

A. Pichler & S. Säätelä:
Introduction to Wittgenstein

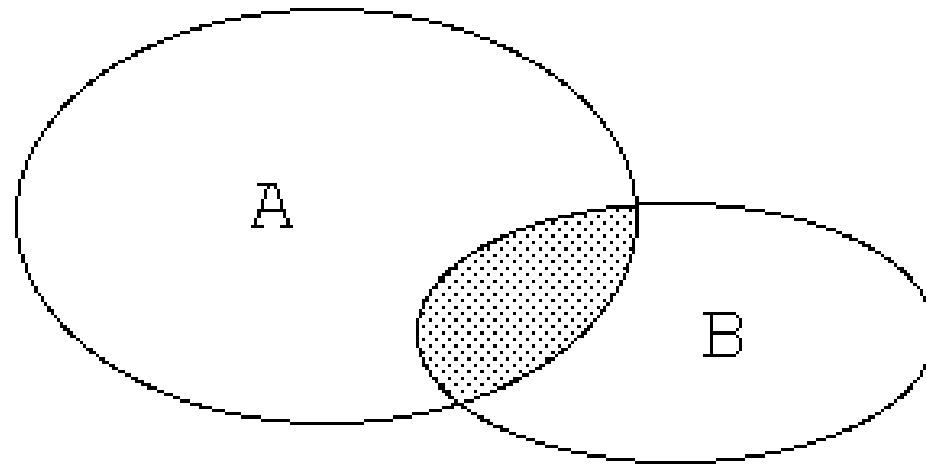
8th lecture 16.10.2018:
Central concepts of the Philosophical
Investigations: Family resemblance,
Übersichtliche Darstellung

6) Family resemblance

Universals – the traditional view

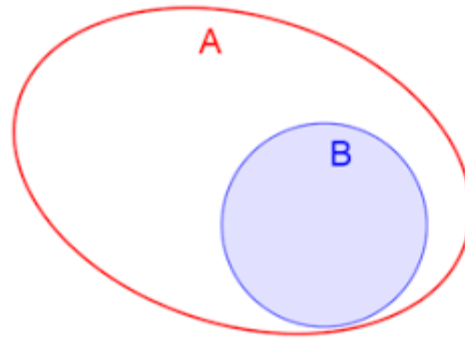
(Definitions understood as giving the necessary and sufficient conditions for a X to be X)

Homo = animal + rationale



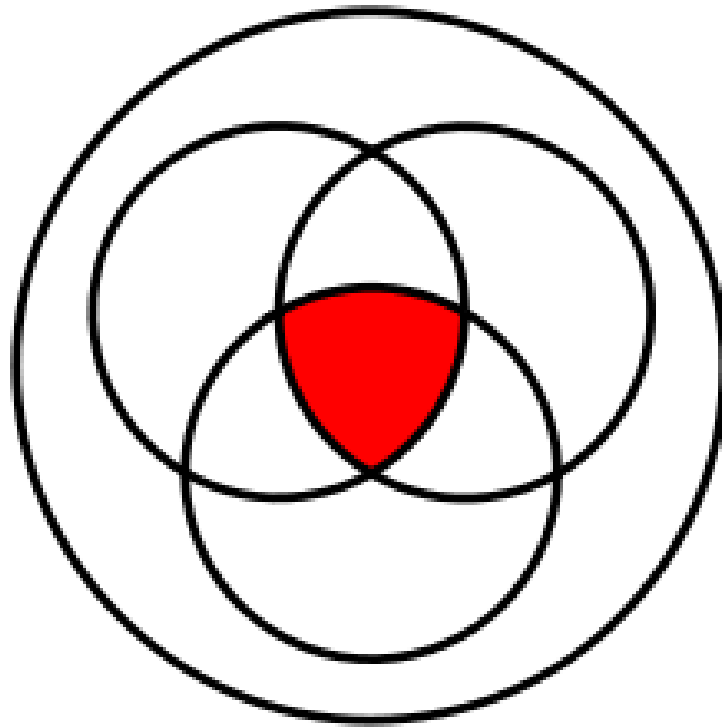
(Graphic from *Wikibooks*, https://upload.wikimedia.org/wikibooks/de/8/84/Mengenlehre_schnittmenge.png)

Male human = Human with one X and one Y chromosome in each cell



(Graphic from <http://snvbrwvobs2.snv.at/matura.wiki/index.php/Mengenlehre>)

Bachelor = human + male + able to
marry + unmarried

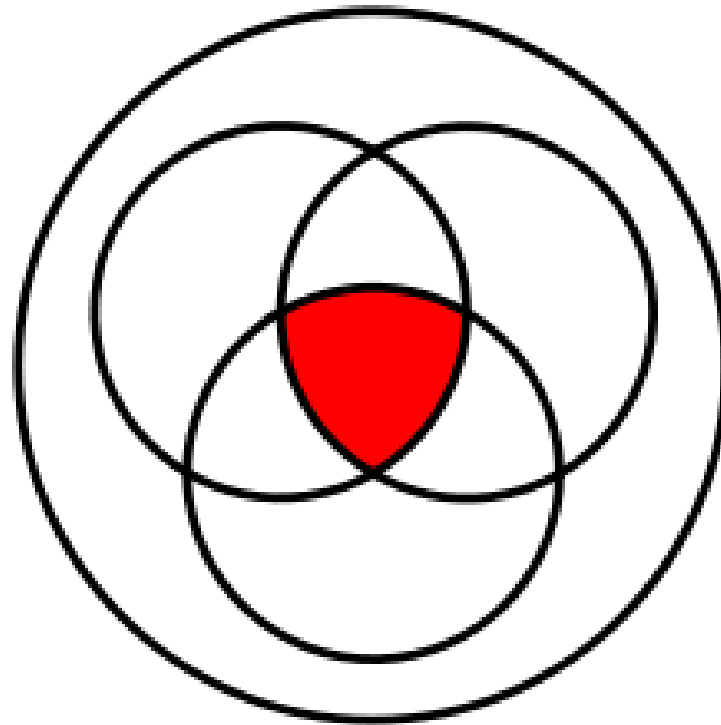


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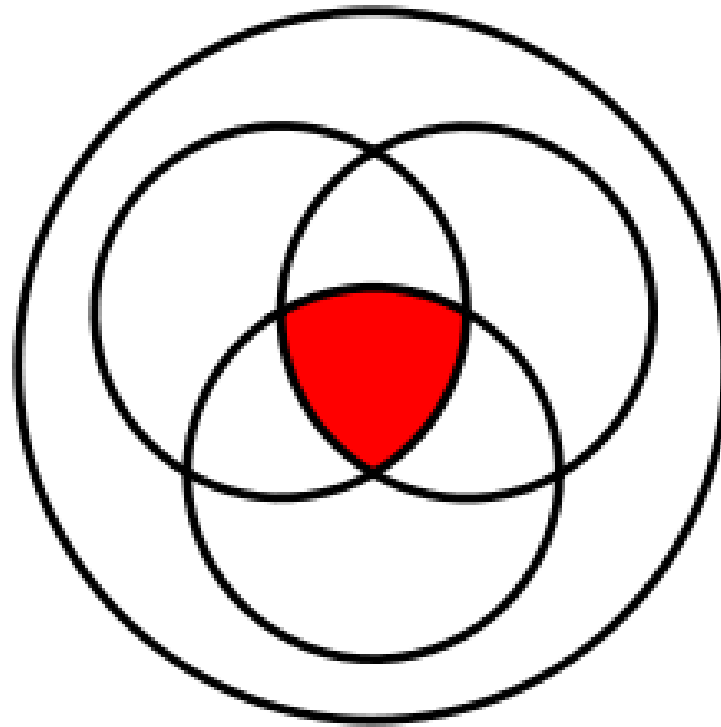
Defining properties / characteristics (the traditional picture)



Student = ? + ? + ? + ... ?



Game = activity + competitive +
social + ... ?



Wittgenstein's suggestion: Family resemblance

Most everyday (general) concepts
(*Allgemeinbegriffe*) are not like ...

... areas [«Bezirke»] with centers and sharp borders, but rather like **ropes** [*Seil, Tau*] or **threads** [*Faden*]:

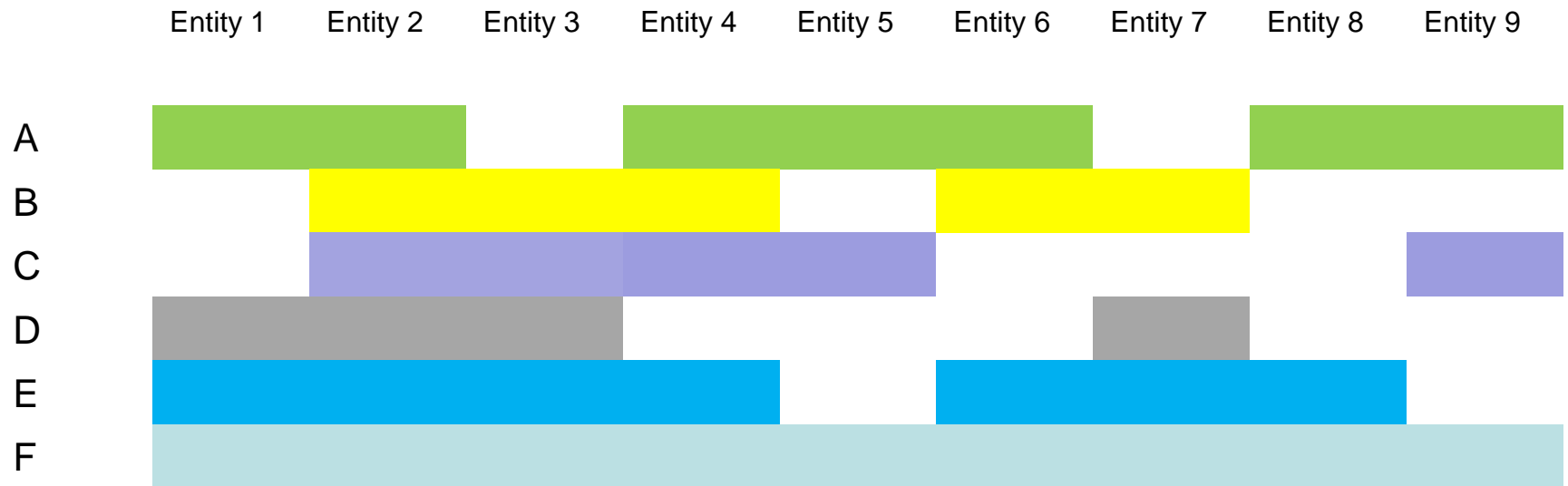
... we twist fibre [*Faser*] on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres. (PI §67)

PI §71: Our everyday concepts do not work on the basis of essence and exactness (and don't actually presuppose essences and exactness)

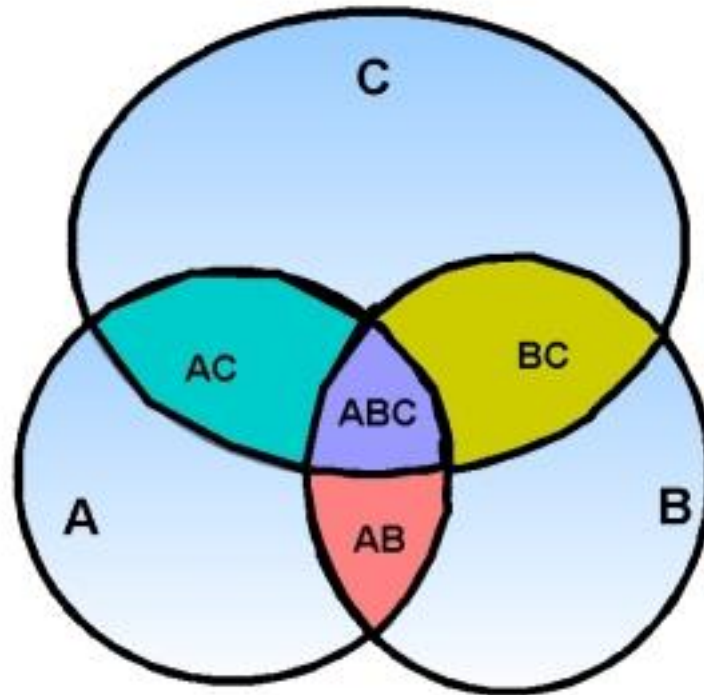
71. One might say that the concept 'game' is a concept with blurred edges.—"But is a blurred concept a concept at all?"—Is an indistinct photograph a picture of a person at all? Is it even always an advantage to replace an indistinct picture by a sharp one? Isn't the indistinct one often exactly what we need?

Frege compares a concept to an area [Bezirk] and says that an area [Bezirk] with vague boundaries cannot be called an area at all. ... For any general definition can be misunderstood too. The point is that *this* is how we play the game. (I mean the language-game with the word "game".)

Wittgenstein's suggestion for understanding the nature of (some, not all!) universality / generality: Family resemblance
(But common properties (F) are still possible!)



Cf. intersection



(Graphic by Manfred Aulbach,
<http://heimwerker-mathematik.aulbach-philosophy.de/-Schnittmenge/-schnittmenge-.html>)

PI §66: Not *one* defining characteristic / property needs to be in common

66. Consider for example the proceedings that we call "games". I mean board-games, card-games, ball-games, Olympic games, and so on. What is common to them all?—Don't say: "There *must* be something common, or they would not be called 'games'"—but *look and see whether there is anything common to all.*—For if you look at them you will not see something that is common to *all*, but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look!—Look for example at **board-games**, with their multifarious relationships. Now pass to **card-games**; here you find many correspondences with the first group, but many common features drop out, and others appear. When we pass next to **ball-games**, much that is common is retained, but much is lost.—Are they all 'amusing'? Compare chess with noughts and crosses. Or is there always winning and losing, or competition between players? Think of patience. In ball games there is winning and losing; but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck; and at the difference between skill in chess and skill in tennis. Think now of **games like ring-a-ring-a-roses**; here is the element of amusement, but how many other characteristic features have disappeared! And we can go through the many, many other groups of games in the same way; can see how similarities crop up and disappear.

And the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail.

PI §67: «Family resemblance»

67. I can think of no better expression to characterize these similarities than "family resemblances"; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. etc. overlap and criss-cross in the same way.—And I shall say: 'games' form a family.

And for instance the kinds of number form a family in the same way. Why do we call something a "number"? Well, perhaps because it has a—direct—relationship with several things that have hitherto been called number; and this can be said to give it an indirect relationship to other things we call the same name. And we extend our concept of number as in spinning a thread we twist fibre on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres.

PI §71: Essence and exactness are not *required* for the typical functioning of our ordinary language and thought (against Frege and TLP)

71. One might say that the concept 'game' is a concept with blurred edges.—"But is a blurred concept a concept at all?"—Is an indistinct photograph a picture of a person at all? Is it even always an advantage to replace an indistinct picture by a sharp one? Isn't the indistinct one often exactly what we need?

Frege compares a concept to an area [Bezirk] and says that an area [Bezirk] with vague boundaries cannot be called an area at all. This presumably means that we cannot do anything with it.—But is it senseless to say: "Stand roughly there"? Suppose that I were standing with someone in a city square and said that. As I say it I do not draw any kind of boundary, but perhaps point with my hand—as if I were indicating a particular *spot*. And this is just how one might explain to someone what a game is. One gives examples and intends them to be taken in a particular way.—I do not, however, mean by this that he is supposed to see in those examples that common thing which I—for some reason—was unable to express; but that he is now to *employ* those examples in a particular way. Here **giving examples** is not an *indirect* means of explaining—in default of a better. For any **general definition** can be misunderstood too. The point is that *this* is how we play the game. (I mean the language-game with the word "game".)

The power of the example

71. ... I do not, however, mean by this that he is supposed to see in those examples that common thing which I—for some reason—was unable to express; but that he is now to *employ* those examples in a particular way. Here **giving examples** is not an *indirect* means of explaining—in default of a better. For any **general definition** can be misunderstood too. The point is that *this* is how we play the game. (I mean the language-game with the word "game".)

- We learn to understand and master family resemblance concepts by being given examples rather than by being given definitions!

The power of the example

208. ... How do I explain the meaning of "regular", "uniform", "same" to anyone?—I shall explain these words to someone who, say, only speaks French by means of the corresponding French words. **But if a person has not yet got the *concepts*, I shall teach him to use the words by means of *examples* and by *practice*.**—And when I do this I do not communicate less to him than I know myself.

In the course of this teaching I shall shew him the same colours, the same lengths, the same shapes, I shall make him find them and produce them, and so on. I shall, for instance, get him to continue an ornamental pattern uniformly when told to do so.—And also to continue progressions. And so, for example, when given: to go on:

I do it, he does it after me; and I influence him by expressions of agreement, rejection, expectation, encouragement. I let him go his way, or hold him back; and so on.

Imagine witnessing such teaching. None of the words would be explained by means of itself; there would be no logical circle.

The expressions "and so on", "and so on ad infinitum" are also explained in this teaching. A gesture, among other things, might serve this purpose. The gesture that means "go on like this", or "and so on" has a function comparable to that of pointing to an object or a place. ...

- Examples take the place ostensive definitions have in the «Augustinian picture of language».

Most of our concepts do not have sharp borders, nor do they have an "essence"

- Instances of a concept do not need to have a single defining feature in common in order to be instances of that concept. (PI §§66-67)
 - There is not *one defining* thing which the instances of game (Bridge, Ludo, Tennis ...) need to have in common in order to be games.
 - There is not *one defining* thing which the members of a family need to have in common in order to be members of that family.
- A concept does not need to have sharp borders in order to function well. (PI §71)

Home work: Are all concepts family resemblance concepts?

game, tree, chair, number, art, rationality, meaning, animal, language, acting, understanding, reading, thinking, male, female, **human being**, citizen, Bergenser, stortingsrepresentant, photosynthesis, electricity, modus ponens, diabetes type 2, bachelor student ...

Family resemblance vs. Definition

- The notion of family resemblance proves illuminating for a wide range of concepts: "game", "number", "understanding", "language", "proposition", "art", ...
- Definition by giving necessary and (collectively) sufficient conditions ("Homo est animal rationale") or putting up a disjunction ("A game is either ... or ... or ...") for the use of a word is often not possible, and where possible, not always helpful, and where helpful, not always true to our *actual* ways of using the concept.
- **However, nothing in Wittgenstein's remarks about family resemblance amounts to the view, that all concepts are family resemblance concepts or that definitions would *never* be required or in place.**

It can be difficult to come up with good *definitions* of our everyday expressions ...

156. This will become clearer if we interpolate the consideration of another word, namely "**reading**". First I need to remark that I am not counting the understanding of what is read as part of 'reading' for purposes of this investigation: reading is here the activity of rendering out loud what is written or printed; and also of writing from dictation, writing out something printed, playing from a score, and so on.

The use of this word in the ordinary circumstances of our life is of course extremely familiar to us. But the part the word plays in our life, and therewith the language-game in which we employ it, would be difficult to describe even in rough outline. ...

... but definitions *are* often possible and do also make sense in specific contexts

132: ... Such a reform for particular practical purposes, an improvement in our terminology designed to prevent misunderstandings in practice, is perfectly possible. **But these are not the cases we have to do with.** The confusions which occupy us arise when language is like an engine idling, not when it is doing work.

- N.B.: We should not forget that there indeed also already exist concepts which are precisely defined – see for example concepts from the sciences, political administration, medicine, pharmacy, or the transportation sector.
- N.B.: Nothing in Wittgenstein's remarks about family resemblance amounts to the view, that the instances falling under family resemblance concepts could not have properties in common. Of course they can – the question is whether the properties in common are *defining* properties!
 - All family members are humans; all games are activities (PI §66: "proceedings" ☺); all trees are plants; etc. etc.

The locus of family resemblance in the PI

65. ... Denn man könnte mir nun einwenden: "Du machst dir's leicht! Du redest von allen möglichen Sprachspielen, hast aber nirgends gesagt, was denn das Wesentliche des Sprachspiels, und also der Sprache, ist. Was allen diesen Vorgängen gemeinsam ist und sie zur Sprache, oder zu Teilen der Sprache macht. Du schenkst dir also gerade den Teil der Untersuchung, der dir selbst seinerzeit das meiste Kopfzerbrechen gemacht hat, nämlich den, die allgemeine Form des Satzes und der Sprache betreffend.,,

Und das ist wahr. - Statt etwas anzugeben, was allem, was wir Sprache nennen, gemeinsam ist, sage ich, es ist diesen Erscheinungen garnicht Eines gemeinsam, weswegen wir für alle das gleiche Wort verwenden, - sondern sie sind mit einander in vielen verschiedenen Weisen verwandt. Und dieser Verwandtschaft, oder dieser Verwandtschaften wegen nennen wir sie alle "Sprachen". Ich will versuchen, dies zu erklären.

7) Übersichtliche Darstellung

The field of our everyday concepts (as understood by the PI): A complicated web of properties overlapping and criss-crossing

- $G(\text{ame})_1 - a - G_2 - b - G_3 - a - G_4 - c - G_5 - c - G_6 - a - G_7 - b - G_8 \dots$
- «Übersichtliche Darstellung» (as understood by the PI) helps to find the threads running through / connecting the nodes, the „mediating links”, the “intermediate cases” between the nodes – the properties common to some of the nodes (a, b, c ...).

PI §122: Übersichtliche Darstellung is to provide philosophical *understanding*

122. Es ist eine Hauptquelle unseres **Unverständnisses**, daß wir den Gebrauch unserer Wörter nicht übersehen. - Unserer Grammatik fehlt es an Übersichtlichkeit. - Die übersichtliche Darstellung vermittelt das **Verständnis, welches eben darin besteht, daß wir die 'Zusammenhänge sehen'**. Daher die Wichtigkeit des Findens und des Erfindens von Zwischengliedern.

Der Begriff der übersichtlichen Darstellung ist für uns von grundlegender Bedeutung. Er bezeichnet unsere Darstellungsform, **die Art, wie wir die Dinge sehen**. (Ist dies eine 'Weltanschauung'?)

122. A main source of our **failure to understand** is that we do not *command a clear view* of the use of our words.—Our grammar is lacking in this sort of perspicuity. A perspicuous representation produces just that **understanding which consists in 'seeing connexions'**. Hence the importance of finding and inventing *intermediate cases*.

The concept of a perspicuous representation is of fundamental significance for us. It earmarks the form of account we give, **the way we look at things**. (Is this a 'Weltanschauung'?)

Other passages about «Übersicht» and «übersichtliche Darstellung»

5. Wenn man das Beispiel im §1 betrachtet, so ahnt man vielleicht, inwiefern der allgemeine Begriff der Bedeutung der Worte das Funktionieren der Sprache mit einem Dunst umgibt, der **das klare Sehen** unmöglich macht. - Es zerstreut den Nebel, wenn wir die Erscheinungen der Sprache an primitiven Arten ihrer Verwendung studieren, in denen man den Zweck und das Funktionieren der Wörter **klar übersehen** kann.

Solche primitive Formen der Sprache verwendet das Kind, wenn es sprechen lernt. Das Lehren der Sprache ist hier kein Erklären, sondern ein Abrichten.

5. If we look at the example in §1, we may perhaps get an inkling how much this general notion of the meaning of a word surrounds the working of language with a haze which makes **clear vision** impossible. It disperses the fog to study the phenomena of language in primitive kinds of application in which one can **command a clear view** of the aim and functioning of the words.

A child uses such primitive forms of language when it learns to talk. Here the teaching of language is not explanation, but training.

92. Dies drückt sich aus in der Frage nach dem *Wesen* der Sprache, des Satzes, des Denkens. - Denn wenn wir auch in unsern Untersuchungen das *Wesen* der Sprache - ihre Funktion, ihren Bau - zu verstehen trachten, so ist es doch nicht *das*, was diese Frage im Auge hat. Denn sie sieht in dem *Wesen* nicht etwas, was schon offen zutage liegt und **was durch Ordnen *übersichtlich* wird**.

Sondern etwas, was *unter* der Oberfläche liegt. Etwas, was im Innern liegt, was wir sehen, wenn wir die Sache durchschauen, und was eine Analyse hervorgraben soll....

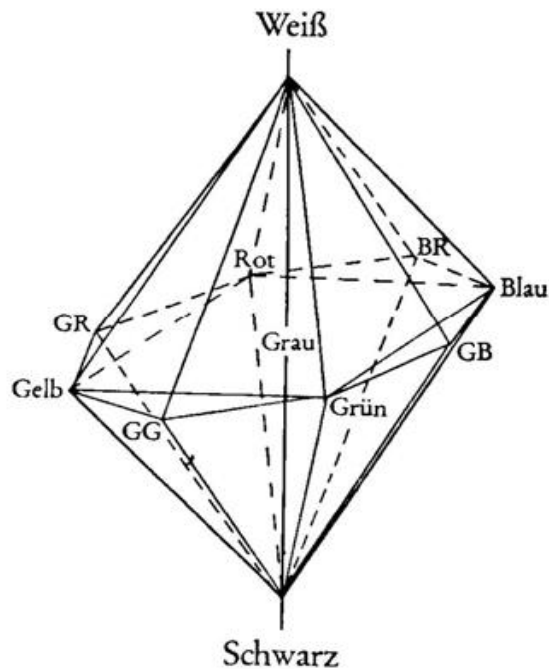
92. This finds expression in questions as to the essence of language, of propositions, of thought.—For if we too in these investigations are trying to understand the essence of language—its function, its structure,—yet *this* is not what those questions have in view. For they see in the essence, not something that already lies open to view and that **becomes surveyable by a rearrangement**, but something that lies *beneath* the surface. Something that lies within, which we see when we look *into* the thing, and which an analysis digs out.

(cont.)

<p>125. Es ist nicht Sache der Philosophie, den Widerspruch durch eine mathematische, logisch-mathematische, Entdeckung zu lösen. Sondern den Zustand der Mathematik, der uns beunruhigt, den Zustand vor der Lösung des Widerspruchs, übersehbar zu machen. (Und damit geht man nicht etwa einer Schwierigkeit aus dem Wege.)</p> <p>Die fundamentale Tatsache ist hier: daß wir Regeln, eine Technik, für ein Spiel festlegen, und daß es dann, wenn wir den Regeln folgen, nicht so geht, wie wir angenommen hatten. Daß wir uns also gleichsam in unsern eigenen Regeln verfangen.</p> <p>Dieses Verfangen in unsern Regeln ist, was wir verstehen, d.h. übersehen wollen. ...</p>	<p>125. It is the business of philosophy, not to resolve a contradiction by means of a mathematical or logico-mathematical discovery, but to make it possible for us to get a clear view of the state of mathematics that troubles us: the state of affairs <i>before</i> the contradiction is resolved. (And this does not mean that one is sidestepping a difficulty.)</p> <p>The fundamental fact here is that we lay down rules, a technique, for a game, and that then when we follow the rules, things do not turn out as we had assumed. That we are therefore as it were entangled in our own rules.</p> <p>This entanglement in our rules is what we want to understand (i.e. get a clear view of). ...</p>
<p>132. Wir wollen in unserm Wissen vom Gebrauch der Sprache eine Ordnung herstellen: eine Ordnung zu einem bestimmten Zweck; eine von vielen möglichen Ordnungen; nicht <i>die</i> Ordnung. Wir werden zu diesem Zweck immer wieder Unterscheidungen <i>hervorheben</i>, die unsre gewöhnlichen Sprachformen leicht übersehen lassen. Dadurch kann es den Anschein gewinnen, als sähen wir es als unsre Aufgabe an, die Sprache zu reformieren.</p>	<p>132. We want to establish an order in our knowledge of the use of language: an order with a particular end in view; one out of many possible orders; not <i>the</i> order. To this end we shall constantly be giving prominence to distinctions which our ordinary forms of language easily make us overlook. This may make it look as if we saw it as our task to reform language.</p>
<p>422. Woran glaube ich, wenn ich an eine Seele im Menschen glaube? Woran glaube ich, wenn ich glaube, diese Substanz enthalte zwei Ringe von Kohlenstoffatomen? In beiden Fällen ist ein Bild im Vordergrund, der Sinn aber weit im Hintergrund; d.h., die Anwendung des Bildes nicht leicht zu übersehen.</p>	<p>422. What am I believing in when I believe that men have souls? What am I believing in, when I believe that this substance contains two carbon rings? In both cases there is a picture in the foreground, but the sense lies far in the background; that is, the application of the picture is not easy to survey.</p>

First uses of the expression

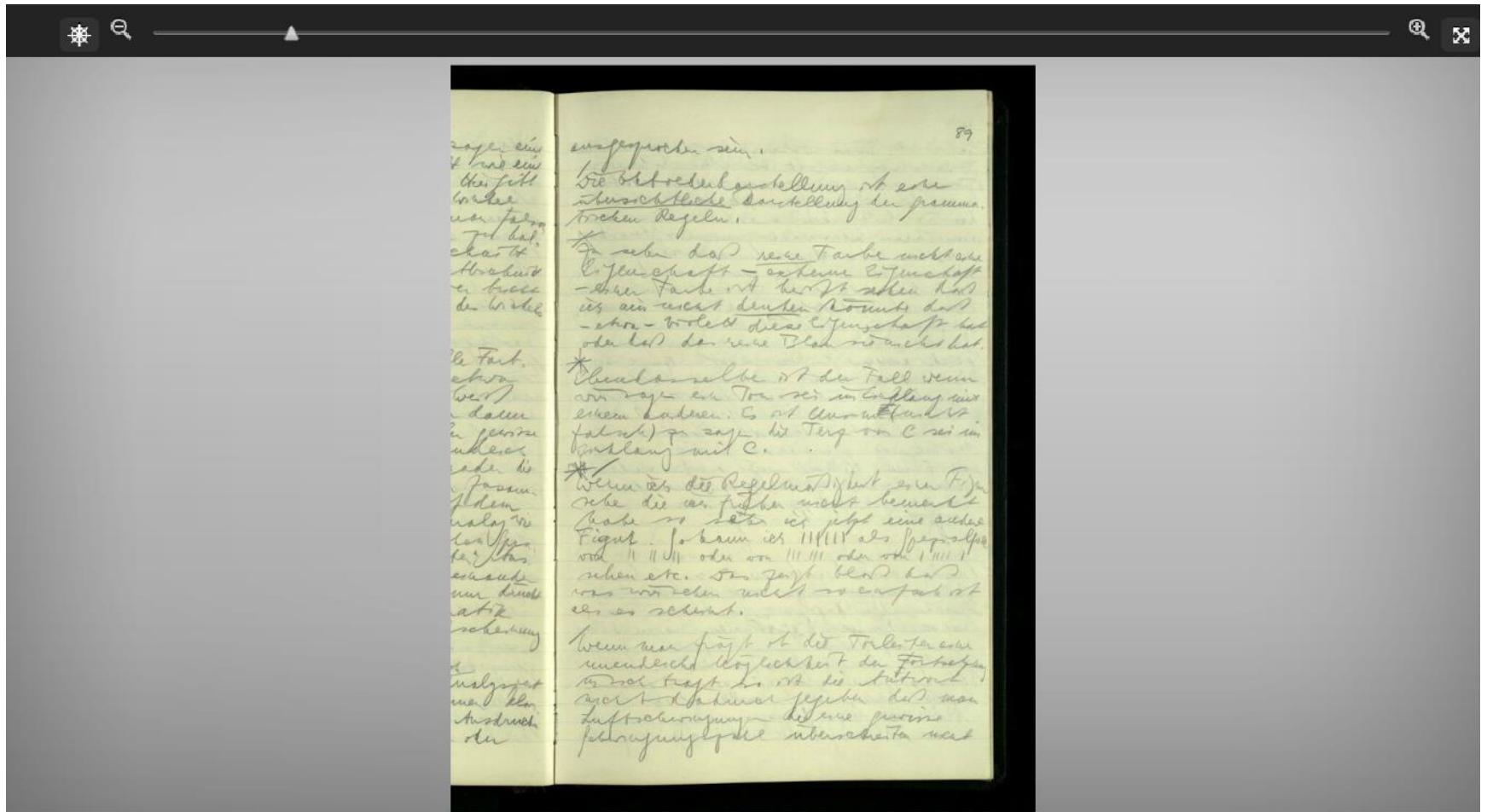
Context 1: Colour-octahedron



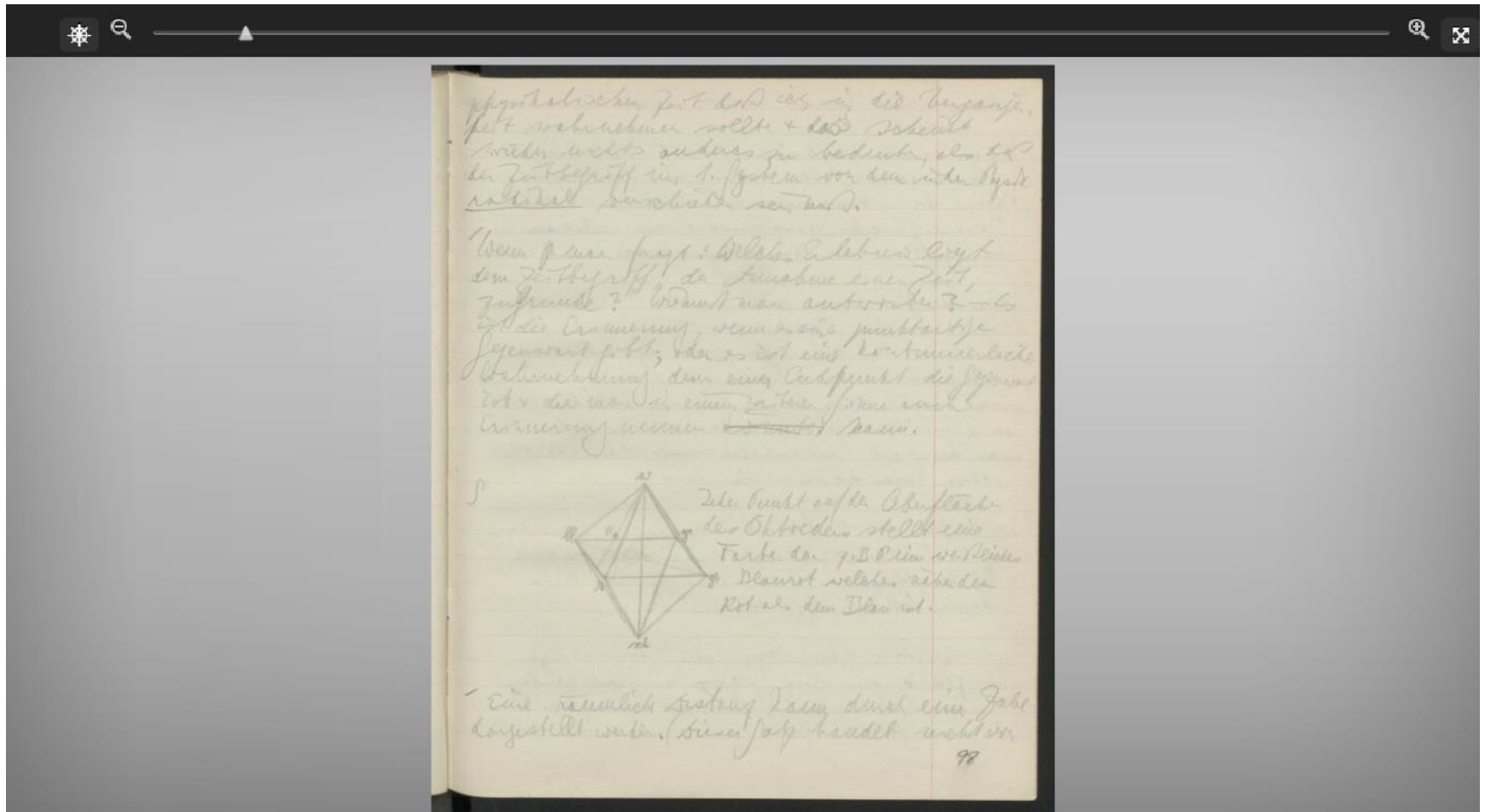
Colour-octahedron from
Philosophische Bemerkungen §221;
cf. Ms-105,90; Ms-105,98, Ms-108,89.

«Damit ist das Farbenoktaeder von einem Teil der phänomenologischen Notation zu der übersichtlichen Darstellung eines Teils der Grammatik unserer Alltagssprache geworden.»
(Sarah Szeltner Uffelmann: *Vom System zum Gebrauch*, Bergen 2016, p. 99f)

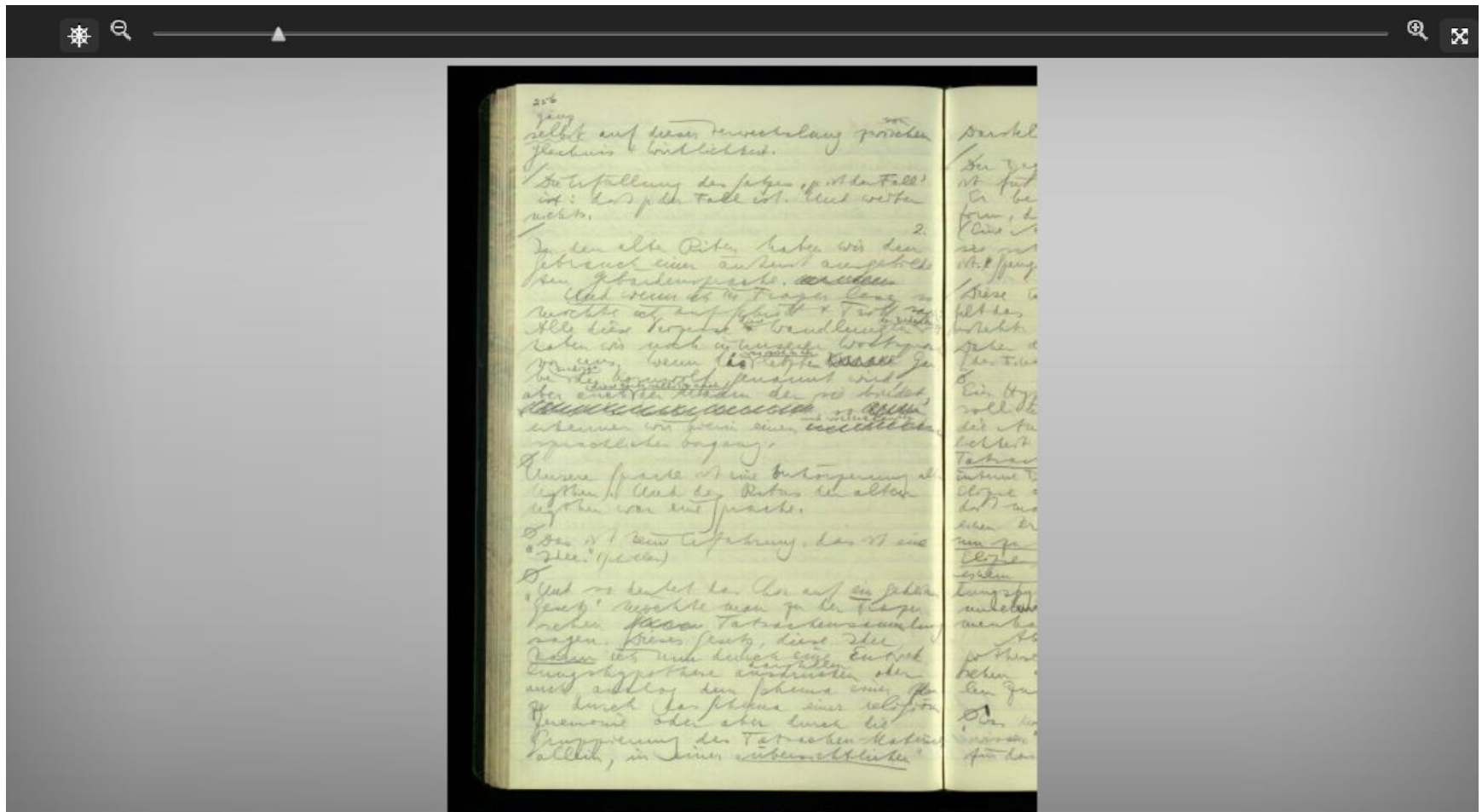
Ms-108,89 (1930): Discussing the colour-octahedron



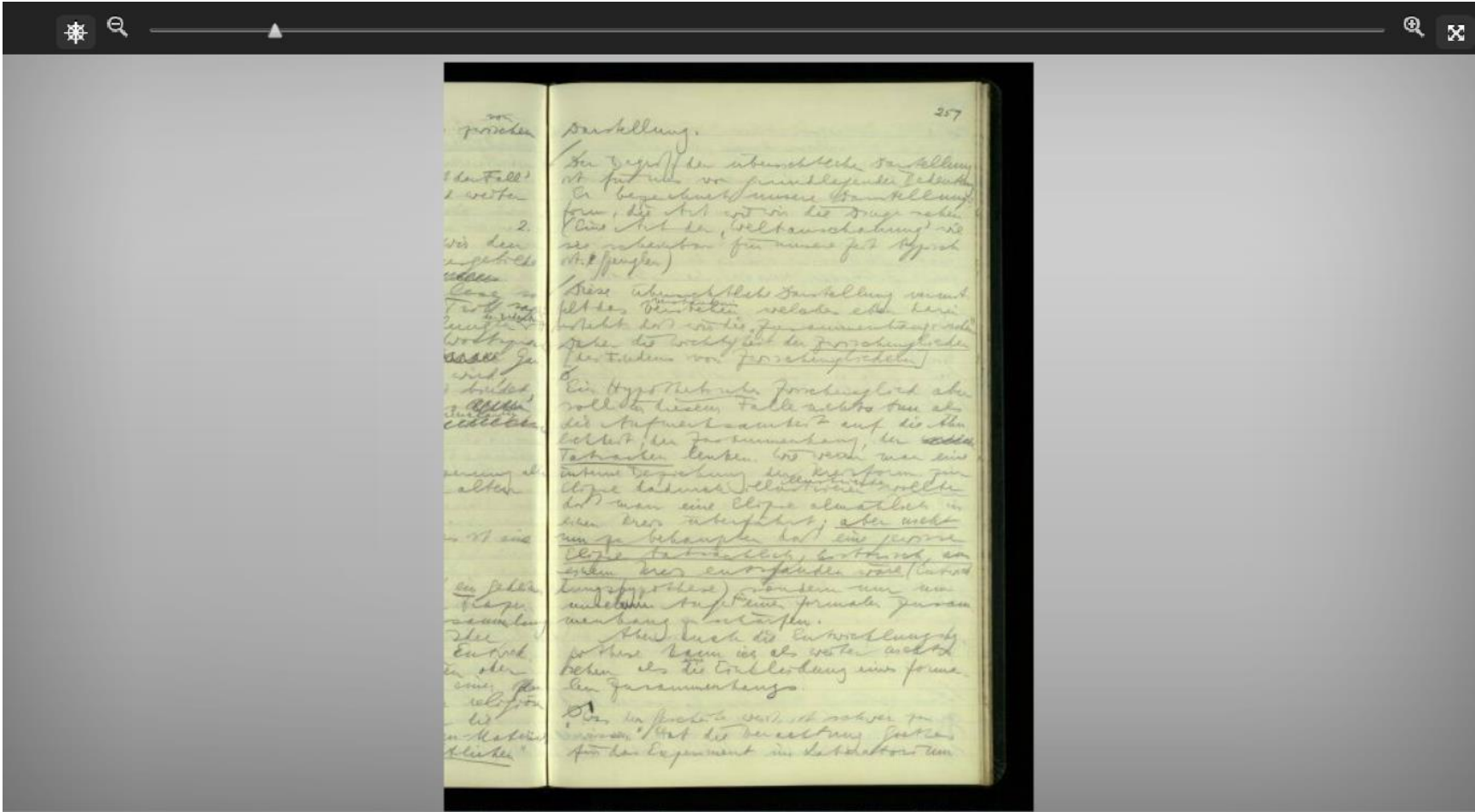
The colour-octahedron in Ms-105,98 (1929)



Context 2: Discussing Frazer discussing rituals (Ms-110,256f, 1931)



(cont.)



J. Frazer

- Rather than explaining the rituals of other cultures with our own causal explanations and scientific world view as golden standard, arrange these rituals' facts in a "übersichtliche Darstellung". This will help us understand them.
- Cf. PI motto: **Überhaupt hat der Fortschritt das an sich, dass er viel größer aussieht als er wirklich ist.**
- Cf. 1930 preface drafts:
... Our civilization is characterized by the word **progress**. ... And even **clarity** is only a means to this end & not an end in itself.
For me on the contrary **clarity, transparency**, is an end in itself
... So I am aiming at something different than are the scientists & my thoughts move differently than do theirs.
- Cf. PI §411:
422. What am I believing in when I believe that men have souls? What am I believing in, when I believe that this substance contains two carbon rings? In both cases there is a picture in the foreground, but the sense lies far in the background; that is, the application of the picture is not easy to survey.

Context 3: The Goethe connection

- Goethe's "morphologisches Ableiten", **showing (for plant life) the connections between the archetypal form and all the variations:**
"Dieses Ableiten, so wollen wir vorwegnehmend andeuten, ist weder ein deduktives noch ein induktives Verfahren, sondern **ein schrittweises Übergehen von einem Element zum anderen in einer konstruierten oder durch Ordnen hergestellten Reihe von Phänomenen.** (...) Auf diese Weise gelangen wir dahin, im Blumenblatt z.B. sowohl die ausgebildete Pflanze wie auch das Staubwerkzeug zu erkennen, doch diese Möglichkeit beruht nicht nur auf bloßer unmittelbarer Sinneserfahrung plus Einbildungskraft; sie **setzt voraus, dass die Erfahrungen in der richtigen Ordnung gemacht werden, dass sie *übersichtlich* und der Reihe nach dargestellt werden, so dass die Gestalten gleichsam auseinander hervorgehen und durch die Leistung der Einbildungskraft in eine zusammenhängende Kette und damit letztlich in *ein* Bild projiziert werden können.** (Schulte 1990: p.15,23)
- Cf. *Brown Book's* logical-linear series of language games!

Issues

- Übersichtliche Darstellung of *what?* Of:
 - facts in the world (cf. anthropological context of Frazer discussions)
 - facts in our perception of the world (cf. colour octahedron)
 - facts in language, of our grammar (cf. colour octahedron)
 - surface and depth-grammar
 - facts about language (cf. *Tractatus*' picture theory)
 - our knowledge of language (PI §132)
 - how language variation can be linearly derived from one first „archetypal“ language game (cf. *Brown Book* method)
 - the situation in which the philosophical problem arises
 - relations between our concepts; causes and reasons for our philosophical problems, be they intellectual, emotional, social, cultural ... (cf. Gordon Baker's interpretation)
- Übersichtliche Darstellung with *which means?* In *word* language or also other means of representation? (cf. colour octahedron)

Issues

- "übersichtliche Darstellung" is definitely itself a family resemblance, if not even a polysemic concept
 - Perspicuous presentation of our colour system / perception; olympic, bird's eye view of the rules of grammar; tool providing mediating links, and thus helping to see similarities, differences, and connections; ...
- A good translation, please?
 - Perspicuous representation, perspicuous presentation, clear view, overview, surview, survey, surveyability, synopsis ...
- Is *übersichtliche Darstellung* sufficient for dissolving philosophical problems and *producing the philosophical understanding*? Is it necessary?
 - Depends on what is meant by it. But cf. PI §133 - Many methods are needed: aspect change, change of the will, *übersichtliche Darstellung*, argument, ...
 - Also see the „difficulty of the will“.

PI Frontmatter

Frontmatter

- **Title**
 - Philosophische Untersuchungen
- **Motto**
 - Überhaupt hat der Fortschritt das an sich, dass er viel größer aussieht als er wirklich ist. (Nestroy)
- **Preface**

PI preface, 1945

The thoughts which I publish in what follows are the precipitate of philosophical investigations which have occupied me for **the last sixteen years**. They concern many subjects: the concepts of meaning, of understanding, of a proposition, of logic, **the foundations of mathematics**, states of consciousness, and other things. I have written down all these thoughts as *remarks*, short paragraphs, of which there is sometimes a fairly long chain about the same subject, while I sometimes make a sudden change, jumping from one topic to another.—**bring all this together in a book** whose form I pictured differently at different times. But the essential thing was that **the thoughts should proceed from one subject to another in a natural order and without breaks**.

After several unsuccessful attempts to weld my results together into such a whole, I realized that I should never succeed. The best that I could write would never be more than philosophical remarks; my thoughts were soon crippled if I tried to force them on in any single direction against their natural inclination.—**And this was, of course, connected with the very nature of the investigation. For this compels us to travel over a wide field of thought criss-cross in every direction.**—The philosophical remarks in this book are, as it were, a number of sketches of landscapes which were made in the course of these long and involved journeyings.

The same or almost the same points were always being approached afresh from different directions, and new sketches made. ...

Four years ago I had occasion to re-read my first book (the *Tractatus Logico-Philosophicus*) and to explain its ideas to someone. It suddenly seemed to me that I should publish those old thoughts and the new ones together: **that the latter could be seen in the right light only by contrast with and against the background of my old way of thinking.**

For since beginning to occupy myself with philosophy again, sixteen years ago, I have been forced to recognize **grave mistakes in what I wrote in that first book.** I was helped to realize these mistakes—to a degree which I myself am hardly able to estimate—by the criticism which my ideas encountered from Frank **Ramsey**, with whom I discussed them in innumerable conversations during the last two years of his life. Even more than to this—always certain and forcible—criticism I am indebted to that which a teacher of this university, Mr. P. **Sraffa**, for many years unceasingly practised on my thoughts. I am indebted to *this* stimulus for the most consequential ideas of this book.

Earlier draft to a preface, 1930

(Published in CV 1998, p.9e ff / Preface to *Philosophical Remarks*)

... Our civilization is characterized by the word **progress**. Progress is its form, it is not one of its properties that it makes progress. Typically it constructs. Its activity is to construct a more and more complicated structure. And even **clarity** is only a means to this end & not an end in itself.

For me on the contrary clarity, transparency, is an end in itself

I am not interested in erecting a **building** but in having the foundations of possible buildings transparently before me.

So I am aiming at something different than are the scientists & my thoughts move differently than do theirs.

Each sentence that I write is trying to say the whole thing, that is, **the same thing over and over again & it is as though they were views of one object seen from different angles.**

I might say: if the place I want to reach could only be climbed up to by a **ladder**, I would give up trying to get there. For the place to which I really have to go is one that I must actually be at already.

Anything that can be reached with a ladder does not interest me.

One movement orders one thought to the others in a series, the other keeps aiming at the same place.

One movement constructs & takes (in hand) one stone after another, the other keeps reaching for the same one.

Earlier draft to a preface, 1930 (cont.)

- Cf. R. Carnap's (preface to) *Der logische Aufbau der Welt* (1928; transl. 1961): "Consequently they have taken the strict and responsible orientation of the scientific investigator as their guideline for philosophical work, while the attitude of the traditional philosopher is more like that of a poet. ... This requirement for justification and conclusive foundation of each thesis will eliminate all speculative and poetic work from philosophy. ... in slow careful construction insight after insight will be won. ... Thus stone will be carefully added to stone and a safe building will be erected at which each following generation can continue to work."