



Wittgenstein and Toulmin's Model of Argument: The Riddle Explained Away

Tomasz Zarebski¹ 

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Abstract

The article undertakes the problem of a Wittgensteinian background of Toulmin's model of argument. While appreciating the original character of the investigations set out by Toulmin in *The Uses of Argument*, Wittgenstein's ideas taken to be forerunners of both Toulmin's philosophical method and the particular elements of the model of substantial argument are traced backward, to Toulmin's earlier books: *The Philosophy of Science* (Toulmin, The philosophy of science. An introduction, Hutchinson University Library, London, 1953) and *An Examination of the Place of Reason in Ethics* (Toulmin, An examination of the place of reason in ethics, Cambridge University Press, Cambridge, 1950). The technique of pinpointing the constituents of that model in the books preceding *The Uses of Argument* is superposing the layout of Toulmin's model on the crucial arguments concerning the earlier books: the scientific one based on Newtonian optics and the moral one concerning keeping promises. Such a procedure allows identifying backing for warrants and argument fields with the methods of representation in *The Philosophy of Science* and with modes of reasoning in *An Examination of the Place of Reason in Ethics*. The former is traced to passages 6.3 ff of Wittgenstein's *Tractatus*, while the latter—to the concept of word-games (the later Wittgenstein's language games). The claim regarding Wittgenstein's background is that in Toulmin's view of Wittgenstein, some parts of *Tractatus* concerning representing are in line with Wittgenstein's later reflections on language games; as well as that the overall method of *The Uses of Argument* goes along with Wittgenstein's therapeutic approach to philosophical problems that have to be placed in the context of their ordinary use.

Keywords Toulmin · Wittgenstein · Toulmin's model · Informal logic · Argumentation · Philosophy of language

✉ Tomasz Zarebski
tomasz.zarebski@dsw.edu.pl

¹ The University of Lower Silesia, Wrocław, Poland

1 Introduction

Wittgenstein's impact on Toulmin ought not to be either surprising or revelatory. Save for the fact that Toulmin used to be Wittgenstein's student at Cambridge in 1941 and later in 1946–47 (Janik and Toulmin 1996, p. 11)—which might be taken to have affected Toulmin's thinking as in the case of many other Wittgenstein's students—Toulmin himself did repeatedly declare such an influence: in the acknowledgments (preface) in his book (e.g. 1953, p. vii; 1950, p. xii), in the main body-text of them (1953, pp. 13, 52; 1972, pp. 67, 106; 1990, p. 190; 2001, pp. 10, 74) or notes (1950, pp. 83, 206; 1972, p. 68), or referred to them in the “Suggested reading” Sect. (1953, p. 172). Not being a strict “exegetical” Wittgenstein scholar (Zarebski and Janik 2023, p. 11), he wrote an extensive article on Wittgenstein in *Encounter* (Toulmin 1969), a co-authored, pathbreaking book *Wittgenstein's Vienna* (Janik and Toulmin 1996, 1st ed. 1973), and later presented a talk on him (Toulmin 1990b).

Surprisingly, in Toulmin's *The Uses of Argument* the name of Wittgenstein appears in neither the “Preface” nor the “References”, instead being mentioned only once, as if in the cursory, in the “Conclusion” (1958, p. 253). Despite this fact, the impact of Wittgenstein on Toulmin's model of argument seems to be present and natural—discerned in the first reviews of the book (see O'Connor 1959)—however the views on the degree of this influence differ in the secondary literature on Toulmin.

According to Johnson, although “the idea of a working logic that Toulmin is presenting here does appear to be in keeping with (...) the spirit of the later Wittgenstein” (2010, 97),

The influence of Wittgenstein on the work for which Toulmin is best known in informal logic circles—*The Uses of Argument* (1958) – appears to be negligible (...). The major ideas in that work—Toulmin's revolutionary approach to understanding the structure of argument; his views about warrants, and his views about the standards for evaluation of argument—these are very difficult to trace to Wittgenstein who had nothing to say in his later period about how to understand the structure of arguments. Indeed the major influences on *The Uses of Argument* appear to come from jurisprudence (which furnished ‘the jurisprudential analogy’ (...)) and epistemology (2010, pp. 95-97).

However, Johnson continues: “This is not to say that elsewhere in Toulmin's works, we would not find that influence” (p. 97).

Three things are worth emphasizing here. First, if Johnson allows Wittgenstein's impact in other Toulmin's works—I take he had in mind, first of all, the earlier ones, but also the later—it is difficult to understand why this influence, all of a sudden, disappears in *The Uses of Argument*. Second, Johnson surmises that the main idea of working logic comes from the “jurisprudential analogy”. Although from the text of the book is impossible to track provenance, since the references concern mainly philosophers, this conjecture is justified and can be drawn to the

fact that Toulmin was always interested in legal thought¹—the very analogy to the common-law being probably taken from Olivier Wendel Holmes Jr.'s *The Common Law* (Holmes 1881)—and must have discussed that issue with John L. Austin, who was also interested in the significance of legal terms, and the common-law, and who was Toulmin's brother-in-law at that time. Yet, it seems that one does not preclude the other. Third, it is taken for granted that if there is some Wittgenstein's impact, it has to come down to his later thought, principally rendered in *Philosophical Investigations* (1986), but also the 1939 lectures *Remarks on the Foundations of Mathematics* (1964).

In the same vein, Ribeiro asks and answers:

What is the importance to Wittgenstein's philosophy—and especially that of the later Wittgenstein—of argumentation and its problems, that is, the very problems that Toulmin was concerned with (...)? I must hasten to answer: NONE (2024, pp. 1-2)

For Ribeiro, the main objection against the Wittgensteinian influence on Toulmin boils down to the fact that Wittgenstein did not deal with argumentation theory, scarcely even used the terms “argument” or ‘argumentation’, was interested in meaning in everyday language, but not in “meaning through argumentation” (p. 2). In short: Wittgenstein, though being an original philosopher of language, was ignorant the theory of argumentation (pp. 2–3). He suggests (in line with Johnson) that the fact that Wittgenstein is only once mentioned speaks against his influence on Toulmin.

Ribeiro's argument seems to be based on the following, rather erroneous assumption: only philosophers having spoken explicitly—or at least implicitly—about arguments, argumentation theory, or simply argumentation theorists can be qualified as having had an impact on Toulmin. Yet, the authors mentioned in the “Preface”, or in the text, were rather the philosophers of language than fully-fledged argumentation theorists (Ryle, Austin, etc.). Should we then claim that they hardly inspired Toulmin, when reflecting on his model of argumentation? Obviously, not. Although I agree with Ribeiro that “Toulmin's philosophy is not limited to developing certain viewpoints that Wittgenstein had presented previously and reformulating them in the framework of his conception of rhetoric and argumentation” (p. 4), it is difficult to concede that such an influence was minimal or none.

Quite a different view is presented by Kock in the following remark:

Toulmin's fundamental insight into the multiform, non-universal and non-necessary nature of validity in reasoning was inspired, no doubt, by the later Wittgenstein's teaching at Cambridge. This insight, at any rate, is bound up with an unmistakably Wittgensteinian view of language, several years before the actual publication of the later Wittgenstein's thinking, as in this statement:

¹ The information obtained from the conversation with Allan Janik, August 2023.

‘Speech is no single-purpose tool. It is, in fact, more like a Boy Scout’s knife’ (2006, p. 248).

It is worth emphasizing that Kock, first, asserts explicitly that the main influence must have come from Wittgenstein’s lectures Toulmin attended; second, in an earlier paragraph, that Toulmin’s pursuit of the model of reasoning, i.e. argument, started as early as in his first book of 1950: *An Examination of the Place of Reason in Ethics* (Kock 2006, p. 247).

Godden, in his article of 2003, tries to specify more clearly the theoretical connection between Toulmin and Wittgenstein in this context, claiming convincingly that there is an evident relationship between Toulmin’s concept of the “argument fields” and Wittgenstein’s “methodological devise of »language games«” (2003, p. 372). First, he considers that the influence might have come only from the later Wittgenstein (in line with Johnson and Ribeiro). Second, he underscores (in line with Kock) that the way to his model of argument began much earlier, with *An Examination of the Place of Reason in Ethics*, where the concept of “modes of reasoning” (Toulmin 1950, p. 83) is to be taken as a predecessor of the “fields of argument”, and lasted further as “intellectual enterprises” or “rational enterprises” in *Human Understanding* (1972, pp. 85–86) or “locations or forums” of argument’s occurring in *An Introduction to Reasoning* (Toulmin et al. 1979, p. 14). Third, he asserts that “there are unmistakable similarities between the methods employed by Toulmin, especially in his earlier works, and those espoused by Wittgenstein” (Godden 2003, p. 370), relying on scrutinizing arguments “in the context of their human situation” (p. 370).

Canavan has in mind the same idea when writing that:

for Toulmin, a student of Wittgenstein, the radical view of natural language, capable of multiple uses, dependent for meaning on context, as presented in *Philosophical Investigations* (1953), and the “ordinary language” of Austin and Ryle, were to fashion his style of writing philosophy as well as informing his approach to the questions with which he chose to engage (2012, p. 20).

Further, he also emphasizes that a great variety of language uses goes along with different logical criteria typical of ethical language or scientific arguments (p. 29) and that Toulmin’s discussing “the meanings of concepts in the context of the *function* for which they are to be employed” is the Wittgensteinian attitude.

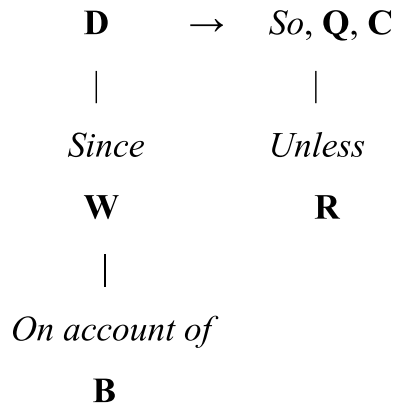
Below, I will set out a more nuanced view of Wittgenstein’s role in Toulmin’s philosophy of argument by showing that the model of argument can be regarded as a capstone of his earlier consideration presented in *The Philosophy of Science* (1953) and *An Examination of the Place of Reason in Ethics* (1950), which I am going to show retrospectively, by superposing the layout of the substantial model of argument on the crucial arguments concerning the earlier books: the scientific one based on Newtonian optics and the moral one concerning keeping promises. Second, in doing

this, I will claim that the influence of Wittgenstein on Toulmin was not limited to the later thought of the former, but that some selected passages of *Tractatus Logico-Philosophicus* (1922) significantly shaped Toulmin's project. Accepting the overall differences between the early and the later Wittgenstein, and drawing on them, (see Toulmin 1950, p. 78; 1990b, p. 225), he also saw the essential links between the two (Toulmin 2001, p. 74; Zarebski and Janik 2023, p. 11). Third, I will show that the overall method of *The Uses of Argument* goes along with Wittgenstein's therapeutic approach to philosophical problems that have to be placed in the context of their ordinary use.

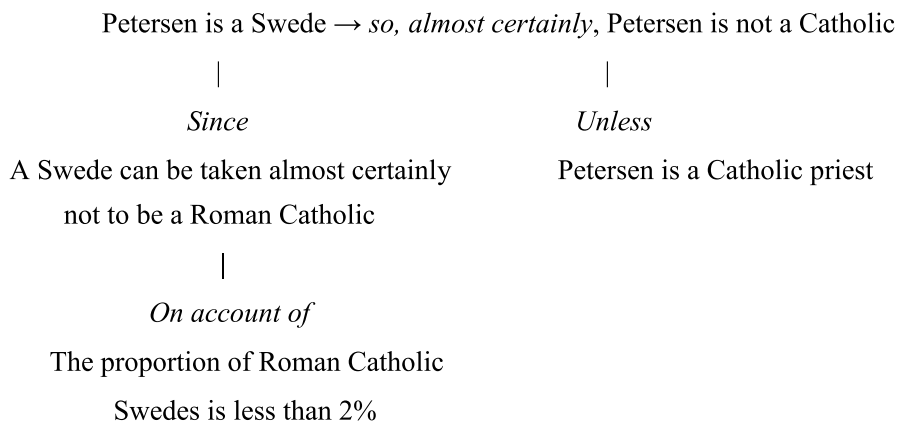
2 Toulmin's Way to Toulmin's Model

Taking Toulmin's views as principally consistent throughout all his writings (see O'Hara 2006), I will focus essentially on two books that preceded *The Uses of Argument*, yet starting from the model sketched in this book and going backward to *The Philosophy of Science* and then to *An Examination of the Place of Reason in Ethics*.

In the third chapter of *The Uses of Argument*, Toulmin claims the inadequacy of the classical form of syllogistic arguments (in the form: major premise; minor premise; then conclusion) in the majority of practical contexts and argues that the pattern of argument, christened by him as a *substantial* one, will consist of six elements: *claim*, *data*, *warrant*, *backing for warrant*, *modal qualifier* and *rebuttal*. The whole scheme of such a substantial argument has the following structure (Toulmin 1958, p. 104):



As an exemplary argument, Toulmin analyses (among others) the case specified below:



The substantial model, as closer to the everyday practice of arguing and fitting the actual business of forming claims and justifications, is juxtaposed with the analytical model, the latter not being context-sensitive, instead being abstract and—paradigmatically—purely formal.

The essential thing is that Toulmin's model is field-dependent; which means that the particular argument belongs to a specific "logical type": "Two arguments will be said to belong to the same field when the data and conclusions in each of the two arguments are, respectively, of the same logical type: they will be said to come from different fields when the backing of the conclusions in each of the two arguments are not of the same logical type"² (1958, p. 14). It, at the same time, betokens that belonging to different fields means "referring to the different sorts of problem to which arguments can be addressed. If fields of argument are different, that is because they are addressed to different sorts of problems" (1958, p. 167). The two stipulations might not be coextensive (Godden 2003, p. 370; see Botting 2017), yet they both claim one thing: that arguing within a specific logical type means our dealing with a particular kind of problem. The question remains how to understand the logical types in question and thus the fields of argument. Based on the mere Toulmin's model, it seems legitimate to say that what embodies the idea is the *backing for warrant* since it, in the last resort, defines both the sort of problem we cope with (be it statistical, taxonomical, legal, aesthetic, or else) and thus the logical type (what kind of data, conjoined with warrants, and what sort of warrants can speak for the claim).

Are the above ideas—i.e. directing the focus of attention to the actual practice of arguing instead of formal constructs; field-dependency of argument; and Wittgensteinian forerunners of Toulmin's model – discernible in Toulmin's earlier book and do they have any visible Wittgensteinian connections?

² Here it should be remembered that Toulmin sometimes uses the word logical type in a different way, when quoting Wisdom (1958, p. vii) or referring to Ryle (p.120).

2.1 The Philosophy of Science (1953)

In this book, Toulmin analyses the arguments of science, particularly physics. He declares his aloofness to what logical handbooks say about arguments applied in sciences as divorced from the real practice of the scientists (1953, pp. 9–10; cf. 2001, p. 10). He rather chooses to follow one of purportedly Einstein's remarks: "If you want to find out anything from the theoretical physicists about the methods they use, I advise you to stick closely to one principle: do not listen to their words, fix your attention on their deeds" (1953, p. 16). Particular stress in his investigations is put on the "methods of representation" (p. 29.), or "methods of representing" (p. 26), of the phenomena in physics and their role in explaining what is happening in the "physical world". He assumes that physics—like many other sciences and human activities—invents some ways of picturing the world and elaborates on them in its practical argumentation: "Physics presents a new way of regarding old phenomena" (p. 17), and its discoveries do not simply reveal new, unknown facts, but rather interpret what we already knew in a new, different way. Along with it we are provided with "fresh techniques by which inferences can be drawn— and drawn in ways which fit phenomena under investigation" (p. 34). Thus, by applying the new methods of representation one can explain both theoretical and practical issues.

In his scrutinizing of the problem, Toulmin is more interested in practical cases. To illustrate his ideas, he chooses—perhaps for the sake of its relative simplicity and availability to nonprofessionals—the branch of optics. He takes the following case. The sun is shining on a 6' (feet) high wall so that the angle of elevation is 30° . We ask how deep the shadow cast by the wall is, and we get the answer: 10' (feet) 6'' (inches). How should we explain why the result is so? The physicist's possible answer would be: "»Light travels in straight lines, so the depth of the shadow cast by a wall on which the sun is directly shining depends solely on the height of the wall and the angle of elevation of the sun. If the wall is six feet high and the angle of elevation of the sun is 30° , the shadow *must* be ten and a half deep«. In the case described, it just follows from the Principle of the Rectilinear Propagation of Light that the depth of the shadow must be what it is«" (p. 22). Therefore, the whole inference is based on the principle that light propagates in straight lines, which provides the relevant calculative techniques and formulae that enable us to work out the result.

Toulmin asks what sort of traditional logic is at stake here. Induction does not count on the virtue of the fact that the conclusion seems to ensue from the premises with logical, close to deductive, necessity. Yet deduction is not the case either. If it were, we would have to start from a general true premise, yet what seems to be such a premise, i.e. the principle of rectilinear propagation of light, is not in effect in the cases of diffraction, refraction or scattering; there, light does not travel in straight lines (pp. 24–25). Moreover, should the inference in question be deductive, it would have to be amenable to be written in the form of a relevant syllogism. Yet, it is not possible; from the principle that "Light travels in straight lines" does not follow the conclusion: "The shadow's depth is 10'6''". In a strict sense, the only logically correct syllogism would look as below:

All light travels in straight lines (MaP);
 What we have here is light (SiM);
 Then, what we have here travels in straight lines (SiP),

where there is nothing about the shadow's depth of 10'6'' (see p. 25).

If the syllogism is not at issue in the virtue of its irrelevance, then could we render the case—*post factum*, retrospectively—in the form of Toulmin's model of *The Uses of Argument*? It would look as follows (after Zarębski 2009, p. 277):

(D) "The wall's height = 6', → so (Q) almost certainly (C) "The shadow's depth = 10'6''"

the angle of elevation = 30°"

|
 since

|
 unless

(W) Computational techniques
 saying that "If D, then C"

(R) Circumstances in which such as
 diffraction, refraction, scattering etc. occur

|
 on account of

(B) The Principle of Rectilinear Propagation of Light

Having agreed on the above, how should we understand the field dependence of this argument? The answer is: what constitutes the field, or context, on which it is dependent is the backing for warrant, i.e. the principle of rectilinear propagation of light. This is what makes all inferring techniques (warrant) legitimate and what data go in line with, which establishes the particular type of argumentation (1958, p. 14). The type would be different in the case of the wave theory or corpuscular theory of light. The very way of expressing the claim and data is "theory-mediated" and alludes to the terms fitting the principle in the backing for warrant. And it also, certainly, constitutes a particular sort of problem (1958, p. 167), which would be different in the case of, again, wave or corpuscular theory. The concept of field boils down to what is included in the backing. Sometimes, I tend to add, it refers to a wider field, say physics, law, aesthetics, or ethics, sometimes to their subclasses: say, optics, thermodynamics, magnetism; criminal or civil law, etc. For some argumentation theorists, the indefinite character of fields appears as an uncomfortable conundrum (Godden 2003, p. 370), however, for some philosophers it is intelligible: you cannot define the field in advance, in abstraction from the actual practice of particular arguments.

On that basis, we can legitimately claim that what is presented in *The Uses of Argument* as the substantial model of argument is at least implicitly, *avant la lettre*, already present in his previous book *The Philosophy of Science*.³

The question remains what—if any—was Wittgenstein's influence on it? The tendency to focus on the actual practice of arguing and using concepts seems to be the obvious Wittgensteinian impact. But what else? On the one hand, the book has an evident anti-positivistic and anti-formal overtone. Toulmin even mentions, exactly twice, that introducing a new way of representation involves a “language shift” (pp. 13, 169), which echoes the concept of language games from *Philosophical Investigations* (which appeared in 1953), not yet published at the time of Toulmin's writing *The Philosophy of Science*. Yet, it must be remembered, Toulmin read the notes that were later published as *The Blue and Brown Books* (Wittgenstein 2007) in the early 1940s; later he also mentioned that he was “personally exposed to: namely, the material in the second part of the *Philosophical Investigations*” (Toulmin 2006, p. 29). On the other hand, he directly refers only to *Tractatus*, which is not surprising accounting for the fact that it was the only Wittgenstein's book-length work available there; what is surprising is rather Toulmin's employing *Tractatus* in so anti-formal context since it stands at odds with widely accepted division on the early and later Wittgenstein's thought.

First, as to the fragments that mention Wittgenstein but do not refer to the *Tractatus*, Toulmin must have quoted them primarily from his own notes taken when attending Wittgenstein courses (Zarebski and Janik, p. 12). There is some evidence for that: for example, the drawing of a cylinder said to have come from Wittgenstein on page 163 (Toulmin 1953) is to be found (very similar) nowhere—as far as I can tell—but in the book edited in 1976 by Cora Diamond *Wittgenstein's Lectures on the Foundations of Mathematics, Cambridge 1939* (Wittgenstein 1976, p. 195). It is the book where some other Wittgenstein's remarks alluded to by Toulmin without any exact reference are to be found. The fragment:

‘Suppose’, as Wittgenstein once said, ‘that a physicist tells you that he has at last discovered how to see what people look like in the dark, which no one had ever before known. Then you should not be surprised. If he goes on to explain to you that he has discovered how to photograph by infra-red rays, then you have a right to be surprised if you feel like it. But then it is a different kind of surprise, not just a mental whirl. Before he reveals to you the discovery of infra-red photography, you should not just gape at him; you should say, “I do not know what you mean” ’ (Toulmin 1953, 14).

is to be found in *Wittgenstein's Lectures...* (1976) on page 17. Similarly, the passage: “to use a phrase of Wittgenstein's, be put in the archives, is an essential step in building up a fruitful body of theory” (Toulmin 1953, pp. 81–82) can be found in this book on pages 104–107. Next, the fragment: “For if the decisions on which our physical theories rest are easy to forget, those which have gone to the making of

³ In some places even the terms “warrant”, “data” or “backing” are used, roughly in accordance with the later Toulmin's model (1953, e.g. pp. 42, 162; 18–20; 18, 37).

everyday speech are yet more easily forgotten; and the philosophical effects of forgetting them, as Wittgenstein saw, are yet more pervasive” can be collated with page 22 of *Wittgenstein’s Lectures....* Only the words “what is or is not a cow is for the public to decide”, which Toulmin ascribes to Wittgenstein (Toulmin 1953, p. 51), defies exact identification in Wittgenstein’s texts.

The point is that Cora Diamond, in editing *Wittgenstein’s Lectures....*, used the notes taken by the participants of the course that she says to have taken place in 1939, drawing on the material given by Bosanquet, Malcolm, Rhees, and Smythies (Wittgenstein 1976, p. 7). Yet, Toulmin appears as a participant in these lectures in that book, in spite of the fact that he declared to attend *Wittgenstein’s Lectures* in 1941, not in 1939, which must be an inadvertency on the part of Diamond. Yet, if Toulmin had his own notes—which he did (Zarebski and Janik, pp. 12–13)—they had to cover similar ideas. This argument, even though somehow devious, makes it very probable that, in *The Philosophy of Science*, he draws on the ideas from Wittgenstein’s lectures he attended. They must have had a deep and long-lasting impact on him, which he repeatedly declared in his books.

The second issue is the Tractarian influence on what proved to be anti-positivistic and anti-formalistic. Toulmin directly refers to proposition 6.3432: “The description of the world by mechanics is always quite general. There is, for example, never any mention of *particular* bodies in it, but always only of *some bodies or other*”⁴ (Toulmin 1953, p. 88); and below it, proposition 6.342: “The fact that it can be described by Newtonian mechanics tells us nothing about the world; but this tells us something, namely, that it can be described in that particular way in which as a matter of fact it is described” (Toulmin 1953, pp. 88–89). Nothing more. But in a paratext section “Suggested reading”, he recommends reading propositions 6.3 ff. Let us quote the fragments relevant to the Newtonian mechanics:

6.3. Logical research means the investigation of *all regularity*. And outside logic all is accident.

6.33 (...) *we know* a priori the possibility of a logical form.

6.341. Newtonian mechanics, for example, brings the description of the universe to a unified form. Let us imagine a white surface with irregular black spots. We now say: Whatever kind of picture these make I can always get as near as I like to its description, if I cover the surface with a sufficiently fine square network and now say of every square that it is white or black. In this way I shall have brought the description of the surface to a unified form. This form is arbitrary, because I could have applied with equal success a net with a triangular or hexagonal mesh. It can happen that the description would have been simpler with the aid of a triangular mesh; that is to say we might have described the surface more accurately with a triangular, and coarser, than with the finer square mesh, or vice versa, and so on. To the different networks correspond different systems of describing the world. Mechanics determine a form of description by saying: All propositions in the description of the world

⁴ Note that in Toulmin’s text there is a mistake: in the *Tractatus* the quotation ends “*some points or other*” while in Toulmin: “*some bodies or other*”.

must be obtained in a given way from a number of given propositions—the mechanical axioms. It thus provides the bricks for building the edifice of science, and says: Whatever building thou wouldst erect, thou shalt construct it in some manner with these bricks and these alone (Wittgenstein 1922).

The Tractarian references all concern the representation of the world. Proposition 6.341 compares the system of mechanics with a network consisting of meshes of a certain shape, say square. The network is an *a priori* invention to be applied to the world, fitting it better or worse depending on our particular purpose of using this network. Despite its being *a priori*, it might as well be different, having triangles, hexagons, etc. instead of squares. Thus, it provides us with a way of describing the world, a certain form of its description. That being said, it also constitutes a logic covering *all regularity* (6.3), which might be read: all regularity within this accepted logic, within the given network. That given network can be interpreted as the Toulmin *method of representation* since besides giving a certain way of seeing the world (like the Principle of Rectilinear Propagation of Light), it also furnishes us with the techniques of drawing inferences and calculating.

If this interpretation is right, that means that Wittgenstein's above idea of *Tractatus*, which contributed to establishing Toulmin's concept of the method of representation, is by the same token a forerunner of the concept of backing for warrant (a counterpart of network or a way of representing), warrant (concrete inferring techniques) and possibly rebuttal (what circumvents the logic inscribed in the network; cf. 6.3). In principle, a way to the concept of modal qualifier seems to be also open as it is essentially intertwined with the concept of rebuttal. And taking the backing for warrant as the core of the concept of the field of argument—as well as the logical type we argue within—then the fragments 6.3ff of *Tractatus* are also forebearers of the field of argument.

As an additional support of that view, Toulmin's later comments, concerning the role of the concept of representation in the *Tractatus*, can be cited. Toulmin and Janik were virtually the first who claimed that Wittgenstein was not only under the inspiration of Frege and Russell—whom he explicitly mentions in the “Preface” to the *Tractatus*—but also, on a par, that of the Viennese physicists Heinrich Hertz and Ludwig Boltzmann—whom he refers to later several times (Toulmin 1969, pp. 65–66; Janik and Toulmin 1996, pp. 145, 183–184; see also Piekarski 2014, pp. 121–125; Preston 2017). The underlying problem Hertz and Boltzmann dealt with was the nature of the representation of the world provided by science, which makes it possible for us to understand the world. When later commenting on Wittgenstein, Toulmin put particular stress on Proposition 2.1, which in the German original is: “*Wir machen uns Bilder der Tatsachen*”. The fragment has been translated into English by Ogden as: “We make to ourselves pictures of facts”, and Pears and McGuinness as: “We picture facts to ourselves” (Wittgenstein 1963). The essential thing is that Toulmin interprets this as an active process of creating representations, not as a receptive and mirroring one. *Bild*/picture is something that we produce as an artifact, “just as the painter produces an ‘artistic representation’ of a scene or person, so too we ourselves construct, in language, ‘propositions’ having the same forms as the facts they picture” (Janik & Toulmin 1996, p. 183). In his last book,

Return of Reason, when remarking on Proposition 2.1, Toulmin finds it legitimate to paraphrase it as: “We fashion for ourselves representations of states of affairs” (Toulmin 2001, p. 74), which allows many various forms of representing. Although *Tractatus* dealt mainly with linguistic representations, Toulmin visibly means also other—particularly the scientific, but not only—methods of representing. It is worth noting that even though the “language-shift” (1953, pp. 13,169) that Toulmin speaks about concerns mainly the differences between the terminology used by the scientists and the one used by onlookers of what is happening in science, it seems that it might be as well referred to the differences between the terminologies employed within different methods of representation.

Based on that, the conclusion can be drawn that the above account—plainly non-positivistic and non-formalistic—has its roots in Toulmin’s reading of *Tractatus*. Toulmin, having had training in mathematics and physics (Toulmin 1990a, p. ix) before going into philosophy in Cambridge, came to Wittgenstein’s work “primarily from the standpoints of physics, philosophy of science and philosophical psychology” (Janik & Toulmin 1996, p. 11), must have been focused on the problem of representation in science and must have read *Tractatus* as basically in line with the lectures he attended. And if the method of representation is a forerunner of what was later, in *The Uses of Argument*, labelled as backing for warrant, then Wittgenstein’s influence on Toulmin’s model can be soundly asserted.

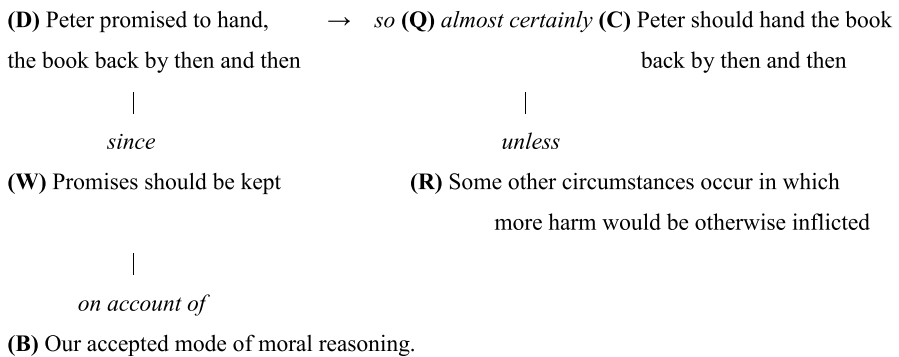
3 An Examination of the Place of Reason in Ethics (1950)

When tracking elements of Toulmin’s model in his earlier and first book (Toulmin 1950), where the “ethics of good reasons” approach is set out, the concept of “modes of reasoning” stands out. Toulmin associates it with specific logical criteria intertwined with a specific activity in which we use arguments:

The way in which each utterance is used (...) was to be understood fully only as part of a larger activity: (...) the logical properties of the mode of reasoning were seen to be related directly to the function it performs, and this again to the purpose of the activity of which it is a part. The logic of the utterances, on one side, and the point of the activity with which they are bound up, on the other, are as intimate and inseparable as the two faces of a coin (1950, p. 84).

The criteria used in each mode of reasoning differ from each other: “we must expect that every mode of reasoning, every type of sentence, and (if one is particular) every single sentence will have its own logical criteria, to be discovered by examining its individual, peculiar uses” (p. 81). The modes of reasoning cover a great deal of the phenomena which they concern, yet have their limits defined by their logical criteria. Thus, they may face some “limiting questions” (pp. 204–205) and issues they cannot cope with as they stand.

Taking the mode of reasoning as backing for warrants and choosing an exemplary moral case of keeping promises (cf. Tore 1979, p. 31), let us try to build an argument that follows the pattern from *The Uses of Argument*:



It might be seen as follows: certain (B) modes of our reasoning—say, deontological (1950, p. 137)—are a base for formulating more concrete maxims or rules (W) of the type: “Promises should be kept”. (W) allows our inferring from (D) the fact that Peter promised to return the book by then and then to the conclusion/claim (C) that he should do so. Yet, (W) is not unconditional: in the case of circumstances leading to conflicting duties (R), he need not keep his promise—by reference, for example to teleological reasons (1950, p. 141). This is why it would be possible to put a modal qualifier (Q) rendered in non-categorical form, relevant to the force with which the conclusion is binding.

In *An Examination of the Place of Reason in Ethics* (1950), the concept of field along with that of modes of reasoning also appears. These two are closely related in the sense that the field constitutes the activity in which the mode of reasoning is embedded. On the one hand, Toulmin mentions “more important fields—in mathematics, in science, in ethics, in aesthetics” (p. 81), but does not have in mind only the established disciplines and enterprises since, on the other hand, remarks on less formalized, and less important, “a mere word-game” (p. 81); they all reveal various “ways of using speech!” (p. 81).

On that account, it can be rightfully asserted that in *An Examination of the Place of Reason in Ethics*, the elements of what later took shape of the model of the substantial argument are already embedded, including the concept of the fields, once used exactly as the “field of argument” (p. 158). The general approach of examining language uses in arguing in their relevant contexts, or fields, is also clearly visible and declared. As Toulmin mentions science as one of the fields (p. 81), it might be also inferred that the counterparts of the modes of reasoning of *An Examination of the Place of Reason in Ethics* are the methods of representation (together with the computational techniques inherent in it) in *The Philosophy of Science*—the latter taken as a particular case of modes of reasoning in science.

The influence of Wittgenstein on *An Examination of the Place of Reason in Ethics* is more easily discernible and has been pointed out by Godden, saying that:

There are unmistakable similarities between the methods employed by Toulmin, especially in his earlier works, and those espoused by Wittgenstein.

To cite just one example, Toulmin has continually advocated a methodology by which arguments are considered in the context of their human situation. This is resonant with Wittgenstein's claim that "Language-games are a clue to the understanding of logic" (Godden 2003, p. 370).

Kock (2006, p. 248) and Canavan (2012, pp. 29, 15) are of similar opinions too. Godden rightly surmises that the impact came from the so-called later Wittgenstein ideas since—based on Monk's *The Duty of Genius*—he reminds us that Wittgenstein was finishing the *Philosophical Investigations* in 1945–46, so we may assume that he would have been working on this material into his lectures during the period of Toulmin's attendance in the course. Although Wittgenstein was focused on the philosophy of psychology at the time, he—as Monk writes—must have "devoted a good deal of time in these lectures to an attempt to describe his philosophical method" (Monk 1990, p. 501).

The claim is all the more probable that Toulmin not only applied Wittgenstein's approach of investigating the actual uses of language in its contexts and the speech variety, like in the passage speaking of:

(...) the full variety of purposes for which speech is used. Speech is no single-purpose tool. It is, in fact, more like a Boy Scout's knife (an implement with two kinds of blade, a screw-driver, a corkscrew, a tin-and-bottle opener, a file, an awl, and even a thing for taking stones out of horses' hooves); and (...) we continually shape and modify, adding new devices (modes of reasoning, and types of concept) to perform new functions, and grinding old ones afresh, in the light of experience, so that they shall serve their old, familiar, well-trying purposes better (1950, p. 81).

but also refers directly to the Wittgensteinian metaphor of language as a toolbox (p. 81, n. 1). He also uses the concept of "word-game" (pp. 82–83) and similar expressions—e.g. "playing with words" (p. 81), which allude to Wittgenstein's language games, as well as the concept of "ways of life" (p. 152) and "ways of life as wholes" (p. 153), sometimes "rule of life" (p. 197), which is a counterpart of what Wittgenstein meant by "forms of life" in *Philosophical Investigations*.⁵

3.1 Wittgenstein and Toulmin's Modes of Argument (The Uses of Argument)

In *The Uses of Argument*, Toulmin mentions Wittgenstein only once, in the "Conclusion":

⁵ It is worth noting that in *An Examination...* Toulmin refers to the *Tractatus* in a critical way. He juxtaposes Tractarian views of that (4.26) "The specification of all true elementary propositions describes the world completely" as expressing correspondence truth (or false) and that (6.42) "there can be no ethical propositions" with his own logic of good reasons, noting that the view of 4.26 is no longer held by Wittgenstein, while not commenting on 6.42 ff. An interesting biographical fact is that Toulmin's later conversion to Quakerism (stressing the role of silence during prayers) had a lot to do with the Tractarian account of ethics, particularly proposition 7 "Whereof one cannot speak, thereof one must be silent".

The late Ludwig Wittgenstein used to compare the re-ordering of our ideas accomplished in philosophy with the re-ordering of the books on the shelves of a library. The first thing one must do is to separate books which, though at present adjacent, have no real connection, and put them on the floor in different places: so to begin with the appearance of chaos in and around the bookcase inevitably increases, and only after a time does the new and improved order of things begin to be manifest—though, by that time, replacing the books in their new and proper positions will have become a matter of comparative routine. Initially, therefore, the librarian's and the philosopher's activities alike are bound to appear negative, confusing, destructive: both men must rely on their critics exercising a little charity, and looking past the initial chaos to the longer-term intention (Toulmin 1958, p. 253).

He does not make any reference, but the example probably comes from *The Blue Book* (Wittgenstein 2007, §35), not yet published at the time (only in 1958), but in wide circulation among Cambridge students and researchers since mid-1930 (Rhees 2007). It is difficult to fix when exactly Toulmin had an opportunity to read it, but the most important ideas of the later Wittgenstein might have also come from it, apart from his own notes from the lectures of 1939 and 1946–47.⁶

The quotation above implies that in *The Uses of Argument* Toulmin destroys what he takes to be a *status quo*, from which a new account of the discussed problems can emerge. My reconstruction of the Wittgensteinian backdrop in *The Uses of Argument* will draw on the following ideas. First, the overall method of destroying the *status quo* of the philosophical approach to logic consists in bringing words that philosophy brought astray back to their everyday use. Wittgenstein writes it, in *Philosophical Investigations*, as below:

§ 116 When philosophers use a word (...) and try to grasp the *essence* of the thing, one must always ask oneself: is the word ever actually used in this way in the language-game which is its original home?—

What *we* do is to bring words back from their metaphysical to their everyday use.

Second, such a procedure of placing words in their everyday context serves the therapeutic vision of philosophy, professed by Wittgenstein, for example, as follows:

§ 119 The results of philosophy are the uncovering of one or another piece of plain nonsense and of bumps that the understanding has got by running its head up against the limits of language. These bumps make us see the value of the discovery.

§ 309 What is your aim in philosophy?—To shew the fly the way out of the fly-bottle.

⁶ Wittgenstein lectures from 1946–47 are published as *Wittgenstein Lectures on the Philosophical Psychology 1946–47*, ed. by P. Geach. (Wittgenstein 1988).

Third, through such a therapy, we go to the practice that is the last instance to be appealed to when considering the problems anew. Like in Wittgenstein:

§ 217 (...) If I have exhausted the justifications I have reached bedrock, and my spade is turned. Then I am inclined to say: “This is simply what I do”.

That bedrock functions—on Toulmin’s part—as a backing for warrants in our argumentative activity. Fourth, § 217 also suggests that although there are different language games—actual and *in spe*—there are some that play an essential role in arguing and that Toulmin calls “fields of argument”. They reveal the specific logic within which the argument is placed (see Godden 2003). Fifth, what we do after the therapy is to deal with problems in a way close to the real everyday practice so that the words (concepts) we use to cope with these problems will not “run idle” (Wittgenstein 1986, § 507); and—one could add—to identify and set the problems that grow from the actual practice so that we will resist the temptation to pursue appealing pictures aloof from this practice (see § 115). In particular, Wittgenstein says in an example § 345, “we are under a temptation to misunderstand the logic of our expressions here, to give an incorrect account of the use of our words”; and such temptations are ones that we should withstand.

In the aforementioned points, I alluded to *Philosophical Investigations* as to the fullest presentation of Wittgenstein’s later philosophy. But these ideas are also present, even if not in their most mature form, in such earlier texts as *Wittgenstein’s Lectures on the Foundations of Mathematics*, Cambridge 1939 (Wittgenstein 1976), *Wittgenstein Lectures on the Philosophical Psychology* 1946–47 (Wittgenstein 1988) and clearly in *The Blue and Brown Books* (Wittgenstein 2007).

The overall project of *The Uses of Argument*—as I take it—is based on Wittgenstein’s ideas pointed out above. In the “Introduction”, he juxtaposes “a philosophical ideal” and “true-to-life”, “actual practice of argument-assessment”, claiming that our ideas should be tested against the latter, not the former. In his view, the ideal fails “to draw on one’s logical theorising all the distinctions which the demands of logical practice require” (1958, p. 10). When we stick to the practice, we will need to make use of the notions and distinctions that will not comply with this ideal, having to be built afresh (p. 10). When looking for the relevant area of logical practice, jurisprudence attracts our attention as the most advanced and effectively exercised activity.

The words to be first brought, by Toulmin, to their workaday business—i.e. ordinary, different uses—are the modal ones expressing impossibility and possibility. On account of that, he comes to the conclusion that the expressions of “can’ts” or “cannots” function not only as formal or mathematical impossibilities (like “you cannot find a number which is both rational and the square root of two”, “construct a regular heptagon using ruler and compass”), but also many other practical impossibilities, like physical (you cannot “lift a ton single-handed, get ten thousand people into the Town Hall”), linguistic (you can’t “talk about fox’s tail, or about a sister as male”), some procedural impossibilities and improprieties (you can’t “smoke in a non-smoking compartment), moral (you cannot “turn your son away without a shilling, force defendant’s wife to testify”) or others, e.g. conceptual

(you cannot “ask about the weight of fire”) (p. 23). While formal or mathematical impossibilities are viewed as closely tied with self-contradictoriness, the other impossibilities are not (p. 31). Therefore, to do justice to the variety of uses of the term, it is better to distinguish between the *criteria* and the *force* of using it. Force is this word being the same, its criteria will differ. In mathematics, the criterion of impossibility may be self-contradictoriness, whereas in other contexts, the criteria will be relevant to what is at stake in them: procedures, physical conditions, moral proprieties, or grammatical rules.

The analysis leads Toulmin to claim that accounting for the fact that criteria differ from each other, they constitute different, specific fields that may be seen as counterparts of Wittgenstein's language games. Therefore, they are field-*dependent*. However, as the words “cannot” and “impossible”, “can” and “possible”, as well as their cognates, occur in the same form in many different fields, they are—as they stand—field-*invariant* (pp. 36–37). In a paraphrase, they have the same force, though different standards, or criteria.

Should we want to make all fields logical in the mathematical sense, we would have to take all impossibility and possibility to subdue the mathematical criteria of something being, or not, self-contradictory, thus detaching these concepts from many other true-to-life uses. The effect would lead us to classifying only one field, i.e. of mathematics, as rational (or logical), labeling the others as non-rational (non-logical), not yet rational (logical), or plainly irrational (illogical) (pp. 40–41). Toulmin sees this view of thinking of logic *in modo geometrico* as “desire” or “sympathy” (p. 40) on the part of many philosophers, one that “has proved to be extremely attractive” (p. 43). This might be easily compared, in Wittgenstein, with the philosophical temptations of following pictures, i.e. ideals, that can keep us captive. To refrain from it, we would have to stick to the practice, admitting that the rational—in later books Toulmin called it rather the reasonable (1990a, 2001)—does not boil down to mathematics or formal logic. By exploring different practical, actual fields we discover the standards that are relevant to them.

In Chapter II on probability, Toulmin does similar things with the words expressing probability (and thus necessity). He speaks about “the puzzles about probability” engendered by our “over-reliance on abstract nouns” that makes us pose such questions as “What *is* probability? What are probability statements *about*? What do they *express*?” (pp. 46, 62, 69) and search their *designatum*. Their grammatical form may hide from us “the man-made origins of the puzzles and the reasons for their perennial insolubility” (p. 46; cf. p.77). They are typical philosophical problems that open a labyrinth before us, one into which it is better not to plunge deep, but rather to see how they appeared and why they do seem so important and attractive to us (p. 65). When we come to the awareness that such questions are a result of our misapprehension of the true character of the concept, then we will study (adjectives and adverbs rather than nouns) in the natural fields in which they occur. The approach is, again, a Wittgensteinian one, irrespective of the particular effects of Toulmin's inquiries. (Especially misleading is, for Toulmin, interpreting the terms “probable” and “probably” in strictly mathematical terms with the pretense of applying them in all fields of reflection).

Chapter III, with the layout of arguments, presents Toulmin's original account of the substantial model of argument, although he much later claimed that: "the last thing I thought I was doing was producing a theory of rhetoric (Toulmin 2006, p. 26). Here Toulmin decides neither to follow the time-honoured philosophical concepts nor place them in their ordinary usage since the burden of tradition on them—not worth unravelling and clarifying them anew (see p. 234)—would be an obstacle in their practical, true-to-life use. In building his model of argument he starts with the practice—while "steering clear of the philosophical issues" (Toulmin 1958, p. 95)—following instead a general jurisprudential approach—which he hopes to reveal more proper concepts to be included in his model of argument. Very much later he commented: "The success of *The Uses of Argument* is largely due to the fact that I chose colloquial words (grounds, backing, and so on) which everybody understands"⁷ (Toulmin 2006, p. 29).

Nevertheless, Toulmin criticizes the concept of logical form and analytic syllogism from the perspective of the practical business of argument (p. 108), judging it to be too poor to do justice to the real practice of arguing (107–113). In juxtaposing the theoretical formal ideal with the actual view of argument, he takes a Wittgensteinian attitude of giving priority to the practical.

As the most ambiguous element of syllogism Toulmin regards the universal premise of the paradigmatic types "All A's are B's" and "No A's are B's". There are several serious problems with them, beginning with the fact that they occur "in practical argument much less than one would suppose from logic-text-books" (p. 117). First, although for many expressions it is possible to be transformed into such a premise—like with: "Every single A is a B", "Each A is a B" "An A will be a B" "A's are generally B's" "The A is a B" —sticking to the form "All A's are B's" impoverishes our language and conceals the essential distinctions they imply. As Toulmin writes:

The contrast between "Every A" and "Not a single A", on the one hand, and "Any A" or "An A", on the other, points one immediately towards the distinction between statistical reports and the warrants for which they can be backing (...). A biologist would hardly ever utter the words "All whales are mammals"; though sentences such as "Whales are mammals" or "The whale is a mammal" might quite naturally come from his lips or his pen. Warrants are one thing, backing another; backing by enumerative observation is one thing, backing by taxonomic classification another; and our choices of idiom, though perhaps subtle, reflect these differences fairly exactly (p. 117).

Thus, the second problem is that the form of the universal premise might be interpreted either as a warrant or as a backing, making the false impression of its unifying character; while in the substantial argument, both elements are rightly distinguished.

⁷ Although in the contemporary argumentation theory, the terms are rather accepted, it is yet difficult to agree with Toulmin that such terms as "modal qualifier", "rebuttal" and "data" are so ordinary and common-sensical as Toulmin wanted to see them.

The third problematic issue is the categorical character of it, which—in virtue of the logical form of analytic syllogism—leads to necessary conclusions. In practice, the general statements look less categorical: “Almost all A’s are B’s”, “Scarcely any A’s are B’s”, “A can be taken almost certainly not to be B” (pp. 108–109), etc., which, when included into the classical form of a syllogism, would constitute what Toulmin calls “quasi-syllogism” (p. 101). The conclusions drawn based on such general statements are not necessary in the formal analytical sense but subdue to some other modal qualifications. As such they allow exceptions (Toulmin’s rebuttals).

The above critique, as said before, fits overall Wittgenstein’s strategy of treating concepts and criticizing problems by “keeping our eyes on the actual practice of argument” (p. 142).

In foreshadowing “Chapter IV” and “Chapter V”, and as well as in the chapters themselves (especially in the IV), Toulmin speaks again—in principally Wittgensteinian spirit—about the charm of unifying logical theory and the “temptation” of seeing the validity of our inferences to be based on such words as “all” and “some” (1958, p. 129) and “the general tendency for critical practice and logical theory to part company” (p. 148). The ideal that leads such logical theory astray is to see analytic arguments—understood as deductive, conclusive, formally valid, and demonstrative—as rational proper while seeing the arguments that are inductive, inconclusive, and formally non-valid as irrational. Logic consequently developed this way would lead to its account as “a system of eternal truths” (p. 177). That strategy brings us to the insoluble paradoxes (see pp. 154–166), whose most deleterious consequence is to treat the majority of our argumentative, justificatory practice as irrational (not yet rational) and to deprive logic of its practical, multi-field dimension. Resisting such a temptation is, again, a characteristic motif of Wittgenstein’s investigation.

4 Conclusion

While Toulmin’s work in *The Uses of Argument* being original and self-standing, the ideas presented in it had been developed for many years and were the effect of many discussions that Toulmin participated in and had been shaped under the influences of what Toulmin regarded as the most compelling. Understanding such influences might substantially contribute to the understanding of Toulmin’s overall philosophical account. The above discussion shows that the most inspiring and persistent impact came from Wittgenstein, despite the fact that Toulmin does not commit himself to strictly sticking to Wittgensteinian ideas (some of them overlap those of Austin or Ryle). While drawing on Wittgenstein’s method of philosophizing, and having it as background, he was yet free to put forward an account of the problems that is autonomous and inventive; nevertheless, that influence is clearly discernible and possible to be pointed out. This begs the question: Why did Toulmin mention Wittgenstein only once in *The Uses of Argument*, in the “Conclusion”, and as if in the cursory? Why, at the same time, did he not virtually mention any books on jurisprudence and the common law, even though the jurisprudential

analogy is declared to be constitutive for his thinking about arguments? It seems that, in *The Uses of Argument*, Toulmin simply referred only to the books that he directly discussed in his book. Although the answer remains rather in the sphere of conjectures, that tentative one sounds reasonable.

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