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Wittgenstein's photo album as a philosophical experiment

I will write a Laocoon for photographers.
(Wittgenstein, 1938)

Many years after Wittgenstein's death (in 1951), Michael Nedo, the director of the Wittgenstein Archives in Cambridge, was given an unremarkable-looking green pocket notebook by Ben Richards, Wittgenstein's closest companion in the final years of his life. The notebook is of a similar style to those Wittgenstein used for his philosophical notes: it has a cardboard cover with red linen spine, measures approximately 10 × 16 cm, is about 3 cm thick and contains 150 pages (Nedo 1989 p. 155). Wittgenstein regularly carried a notebook of this kind – blue-ruled and pocket-sized – with him so that he could write down his thoughts instantly while out and about. Notably, however, Richards's green notebook does not contain any of Wittgenstein's written thoughts at all, but only photographs arranged in various ways. The notebook is very different from a typical photo album.

The Wittgenstein family, known for their artistic patronage, showed a keen interest in photography from the very beginning, followed the developments of the still young art form and generously sponsored various Viennese photographers alongside well-known painters, sculptors and mu-

sicians. Consequently, the Wittgensteins began producing photo albums with their own distinctive quality from a very early stage.

Of the albums preserved in the Austrian National Library, it was the two produced by Ludwig Wittgenstein's brother Rudolf (and especially the way they were arranged) that had the most obvious influence on the former's later philosophical photo album.¹ Rudolf displayed a particular interest in precisely capturing the family and their close acquaintances in photographic form. The pictures of family events such as parties, weddings and christenings were cropped and arranged thematically by Rudolf himself. He liked to show subjects engaged in their favourite pastimes and sought to give a complex portrait of the family, sometimes with little pictorial stories stretching over several pages. In the early 1930s – a time when he was most likely also working on his own photo album – Ludwig himself reflected on the special character of his brother Rudolf's photographic compositions, noting in his diary on 6 May 1931 that 'my brother Rudi's photographs have something Oberlandish, or more correctly something of the style of the good draughtsmen of the old "Fliegende Blätter"?' (DB 1997: 49) (Wittgenstein is referring to the caricatures of Rudolf Oberländer and the illustrated stories in the *Fliegende Blätter*, a satirical magazine. The magazine's 'good draughts-

1 The first album (c. 1895 to 1904) contains 225 photographs, mostly snapshots, pasted on both sides of twenty-five sheets. The second (1899 to 1910) is thirty-one sheets long, with about 250 photographs pasted only on the recto pages and partially dated (by an unknown hand). After Rudolf's death in 1904, his brother Kurt appears to have taken over the role of family photographer (Kamenicek 2016 p. 5).

men' at the time also included Moritz von Schwind, Carl Spitzweg and Wilhelm Busch.)

Wittgenstein's small photo notebook was thus to some extent following the arrangement of his brother's large family albums. However, partly because of the unusual format of the notebook for a family album, it has been suggested that it was not just intended to preserve memories of his family but also served a philosophical function (Nedo 1989 p. 147–148).

In order to understand what this philosophical function might be, it is helpful to take a closer look at the photo album. As already indicated, the album is a 'purely pictorial document' (Keicher 2011 p. 128) without any written commentary. Even the page numbers in pencil seem to be a later addition in someone else's hand (*ibid.*). This was a strikingly radical decision by Wittgenstein; it forces the interested reader to surrender to the language of the pictures alone when contemplating them.

If we understand the arrangement of the hundred or so photographs in the album as a deliberate compilation, i.e. as a composition by Wittgenstein, it becomes clear that the pictorial language follows a completely different logic to sentences or words in a philosophical text. This is notable given that in his early work Wittgenstein was still convinced of the isometry of pictorial and written language, and thus of the interchangeability of picture and proposition. When Wittgenstein explained his earlier arguments in the *Tractatus* to Friedrich Waismann in the early 1930s, he still referred to the interchangeability of picture and proposition:

When I wrote 'A proposition is a logical picture of a fact' I meant that I could insert a picture, literally a drawing, into

a proposition and then go on with my proposition. I could accordingly use a picture in the same way as a proposition. How is that possible? The answer is, just because both agree in a certain respect, and what they have in common is what I call a picture. (WWK 1979 p. 185, 9 December 1931)

When he wrote of this correspondence between picture and proposition, however, the early Wittgenstein was not yet thinking of photographic pictures, but rather of drawn or painted ones, or even of the mathematician's picture when he spoke of illustration in geometry. Consider, for example, the following explanation that Wittgenstein gave to Waismann:

Here the expression 'picture' is already taken in an extended sense. I have inherited this concept of a picture from two sides: first from a drawn picture, second from the picture [as used by] a mathematician, which already is a general concept. For a mathematician talks of picturing in cases where a painter would no longer use this expression. (ibid.)

By contrast with this belief in the interchangeability of picture and proposition in Wittgenstein's early work, the late photo album does not contain pictures that replace certain parts of a philosophical text on the basis of agreement, or even, conversely, text that replaces certain pictures, but only pictures. And this decision by Wittgenstein to create a purely pictorial photo album using a notebook of the same sort he regularly used for philosophical notes suggests that the album may also have served a specifically philosophical purpose, allowing him to pursue a line of thinking that he deemed best expressed not in the medium of language but that of pictures. For Wittgenstein scholars who regard

Wittgenstein as a (if not the) major founding figure of modern philosophy of language, it would of course be extremely interesting if one could identify in Wittgenstein's work not only the foundation of the linguistic turn, but also a philosophical precedent for the later iconic turn.

The idea that Wittgenstein attributed a similar and possibly equally important philosophical status to the photo album as to his other notebooks is supported not only by his choice to use the same blue-lined notebook, but also by the fact that he appears to have engaged in similarly intensive philosophical work with this notebook. Fania Pascal, Wittgenstein's Russian teacher, reported that Wittgenstein spent hours deeply absorbed in working on the photos before they found their place in the album:

Francis told me that Wittgenstein would devote hours to shaving off tiny slivers from the small photos he took before he would be satisfied with some kind of balance achieved. (Rhees 1984 p. 28)

Wittgenstein must have devoted a considerable amount of thought and time to selecting the pictures and arranging the album. As with the philosophical notebooks in which he developed and worked on the ideas for his early work in the 1910s, he generally only placed photos on the recto (right-hand) pages of the notebook and, with three exceptions, left the verso (left-hand) pages next to them blank. Much earlier, while preparing the *Tractatus*, Wittgenstein had developed this technique of noting his philosophical thoughts chronologically on the recto pages of his notebooks and leaving the verso pages free for private reflections and comments. The fact that Wittgenstein once again filled the recto

pages of the photo album (in this case, with pictures) while leaving the verso pages blank might indicate he himself regarded the pictures as philosophically significant rather than as being of merely personal relevance.

This decision to compile a philosophical photo album in a small notebook rather than a private photo album in the usual large format resulted in another peculiarity of the album, namely that the photos it contains are strikingly small.

This was necessitated by the small notebook format and did not appear to bother Wittgenstein in any way, though some of the subjects of his photographs, such as Fania Pascal, expressed surprise at the small prints, which Wittgenstein often cropped down to fit:

It led to his [Wittgenstein] offering to take some snaps of me, and he did so one sunny day in Neville's Court in Trinity. I sat on a bench, and as he knelt on one knee to peer through the lens I had the sensation that I was a material object to him and that he might come up and absent-mindedly move my elbow an inch. [...] Certainly when he gave me my copies they were much reduced from the original size; one was now smaller than an inch square. (Rhees 1984 p. 28)

The small format made it possible for Wittgenstein to arrange up to eight images on one of the album's recto pages. But not all the pictures in the album are that small, and not all the pictures are cropped. Many were not even taken by Wittgenstein himself. Of these additional pictures, most came from the collection of his sister Margarethe Stonborough-Wittgenstein (see Keicher 2011 p. 128), and so some pictures even appear in two places: in Margarethe's family photo album and Ludwig's philosophical photo al-

bum. The pictures from Margarethe's collection were taken by various acquaintances of Ludwig, including the well-known photographer Moritz Nähr. Other pictures may have been taken by street photographers, or are of uncertain origin.

The first photographs date from the 1920s, which marks the earliest possible date that Wittgenstein could have started work on the album. The most recent photo, showing a Christmas gift table, may have been taken in 1950 at the latest, since Wittgenstein died on April 29, 1951. The specific selection of the pictures and the coherent, self-contained composition of the album suggest an equally coherent and self-contained method of working on the album, which in turn suggests that the album probably did not date all the way back to the early 1920s when the first pictures were taken.

A further clue to the dating is provided by the draft of a preface to Wittgenstein's planned second magnum opus, which is signed 'Cambridge, January 1945' (TS 227a p. IV). Here Wittgenstein explains how ever since his return to Cambridge in January 1929, he had intended to write a (second) philosophical book in which 'the thoughts should proceed from one subject to another in a natural order and without breaks'.² However, he had by that point abandoned this book project and was now instead considering publishing a 'selection of philosophical remarks' (see TS 225 p.

²"Meine Absicht war es von Anfang, alles dies einmal in einem *Buche* zusammenzufassen, von dessen Form ich mir zu verschiedenen Zeiten verschiedene Vorstellungen machte. Wesentlich aber schien es mir, daß darin die Gedanken von einem Gegenstand zum andern in einer natürlichen und luckenlosen Folge fortschreiten sollten." (PI 1953 Preface TS 227a: I-II)

I) that represented a ‘precipitate of philosophical investigations’ (PI 1953: Preface, TS 227a: I) from the last sixteen years and whose form would be more like an *album* than a book:

After several unsuccessful attempts to weld my results together into such a whole, I realized that I should never succeed. [...] Thus this book is really only an album.³

These ‘philosophical remarks’, together with the draft of the preface, were published two years after Wittgenstein’s death under the title *Philosophical Investigations* by the executors of his Nachlass, Elizabeth Anscombe and Rush Rhees. Wittgenstein scholars turned their attention to the *Philosophical Investigations*’ ‘album character’ very early on. Alois Pichler, for instance, systematically elaborated on the significance of the album character (Pichler 2004 p. 74), but notably did not yet comment on the possible connection between these philosophical reflections and Wittgenstein’s photo album.

If there is such a connection (below, I shall discuss some further reasons to suppose there might be), then it may also help us to establish the date of the photo album. The idea, roughly speaking, is that Wittgenstein was probably thinking about the album character of the *Philosophical Investigations* in January 1945 because he had already begun work on his photographic album in the meantime. And if we examine earlier drafts of the preface and find that Wittgenstein

3 “Nach manchen mißglückten Versuchen, meine Ergebnisse zu einem solchen Ganzen zusammenschweißen, sah ich ein, daß mir dies nie gelingen wurde. [...] So ist also dieses Buch eigentlich nur ein Album.” (PI 1953 Preface TS 227a p. II)

does not yet make any mention of his philosophical remarks' album character, then this can be taken as at least an indication that he had not yet begun working on the photo album at that point in time.

Wittgenstein's Nachlass does in fact contain a pre-war version of the preface draft in which no explicit reference to the album character is made. This version is signed 'Cambridge, August 1938' (IS 225: IV) and so was written during a turbulent period for Wittgenstein: the annexation of Austria to the German Reich in March meant that he would lose his Austrian passport and have to exchange it for a German Judenpass ('Jewish passport'), while his temporary position as a fellow at Cambridge University had expired two years earlier. Wittgenstein decided to try and obtain British citizenship and a teaching position at Cambridge. Fortunately for him, G. E. Moore's chair was about to be reappointed – Moore had to retire early for health reasons – and Wittgenstein could now apply for it. However, the success of the application was very uncertain, and so publishing a second major work would be highly advantageous.⁴

To this end, he was in negotiations with Cambridge University Press to publish a work entitled *Philosophical Remarks*, which would include an English translation and the aforementioned preface. The urgency of publishing this work, however, immediately subsided when Wittgenstein was

4 Without this second major work, Wittgenstein considered his chances of being appointed to Moore's chair to be extremely slim. Drury notes the following remark: "Wittgenstein: I would never be elected. I am now only a 'has-been'. Nobody wants a 'has-been'. One of the electors is Collingwood of Oxford. Can you imagine him voting for me?" (Rhees 1984: 141)

granted the Cambridge professorship (11 February 1939) and British citizenship (14 April 1939). He instead became preoccupied with the weaknesses and problems in his arguments, and because these could not be satisfactorily solved his ‘philosophical remarks’ never again came so close to publication during his lifetime.

Even though in the preface of 1938 he does not yet speak of his ‘book actually being only an album’, he does already note that its form⁵ was a major obstacle to publication:

It was my intention to compile this all together in a book, – about whose form I had different ideas at different times. But it seemed essential to me that the thoughts in it should progress from one subject to another in a well-ordered series. About four years ago, I made the first attempt at such a compilation. The result was unsatisfactory and I made further attempts. Until at last (some years later) I came to the conclusion that it was in vain; and that I had to give up all such attempts.⁶

5 Before 1938, Wittgenstein had still assumed that he would be able to write his second major work as a ‘book’, just as he had done with the *Tractatus*. Thus, all preface drafts up to 1937 still begin (like that of the *Tractatus*) with the phrase ‘This book’. From 1938 onwards, this was consistently replaced with ‘In the following’ (Weihe 2008 p. 225).

6 “Meine Absicht war es, alles dies einmal in einem Buche zusammenzufassen, – von dessen Form ich mir zu verschiedenen Zeiten verschiedene Vorstellungen machte. Wesentlich aber schien mir, daß die Gedanken darin von einem Gegenstand zum anderen in wohlgeordneter Reihe fortschreiten sollten. Vor etwa 4 Jahren machte ich den ersten Versuch so einer Zusammenfassung. Das Ergebnis war ein unbefriedigendes, und ich machte weitere Versuche. Bis ich endlich (einige Jahre später) zur Überzeugung gelangte, daß es ver-

Above all, Wittgenstein seems to have failed in his attempt to apply his philosophical thinking to the planned work: the content of the work came into irresolvable tension with its form as a philosophical book. This book was originally intended to take the form of a 'well-ordered series' in which the thoughts progressed from one subject to another. But if the content of the book is about the fact that language consists of a variety of different language-games, which in turn are connected by a complicated network of family resemblances,⁷ then the book itself should also have this structure; this is demanded, as it were, by the nature of the subject itself:

It became apparent to me that the best I could write would always remain philosophical remarks; that my thoughts soon flagged when I tried to force them along a track against their natural inclination. This, however, was also connected to the nature of the subject itself. This subject compels us to travel the field of thought criss-cross, in all directions; [such] that the thoughts in it stand in a tangled web of relations to one another.⁸

gebens sei; und ich alle solche Versuche aufzugeben hätte." (TS 225 p. 1)

7 Compare the phrasing in the *Philosophical Investigations*: "We see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail." (PI § 66)

8 "Es zeigte sich mir, daß das Beste, was ich schreiben konnte, immer nur philosophische Bemerkungen bleiben würden; daß meine Gedanken bald erlahmten, wenn ich versuchte, sie, gegen ihre natürliche Neigung, einem Gleise entlang weiterzuzwingen. Dies hing allerdings auch mit der *Natur des Gegenstands selbst* zusammen. Dieser Gegenstand zwingt uns, das Gedankengebiet kreuz und quer, nach allen Richtungen hin zu durchreisen; [so] daß die Gedanken

The ‘tangled web of relations’ of his philosophical thoughts obviously cannot readily be represented in the ‘well-ordered series’ of a book, and Wittgenstein might therefore have had the idea that the experience of interestedly browsing a photo album would come closer to the nature of his thinking – especially if the pictures in the album were unlabelled, so that in order to identify persons, places or events it would be necessary to search around the album in all directions to find clues and get our bearings. Since Wittgenstein does not yet mention the concept of an *album* in the 1938 draft of the preface, and since the linguistic metaphor here is not yet suggestive of a photo album, we can assume that he had not yet started working on his album at that time either. At that point, the underlying metaphor was that of ‚travel[ling] the field of thought criss-cross, in all directions‘.

It was not until four years later that he expanded this travel metaphor, and we can as it were observe Wittgenstein working on his photo album in the background when in a later draft of the preface he describes his philosophical remarks as ‚pictures being taken‘, and further notes that these pictures must first be collected, then selected or eliminated, and then extensively cropped before being arranged and put together:

So these remarks are, as it were, pictures taken on a long and tangled criss-cross journey through a vast terrain. The same points of the landscape, or almost the same ones, were reached countless times from different directions, crossed and traversed, and again and again new pictures were taken, drawn and designed. An immense number of these were

in ihm in einem verwickelten Netz von Beziehungen zueinander stehen.” (TS 225 p. I–II, August 1938)

uncharacteristic or marked and afflicted with all the defects of a weak draughtsman, and when these were eliminated a number of halfway ones remained which had to be arranged and cropped in such a way that they gave the observer as good an idea of the landscape as possible. And this book is one such collection of such drawings.⁹

Although Wittgenstein only explicitly states that the 'book is really only an album' in the preface of August 1945, the underlying metaphor of the photographer travelling through a landscape and taking pictures on their camera, which they later place in a photo album, would never be more clearly expressed than it was in the draft of 1943, and it was reduced or reworked in the following two years. Specifically, the metaphor was reworked into that of a draughtsman producing landscape sketches, who no longer takes pictures but draws them. Because of the open-ended metaphorical connotations, this could just as well be understood as a landscape painter sketching their paintings or a technical draughtsman drawing sketches for later maps. The photo-

9 "Diese Bemerkungen sind also nun gleichsam Bilder die auf einer langen und verwickelten Kreuz-und-quer-Fahrt durch ein weites Terrain aufgenommen worden sind. Die gleichen Punkte der Landschaft oder beinahe die gleichen wurden unzählige Male von verschiedenen Richtungen her erreicht durchkreuzt durchquert und immer wieder neue Bilder aufgenommen gezeichnet entworfen. Eine Unzahl von diesen waren uncharakteristisch oder verzeichnet und mit allen Mängeln eines schwachen Zeichners behaftet und wenn man diese ausschied so blieben eine Anzahl halbwegser übrig die man nun ungefähr so anordnen und beschneiden mußte, daß sie dem Betrachter einen möglichst guten Begriff von der Landschaft geben. Und eine solche Sammlung Zusammenstellung solcher Zeichnungen ist dieses Buch." (MS 128 p. 41, January 1943)

grapher's *album* thus becomes the painter's portfolio or the cartographer's atlas:

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. Very many of these were badly drawn or uncharacteristic, marked by all the defects of a weak draughtsman. And when they were rejected a number of tolerable ones were left, which now had to be arranged and sometimes cut down, so that if you looked at them you could get a picture of the landscape. Thus this book is really only an album.¹⁰

If we apply these considerations to the dating of Wittgenstein's photo album, it would at least suggest that Wittgenstein did not start to work on the album until after August 1938 – i.e. after the early preface draft, in which the photo album metaphor had not yet been developed – and that this work reached its culmination at the latest when Wittgenstein composed the preface draft of January 1943.

10 “Die philosophischen Bemerkungen dieses Buches sind gleichsam eine Menge von Landschaftsskizzen, die auf diesen langen und verwickelten Fahrten entstanden sind.

Die gleichen Punkte, oder beinahe die gleichen, wurden stets von neuem von verschiedenen Richtungen her berührt und immer neue Bilder entworfen. Eine Unzahl dieser war verzeichnet, oder uncharakteristisch, mit allen Mängeln eines schwachen Zeichners behaftet. Und wenn man diese ausschied, blieb eine Anzahl halbwegser übrig, die nun so angeordnet, oftmals beschnitten, werden mußten, daß sie dem Betrachter ein Bild der Landschaft geben konnten. – So ist also dieses Buch eigentlich nur ein Album.” (PI 1953 Preface TS 227a p. 2, January 1945)

To take this speculation even further, we might assume that work on the album began precisely in September 1938, i.e. after Wittgenstein had completed the aforementioned preface draft in August 1938.

In any event, Wittgenstein wrote to his former wartime comrade Ludwig Hänsel on September 10 about wanting to write 'a Laocoon for photographers' (Klagge 2003 p. 313); he is referring to G. E. Lessing's study *Laocoon: An Essay Upon the Limits of Painting and Poetry*. It is very likely that Wittgenstein and Hänsel, who became friends in the prisoner-of-war camp in Monte Cassino in 1918, would have discussed Lessing's influential comparison of visual art and literature right from the earliest years of their friendship, given that three years earlier Hänsel had published a treatise on the composition of Lessing's *Laocoon* ("Zur Komposition des Laokoon"), and that in the cold post-war winter Hänsel asked Wittgenstein (in a letter dated 17 January 1920) to immediately return the copy of his 'Laocoon essay' that he had lent him, because Hänsel had used his last copy of the essay to heat the kitchen stove due to a lack of tinder (Somavilla 1994 p. 24).

Lessing's treatise makes a distinction between poetry and painting that is based on the character of succession¹¹ in poetry as opposed to co-existence in painting. This closely mirrors Wittgenstein's difficulties, as he wanted his philosophical work to be a book in which the thoughts followed one another in a natural succession and without gaps (TS 227a p. 1), forming a 'well-ordered series' (TS 225 p. I), but instead found himself in the awkward position of

11 "The rule is this, that succession in time is the province of the poet, co-existence in space that of the artist." (Lessing 1873: 109)

only being able to write ‘philosophical remarks’ (TS 225 p. I), which, in the manner of painting, stood side by side in a relation of co-existence or, in the manner of an album, in a ‘tangled web of relationships’ (TS 225 p. II). Of course, Lessing himself used the prosaic medium of an essay for his investigation, while Wittgenstein apparently intended to write his photo album in the pictorial language of the photographer: creating, as it were, a ‘Laocoon for photographers’.

Clearly, the ideas outlined in this article are still somewhat speculative, but they do indicate a need for more detailed research into Wittgenstein’s photo album. If the thesis of a material relation between the album and Wittgenstein’s later philosophy does hold water, the album would not only be an interesting document for intellectual history, but also a philosophical tool that could possibly contribute to a better understanding of Wittgenstein’s later philosophy, his *Philosophical Investigations* and its *album* structure.

A promising step in this direction has been taken by the recent exhibition of the photo album at the Leopold Museum in Vienna, ‘Ludwig Wittgenstein: Fotografie als analytische Praxis’ (November 2021 - March 2022), which for the first time makes the album accessible to a broad scholarly audience. Looking to the future, it would be very much welcome if a facsimile edition of the album could be made available to the scholarly community on a permanent basis.

References

Ludwig Hänsel, *Zur Komposition des Laokoon*. In: *Zeitschrift für Österreichische Gymnasien* 66, Wien, Alfred Hölder, 1915.

Elisabeth Kamenicek, *Ludwig Wittgensteins Fotoalben*, 2016: <http://www.eshph.org/symposium/wp-content/uploads/sites/3/2016/04/Kamenicek01122016.pdf>. (accessed on 2.2.2022.)

Peter Keicher, *Bemerkungen zu Wittgensteins Photoalbum*. In: Sascha Windholz et al. (eds), *Wissenschaftstheorie, Sprachkritik und Wittgenstein*, Berlin, De Gruyter, 2011.

James Carl Klagge and Alfred Nordmann (eds), *Ludwig Wittgenstein. Public and Private Occasions*, Oxford, Rowman & Littlefield, 2003.

Brian McGuinness ed., *Wittgenstein und der Wiener Kreis*, New York, Barnes & Noble, 1979. (=WWK)

Gotthold Ephraim Lessing, *Laocoon: An Essay upon the Limits of Painting and Poetry*, Cambridge, Cambridge University Press, 1873.

Michael Nedo, *Familienähnlichkeit. Philosophie und Praxis*. In: *Katalog zur Ausstellung in der Wiener Secession 13.09.-29.10.1989*, Vienna, Wiener Secession, 1989.

Alois Pichler, *Wittgensteins Philosophische Untersuchungen. Vom Buch zum Album*, Amsterdam, Rodopi, 2004.

Rush Rhees (ed.), *Recollections of Wittgenstein*, Oxford, Oxford University Press, 1984.

Ilse Somavilla, Anton Unterkircher and Christian Paul Berger (eds), *Ludwig Hänsel – Ludwig Wittgenstein, eine Freundschaft. Briefe. Aufsätze. Kommentare*, Innsbruck, Haymon, 1994.

Ilse Somavilla (ed.), *Ludwig Wittgenstein. Denkbewegungen. Tagebücher 1930-1932/1936-1937*, Innsbruck, Haymon, 1997. (=DB)

Richard Weihe, *Wittgensteins Vorworte*. In: Peter Hughes et al. (eds), *Schreibprozesse*, Paderborn, Wilhelm Fink, 2008 p. 223-233.

Ludwig Wittgenstein, *Philosophical Investigations*, New York, Macmillan, 1953. (=PI)

Wittgensteins Nachlass. The Bergen Electronic Edition, Oxford, Oxford University Press, 2000. <http://wab.uib.no/> (MS=Manuskript, TS=Typoskript)