“Our grammar lacks surveyability.”

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From the synoptic view to the album

When Wittgenstein ruminated on the *Tractatus* in 1933, he told his students that a book on philosophy with a beginning and an end was really “a sort of contradiction.” (YB, 43) The *Tractatus* had, of course, had both: a decisive first sentence and an equally decisive last one. But such a book could be justified, he held now, only if one had a comprehensive, “synoptic” view of things. Clearly he did not think that he was in possession of such a view, when he said this, or that he had ever had an appropriate synoptic vision at the time of writing the *Tractatus*.

The search for such a synoptic view had occupied Wittgenstein, however, from his first notes for the *Tractatus* onwards. “Yesterday I worked a lot but not *very* hopefully since I lacked the right *overview (Überblick),”* he wrote on September 21, 1914 in the first of his war time notebooks.[1] And four days later: “I am still lacking an overview and for that reason the problem appears unsurveyable (*unübersehbar*).” (GT, 25) And another four days on: “I still do not see clearly and have no overview. I see details without knowing how they will fit into the whole.” (Ibid.) And once more two months later: “Again no clarity of vision (*Sehen*) although I am obviously standing in front of the solution of the deepest problems so that I almost bump my nose in it!!! My mind is simply blind for this right now. I feel that I am standing right at the gate but cannot see it clearly enough to be able to open it.” (GT, 43) These frustrations were not to stop him, however, from completing his book. As he put the *Tractatus* together he must have felt – at least for a moment – that he had found the previously missing synoptic view and that he could deal now with “the (!) problems of philosophy,” as the preface said, in the certainty that they “have in essentials been solved once and for all.”

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[1] GT, 24.

With his return to philosophy in 1929 he found himself forced to reconsider the possibility of attaining such a view. The issue arose for him now from his new conception of philosophy as dealing with "particular errors or 'troubles in our thought' … due to false analogies suggested by our actual use of expressions."[2] The focus on particular errors and specific uses of expressions suggested a novel concern with the details of thought and language rather than with a grand overview. If there was anything synoptic in this approach it would involve, in Wittgenstein's words, "a 'synopsis' of *many trivialities.*"[3] Was there then no comprehensive philosophical overview to be attained? He still thought that our philosophical discomfort "is not removed until we have a synopsis of all the various trivialities. If one item necessary for the synopsis is lacking, we still feel that something is wrong."[4] There remained, in other words, the feeling, as he said in the *Blue Book,* that "no philosophical problem can be solved until all philosophical problems are solved; which means that as long as they aren't all solved every new difficulty renders all previous results questionable." (BB, 4) But the *Blue Book* also indicated that we might have to content ourselves with something less. The work of philosophy, Wittgenstein said now, might, in fact, have to be compared to the arranging of books in a library. Even though our ultimate goal may be to create a complete ordering, we may succeed, in fact, only in "taking up some books which seemed to belong together, and putting them on different shelves; nothing more being final about their positions than that they no longer lie side by side." Some of the greatest achievements in philosophy, he added, were just like that. In the face of our hankering after a synoptic view, the difficulty in philosophy was "to say no more than we know." (BB, 44-45)

In 1914 he had blamed his failure to achieve the appropriate synoptic view on his own personal limitations. Now he thought that the problem was intrinsic to philosophy itself. He told his students: "We encounter the kind of difficulty we should have with the geography of a country for which we had no map, or else a map of isolated bits." (YB, 43) This forced one to travel repeatedly over the territory in order to discover how things

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[2] G. E. Moore, "Wittgenstein's Lectures in 1930-33", 257.
[3] Ibid., 323.
[4] King / Lee 1980, 34.

are related to each other. "So I suggest repetition as a means of surveying the connections." (Ibid.) And using the comparison of philosophy with an uncharted country again in the preface to the *Philosophical Investigations* he wrote that his reflections on "the concepts of meaning, of understanding, of a proposition, of logic, the foundations of mathematics, states of consciousness, and other things" had forced him "to travel over a wide field of thought criss-cross in every direction." Along the way he had come up with a number of passable "sketches of landscapes" but had been unable to give his thoughts "a single direction against their natural inclination." And this, he added "was, of course, connected with the very nature of the investigation." Ruefully he conceded now that, unlike the *Tractatus,* his new book was in consequence "really only an album." (PI, ix)

"I don't know my way about."

In the early 1930's Wittgenstein had occasionally called his method of examining particular uses of language by the name of "phenomenology." With this term he meant to distance his work from both the empirical sciences with their explanatory and predictive theories and from the logical purism of the *Tractatus.* Much the same conception of his undertaking is still evident in the *Philosophical Investigations* where we read: "Philosophy simply puts everything before us, and neither explains nor deduces anything." (PI, 126) And: "We must do away with all *explanation,* and description alone must take its place." (PI, 109) But by then Wittgenstein had come to avoid the loaded term phenomenology. He characterized philosophy, instead, now simply as supplying "remarks concerning the natural history of human beings." (PI, 415) Drawing on an older sense of the word "*Naturgeschichte"* in which a description of the night sky can be called "A Natural History of the Starry Heavens",[5] he was, in other words, characterizing philosophy once more as a descriptive undertaking. But he also wanted to make sure now that no one took him to be supplying a comprehensive phenomenology. Instead, he spoke of philosophy as consisting only of "remarks" on natural history. And even this characterization he modified in the subsequent warning that "we can also invent fictitious

[5] E.g., Gruithuisen 1836.

natural history for our purposes." (PI, 230) The kind of philosophy he was after was not meant to be dedicated specifically to the description of "our actual use of expressions" but may extend to the description of invented, i.e., fictitious but possible, situations (such as the imagined language game of PI, 2)

The stated purpose of such descriptions had been from the thirties onwards to resolve "muddles" in our speaking and thinking by making language and thought transparent. Behind this project lay the assumption that philosophical problems are generated by our inability to get a clear view of what is at stake in them. They are, in other words, problems of confusion rather than problems of ignorance. There are for Wittgenstein many things that stand in the way of looking at our philosophical problems clearly. One of them is that an "ideal in our thinking" may have become "immovably stuck." "The idea sits, so to say, as a pair of glasses on our nose and whatever we look at, we see through them. We never have the thought to take them off." (PI, 103) Two apparently similar forms of expression may induce us to make misleading analogies. Also: "A metaphor that has been incorporated into the forms of our language generates a false appearance; that disquiets us. 'But *this* isn't how it is! – we say. "Yet, it must *be such.'"* (PI, 112) Or we are like a fly in a trap. It doesn't occur to us that the way out is to retrace our steps rather than to forge ahead. The result is disorientation. Most generally we can say: "A philosophical problem has the form: 'I don't know my way about.'" (PI, 123)

The problem of grammar

Wittgenstein's crucial difficulty was that "our grammar lacks surveyability." (PI, 122) In order to appreciate that thought we must understand that "grammar" is meant to be in this context not merely a system of abstract grammatical rules but the organized pattern of linguistic uses and practices. Wittgenstein's claim is that the actual structure or order of our language game proves to be unsurveyable. He is thinking, in fact, not only about language in the narrow sense. It is the "grammar" of the human form of life, which includes society, culture, and history, that lacks surveyability. Wittgenstein draws our attention, in fact, to this broad phenomenon when he writes in section 122 of the *Philosophical Investigations* (in my transla-

tion) that "we do not survey the use of our words" and that "our grammar lacks surveyability." Since he considers language central to the entire human form of life, it follows that our form of life must also be unsurveyable. No wonder then that unsurveyable wholes raise for him issues "of fundamental importance." That we do not survey the use of our words, our grammar, language, and form of life he declares to be, indeed, "a main source of our lack of understanding." He goes on to suggest in PI 122 that we need "a surveyable representation" that can generate "the comprehension that consists in 'seeing connections'." The concept of a surveyable representation, he adds, "signifies our form of representation, how we see things." And he closes the section with the somewhat puzzling question: "Is this a 'worldview'?"

There is much to puzzle about in this passage. That is one reason why it proves difficult to translate. The Anscombe version is certainly unsatisfactory and I have, therefore, found it necessary to modify it in various respects. But even in its original German, the text confronts us with difficulties. For one thing, Wittgenstein never explains what he means by "*übersichtlich.*" Though section 122 marks clearly a nodal point in his thinking, he appears to use the word "*übersichtlich"* in a casual fashion. It and its cognates occur, moreover, only seven times in the entire *Philosophical Investigations* and four of these are to be found in section 122. That the term is nonetheless of great importance is shown by its reappearance in various other places in Wittgenstein's work. It belongs, moreover, to the visual vocabulary that marks Wittgenstein's prose from the *Tractatus* to his last notes. Like the rest of this vocabulary Wittgenstein employs the term "*übersichtlich*" almost always in a metaphorical fashion. Only occasionally does he use it literally as when he speaks of the color-octahedron as being "a surveyable representation of the grammatical rules" of color concepts. (PR, 52) Similarly, when he writes in the *Remarks on the Foundations of Mathematics* that "a mathematical proof must be surveyable". (RFM, 143) Then he appears to have the kind of proof in mind that can be laid out diagrammatically on a sheet of paper. Not every mathematical proof is, of course, of this kind. So when he claims that every mathematical proof must be surveyable, he must be using the term "surveyable" once again in a metaphorical fashion. That metaphorical use is evident also in the assertion that our grammar lacks surveyability. The grammar of our language is

never a visual object. Wittgenstein seems to be saying that our grammar is not organized in a fashion that we can fully grasp or that is easily or intuitively accessible to us.

Here is what Wittgenstein himself says about the matter when talking about the contradictions in Frege's and Russell's logic. He writes (PI, 125) that "it is not the business of philosophy to solve the contradiction by means of a mathematical, logico-mathematical discovery. But to make the state of mathematics that troubles us surveyable, the state *before* the solution of the contradiction." His words imply that Frege and Russell did not to begin with have a clear view of the mathematics that generated the contradiction. And so the contradiction came to them as a surprise. They laid down rules of their deductive game but when they applied them, things did not turn out as they had anticipated. Wittgenstein suggests that we need to understand this peculiar situation of being entangled in one's own rules. Te context makes evident that he does not mean that we can literally come to see our entanglement in those rules at a single glance; he means rather that we can make the nature of that entanglement apparent.

But why should anyone ever have thought that the grammar of a language could ever be surveyable like a well-ordered library? Anyone who has struggled to acquire a second language will know how opaque, how arbitrary, how unfathomably complex a grammar can be. Did Wittgenstein not learn this when he learned English? What is surprising and philosophically interesting in the observation that our grammar lacks surveyability? The answer may be simply that the Wittgenstein of the *Tractatus* had once thought that the logic of our language was intuitively evident and in this sense surveyable. In the *Tractatus* Wittgenstein had written that the logic of our language shows itself and that there can therefore never be surprises in logic. (Tr., 6.1251) His subsequent observation that our grammar lacks surveyability may thus have been directed first and foremost against the *Tractatus* conception of language.

What then follows from the discovery that our grammar is unsurveyable? Early on, in section 5 of the *Philosophical Investigations* Wittgenstein writes that "the general notion of the meaning of a word surrounds the working of language with a haze which makes clear vision (*das klare Sehen)* impossible. It disperses the fog to study the phenomena of language in primitive kinds of application in which one can survey the aim and func-

tioning of the words." To show us such primitive applications is the function of the simple language-games Wittgenstein constructs in the course of the *Investigations*. We can illustrate the point with a remark from Wittgenstein's notebook from 1914. He had written there: "In the proposition a world is as it were put together experimentally. (As when in the law-court in Paris a motor-car accident is represented by means of dolls, etc.)" (N, 7) The physical model of the accident in the court room serves here as a representation of the actual happening which is no longer directly accessible to us and as such not surveyable. The model, on the other hand, is surveyable in the straightforward sense that we can look at it from above and see it at once in its entirety. The model displays in an immediately visible fashion the items (cars, people, houses, etc.) that are presumed to have been involved in the incident and it spatially represents their supposed relations. The model is, moreover, permanent and can be studied from different angles whereas the accident itself was a single happening that would have been perceived by different people from different points of view. The model focuses our attention, finally, on what is essential in the accident by not depicting what is irrelevant. It thus provides a fully surveyable representation of an inherently unsurveyable situation.

I have chosen this particular illustration because it brings out a distinction that we need to make explicit, if we are to understand what Wittgenstein is after in section 122 of the *Philosophical Investigations*. It is the distinction between saying (a) that something is either surveyable or not and (b) that we possess or do not possess a surveyable representation of it. In the case of the car accident, it is clear that the court-room model provides a surveyable representation but the event remains nonetheless unsurveyable in that it cannot be retrieved from the past and was, in any case, never fully surveyable even as it happened. When Wittgenstein writes in section 122 that our grammar lacks surveyability he does not mean then, that our grammar lacks a surveyable representation. And when he adds that we need a surveyable representation, he does not mean to say that this would make the grammar itself surveyable. The surveyable representation is needed, rather, because our grammar is and remains unsurveyable. Just as we need the surveyable court-room model because the accident itself is and remains unsurveyable. Surveyable representations may, in other words, serve various functions. They may, in the simplest case, provide a repre-

sentation of a totality that is itself surveyable. In the second, philosophically most important instance a surveyable representation may serve as a tool for dealing with wholes that are (and remain) intrinsically unsurveyable. Finally, a surveyable representation can also be sometimes used as a blueprint for remodeling a totality and making thus surveyable.

The court-room model also draws our attention to the danger inherent in the methodology of constructing surveyable representations for unsurveyable wholes. For our model may actually misrepresent the relevant features of the accident; it may oversimplify and thereby distort the actual situation; it may represent features that do not bear on the question of responsibility and omit others that are essential. Our means for dealing with the unsurveyability of grammar is, thus, at the same time a potential means for misunderstanding grammar. For when we have constructed a surveyable model, there is always the danger that the model does not capture the significant characteristics of the unsurveyable whole. Thus, the *Tractatus* had once sought to make the working of language transparent but it had considered, in fact, only a narrow use of language. In the *Philosophical Investigations* Wittgenstein could therefore write that the *Tractatus* had treated the formula "This is how things are" as if it were the general form of the proposition. (PI, 114) This "surveyable representation" had produced, however, a seriously distorted picture of language and meaning.

In order to avoid such misapprehensions we must understand how surveyable representations can help us to deal with our unsurveyable grammar. These models provide in each case only particular and "primitive" applications of words. That is why they may prove to be illuminating but also misleading. The method of constructing "surveyable representations" is thus not to be fully trusted. Only if we understand this, will we achieve a proper reading of the second half of section 122 of the *Investigations.* At first sight the passage seems to be saying that we might actually be able to construct a complete surveyable representation of our grammar. But when Wittgenstein writes that the concept of surveyable representation is of fundamental significance for us and that it designates our form of representation, the way we look at things," we should not assume automatically that he means to include himself in the "for us" and the "our." He is saying, rather, that in our contemporary culture, for us moderns, it is evident that we can represent everything in a surveyable fashion. That as-

sumption is fundamental to how we have come to look at the world. That same assumption was also made by the author of the *Tractatus.* It may, indeed, express a distinctively modern world-view. Hence, the concluding question of section 122: "Is this a '*Weltanschauung*'?"

The mock quotations around the word "*Weltanschauung"* should alert us to the possibility that Wittgenstein intends to distance himself from this particular world view. That this is so is confirmed by an earlier version of section 122 from 1931. In his "Remarks on Frazer's Golden Bough" Wittgenstein already notes the importance that the concept of surveyable representation has "for us" but he concludes the passage at the time with the straightforwardly dismissive sentence: "A similar kind of '*Weltanschauung'* is apparently typical of our time." (RFGB, 69) The remark revises, in turn, a still earlier indictment against "our civilization" as obsessed with the ideas of progress and construction. In contrast to the great stream of European and American civilization, Wittgenstein had written in 1930, he himself was concerned only with "clarity, transparency (*Durchsichtigkeit*)." (CV, 7) Soon after that he must have concluded that universal transparency was a treacherous ideal. Section 122 of the *Investigations* must be read accordingly.

If the method of constructing surveyable representations is both useful and dangerous, the question is how we are to make the best use of it. The answer suggested by the practice of the *Philosophical Investigations* is that for each unsurveyable totality we must generate a variety of different surveyable representations, not just a single one, as the *Tractatus* had tried to do. We must look at various "primitive kinds of application" and various "primitive forms of language." (Note the plural in both phrases.) Referring to the numerous "clear and simple language-games" he had described in the early sections of the *Investigations,* Wittgenstein writes also that they "are not preparatory studies for a future regularization of language – as it were first approximations, ignoring friction and air-resistance. The language games are rather *objects of comparison* which are meant to throw light on the facts of our language by way not only of similarities, but also of dissimilarities." (PI, 130) The "essence of language," is to be found in these varying relations between language and our surveyable representations.

Essential complexity

We can generally take a situation in at a glance and thus survey it, when it is sufficiently simple. If there are just three people in a room, I may be able to take that situation in at a single glance. If the room is crowded, however, with dozens of people, I may not be able to see immediately what is going on. But even when there are only three people present, I may find the situation opaque. Assume that I have interrupted the three in a heated argument or that there is an awkward silence in the room, as I enter. I may then be rightly puzzled by what is going on. Finally, I can't take a situation in at a glance if it is too volatile, if, let us say, people stream incessantly in and out of the room.

When Wittgenstein says that our grammar lacks surveyability, he seems to have these three characteristics in mind. That may be concluded from two sections of the *Philosophical Investigations.* In section 23 he asks famously "how many different kinds of sentence are there?" And to this he answers: "There are *countless* kinds: countless different kinds of use of what we call "symbols", "word", "sentences". And this multiplicity is not something fixed, given once and for all; but new types of language, new language-games, as we may say, come into existence, and others become obsolete and get forgotten." And in section 18 he offers a metaphorical illustration of more or less the same point: "Our language can be seen as an ancient city: a maze of little streets and squares, of old and new houses, and of houses with additions of various periods; and this surrounded by a multitude of new boroughs with straight, regular streets and uniform houses."

Wittgenstein provides in this way three reasons for speaking of grammar or, generally, of language as unsurveyable. The first is that our language contains "countless" kinds of sentence and use, a "maze" of little streets and squares, and a "multitude" of new boroughs. One of the characteristics of unsurveyable wholes is then that they typically contain a large number of items. But this is not a sufficient condition. Highly totalities may be large and still be surveyable. A second characteristic of an unsurveyable totality is then that the items in it are likely to be of different kinds and are related to each other in multiple ways. This certainly fits the case of our language. To this Wittgenstein adds finally that our language is un-

surveyable also because it is not a closed totality. New types of language and new uses of language are constantly coming into existence while old ones fall by the wayside. We thus end up with three characteristics of unsurveyable totalities. (1) They typically contain large numbers of items. (2) These are typically of many different kinds that are related to each other in many different ways. And (3) they are not closed but constantly in transition. None of the three characteristics is, however, necessary. A totality may consist of only a few items but if these are linked by an exceedingly complex web of relations, the totality may still be unsurveyable. Thus a soccer game may prove unsurveyable even though there are only eleven players on each side. And even if there are only a few items that make up the totality and these are related in relatively simple ways, the totality may still be unsurveyable, if it is sufficiently unstable in its composition. Chaotic events are typically unsurveyable. On the other hand even a closed totality may prove to be unsurveyable as long as the items in it are sufficiently large in number or there are sufficiently many different kinds of relations between them. That is why the grammar of a dead language may be just as unsurveyable as that of a living one.

I will call totalities that possess these three characteristics “essentially complex” or just “complex.” This allows me to distinguish between the epistemic condition of a whole being unsurveyable and the factual characteristics that make it so – two things which Wittgenstein does not explicitly keep apart. We may say then also that the fact of complexity explains the epistemic situation of unsurveyability. I am aware, of course, that the word “complex” has no sharply defined meaning in ordinary usage and that no theorist of complexity has ever offered a precise characterization of its meaning. How large does a totality have to be, how many kinds of items does it have to contain, how diverse must the relations between the items be, how open-ended must the totality be in order to make it essentially complex? We must presumably distinguish degrees as well as types of complexity. The physical universe, for instance, is very large but we may still be able to construct a surveyable representation of a certain coherent set of its properties. That is why we can formulate laws of physics that have both explanatory and a predictive power. The human world, on the other hand, while being only a part of the physical universe, is still unsurveyable. In this case we are concerned with a vast array of diverse rela-

tionships that presents to us as a highly variable totality. We find ourselves thus unable to come up with historical, social, or anthropological laws. Biology seems to fall somewhere between these two cases. The facts of biochemistry may be fully surveyable, but the actual course of biological evolution may be not.

The practice of language

The question arises how we can cope with the grammar of our language, if it lacks surveyability. Don't we have to possess some kind of grasp of our grammar if our language is to be fluent? And how are we to orient ourselves in our society, in our culture, and most generally in the human form of life, if they, too, lack surveyability?

There are two answers available at this point on how we may get a grasp on a totality that lacks surveyability. The first is that we might be able to organize the totality so that it becomes surveyable. But language (and, more generally, the human form of life) presents us with a different problem. We may, of course, consider the possibility of reforming language in order to make it surveyable. And it is true that such reforms have been tried. But for good reasons we retain, in the end, always our essentially complex, unsurveyable language. I emphasize this because some of Wittgenstein's words might be misunderstood. In section 92 of the *Investigations* he speaks, as if we could make our unsurveyable language surveyable. He speaks there of the mistaken view that "the essence of language" is something "that lies *beneath* the surface;" this view, he adds, "does not see the essence as something that already lies open to view and that becomes *surveyable* through ordering (*durch Ordnen*)." (My translation) Does he mean to say that we can make language surveyable by reorganizing it? This is, surely, not what he can be after, for he also maintains that "philosophy may in no way interfere with the actual use of language." (PI, 124). The task of the philosopher is certainly not, according to Wittgenstein, to reform or reorganize language in the name of an ideal surveyability.

The suggestion that we might replace the language we speak by another one with a surveyable grammar (English, for instance, with Esperanto or with a logical notation) faces, in any case, two potential obstacles.

The first – commonly cited by Wittgenstein’s interpreters – is that we would have to explain the new surveyable language in the one we already know and since the latter is, by assumption, unsurveyable it is not clear that the new one could be anything else. I am not sure, however, of the force of this argument. Isn’t it true that we have invented various surveyable systems of notation (in mathematics, logic, science, technology, and business) and that we routinely explain their use by means of our ordinary an unsurveyable language? Can’t we create order out of chaos, transparency out of obscurity, and hence, the surveyable out of the unsurveyable? We surely can but we must recognize that the new notation will then not provide a literal translation from the old one. It will not make the unsurveyability of our original language disappear. And so our old problem remains how we can come to grasp that original and unsurveyable language. But why, one might ask, should this bother us, if the new surveyable notation can perform all the tasks of the original language? The question is only whether any such new notation can actually do that job. And there are many reasons to doubt that.

This gets me to the second and more serious objection to the idea that we could replace our unsurveyable language with a surveyable one. We can certainly invent a language with a simpler and more transparent syntax than that of English; but when Wittgenstein says that the grammar of our language is unsurveyable, he does not mean that its syntax is so. He uses the word “grammar,” instead, as I have already said, for the system of use we make of our words. And similarly when he employs the word language, he does not mean simply a system of notation with its precise rules but the entire activity of using signs. And it is far from obvious that we could invent a language that can serve all the uses of language in this broad sense and still have a surveyable grammar. This should dispose of the objection of those linguists who have argued that behind the irregular surface structure of our language lies a precise and completely regular syntax and that this syntactic deep structure may even be innate to the human mind. Wittgenstein’s considerations bypass this entire objection. It may or may not be the case that our language has a surveyable deep syntax, Wittgenstein’s point remains that such a syntax will not uniquely determine the use we make of it in the activity of speaking. Wittgenstein must be right in saying that this system of use of our language is unsurveyable.

What then exactly is achieved by constructing a series of models or surveyable representations to represent an unsurveyable totality? What is the relation between these models and the totality? Two very different answers suggest themselves which Wittgenstein does not explicitly separate. The first is that each of the many surveyable models will represent a part of the totality we are dealing with. On this account the unsurveyable totality is made up of surveyable parts and each of those can be captured in a surveyable representation. The totality is unsurveyable only in the sense that it requires an unsurveyable series of representations to represent it completely. The second possibility is that each surveyable representation will give us only an approximate picture of the totality and we can get an understanding of that totality only by having a number of more or less adequate pictures of the whole. We can call the first the part-whole view of unsurveyability and the second the approximation view. The reason why Wittgenstein does not distinguish them may be that he considers language to be unsurveyable in both ways. If we think of "language" as comprehending both the language of everyday life and the logical notations of the propositional calculus and other precise notations, it may turn out that some parts of language can be represented precisely and others only approximately. Our misunderstanding of language may then rest on the false idea that the parts of language which can be represented only approximately are like those which can be represented precisely. We are, in other words, victims of a part-whole fallacy. It may be true of totalities, though, that they can be represented only with the help of approximations. If we assume that any such approximation gives us, in fact, a full and precise representation we are misled by a false understanding of the idea of representation. That was, indeed, the fallacy of the *Tractatus,* the belief that in order for an A to represent a B, A and B must have precisely the same structure. That view is certainly incompatible with Wittgenstein's realization in the *Philosophical Investigations* that one and the same picture can represent completely different things: "here a glass cube, there an inverted open box, there a wire frame of that shape, there three boards forming a solid angle." (PI, 193)

Two things follow from this. The first is that our capacity for using words, the command we have of our grammar, and our ability to participate in the human form of life cannot be due to our possession of a survey-

able representation of the use of our words, of our grammar, or of our form of life. There are no such representations to be had. We acquire our linguistic capacities and our ability to participate in human life rather by imitation and habituation, by drill and practice. In section 5 of the *Investigations* Wittgenstein writes that when we teach children the first, primitive forms of language, "the teaching of language is not explanation, but *Abrichten*." Our translator has piously rendered the last word as "training," but Wittgenstein is speaking, in fact, of a kind of conditioning to which we commonly subject circus animals. By means of punishments and rewards we manage to get them to perform all kinds of maneuvers. One easily thinks here of the harsh methods that the school teacher Ludwig Wittgenstein used to get his children to learn. An important part of such conditioning, Wittgenstein writes in the *Investigations* "consist[s] in the teacher's pointing to the objects, directing the child's attention to them, and at the same time uttering a word … This kind of teaching by indication can be said to establish an associative connection between the word and the thing." (PI, 6) Similarly, the teacher may show the students a table with words and pictures and the student "learns to look the picture up in the table through conditioning and part of this conditioning consists perhaps in the student learning to pass with his finger horizontally from the left to the right in the table." (PI, 86) We get a grasp of the grammar of our language through such simple things as learning to direct our attention, practicing the voicing of sounds so that uttering them becomes easy, establishing associations between words and objects, memory training, learning to use our fingers and to co-ordinate finger and eye movements, etc. In *On Certainty* Wittgenstein adds that "language did not emerge from some kind of ratiocination." (OC, 475) He proposes to look at man, instead, as an animal "a primitive being to which one grants instinct but not ratiocination." When a child first learns words like "book" or "arm chair" it does not learn that there are such things books and chairs but it learns to get the book or to sit in the arm chair. The human language game is thus based not on theoretical, verbalized knowledge but on practice. "The child, I should like to say, learns to react in such-and-such a way; and in so reacting it doesn't so far know anything. Knowledge only begins at a later level." (OC, 538)

We acquire a grasp of our grammar thus as a practical capacity, not by being having a surveyable representation of that grammar. And this

practical capacity is itself essentially complex and hence unsurveyable. Eventually we learn, of course, to reflect on our practical capacities, our grammar and at this point we learn to understand, use, and even construct surveyable representations of them. But these will be inevitably partial or approximating representations since our practical capacity to use our language is and remains essentially complex and hence unsurveyable. Surveyable representations of our grammar may nevertheless serve a number of purposes. They may prove helpful at times in teaching a language. We all know that from learning a second language as adults. But we also know that the grammatical rules we are taught in such contexts have typically many exceptions and are never sufficient for establishing a fluent capacity to use the language. Surveyable representations of grammar may also serve as tools for normalizing and regularizing our linguistic practices. National academies, like the French Academy, often engage in such normalizing activity. Surveyable representations may finally help us also to overcome grammatical confusions. Wittgenstein is convinced that these confusions are the source of our philosophical dilemmas. In order to resolve what troubles us philosophically, we will therefore find ourselves engaged in constructing various surveyable representations of our grammar. But we must always remain alert to the fact that such constructions can give rise to new philosophical confusions.

Hyper-complexity

Wittgenstein's interest in the use and the limitations of the method of surveyable representation went beyond his concern with language. That is evident from his "Remarks on Frazer's *Golden Bough"* and his comments on Spengler's *Decline of the West* in the 1930's. In criticism of Frazer's attempt to explain magical and religious practices in evolutionary terms, Wittgenstein suggested at the time that these phenomena can be adequately understood only through the applying method of surveyable representation. The representations of individual magic and religious practices and more broadly of individual primitive cultures will make their specific "logic" or "grammar" apparent. Those representations will reveal to us also family resemblances between various magical and religious practices and cultures. They will establish finally the existence of a gulf between those practices

and cultures and our own scientific civilization. The method of surveyable representation can make explicit that magic and religion have their own characteristic grammar and that their language games differ "grammatically" from those generated in our scientific and technological civilization. To reach those conclusions does not require that we should be able to give total representations of either magic, religion, or science. Wittgenstein certainly does not assume that we could give a synoptic representation of them. His message is, on the contrary, that we cannot expect to be able to construct an adequate synoptic representation of the human form of life.

In his comments on Spengler, Wittgenstein objects in a similar fashion to the idea of a single surveyable "morphology of world history." Spengler had, of course, argued that individual cultures are incommensurable organic wholes and that we can understand them only in terms of their own internal logic. He had maintained, nevertheless, at the same time that we can establish a common morphology of culture. At the heart of Spengler's book we find, accordingly, a tabulation of the great world-cultures. This overview is intended to show us that all cultures follow inevitably the same course of internal development and pass through strictly corresponding historical stages. Spengler's table provides us with a paradigm of a surveyable representation – but as such it fails in Wittgenstein's eyes. While Wittgenstein's notes express some sympathy for Spengler's approach, he is strictly critical of the idea that human cultures can be understood in terms of a single model of organic development. Contrasting Spengler's view to his own, he writes in 1937 that one can prevent general assertions (about language, culture, the human form of life) from being empty or unjustified only by looking at the ideal, i.e., the surveyable representation, as "an object of comparison – so to say as a measuring-rod – instead as a preconceived idea to which *everything* must conform. For in this lies the dogmatism into which philosophy slips so easily." The words anticipate section 131 of the *Philosophical Investigations.* They go a little further, however, by adding: "The ideal loses nothing of its dignity, if it is put forward as principle of the form of representation. A good measurability." (CV, 26-27)

Once we expand the idea of unsurveyability from grammar and language to history, culture, society, we must pay attention, however, to the different kinds of complexity and hence to the different sorts of unsurvey-

ability that these totalities exhibit. The totalities in question are, of course, all essentially complex in the sense I have already specified in that they all consist of large numbers of items of a number of kinds, that these items stand in a large number of diverse relations, and that they are open-ended. They differ nevertheless in their type of complexity because of the nature of their constituent elements. While we can say roughly that grammar and language consist of words and sentences and such like, history, culture and society involve human beings not just as bodies or as biological organisms, but as agents who have views about themselves, about their surrounding, and indeed about their history, culture, and society. It is characteristic of this latter sort of totality that views of the agents within them help to define those totalities. From this results a new type of complexity.

If I were to give an account, for instance, of politics in the United States I would have to talk, first of all, of a large array of material facts: the state of the economy, budgets and deficits, climate, landscape, and resources, industrial and military hardware, populations, poverty and wealth, and so on. It should be clear from this short list that the material aspect of the political culture of the US is essentially complex and thus, in principle, unsurveyable. But in order to give a full account of American politics I would also have to talk about the views of Republicans and Democrats, about the peculiar beliefs of certain fundamentalists, about the aggressive nationalism of some neo-conservatives, and about the mildly ineffective liberalism and humanism of many other Americans. The political culture of America is defined not only by certain material facts but also by certain views of these facts. This adds a whole new layer of complexity to a totality such as a political system. Each of the varying view-points that constitutes in part such a system concerns, moreover, not about the material aspects of the system but also the views that others within the system, in turn, have of it. Thus, Republicans have political views not only about the state of the economy but also about the views of their Democratic opponents. And Democrats have views not only about the military-industrial complex but also about the views of Republicans concerning that complex. It is easy to see that each of these political views will, in fact, be unsurveyable. This does not mean, of course, that these views are inaccessible to us. Wittgenstein has shown how absurd that conclusion would be. If it were in principle impossible for me to say anything about the views of others, then I

would have no reasons for ascribing any such views to them. Nonetheless, it is true that, in practice, I cannot construct an adequate synoptic representation of political view-points. My representation will be, rather, always only a partial account of such a view or a loose approximation to it and most likely both.

But if every individual view of American politics is unsurveyable, it will follow a fortiori that the totality of such view-points will be unsurveyable. And if that totality is unsurveyable then the system of American politics is also unsurveyable and this not only because the material facts are unsurveyable. We have thus, a cascade of levels of unsurveyability. The same can be said for totalities such as a human society, a human culture or civilization, and, of course, the human form of life as a whole. They all exemplify a type of complexity that goes substantially beyond the complexity of grammar and language. I will for that reason speak of totalities such as societies, cultures, or political systems as hyper-complex.

Essentially complex totalities present us with distinctive epistemic challenges since we can’t ever comprehend them in the way in which we can comprehend surveyable wholes. Wittgenstein recognized, of course, the important function of partial and approximating representations of our grammar and our language. He was, in fact, convinced that we could resolve some of our more persistent philosophical problems by constructing such representations for grammar and language. At the same time he cautioned against the wish to have a complete, synoptic representation of our grammar, our language. That wish, he thought, might actually lead us into philosophical confusions and misunderstandings. The same kinds of issues arise with respect to hyper-complex totalities – but in an intensified form.

When it comes to dealing with society, culture, politics, history, and the human form of life as a whole we need to handle the method of representation with even more caution. It is not only that such totalities are substantially more complex than grammar and language and hence also unsurveyable in a new and more extreme sense. They also present us with new kinds of philosophical difficulties. These are generated by the fact that such totalities are self-reflective in character. Views of the nature of these totalities are constitutive components of them. These views have, moreover, a peculiar characteristic. In order for agents to operate in these hyper-complex totalities they require synoptic views of that totality. In order to

act politically, for instance, agents require a comprehensive view of the political system in which they are acting. Similarly, in order to engage in a culture, agents need to have an overall view of that culture. These synoptic views may, of course, be quite schematic; they nevertheless need to be views of the whole. This is quite different from the case of grammar and language. In order to speak a language grammatically we do not need an overall view of that language. Representations of grammar are certainly useful for our mastery of language. But they need to be synoptic. Partial and approximating representations will do. This is not sufficient for our operating in hyper-complex formations. At the same time, it should be clear that in these domains our representations will always fall radically short. The practical need for a synoptic view runs here head-on into the impossibility of ever achieving one that is adequate.

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