) Edmund Husserl. *The Crisis of European Sciences and Transcendental Phenomenology*. David Carr, trans. Northwestern University Press. Evanston: 1970. p. 6.

(2) Karl Popper. "Three Views Concerning Human Knowledge. " *Conjectures and Refutations.* Harper and Row. New York: 1968. p. 117.

(3) Husserl. "The Vienna Lecture." Ibid. pp. 276, 283

(4) Ibid. pp. 284-5.

(5) Ibid. p. 278.

(6) Karl Popper. "Science: Conjectures and Refutations. " C&R. p. 49.

(7) Ibid. p. 52.

(8) Ibid. pp. 48-50.

(9) Ibid. p. 51.

(10) See "The Origin of Geometry. " Ibid.. p. 359.

(11) Popper. Ibid. p. 49.

(12) Husserl. VL. p. 286.

(13) Karl Popper. "Epistemology Without a Knowing Subject. " *Objective Knowledge*. Oxford University Press. London: 1972. p. 106.

(14) Ibid. p. 108.

(15) Ibid.

(16) Popper. p. 111.

(17) Ibid. pp. 107-8.

(18) Ibid. p. 359.

(19) Ibid. p. 369.

(20) Jacques Derrida. *Introduction to Husserl's "Origin of Geometry ."* John Leavey, trans. University of Nebraska Press. Lincoln: 1989. p. 94.

(21) Husserl . pp. 362-3.

(22) Popper. p. 112.

(23) Ibid. pp. 119-20, 121.

(24) Ibid. pp. 136-137.

(25) Ibid. p. 147.

(26) My emphasis.