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A Missing Folio at the Beginning of Wittgenstein's MS 104

Abstract

A close investigation of Wittgenstein's MS 104, which contains the so-called *Prototractatus*, has shown that the manuscript originally contained an additional folio that was later cut out and is now missing. The content of this missing folio could be partly reconstructed by a faint inverse imprint that it has left behind on page 2. The paper discusses the consequences of this discovery for the interpretation of the beginning and early formation of the *Prototractatus*, including the introduction and role of the numbering system. The paper also provides a transcription of the deepest visible textual layers of the first conception of the picture theory.

1. The missing folio and its reconstruction

The Bodleian Library in Oxford preserves two of the most important sources for the formation of Wittgenstein's *Tractatus*: the manuscript MS 104 (in the von Wright catalogue), containing the so-called *Prototractatus*, and the typescript TS 202, the so-called "Engelmann typescript". During a detailed investigation in October 2014 it came to light that there was a missing folio at the beginning of MS 104, just between the motto (on page 1) and the text that begins "*1 Die Welt ist alles was der Fall ist*" (on page 3). Furthermore,

it became apparent that this missing folio left behind an inverse imprint on page 2 of MS 104.¹

At first glance, page 2 (in Wittgenstein's own pagination) of MS 104 seems to be completely blank except for the page number in the lower left-hand corner.

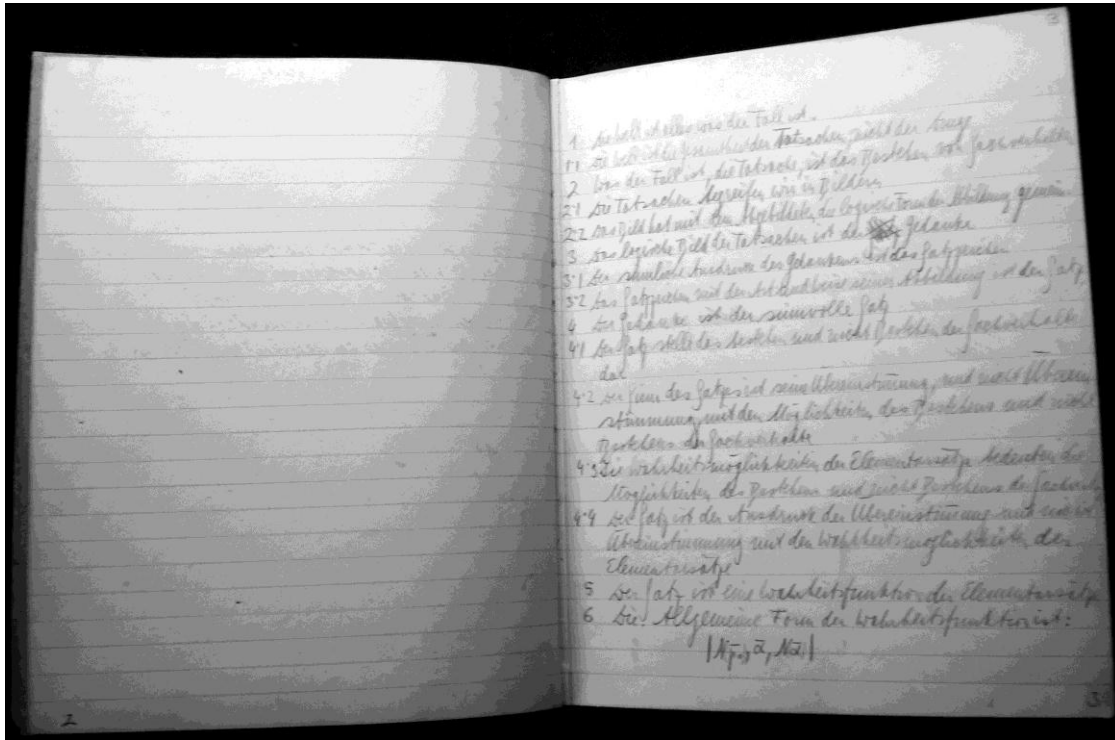


Image 1. Pages 2 and 3 of MS 104 (= Bodleian Library MS German-d-7); the left – apparently blank – page contains the inverse imprint from the now missing folio (starting in the 5th line, opposite prop. 2.2, and extending to the 10th line, opposite prop. 4.1 – the line-numbering reflects Wittgenstein's tendency to start writing above the uppermost line); the remaining strip of the excised folio is also visible in the picture.

A closer look reveals very faint traces of what seems to be erased handwriting, but no signs of rubber-use are visible and the slant of the letters points in the wrong direction. It is therefore more likely

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to be a mirror image of the opposite page. Such mirror images can be found throughout the manuscript and are caused by the special ink pencil Wittgenstein used for his manuscripts. However, the existing page 3 directly opposite page 2 does not match this image and cannot be its cause.

The next observation was that between page 2 and page 3 there is a narrow strip of lined paper (three to four mm wide), which must be the only visible remainder of an excised and now missing sheet. Counting the pages of the (originally symmetrical) first and last quire of the book reveals the absence of exactly one folio (two pages).

We have to assume that there originally was an additional folio that for some reason was cut out at a later date. This removal must have been done very carefully in order not to detach the connected folio in the same first quire (covering pages 7 and 8). We can therefore suppose that the folio was removed only after pages 7 and 8 had already been written.

To my knowledge, this missing folio has not been mentioned in any literature before. In his historical introduction to the 1971 edition of *Prototractatus* (von Wright 1971: p. 1), Georg Henrik von Wright gives some information about the manuscript and its discovery but there are no references to cut-out pages. Andreas Geschkowski, in his detailed description of MS 104, correctly refers to the “198 linierte Seiten a 23 Linien (= 99 Blatt)” (Geschkowski 2001: p. 37), obviously not observing the fact that a volume bound in quires can normally only consist of an even number of folios.²

Both sides of the missing folio were written on. For the recto (let us call it page 2a) this is shown by the mirror image on page 2; for the verso (page 2b) four signs are visible on the remaining strip, which once formed the far right edge of page 2b. Line 14 contains the right part of an “m” or “n” followed by the sign “,,”, which in Wittgenstein’s work functions as a hyphen. Line 16 shows a letter followed by a full stop: “e.”.

² Neither the Critical Edition (ILP 1989) from McGuinness and Schulte, which contains the *Prototractatus* text in ordered presentation nor the *Bergen Electronic Edition* in which page 2 of MS 104 is presented as totally blank contain information on a missing folio.

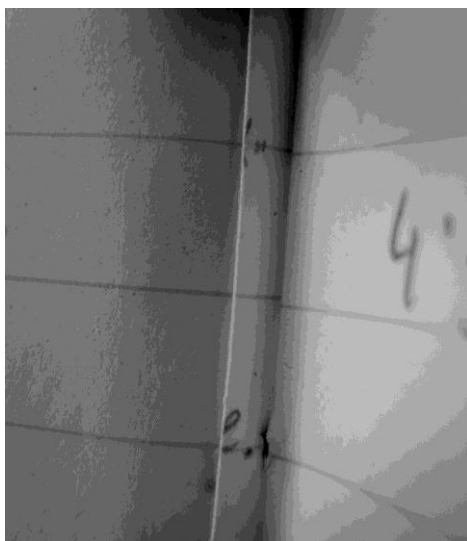


Image 2. More detailed photograph of the remaining strip between pages 2 and 3 of MS 104; the visible characters are on the 14th and 16th lines.

Since the first four regular pages (excluding the flyleaf of the manuscript) – the title page, dedication page, page 1 (the motto), and page 2 (blank) – show no signs of erasures, we may assume that pages 2a and 2b contained text belonging to the *Abhandlung* itself and can rule out the idea that the volume was initially intended for a different purpose (e.g. a personal diary or an additional notebook). There is no evident reason that Wittgenstein should have started writing for such an assumed alternative purpose on the fifth page, leaving the first four pages blank. Thus, we have a hint that the mirror image may have contained text that was originally a part of the *Abhandlung*, something like a preface, a preamble, an introductory remark, an additional dedication, a poem, or something similar. This is supported by the fact that only six lines are inscribed – the four lines before and the 13 lines that follow seem to be completely blank.

Even after enhancing the image by altering brightness and contrast, deciphering of the mirror text was a true challenge and because of the fragmentary representation of letters and words it seemed almost impossible at first.

Only six words could not be decrypted but it is possible (and indeed very likely) that they are identical to the formulation we have on page 3.

Three striking differences between this reconstruction and the formulation of the six main propositions on page 3 can be noticed:

- (1) the sentences are not interrupted by main decimal propositions (1.1, 2.1, 2.2 etc.) as on page 3;
- (2) there are no numbers in front of the sentences; and
- (3) the formula “ $|N(\bar{p}_0), \bar{\alpha}, N(\bar{\alpha})|$ ” for the general form of the truth-function is missing.

It is not possible to conclude solely from the fragmentary mirror image, which is especially faint at its right-hand edge, that there are no remnants of numbers in front of the propositions. However, the assumption that there were no such numbers is supported by the fact that on page 2a, in contrast to page 3, Wittgenstein left no space for numbering and began the sentences at the far left-hand edge of the page. Had he later inserted numbers into the narrow gap that remained, this would be directly visible on the remaining strip because of the space needed for the numbers, but there is no trace of inserted numbers. For this reason, numbering can be excluded from this initial formulation of the six main propositions.

It has been conjectured that the formula of proposition 6 on page 3, containing the N-operator (twice) and the propositional variable 'alpha', is a later addition (Bazzocchi 2010: p. 17; in page 15 of this paper Bazzocchi also considers the hypothesis that the whole of proposition 6, and not just the formula for the general form of the truth-function, is a later addition on page 3). The later addition of this formula is made very plausible by the fact that all alphas on pages 11 and 13 are in fact corrected x's, whereas the alphas on page 3 do not show any signs of correction. Thus, the formula including the alphas must have been inserted after the overall change from x to alpha. However, this means that when Wittgenstein wrote down proposition 6 here, he left the exact formulation of the “general form” open. Pages 10 to 11 indicate

that he had to develop the necessary system of symbols for this operation first, including the propositional variable and the N-operator. As such, when he formulated the six propositions that are, as it were, the chapter headings of the *Abhandlung*, on pages 2a and 3, it was clear that the general propositional form would be an important integral part of the theory. However, Wittgenstein did not yet know what its precise form would be.

2. Some initial conclusions

(1) It is now clear that proposition 6 was, from the beginning, an integral part of the conception formulated by the six main propositions. It cannot have been added only much later at the bottom of page 3, as Bazzocchi supposes.³ This can now be ruled out: only the formula was missing, not the entire proposition.

(2) It is also now evident that the crossed-out “Satz” before “Gedanke” in proposition 3 on page 3 (see McGuinness 2002: p. 277) does not suggest a shortened alternative conception omitting the level of “thought” (“The logical picture of the facts is the proposition”), but was simply a scribal error that occurred while copying from p. 2a to page 3.

(3) The newly discovered text shows that the *Prototractatus* was developed from a unique core (the six main propositions) *within* MS 104 and that there is no need to assume the existence of an earlier draft from which page 3 and the following pages were copied out. The observable “perfect neatness of the text” on page 3 (“Sonntagsschrift”, as Joachim Schulte calls it⁴) does indeed indicate that it is essentially a transcript – though not from a precursory document, but from page 2a (and presumably page 2b) of MS 104 itself.

(4) Therefore, the claim that there are no signs at all of the compilation and composition of the text *within* MS 104 is incorrect. The mere existence of the mirror image on page 2 presupposes a heavily corrected and overwritten text (or alternatively the singular

³ Bazzocchi (2010: p. 19) argues that 6.1 on page 64 was the original proposition 6, later supplemented with a “.1”; see also Keicher (2012: p. 141).

⁴ Schulte in fact is emphasizing this character for the entire MS 104, not only for page 3.

use of a “wet” ink pencil that was not used again in the manuscript). This is because normal written text never leads to such imprints on opposite pages, only heavy text with broad strokes (consider e.g. the cancellation strokes on page 57), and bold letters leave more or less fragmentary visible traces. Thus either the six main propositions were written very boldly to emphasize their importance or they were composed on page 2a with numerous corrections, rearrangements, and overwriting, effectively resulting in the same bold handwriting. This may be a clue that Wittgenstein composed within MS 104 itself, in addition to the fact that we can find up to three (and in one case even four) layers of textual corrections on later pages in MS 104, which cannot quite be reconciled with the assumption that the propositions were simply copied out.

(5) We now also have evidence of an important conceptual change: the introduction of the well-known numbering system in the transition from the pages 2a/2b to page 3. There is now a clearly identifiable point at which numbers were introduced. The idea of a precursory system of numbers is now not convincing in any way; the main propositions were clearly only rewritten on page 3 as a means of numbering and ordering the intermediate main decimal propositions.

(6) We can further conclude that the 15 propositions written on page 3 were never “on the same level”, only being divided into the six main propositions and nine subordinate propositions with the later introduction of numbers. The unique core is present on page 2a and the hierarchical system of different levels of elucidation of this core is only made explicit on page 3.

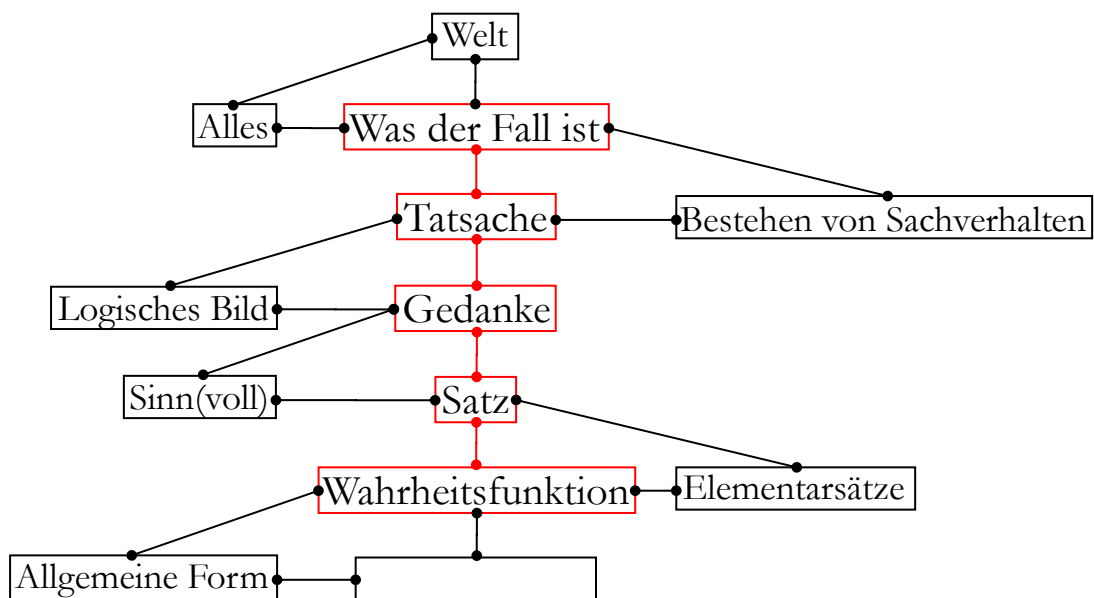
3. The structure of the six main propositions on page 2a

The faint mirror image on page 2 shows that Wittgenstein had written the six main propositions of the *Prototractatus* as a sequence without numbers, but in the same order as in the numbered version on page 3. But they are more than a sequence. The inner structure of these propositions reveals that the order is given by their structure alone, because they are written in a special manner, in each case transferring one central concept (“was der Fall ist”,

“Tatsache”, “Gedanke”, “Satz”, “Wahrheitsfunktion”) to the following proposition, so that, taken together, they constitute a natural chain.

Die Welt ist alles **was der Fall ist**.
Was der Fall ist, die **Tatsache**, ist das Bestehen von Sachverhalten.
 Das logische Bild der **Tatsachen** ist der **Gedanke**.
 Der **Gedanke** ist der sinnvolle **Satz**.
 Der **Satz** ist eine **Wahrheitsfunktion** der Elementarsätze.
 Die allgemeine Form der **Wahrheitsfunktion** ist

Proposition 7 is not part of this initial chain structure because it was inserted into the *Prototractatus* on page 71 of MS 104 during a later phase of reworking. The remaining concepts (“Welt”, “alles”, “Bestehen von Sachverhalten”, “logisches Bild”, “Sinn/sinnvoll”, “Elementarsätze”, “allgemeine Form”), and the way each is connected with the previous one in the proposition, lead to the following (two-dimensional) chain-structure:



The last chain link remained open for a while, because the system of symbols necessary to express the operational framework was not yet developed at this very early stage. This structure⁵ is highly artificial and carefully composed – and its composition was undertaken precisely on page 2a. The notion of a “chain” is prominent at the beginning of MS 104. PT 2.03 on page 5 (“In the atomic fact objects hang one in another, like the links of a *chain*”) introduces the idea of a chain and PT 4.22 (on page 9) explicitly says: “The elementary proposition consists of names. It is a connexion, a *concatenation*, of names” (my emphasis in both cases). For the logical unit of the proposition this immediate concatenation (without further binding relational elements) of names referring to simple objects, likewise forming a chain, the state of affairs, is absolutely essential.

The idea of an *immediate* combination of names referring to simple objects is not present in the notebooks MS 101 and MS 102.⁶ However, from a remark on page 81 of MS 104 (PT 5.4101 = TLP 4.221) “It is obvious that in the analysis of propositions we must come to elementary propositions, which consist of names in immediate combination”, we can conclude that Wittgenstein arrived at this specific insight at some point after 22 June 1915 (when MS 102 terminates). The remark belongs to a section of the manuscript where he inserts “good sentences” from his other manuscripts (e.g. the systematic exploitation of MS 103 starts on this same page of MS 104). The entry on page 81 would thus be a quotation from the lost notebook between MS 102 and MS 103.

⁵ Erbacher (2015: pp. 64–72) presents a purely structural analysis of the *Tractatus*’ main propositions which renders a comparable result. He observes a frame (consisting of the preface and proposition 7) in which the six main propositions are embedded as a core. The sentences of this core are linked by repetition (“durch Wiederholung strukturiert [...] Das letzte Glied eines vorangehenden *colon* wird in dieser Bauform als das erste Glied des nächsten wiederholt”; p. 68). This shows that the initial chain structure of PT 1–6, originally developed on p. 2a, is still present in the eventually printed text of the *Tractatus*.

⁶ What is discussed there is the notion of “combination” (“Verbindung”) in general, e.g. in the entry from 4 November 1914 (“One name is representative of one thing, another of another thing, and they themselves are connected; in this way – like a tableau vivant – the whole images the situation.” TB 1998: p. 26), but not the specific nature or form of this combination.

In MS 102, we can observe only the beginning of the discussion that eventually led to this conception. In the final passages of MS 102 Wittgenstein asks what the structure of the final result of propositional analysis (the elementary propositions) might be, and what this would imply for the nature of the simple objects to which names refer in such elementary propositions. The conception that elementary propositions consist of an immediate combination of names, which refer to absolutely simple objects, is a decisive step towards the special form of logical atomism that the *Prototractatus* presents. Elementary propositions contain neither logical constants nor expressions referring to complexes, which can be described by further (elementary) propositions. The idea of “immediate combination”, or “concatenation”, as the *Prototractatus* expresses it more precisely, must have been just that kind of “redeeming word” (“das erlösende Wort”) that Wittgenstein was searching for throughout MS 101 and MS 102.

The importance of the notion of “immediate combination”, and the conception of chainlike structures as the defining features of elementary propositions (PT 4.22), may explain why we find the chain device again as a leading principle of composition. Wittgenstein used the idea of concatenation in a twofold way: as a logical principle to explain the nature of the proposition, and as an aesthetical guide for the construction of the very first page of his *Abhandlung*.

Figuratively, this idea of a chain is also fundamental to the unity of the treatise: the core structure of Wittgenstein’s *Abhandlung*, in the form of the six main propositions, can itself be seen – in an aesthetical sense, of course, and not in a logical one – as a chain of names (here standing for key concepts) and therefore as being, itself, a “proposition”, a “Satz” – or at least exhibiting the *scheme* of a *Satz*. This shows how appropriate the alternative title “Der Satz”, supposedly considered by Wittgenstein for the *Tractatus*, would have been.⁷ The logical relation between *Welt* and *Satz* can be

⁷ However, it is uncertain whether Wittgenstein ever considered such an alternative title. In MS 104 or the typescripts TS 202, TS 203, and TS 204 there is no evidence for such a variant. The only source for it is Bartley (1985: p. 45), who appeals to testimonies of Wittgenstein’s colleagues during his time as a school teacher.

expressed in the scheme of one single “Satz” (the concatenation of concepts in the figure above) and the philosophical method would be to elucidate this single “Satz” with further explicatory propositions.

4. What about the content of page 2b, the verso page of the missing folio?

On page 3, we find 15 propositions in ordered form. Between the six main propositions nine main decimal propositions (1.1, 2.1, 2.2, 3.1 etc.) are inserted in numerical order. All these propositions give the impression of having been copied out in the same way. That they were likewise pre-formulated on page 2b (or alternatively on page 2a, below the main propositions, but leaving behind no comparable imprint) would therefore be a natural assumption. All the information we possess about page 2b is the signs on lines 14 and 16. On the assumption that these nine main decimal propositions were on page 2b and got their final wording there (as in the case with page 2a), we can compare these propositions with their counterparts on page 3.

Three propositions (4.2, 4.3, and 4.4) share the property of having “e” as the last character before the full stop. Propositions 4.2 and 4.4 both contain two instances of the rather long word “Übereinstimmung”, which Wittgenstein could have hyphenated after “m” or “n”, as we can see on the remaining strip of page 2b. In 4.3, the word “Elementarsätze” might well have been hyphenated in the same way after the “n”. Thus, the little information we have does not, at least, contradict the assumption that the additional main decimal propositions were formulated on page 2b. Rather, one would expect 4.2, 4.3, or 4.4 to be situated in the lower part of page 2b – also consistent with the signs on lines 14 and 16.

For this reason, it is not implausible that page 2b – which was definitely written upon – only contained the template for the nine main decimal propositions copied out onto page 3, and no other discarded text.

Page 3 can be seen as an integrated representation of the results on pages 2a and 2b, the basic structure and its first layer of elucidation, now in a numbered and ordered form. The introduction of numbers became essential for the whole *Abhandlung* and had the primary purpose of organizing the growing text.

5. The initial conception of the *Abhandlung* and the role of the *Kürnberger motto*

If we imagine Wittgenstein working and living behind the front in his *Artillerie Werkstättenzug Nr. 1* ("an engineering train" Potter 2013: p. 17) stabled at the railway station in Sokal in the summer of 1915, living in cramped conditions but with plenty of spare time,⁸ there was a certain moment when MS 104 consisted only of the title, the *Kürnberger motto*, and the yet unnumbered opening proposition "Die Welt ist alles was der Fall ist" ("The world is everything that is the case") written on three consecutive recto pages of the manuscript.⁹ In this sequence, the "alles" (everything) of the opening clearly echoes the "alles" of the motto:

⁸ For a vivid description of Wittgenstein's time in Sokal see the report of his friend Max Bieler (in McGuinness 1988: pp. 234–235).

⁹ This scenario relies on the assumption that the *Kürnberger motto* is not a later addition. There is no reason to presume the *title* to be a later addition, as is the case with the *dedication* to David Pinsent on the verso side of the title page and the *instruction* on the flyleaf, which refers to concrete propositional numbers written on pages 12 and 16. The *motto* was possibly inserted during the Olmütz period, because we know that Kürnberger was discussed with Wittgenstein in the Olmütz circle. However, a letter to Engelmann from 4 April 1917 (Engelmann 2006: p. 23) indicates that the knowledge of the specific article (*Das Denkmalsetzen in der Opposition*, Kürnberger 1877: p. 338) from which the motto was taken was passed from Wittgenstein to Engelmann and not the other way round. Thus, the question about whether Wittgenstein used the motto at the beginning of writing MS 104 must remain open.

That Wittgenstein probably started writing in Sokal (or maybe a bit earlier in Vienna, during the two or three weeks of furlough after his accident in the workshop in Krakow in July 1915; see the letter to von Ficker from 24 July 1915; Ficker 2014: p. 83) can be concluded from an army postcard to Frege from 25 August 1915 (Floyd 2011: p. 9). Kang (2005: p. 5 fn. 11) also considers whether the army postcard "suggests that he in fact started the summarizing by late August [1915]" but systematic arguments finally lead him to the conclusion that the first 71 pages of MS 104 "must have been written after NB 3 [MS 103] some time between January 1917 and July 1918" (Kang 2005: p. 18; for a counter-argument see Potter 2013: pp. 22–23).

The dating is based on the assumption that the *Abhandlung* mentioned in the postcard to Frege and later in the letter to Russell from 22 October 1915 (Wittgenstein, CC 1995

Motto: ... und alles, was man weiss, nicht bloss rauschen und brausen gehört hat, läßt sich in drei Worten sagen. Kürnberger

(Motto: ... and everything one knows, and which is not a mere rumbling and roaring one has heard, can be said in three words. Kürnberger)

Wolfgang Kienzler has put forward the idea that the motto was originally aimed at Wittgenstein himself, and that the rather short treatise, solving all the problems of philosophy in 80 pages, can be seen as a direct response to the motto (Kienzler 2012: p. 80).

It is interesting to observe traces of corrections in MS 104 in this respect, a change from “Motto: Alles was man [...]” to “Motto: ... und alles was man [...]”. The three dots before “und alles” reveal that the motto is an incomplete phrase and point to something unspoken. If we look at Kürnberger’s original text, we can read this unspoken part of the motto as:

Bravo! So haben ganze Welten von Vorstellungen, wenn man sie wirklich beherrscht, in einer Nuß Platz, und Alles, was man weiß [...]

[Bravo! Thus entire universes of ideas can be put in a nutshell, if you are actually in command of them, and everything one knows [...]]

(Kürnberger 1877: p. 340; translation here and above from Kienzler 2012.)

Knowing more now about the initial pages of MS 104 it is even possible to tighten Kienzler’s theses. The inherent demand of the motto – “say what you have to say in three words, or in one proposition, or at least in the smallest number of propositions possible” – is perfectly satisfied by the sequence on page 2a. A powerful opening – “Die Welt ist alles was der Fall ist” – and the whole subject in a nutshell: six short propositions exhibiting through their chain structure the scheme of a “Satz” and saying everything about the essence of the proposition and the

Nr. 55: p. 103) in fact refers to MS 104 (with its title *Logisch-Philosophische Abhandlung*) and not to an intermediate draft.

The dating conjectured here differs from Bazzocchi’s proposal, which assumes that the *Prototractatus* was opened in April or May 1915 (Bazzocchi 2008: p. 21 and Bazzocchi 2015: p. 339) as well as from Michael Potter’s conjecture, which dates the manuscript’s opening at “around the end of 1915” (Potter 2013: p. 25).

correspondence between world and language.¹⁰ The final proposition (later numbered as 6) in this very first conception must indeed be seen as “the destination envisaged” (McGuinness 2002: p. 277).

In some sense, the six propositions on page 2a – unnumbered – can be seen as forming the “complete *Abhandlung*”. Everything else that follows on the later pages is comments on comments on comments ...¹¹ And perhaps Wittgenstein has tried to follow the motto even more literally (“three words”) insofar as each of the main propositions is made up of a triplet of key notions. So, the entire composition consists of a sequence of six triplets:

(Welt – alles – der Fall sein)

(der Fall sein – Tatsache – Bestehen von Sachverhalten)

(Tatsache – logisches Bild – Gedanke)

(Gedanke – sinnvoll – Satz)

(Satz – Wahrheitsfunktion – Elementarsätze)

(Wahrheitsfunktion – allgemeine Form – [formula for the general form of the truth-function])¹²

¹⁰ Commitments to brevity and clarity of expression can be found in Wittgenstein's Cambridge period. In a letter to Russell from June 1912 he criticizes G.E. Moore for the redundancy in his writing: “Moore repeats himself dozens of times, what he says in 3 pages could – I believe – easily be expressed in half a page. *Unclear* statements don't get a bit clearer by being repeated!!” (Wittgenstein, CC 1995 Nr. 1: p. 13). This attitude fits into an ideal of “precision through brevity” which seems to have attracted Wittgenstein. In October of the same year Wittgenstein read a paper to the Moral Science Club lasting only about four minutes, in accordance with a rule introduced by him stipulating that no paper should last longer than seven minutes (Monk 1991: p. 69).

¹¹ Compare with Verena Mayer's idea “that the *Tractatus* indeed consists of remarks on remarks on remarks ...” (Mayer 1993: p. 114).

¹² Against this arrangement it could of course be argued that “Bestehen von Sachverhalten” counts as one and “Wahrheitsfunktion der Elementarsätze” counts as two, though both have a comparable grammatical structure. However, the arrangement in triplets has to be seen as a helpful and constructive tool despite such matters of detail. The difference between states of affairs and their obtaining is of logical importance and it is the *obtaining* that corresponds to a fact, not the state of affairs itself, which refers to a possibility.

Proposition 1 serves as the starting point for this construction and its wording seems to have been beyond question. It is primarily Wittgenstein the artist who is speaking here, the architect of the treatise, not the logician, as shown by Frege’s legitimate criticism on this specific opening of the *Tractatus* in a letter from 28 June 1919.¹³ We can observe in the manuscript that the first sentence is by far the faintest of the six in the inverse image, which means that no corrections were needed to find the final phrasing. To construct the other triplets and to combine them into a chain to express everything essential in such a compact manner must have been an intense work of formulation and reformulation.¹⁴

6. Sequences, levels, and the introduction of proposition-numbering

It is highly plausible that Wittgenstein, at the beginning of his *Abhandlung*, conceived of the book – independently of any numbering system – as a sequence of sections, with each section being organized in turn as a sequence (of sequences) of propositions: the first section (on page 2a) expresses the basic structure (the *Satz*) as the backbone, the second section (on page 2b) contains sequences of all propositions commenting on the first section (the main decimals), the third section (beginning on page 4) contains all propositions commenting on the second section, etc. Indeed, page 4 only contains numbers with two decimal digits, suggesting the beginning of a new section conceived as a second layer of comments.

This construction of the *Abhandlung* as a very short core followed by a cascade of commenting layers, though original as a presentation of a philosophical text, causes a severe problem. The

¹³ In this letter (Dreben/Floyd 2011: p. 51) Frege questions the difference between “to be the case” and “fact” and, not being able to find any, he concludes that at least one of these two notions is superfluous. However, the alternative formulation – “The world is the totality of facts” – would no longer refer verbally to the term “alles” of the motto and would aesthetically be rather dissatisfying as an opening phrase.

¹⁴ There would be little change in the relationship between the motto and the main propositions in the case of the motto’s being added later in 1916 or 1917. In this case, Wittgenstein would have used it to perfectly illustrate what he had actually already done in the initial parts of MS 104.

reader inevitably becomes increasingly confused, because in such a presentation it remains totally unclear to which proposition a certain comment is referring. Separating blank lines, as can be seen on page 4, indicating blocks of comments linked to some superordinate proposition, will not, on their own, be enough to establish unambiguous connections. Wittgenstein must have been aware of this problem and found a workable solution with the introduction of decimal numbers. The numbers indeed became vital for the treatise, in a way he later explained in a letter to Ludwig von Ficker:

Nebenbei bemerkt, müßten die Dezimalnummern meiner Sätze unbedingt mitgedruckt werden, weil sie allein dem Buch Übersichtlichkeit und Klarheit geben und es ohne diese Numerierung ein unverständlicher Wust wäre.

[By the way, the decimal numbers of my propositions have to be printed by all means, because they alone give the book surveyability and clarity and without numbering it would be an incomprehensible mess.] (Ficker 2014: p. 118).

A study of the first pages of MS 104 provides a better understanding of the origin, compositional purpose, and guiding function of the numbering system. Page 2a shows the six main propositions in an uninterrupted sequence. If the above considerations concerning page 2b are correct, it was followed by a section with propositions and sequences of propositions commenting on the main proposition of the previous page. The reconstruction of page 2b suggests that the sequences (1.1. – 2.1, 2.2 – 3.1, 3.2 – 4.1, 4.2, 4.3, 4.4)¹⁵ were interrupted by blank lines.

A closer look at page 4 and the upper part of page 5 (up to 3.21) reveals the same structure of grouped comments, now on the level of *two* decimal digits. The first three of these groups of propositions on page 4, commenting on 1.1, 2, and 2.1, (in their reconstructed wording, without the later corrections and together

¹⁵ There are no comments on main propositions 5 and 6 there. The missing commentary on proposition 5 starts with pages 10 and 11; comments on proposition 6 follow much later, from page 64 onwards.

with their initial numbering, which is still visible below all later corrections) read as follows:¹⁶

- 4[1] 1.11 Die Welt ist durch die Tatsachen bestimmt und dadurch, daß dies alle Tatsachen sind.
- 4[2] 1.12 Die Tatsachen im logischen Raum sind die Welt.
- 4[3] 2.01 Der Sachverhalt ist eine Verbindung von Gegenständen.
- 4[4] 2.02 Der Gegenstand ist einfach.
- 4[5] 2.11 Die Bilder sind Modelle der Tatsachen.
- 4[6] 2.12 Den Gegenständen entsprechen im Modell die Elemente des Bildes
- 4[7] 2.13 Das Modell (Bild) ist eine Tatsache.
- 4[8] 2.14 Die Tatsache muß, um Bild zusein, etwas mit dem Abgebildeten gemeinsam haben.
- 4[9] 2.21 Das Bild kann den Tatsachen entsprechen oder nicht entsprechen.

Whereas the first two groups survived almost unchanged into the *Tractatus*,¹⁷ the following third group of five propositions exhibiting the “picture theory” – or rather “model theory” in its earliest conception in MS 104 – was profoundly reformulated and expanded later in the manuscript.¹⁸ The fifth proposition of this group, 4[9], one would expect to be numbered 2.15, but Wittgenstein assigned the number 2.21 to it instead and decided to exchange it with the first proposition of the next group, 4[10] (commenting on 2.2), which was not numbered 2.21, but 2.11. This

¹⁶ According to the system of Geschkowsky 2001, the propositions are labelled by their page number, followed by the position number within the page in square brackets; so e.g. “4[12]” means the 12th proposition on the 4th page of MS 104. The transcription here shows for the first time the completely resolved initial layer of text of these passages in MS 104.

¹⁷ The only changes there are: “es” instead of “dies” in 4[1] = 1.11, a replacement of the number 4[2] = 1.12 by 1.13 and the adding of “Sachen, Dinge” in 4[3] = 2.01.

¹⁸ Compare with TLP 2.12, 2.13, 2.141, 2.16, and 2.21 for the later corrections. What we can grasp from these five uncorrected propositions on page 4 is the initial *Prototractatus* core of the “picture theory” as presented in the *Tractatus* sequence 2.11–2.19.

insertion of a new 2.11 necessitated a correction of the four previous numbers (4[5] = 2.11 was corrected to 2.12, 4[6] = 2.12 to 2.13, etc.¹⁹). Wittgenstein probably also added the phrase “es ist richtig oder unrichtig, wahr oder falsch” to 4[9] = 2.21 (at that time or later) to better connect it with proposition 4[11] = 2.22:

4[10] 2.11 Das Bild stellt die Sachlage im logischen Raum, das Bestehen und nicht Bestehen von Sachverhalten dar.²⁰

4[11] 2.22 Das Bild stellt dar, was es darstellt, unabhängig von seiner Wahr- oder Falschheit, durch die Form der Abbildung.

4[12] 2.23 Ist die Form der Abbildung die logische Form so heißt das Bild das logische Bild.²¹

The remaining three groups on page 5, continuing with comments on 3, 3.1, and 3.2, received numbers in an unproblematic way:

5[1] 3.01 Die Gesamtheit der Wahren Gedanken sind ein Bild der Welt.

5[2] 3.11 Das Satzzeichen ist eine Projection der Tatsachen.²²

5[3] 3.12 Die Projectionsmethode ist die Anwendung²³ des Satzzeichens.

5[4] 3.13 Die Anwendung des Satzzeichens ist das Denken.²⁴

5[5] 3.21 Der Satz ist die Projection nach ihrer Methode, ein Bild.²⁵

¹⁹ After proposition 5[13] was allocated a new 2.14, the proposition numbers 4[7] and 4[8] underwent another correction and finally became 2.15 and 2.16; all these gradual corrections of the numbers on this page could be verified by using a microscope camera in the Bodleian Library.

²⁰ The final “dar” (“darstellen” – “represent”) was changed to “vor” (“vorstellen” – “to present”) as in PT 2.151 (p. 14); concerning the “picture” PT 2.11 and PT 2.151 use “vorstellen”, whereas from PT 2.174 onwards “darstellen” is used.

²¹ This sentence and its number were crossed out later, probably when the text was transferred word for word to 6[4] and linked with the new number 2.181.

²² In this case three layers of text can be seen: “der Tatsachen” was first corrected to “seines Sinnes” and finally to “des Gedankens”.

²³ “die Anwendung” later corrected to “die Art und Weise der Anwendung”.

²⁴ “das Denken” was later expanded to “das Denken seines Sinnes”, probably at the same time as the second correction mentioned in the previous footnote.

²⁵ “ein Bild” later erased.

These observations shed light on both the original conception of the *Abhandlung*, using only blank lines to separate the sequences of comments that are on the same level, and the invention of a new order principle guided by decimal numbers. It is surprising to find both order principles on the same page, blank lines and numbers. From page 6 onwards blank lines vanish and occur only occasionally (e.g. on page 28 and page 45).

The most likely explanation for that is to assume that while he was composing the remarks on page 4 and the upper part of page 5, Wittgenstein still used blank lines for the separation of sequences of comments referring to the same proposition, but also reserved a column of free space on the left edge of the page for the introduction of an alternative system of marks. This alternative system served to simultaneously represent the order level of commentary, the reference to the proposition being commented on, and the order within the sequence of comments. So e.g. the number “2.13” indicates that the proposition belongs to the second layer of comments – in this case referring to 2.1 of the first layer of comments (which in turn is commenting on main proposition 2) – and that within the sequence of this second layer of comments on 2.1, it is in third position. The decimal system adapted from *Principia Mathematica* perfectly solved all the problems of correlation between levels and of order within them. We can therefore understand the whole process of number-assignment and (first) number corrections on page 4 and upper page 5 as an act of clarification. This numbering seems to have been performed in one stroke upon reaching proposition 5[5] (= PT 3.21) and before writing down 5[6] (= PT 1.12),²⁶ and an initial conceptual revision was associated with it, the aforementioned exchange of group-membership between 4[9] and 4[10].

²⁶ The record of 5[6] = PT 1.12 offers a *terminus ad quem* for this step of the numbering-process, because it caused another correction on page 4 (4[2] is visibly corrected from 1.12 to 1.13), associated with a special insertion mark (“1.12” underlined with red pencil) between 4[1] = 1.11 and the now corrected 4[2] = 1.13, which would have remained undone, if Wittgenstein had already inserted this proposition between the existing 1.11 and 1.12 when starting the numbering on page 4.

What are the consequences of these considerations for the numbering on page 3? There are two possibilities. Either the number assignment was performed before starting the composition of remarks on page 4, or it happened together with the numbering-process on pages 4 and 5 that was just described. In the first case, we can understand the copying out of the text on pages 2a and 2b to page 3 as an experimental arrangement for an integrated representation of all 15 propositions from pages 2a/2b, not keeping levels apart in separate sections but instead tagging the hierarchical order by decimal numbers. As a consequence, the main propositions lose their sequential representation and become more like chapter headings. The ongoing procedure on pages 4 and 5 indicates that Wittgenstein was not completely sure about the fine structure of the numbering while starting with the second layer of comments. In any case, the process of introducing the famous decimal numbers was a more complex procedure than it appears at first glance and lasted from the now missing pages 2a/2b up to page 5.

The assumption that on page 3 Wittgenstein used the numbering system for the first time (Potter 2013: p. 26) is confirmed by the structure and content of the missing folio.

Beginning with page 5 he also starts to formulate propositions with three decimal digits (PT 2.031 and PT 2.161) and the numbering system assumes the function of keeping the propositions in the right order. The numbering system guarantees that sudden changes of level, caused by the expansion of the text corpus by the insertion of new remarks, remain unproblematic (Mayer 1993: p. 111). Every proposition receives its unique position in the system.

However, it would be a misunderstanding to conceive of the numbers simply as a tool to organize the insertion of new propositions between already existing ones. The fact that many systematic corrections of numbers in MS 104 can still be observed proves that the main feature is to mark the order level and to organize sequences of propositions that are of the same level (and have the same “weight”; cf. Mayer 1993: p. 113).

7. Increasing complexity

Starting with remark 1.12 on page 5, a new phase of work with a new technique becomes visible. The following 14 propositions (up to 2.182 on page 6) and one additional late-comer on page 7 (PT 3.202) are all associated with insertion marks like “2.14”, “2.03–2.07” or “2.17–2.182”. These insertion marks show the typical red underlining and are placed on pages 4 and 5 to indicate the later insertion of further propositions in accordance with the order of the proposition numbers.²⁷ The purpose was obviously to keep the order of decimal numbers visible by highlighting propositions that were formulated later on. So for a time page 4 represented both the chronological order of composition and the systematic order of propositional numbers on the level of two and three decimal digits – much in the same way that page 3 represented the correct order on the level of the main proposition and of propositions with one decimal digit.²⁸

Wittgenstein soon gave up with this provisional attempt to keep the systematic order visible in MS 104 itself, for the upcoming sequences PT 2.201–03 and PT 2.221–22 on page 6 were not treated in the same way. He must have been aware of the hopelessness of this procedure and the overflow of insertion marks to be expected with increasing numbers of remarks.

The growing complexity called for an additional aid to represent the overall order of the growing number of explicatory propositions. The creation of an ordered parallel structure on loose sheets (as Bazzocchi has proposed) would be a fairly natural method with which to handle this complexity. A stack of loose sheets allows for the insertion of additional propositions without disturbing the preliminary order and without the need for producing complete new transcriptions.

²⁷ The insertion mark “2.14” on page 4 cannot be interpreted as a reminder for “a gap to be filled here”, as Mayer (1993: p. 113) does, because of the visible traces of two steps of corrections in “2.15” and “2.16” (cf. above fn. 17).

²⁸ The first extension of the structure visible on page 3 comes with proposition PT 3.3 on page 6, which is not indicated on page 3.

It is possible that the clearly visible system of little red dots in front of the numbers on pages 4–8 and again on page 11 indicate a verification of the completeness of such a loose sheet parallel structure.

According to Bazzocchi's interpretation, the "letzte Zusammenfassung" on loose sheets, mentioned in the letter to Russell from 22 October 1915, has to be seen as an indication of the existence of such an additional aid, taking on the role of a "parallel alter-ego" of MS 104 (Bazzocchi 2006: p. 37) that is different not in content, but in the order in which the propositions are presented. By this interpretation, the primary working version of the expanding text changed from MS 104 itself to the loose sheets, leaving the bound manuscript with the important complementary function of a log book, recording every proposition in the order of its addition to the text corpus. As such, it would have served as a valuable backup. The package of loose sheets, on the other hand, always up-to-date, remained "an optimal work support for all the planning phase and does not demand any overall rewriting. [...] Additions are possible in every part of the configuration, in particular by putting new objects at the bottom of every sheet, or by inserting ulterior detail sheets" (Bazzocchi 2006: p. 37).

There are three plausible possibilities for the detail structure of the sheets: 1) they contained a reordered transcription of the remarks (McGuinness 2002: p. 273); 2) they were organized according to a one-sheet-per-proposition principle; or 3) they each sought to represent complete sequences of remarks on the same level (Bazzocchi 2006). The first solution has the disadvantage of quickly becoming obsolescent and requiring the effort of periodical rewriting. The second proposal offers a perfect basis for the integration of new propositions regardless of whether they are on the same level as the existing ones or subordinate to them, but has the undesirable characteristic of leading very quickly to cumbersome packages of paper. The third, intermediate, alternative not only allows the representation of the actual order of propositional numbers but also very helpfully keeps visible the ordering of the sequences of comments during the composition process. However, extensive experiments with this last structure

type performed with the first 28 pages of MS 104 show that because of the changes and corrections visible in MS 104, the sheets increasingly lose their surveyability and ultimately become almost as confusing as MS 104 itself.²⁹ However, this is also Bazzocchi's main objection to McGuinness' proposal (Bazzocchi 2006: p. 37). It is therefore much more likely that the sheets (at least at an early stage) were organized according to the one-sheet-per-proposition principle.

This thesis of an ongoing working draft, written on loose sheets alongside MS 104, can explain some characteristic properties of the latter:

(1) MS 104 typically shows progress in small steps in the form of well-ordered sequences of propositions. Their well-ordered nature and the low level of corrections suggest that these blocks are transcriptions. If we assume that the real work surrounding the formulation of the remarks and their insertion into the pre-existing structure was carried out on and with the help of the loose sheets, it would be quite natural for the remarks, once completed and accepted, to be recorded in the backup-log in small ordered blocks, typically without further corrections – as appears to be the case in MS 104. Thus with this technique the essence of the conceptual progress remains visible in the manuscript, while the concrete work on the wording and any experimentation with various alternatives remain hidden.

(2) This assumption can further explain the very existence of pagination in MS 104. Wittgenstein's manuscripts are almost never paginated by his own hand; this is true for the three wartime

²⁹ I have produced several variants of loose sheet representations of MS 104 (up to page 13, to page 28 etc.) using different sets of rules to examine how well they work as a tool for the examination and further expansion of the *Abhandlung*. For example, I used one set according to the one-sheet-per-proposition principle mentioned above, and another for applying Bazzocchi's rules, which in their simplest form run as follows: (1) take the remarks one by one in the order that they appear in MS 104 and copy them out onto loose sheets; (2) if remarks of the same level have already been written on a sheet, append the remark there; (3) if not, copy the remark onto a new sheet in first position and add a reference mark to indicate the proposition that the new sheet refers to.

The problem with this technique is the confusion caused by the frequent number changes (and order shifts) which – if complete rewriting of the sheets is avoided – can only be represented on the sheets by displacement-arrows and other insertion marks.

notebooks in particular. Why is MS 104 different? The complementary function of the two versions requires that both of them be kept consistent. Every correction in one of them has to be performed in the second as well. The propositional numbers make it easy to find the correct position in the ordered loose sheet collection, but the reverse process requires additional help because of the confusing ordering in MS 104. Thus we can assume, as Bazzocchi does (“the idea of a reverse indexing by page numbers” Bazzocchi 2010a: p. 60), that the propositions on the loose sheets also contained, in addition to their propositional number, a reference to the page in the manuscript where the twin proposition can be found, and that this is the reason why MS 104 is paginated at all.

(3) The introduction of the loose sheet representation explains why the special insertion marks vanish after pages 4 and 5. They simply became superfluous.

(4) The clearly visible system of red dots before or above most of the propositional numbers between pages 4 and 8 can be understood as a verification of the completeness of the parallel structure.³⁰ This also allows us to conjecture at exactly what stage in the process the second representation came into use. In the initial section up to 13[11], considered here, the marking with red dots applies to all propositional numbers below 4.22 with two or more decimal digits, with the exceptions of PT 2.22 and (the crossed out) PT 2.23. Numbers equal to or larger than 4.22 are not marked in this way. This fact makes it likely that Wittgenstein began to work with a parallel loose sheet representation with the opening of page 9 of MS 104. From here onwards up to 13[11] no numbers lower than 4.22 can be found (with the single exception of the marked 11[4] = PT 3.202). By this hypothesis, he first constructed sheets for the parts from 4.22 onwards that he wanted to work on at that time and only later completed the parallel structure by integrating the previous parts. A final verification using red dots should

³⁰ There is one latecomer on page 11 concerning PT 3.202. Similar dots starting with page 19 and extending to page 24 seem to serve a different purpose, presumably the marking of the fourth (and later the sixth) digit of the very long propositional numbers in this section.

guarantee the completeness at the end of this first phase of work on page 13.

Alternatively, the red dots can be explained as a verification performed upon reaching page 13, extending to 4.21 but for some reason discontinued thereafter and not resumed.

8. The nature of the checkmarks up to page 28

Unlike the “system of red dots”, which has gone unnoticed by scholars, the typical checkmarks (“✓”) found behind (or above) the proposition numbers in MS 104 up to 28[2] *have* been described and analyzed (Geschkowsky 2001: pp. 60–61; cf. Venturinha 2010: p. 73). Page 3 is totally free of any checkmarks, but from page 4 up to proposition 28[2] almost all remarks have been ticked off (252 out of 273), with only 21 lacking a corresponding mark.³¹

According to Geschkowsky’s interpretation the marks are not related to content, but part of a verification process to ensure the completeness (and consistency) of a copy. Either the propositions were checked off during the copying out from MS 104 or an existing transcript was verified using the PT-numbers. Fortunately, this question can be answered by looking at the visual appearance of the checkmarks themselves. They can be clearly divided into two groups, for Wittgenstein used two different pencils for the checkmarks. One ink pencil, the same one (or one of the same type) that he used to write the main text, was used for 131 checkmarks and another dark grey graphite pencil for the remaining 121 checkmarks. (This same pencil was also used for some textual corrections in the first 28 pages.³²) Given that the change of pencils occurred only *once* during the process, one would expect the change of pencil to happen either on a page of MS 104,

³¹ The cross-reference list of Geschkowsky (2001: pp. 93–99) shows instead 24 remarks without a checkmark; but for 10[6], 11[1] and 25[1], the existence of a checkmark could be verified with the help of the microscope camera. It is possible that two or three more checkmarks were lost when numbers (probably 11[3] and 15[10]) were corrected at a later stage.

³² 7[1] (“jener”), 9[10] (“deren”), 12[2] (“nenne ich”), 12[12] (“geändert”), 13[2] (the final “n” in “Elementarsätzen” added), 13[11] (“zu 4.401” added), 15[5, 6] (two “?” added), 15[10] (“W” and “F” exchanged), 23[9] (“Es”).

or with a proposition number. In fact, the latter is the case: the first group covers proposition numbers equal to or lower than PT 4.10222, the second group all proposition numbers equal to or higher than the following number, PT 4.10223.³³

This result proves that the process ran “backwards”; that is, from an ordered copy of MS 104 to MS 104 itself, and not the other way round. If the missing checkmarks indicate the incompleteness of the copy, i.e. the absence of the corresponding remarks in the transcript, we can furthermore conclude that this transcript cannot possibly have been a *typescript*. This is because remark PT 2.18 does not have a checkmark, while PT 2.181 and PT 2.182 do.³⁴ The clear hierarchical order of a typescript (like TS 204) means it is unlikely that the dictation of a higher level proposition would be overlooked while the lower level comments depending on this proposition are observed. For this reason, it is much more probable that it was the loose sheet representation itself that was checked for completeness in this process, perhaps so that it could even be used later for the dictation of a typescript.³⁵

9. Why was the folio cut out?

After the introduction of numbers and the copying out of the propositions on page 3, pages 2a and 2b probably became superfluous, albeit not bothersome. However, taking into account the function of MS 104 as a possible source for publication, they could have been misleading, because it would not be clear whether or not Wittgenstein wanted the main propositions represented twice – firstly preceding the text in unnumbered form, then reappearing with numbers in the body of the ordered text. He could have completely crossed out both pages for clarification but he decided (possibly also for aesthetic reasons, so as not to have

³³ There are two anomalies: 12[12] = PT 4.401, which is clearly checked off with the first type of pencil, but shows textual corrections with the second; and 17[5] = PT 3.03, but this could be an instance of a “double checkmark” (with both types of pencil).

³⁴ This is also the case with PT 2.027 (no checkmark) and PT 2.0271 and PT 2.0272.

³⁵ Such an intermediate step in one form or another is unavoidable, since MS 104, in its apparent disorder, is highly unsuited to serving as a direct template for the dictation of an ordered typescript.

two presumably rather ugly and unnecessary pages between the motto and the opening of the text) to achieve the same effect by cutting the pages out, presumably after having reached pages 7 and 8, which are written on the connected counter-folio of pages 2a/2b. It would also seem reasonable to conjecture that Wittgenstein used the excised folio as a starting point and cover page for the loose sheet representation.³⁶ None of the main propositions and main decimals on p. 3 is marked (either by red dots or by a tick), meaning there was no need to check them again. The red dots (which can be seen up to the end of page 8) suggest that the production of the parallel representation started with page 9.

10. Consecutive versus sequential reading of the *Tractatus*

If the initial phases of work on MS 104 are correctly reconstructed above, the results might also support a recently proposed alternative way of how to read the *Tractatus*. According to this proposal by Luciano Bazzocchi, the treelike structure of the *Tractatus* was composed of sequences of numbered propositions on the same level of decimal digits and – this is the main focus of the proposal – this order was thought by Wittgenstein to be the correct order for how the *Tractatus* was to be read (Bazzocchi 2010b). Peter Hacker emphasizes the merits of this alternative reading:

Once one avoids reading the work only consecutively, and also reads it tree-wise, the line of argument becomes clear, the anaphoric references, baffling in a consecutive reading, become evident, and the interpretation of the text becomes much easier. The *Tractatus* must be read *in accordance with the numbering system*, and that *demands* that the reader follow the text after the manner of a logical tree, which is the way in which the book was composed [...]. (Hacker 2015: p. 649)

The way in which Bazzocchi's ordering of the *Tractatus* ("according to its own form" Wittgenstein TLP 2014) opens the text presents a *Tractatus* analogon to what was written on page 2a of MS 104. Page 2a shows that Wittgenstein's initial conception of the *Abhandlung* considered a presentation of the main content in the very manner

³⁶ This idea was proposed to me by Luciano Bazzocchi.

that Bazzocchi (2015) is suggesting. Thus the discovery confirms, at least, that the *Tractatus* was in fact fundamentally composed in this way. However, taking into account that the numbering system preserves all the structural information regarding the level of the comment and the relationship between comments, the possibility of this alternative mode of presentation has been inherent in said system from the very beginning.

11. Summary: Changing the perspective on MS 104

The discovery of the missing folio and its relation to the first preserved pages of the manuscript sheds new light on the initial state of the *Prototractatus*. What Wittgenstein called “summarizing it all and writing it down in the form of a treatise [*Abhandlung*]” (CC 1995 Nr. 55: p. 104) in his October 1915 letter to Russell was originally conceived as the creation of a very small core of six unnumbered propositions in only six lines, which were intended to be commented upon in further layers, forming a hierarchical structure. The philosophical function of the commenting layers was to elucidate the core with the aim of achieving clarity (Kienzler 2012: p. 72). The initial pages also show traces of the actual introduction of the numbering system, which turns out to be an initial, significant conceptual change to the *Abhandlung*, giving it a very different appearance: a long sequence of numbered remarks, with the previously closed layers of comments being split up. Enduring vestiges of this initial concept are the idea of levels of equal importance or the “logical weight” of individual remarks, and the idea that the reordering in layers (as Bazzocchi proposes) offers an alternative reading of the *Tractatus* that stays closer to its initial form.

The discovery also confirms that MS 104 must be seen as a fresh start and a “typical first writing” (Bazzocchi 2008: p. 20). There is no need to assume the existence of further intermediate, and now lost, manuscripts as templates from which MS 104 is merely a transcript. MS 104 offers a faithful record of the formation process itself and in its initial working phases up to page 28 it mainly contains remarks that were written here for the first time, rather than remarks copied from a precursor text or other

manuscripts. The loose sheet representation in particular cannot be seen as such a precursor manuscript (Potter 2013: p. 24) but can instead be seen as an accompanying twin structure, in ordered form, to facilitate the further expansion of the *Abhandlung*.

If this is correct, to regard MS 104 as merely an early version and textual variant of the *Tractatus* would be to severely underestimate its importance as a historical source. It offers much more than discarded text variants; it is a kind of record of the formation process of the *Abhandlung* from 1915 to 1918. We can follow the local development of terminology and the conceptual changes step by step. Together with the dictation in the summer of 1918 (TS 204 with carbon copy TS 202) it also contains (in the “Korrektur” section, pp. 103–118) the information needed to reconstruct the complex transition from the *Prototractatus* to the *Tractatus* itself, which is not yet fully understood (Pilch 2013: p. 319). The notable order-related information that MS 104 has preserved has thus far only been exploited in a partial and limited manner. I therefore believe that further investigation into MS 104 would be valuable and expect that such a “genetic reading” in accordance with the order of its remarks may benefit all manners of interpretation of the *Tractatus* in its final printed form.

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Biographical Note

Martin Pilch studied theoretical physics, philosophy, history and law at the Universities of Graz and Vienna. He received a PhD in 1989 and holds the title Doctor of Jurisprudence since 2003. Now working for the Austrian government in research funding programs, he is responsible for the *Christian Doppler Laboratories*. His publications include two books on the constitutional theory of Carl Schmitt and medieval legal theory. His philosophical interests concentrate on German Idealism and the philosophy of law, as well as on the philosophy of mathematics and the early Wittgenstein. He is currently preparing a new transcription of MS 104 and TS 202.

MS 104
(*Prototractatus*)
page structure at the beginning

Instruction
Flyleaf recto

[blank]
Flyleaf verso

Title

Dedication

Motto
1

not paginated

Beginning of pagination in Wittgenstein's handwriting with "1"

faint inverse image
[apparently blank]
2

1
1.1
2
2.1
2.2
3
3.1
3.2
4
4.1
4.2
4.3
4.4
5
6
3

6 main propositions without numbering	9 main decimals (?) without numbering (?)
<i>missing folio recto (2a)</i>	<i>missing folio verso (2b)</i>

integrated transcript of 15 numbered and ordered propositions