

**THE USE OF GEOMETRIC METAPHOR
IN A THEORY OF COMMUNICATIVE RATIONALITY**

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In the concept of a plurality of "language games," Wittgenstein opened the door to a new viewpoint about culture, as a dynamic pattern of "internal" adjustments. This introduced a creative potential as well as a problem. The creative potential of the new viewpoint was exploited by Ernst Gadamer in his philosophical treatise, *Truth and Method*, and by Clifford Geertz in the study of anthropology. However, since Wittgenstein deliberately neglected a way to prioritize *between* language games, or even to demarcate between them, an indeterminacy was institutionalized in the study of culture and society. This indeterminacy also reflected a deep set of problems that began with the "interpretive turn" in philosophy, introduced by Kant as an alternative to the enlightenment tradition inaugurated with Descartes.

As part of his broad-ranging project to rehabilitate the enlightenment Jürgen Habermas wrote "A Review of Gadamer's *Truth and Method*" in 1970, launching what came to be called the "Gadamer-Habermas debates." In this article Habermas attacks "[t]he relativism of world views and the monadology of language games" as illusions that were just as distortive as the logical positivism that Wittgenstein had helped "destroy." The concept of "forms of life" emerged from Wittgenstein's analysis as particularized and fundamentally untranslatable complexes of social experience, from the presumption that translation is an interpretation based on "general rules." Essentially, Habermas argued, in rather muted terms, that learning a language was fundamentally different from "learning to speak" and the latter carried the possibility of transcending "speechless union and speechless alienation," or the otherwise unavoidable Balkanization of incommensurable "forms of life."

Having made the most devastating aspect of his argument in the first few paragraphs Habermas then describes and explains its implications by employing an uncritical use of two important and related concepts: "geometric metaphor" and "formal language." It is at this point that my article enters into the dialogue, by attempting to demonstrate: 1. The naivete of employing either a complete or a partial set of *pre-Cartesian* assumptions about geometry; and 2. that this naivete leads to a failure to appreciate how far we might go in re-constructing Descartes' vision of the unity of the sciences (including the social sciences) on the basis of a *post-Cartesian* geometry.

Essentially, Habermas assumes that formal languages are fundamentally different from natural languages in the sense that they are monadologically sealed, while, at the same time he assumes them to be expressions of verifiable generalizations. My argument is that this view is distortive in the same way as Wittgenstein's. Jacques Derrida uses a more critical, and therefore less naive, view of geometry coupled with a literary "close reading" of the text in order to exploit the indeterminacy of natural language in deconstructionism. However, Derrida's critical but non-contributory use of geometry traps us in a Hermeneutic "omnisphere" that is unable even to define itself. Thus, Derrida is rightly considered a playful but nihilistic influence.

There have been several attempts to formulate a *post-Cartesian* geometry. These include Husserl's largely unsuccessful strivings to wrestle with a phenomenologically guided reformulation. In addition, active argumentation around the turn of the century yielded a "non-Cartesian" or hyperbolic geometry. These attempts, however, either made certain fundamental and un-remediable mistakes (Husserl) or carried over pre-Cartesian assumptions that relegated the new formulation to a marginalized corner of the old wineskin. There has been no fundamental paradigm shift in mathematics, precisely because mathematics was sealed off from the broader evolution of language, society and philosophy by a "mystique" even more pervasive than that of physics, the standard of the natural sciences.

For all this a rank "outsider" was required to wrestle with the angel that had briefly visited Descartes, and to propose (forgive the impropriety) an "angle-ic" conception of geometry, not based on elementary points, lines, and planes but on the more universal and therefore (if the reader will pardon a second impropriety) "Fuller" provisional identity based on two-fold cyclic unity: the tetrahedron.

The essay, thus, adopts an approach that links rationality to the development of a "power of resolution" and binds this debate to practical considerations about resource limitations. Increasing power of resolution reveals the internal structure of what was previously regarded as indivisible. Derrida calls this "the internal necessity of the object" and uses a linguistic version of a "lens of magnification" to deconstruct various kinds of hierarchies, not to discover internal structure but to eventually make the case that such an endless regress reveals a fundamental undecidability that is Zen-like in its implications.

To R. Buckminster Fuller, however, any object—whether it be an identifiable culture, a formal or informal language, or a page of print—has something in common with all other objects: it defines a primary or secondary dichotomization and differentiation that can be analyzed in terms of a universally relevant geometry. This "energetic/synergetic" geometry is relevant not only because dichotomies are not all equivalent or undecidable (as Derrida would claim), but also because dichotomization almost always requires the use of resources. "Inside/outside" as a primary dichotomization is related to "concave/convex," but the latter carries the inherent properties of focus and diffusion, while the former only implies a boundary. In this sense deconstructionism assumes a fundamental *lack of resolution* regarding all concepts that involve opposition.

Overcoming barriers to understanding cultures, ideologies, worldviews or other "forms of life," as expressed through natural (or even formal) language, is a resource problem just as much as resolving the internal structure of subatomic particles. At issue is how to take advantage of the "synergy" of situations that is partly a function of their uniqueness, and partly a function of their universality. The "Cartesian Anxiety" and the quest for an Archimedean point, incompletely resolved in the Cogito, concerns a "journey of the soul" to alleviate the dread of being fallible and finite in what appears to be an infinitely unpredictable universe. In the face of such an apparently boundless potential to expose the internal structure of elements of the natural and social world (because we assume discoveries or translations will be costless) the journey must include the constantly disconcerting possibility that our current accounts, in all their complexity, will inconveniently unravel. Thus methodological individualism, for instance, acts as a constraint on potential resolution—at the cost however, of synergy. It provides no dynamically adaptable image of the whole, and is therefore profoundly inconsiderate.

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