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Reading Wittgenstein Between the Texts

by Marco Santoro, Massimo Airoldi, Emanuela Riviera



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Reading Wittgenstein Between the Texts

Marco Santoro, Massimo Airoldi, Emanuela Riviera *

Sharing the "historicist challenge to analytic philosophy" (Glock 2006) we investigate the philosophical production (and, to a lesser extent, some non-philosophical works as well) on Ludwig Wittgenstein from a distant reading perspective. First, we provide a description of the "Wittgensteinian field" by analyzing several data provided by the Philosopher's Index, an electronic bibliographic database especially devoted to philosophy. Then we analyze these data by using statistical tools (such as for example topic modeling) and we interpret the results historically and sociologically, along the lines of Bourdieu (1988) on Heidegger, Lamont (1992) on Derrida, Gross (2006) on Rorty, and Collins (1999) on the whole philosophical tradition.

> My work consists of two parts: the one presented here plus all that I have not written (L. Wittgenstein)

In this paper we will investigate the philosophical production (and, to a lesser extent, some non-philosophical works as well) on Ludwig Wittgenstein—henceforth LW—from a distant reading perspective (Moretti 2000, 2004 and 2013; but see also the more sociologically oriented Bennett 2009). Our aim is that of focusing on works *about* Wittgenstein, rather than on Wittgenstein's own philosophical work. There are two reasons why our work can be considered a case of distant reading. First, we take a certain 'distance' from Wittgenstein, our object of investigation. Second, we do not closely read the texts we investigate, but rather we attempt to reconstruct some of their aggregate properties. Methodologically, this article lies within the sociology of philosophy, based on the analysis of bibliographical data (McKenzie 1986, Santoro and Gallelli 2016, Gerli and Santoro 2018).

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There's no doubt that Wittgenstein is a central figure in 20th-century philosophy, even though his place and role in contemporary *analytic* philosophy has considerably declined in the last decades (Hacker 1996; Tripodi 2009). Moreover, qua social scientists, we are interested in Wittgenstein's work because we consider it to be relevant for the social sciences (think for example of the cases of sociology and anthropology) (Winch 1959; Saran 1965; Giddens 1976; Porpora 1983; Bloor 1997; Das 1998; Pleasants 2002; Rawls 2008). Currently, the influence of LW is also visible in social theory and, in particular, in the sociology of scientific knowledge, ethnomethodology, and practice theory (Bloor 1973, 1983; Phillips 1977; Coulter 1979; Lynch 1992, 1993; Schusterman 1998; Schatzki et al. 2001; Stern 2002; Kusch 2004; Bernasconi-Kohn 2007; Sharrock, Hughes, and Anderson 2013). Arguably, something similar can be said for other fields *outside philosophy*: in fact, the empirical assessment of this conjecture is one of the aims of the present article. Finally, it is also worth noticing that the richness and complexity of LW's publishing and editing history (Kenny 2005; Erbacher 2015) make Wittgenstein a strategic case study for research on cultural production and postmortem consecration, two major topics in contemporary sociology of cultural life (Heinich 1990; Santoro 2010; Fine 2012).

The paper is divided into three main sections. First, we briefly deal with some preliminary issues concerning LW as an author and the availability of his philosophical works during time. Second, we present our data: bibliographic data drawn from the *Philosopher's Index*, an electronic bibliographic database entirely devoted to philosophy. This is the main section of the paper, and the longest one, in which we attempt to describe the data with the aid of some statistical tools. Third, we provide some provisional explanations and interpretations of the results: in particular, we will focus on the issue of the international circulation of LW's ideas (Bourdieu 2002).



1. The structure of LW's philosophical work and the philosophical field

The question "What is a work by Wittgenstein?" (Schulte 2006) is not only appropriate; it is almost inevitable, and this is especially true for the kind of analysis put forth in this article. Works on LW are chronologically intermingled with Wittgenstein's own philosophical work, most of which was made available posthumously: during his life Wittgenstein published 25,000 words of philosophical writing, including a book (the *Tractatus Logico-Philosophicus*), a caustic book review, and a very short conference paper he never delivered; however, the writings that he left unpublished played a major role in the reception of his work, similarly to other 20th-century cases as Husserl and Gramsci.

Approximately, LW's *Nachlass* contains three million words (i.e., more than 20,000 pages), and only one third of it has been printed and published as a separate work. However, since a large part of this material consists of early versions and rearrangements, it seems reasonable to argue that considerably less than 75% of the *Nachlass* has still to be made available.

The history of the publication of LW's work is less linear than it may appear from the figures above. Consider, first of all, that the publication of the posthumous works required substantial editorial decisions, which were the results of the negotiation between several actors: the literary executors (G.E.M. Ascombe, R. Rhees, and G.H. von Wright), publishers, collaborators, and so forth; moreover, new materials—such as manuscripts, letters, lectures—entered the scene; they were translated from German, and this operation required a preliminary interpretation and 'manipulation'; new collective actors were also involved, such as departments (e.g., the Cornell Department of Philosophy, which owned a copy of all materials, and the University of Bergen, which bought and digitized them, and so on); in the meantime, editing conventions and publishing technologies also changed, asking for new solutions.

Most part of the *Nachlass* was extensively edited, often with little or no indication of the relationship between the source texts and the published material (at least till what Erbacher calls the "later rounds of editing Wittgenstein's *Nachlass*"), opening the door to debate about the real content, form, composition and structure of LW's philosophical writings. Therefore LW's work is not something fixed, established, and crystallized, and its edition and publication is

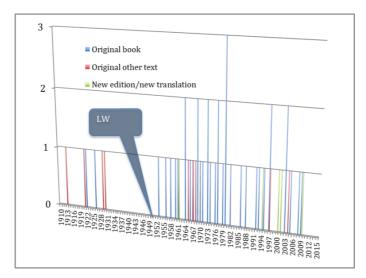


Fig. 1. LW's Nachlass. Legenda: new edition/translation only in English.

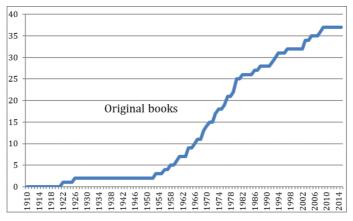


Fig. 2. A cumulative work, in published books (1922-2015).

part of a political and intellectual game, in which LW qua author and qua person was introduced (i.e., read, commented, criticized, contradicted, supported, refined, developed, interpreted, canonized). This operation lasted almost seven decades after his death, and distortions and misunderstandings played a central role in it. As Peter Hacker once remarked: "His [LW's] ideas may be influential through distortion; those who see themselves as his successors and disciples may propound ideas which they wrongly attribute to him, but the impact and fruitfulness of these distorted ideas may be of the first importance, and may well owe their emergence to the writings whose distortions they are" (Hacker 1996, 2). Of course, this mechanism is not peculiar to the reception of LW (see, for example, Bourdieu 2002). In a sense, LW's work—once published—has fostered (or perhaps even generated) *philosophical problems*, the kind of problems he himself tried to solve (or dissolve) during his life.

As we will show in the next section, LW's work prompted a whole 'industry' within philosophy, an industry made of people, articles, books, journals, conferences, associations, academic positions, fellowships, and so on. Our research focuses on this industry, which we conceptualize in Pierre Bourdieu's terms as a *field of cultural production* (or better: as a subfield located at the intersection of other fields, including philosophy as an academic discipline). Let us quote Bourdieu at length:

The space of literary or artistic position-takings, i.e. the structured set of the manifestations of the social agents involved in the field—literary or artistic works, of course, but also political acts or pronouncements, manifestos or polemics, etc.—is inseparable from the space of literary or artistic positions defined by possession of a determinate quantity of specific capital (recognition) and, at the same time, by occupation of a determinate position in the structure of the distribution of this specific capital. The literary or artistic field is a field of forces, but it is also a field of struggles tending to transform or conserve this field of forces. It follows from this, for example, that a position-taking changes, even when the position remains identical, whenever there is change in the universe of options that are simultaneously offered for producers and consumers to choose from. The meaning of a work (artistic, literary, philosophical, etc.) changes automatically with each change in the field within which it is situated for the spectator or reader. (Bourdieu 1993, 30)

In Bourdieu's view, we cannot understand any work of philosophy (but also

of art, literature or science) unless we situate it in its multifaceted intellectual and practical context. History of philosophy is not a grand summit conference among great philosophers. Our understanding of Descartes, Leibniz, and the great philosophers depends on our understanding of such contexts, and the meaning of philosophical works changes as the contextual "points of reference" move. Such "relationality" and "embeddedness" raise important interpretive questions. As Bourdieu remarked:

One of the major difficulties of the social history of philosophy, art or literature is that it has to reconstruct these spaces of original possibles which, because they were part of the self-evident givens of the situation, remained unremarked and are therefore unlikely to be mentioned in contemporary accounts, chronicles or memoirs... In fact, what circulates between contemporary philosophers, or those of different epochs, are not only canonical texts, but a whole philosophical doxa carried along by intellectual rumour—labels of schools, truncated quotations, functioning as slogans in celebration or polemics—by academic routine and perhaps above all by school manuals (an unmentionable reference), which perhaps do more than anything else to constitute the 'common sense' of an intellectual generation. (Bourdieu 1993, 31-2)

This background information has not merely a semiotic import; it is institutional and material as well. It includes "information about institutions—e.g. academies, journals, magazines, galleries, publishers, etc.—and about persons, their relationships, liaisons and quarrels, information about the ideas and problems which are 'in the air' and circulate orally in gossip and rumour" (Bourdieu 1993, 32). So that the intellectual product is created not only by the author, but also by the field of knowledge and institutions.

In what follows we will describe the 'Wittgensteinian field'. This is just a first assessment of a more complex social and intellectual world (an 'intellectual microcosm', as Bourdieu would put it), whose boundaries, dimensions, and structure would require further analysis and data.



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2. Sources and data

Our dataset has been selected from the *Philosopher's Index*, a specialized archive that is possibly the best available source to focus o, in order to analyze the international philosophical production (which is the result of several philosophical subdisciplines, rather than of a single discipline). On the *Philosopher's Index* webpage, you can read as follows: "This premier bibliographic database is designed to help researchers easily find publications of interest in the field of philosophy. Serving philosophers worldwide, it contains over 650,000 records from publications that date back to 1902 and originate from 139 countries in 37 languages. This ready source of information covers all subject areas of philosophy and related disciplines" (https://philindex.org/).

From this archive we selected all the records containing the tag 'Wittgenstein' in the field TITLE, within a time span from 1951 to 2015. The selected dataset includes 4,209 records, which are our units of analysis. The Philosopher's Index claims to provide a "comprehensive coverage", including "articles from over 1,750 Journals and e-Journals, Books, e-Books, Dictionaries and Encyclopedias, Anthologies, Contributions to Anthologies, Book Reviews". Nonetheless, the dataset is inevitably biased, for the more peripheral publications (such as for example the Italian ones) are less represented. More in general, as is obvious, not every philosophical journal published in the world is indexed. This means that our dataset can be seen at best as a non-random sample of documents related to LW and the few other philosophers that we take into account for the sake of a compariso. It is a sample because of the inevitably incomplete nature of the original archive we are working with, but also because of the highly restrictive criteria we have used in selecting our units of analysis. It is apparent that an article or a book can deal with Foucault or Wittgenstein without mentioning them in the title. So, our dataset is far from approaching the universe-what Franco Moretti aimed to do when he studied, for example, the Victorian novel (Moretti 2013). At the same time, we would argue that our criteria, exactly because they are so restrictive, may capture better than others what we are looking for, i.e., a sample of documents representing the *public* impact LW and other authors had and still have on the cultural production of professional scholars who write on academic journals and established book series.

Our sample, however, is also-let us stress this point too-*not random*, because there are some biases concerning the selection of journals, languages, and countries.

3. The 'Wittgensteinian field': a first assessment

Of course, the contents of a work (as an *opus operatum*) are inside the work itself, and they wait for being discovered. This is common wisdom in the humanities, deeply embedded in education and research practices, as well as in a wide array of institutions. But is it the only way to address philosophy as both a form of knowledge and a tradition of texts and ideas? In a sense, philosophy as a disciplinary practice can be interpreted as a struggle to determine the meaning of philosophical works, or works with philosophical potentialities (such as for example films). Books like *The Conflict of Interpretations* (Ricoeur 1967) or still earlier *The Contest of Faculties* (Kant 1798) make this view explicit even in their titles (see also Read and Lavery 2011). Randall Collins developed a whole "sociology of philosophies" moving from the simple idea that

Intellectual life is first of all conflict and disagreement [...] the forefront where ideas are created has always been a discussion among oppositions [...] Not warring individuals but a small number of warring camps is the pattern of intellectual history. Conflict is the energy source of intellectual life, and conflict is limited by itself. (Collins 1999, 1)

Wittgenstein himself moved in his early work from a critical engagement with two of his contemporaries, Frege and Russell, and all his philosophical work has been said to consist of critical "remarks" on other thinkers—from Augustine to Frazer—in order to avoid dogmatism (Anscombe 1969, 373; Rothhaupt 2010, 51; Kuusela 2008). In LW's own words: "Philosophy is a battle against the bewitchment of our intelligence by means of language" (Wittgenstein 1953, 109). Indeed, LW was one of those scholars who rarely refer directly to other authors—but this doesn't mean that such authors are not present between the lines of his writings. Moreover, other scholars were present—even physically—in LW's life, when he was developing his ideas.

As is well know, LW himself was not entirely satisfied of the effects of his work, and he had ambivalent feelings about the opportunity to establish something like a "school" (Wittgenstein 1998). However, it seems apparent that he

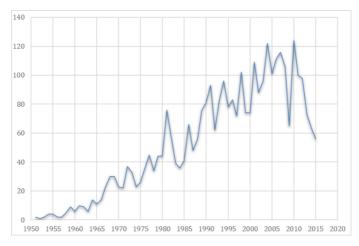


Fig. 2a. Publications on LW by year according to the PI, 1951-2015. Total frequencies.

had a deep and wide philosophical impact not only as a teacher in Cambridge but also as a writer.

The first figure shows a rising trend till 2008 (note the outburst in 1981), followed by an apparent fall in 2009, and a peak in 2010 and since then a continuous decline. But if we check data against the total of indexed publications (Fig. 2b), the picture changes, taking the form of a parabola: an apparent growing trend till 1981, then a decline, interrupted only in 1991 (the climax of the whole series). However, these data have to be read in a comparative way, taking into account other influential authors. Figures 3 and 4 provide a comparison with Husserl, Heidegger, Foucault (chosen as representatives of the socalled Continental tradition), on the one hand, and Russell and Frege (selected as representatives of the so-called Analytic tradition), on the other hand. Among contemporary (or 20th-century) philosophers only Heidegger has fostered *more* discussion and intellectual production than LW since the end of WWII. The intellectual productivity of LW's ideas is dramatically apparent if compared to two of his main sources/influences, Russell and Frege (Figure 3).¹

¹ For the comparison in figure 3 and 4 we have repeated the same operation with the respective

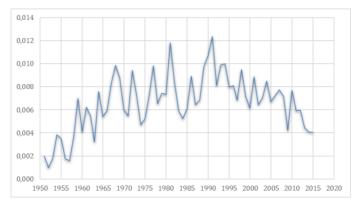


Fig. 2b. The same of 2a but 'weighed' on total publications indexed in PI.

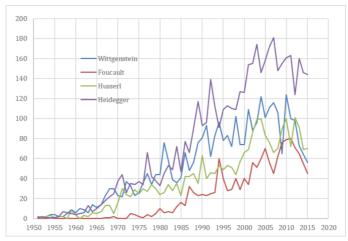


Fig. 3. Literature on Wittgenstein, Foucault, Husserl and Heidegger compared, 1951-2015 (our elaboration from PI).

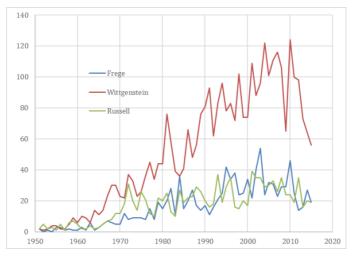


Fig. 4. Literature on Wittgenstein, Russell, Frege compared, 1951-2015 (our elaboration from PI).

3.1. Some general properties of the Wittgensteinian field

Some descriptive statistics will help us to set the scene for the more sophisticated analysis we have conducted using bibliometric tools and topic modeling (Mohr and Bogdanov 2013).

Table 1 offers a first description of the Wittgensteinian dataset according to different publication categories. Book reviews have been excluded: first, PI uses different forms for book reviews; moreover, they might be redundant or a source of potential biases.

The selected dataset includes 3,374 records (77% of it consists of journal articles, 14% of book chapters and 9% of books). The following tables and figures

noun-tags in the camp TITLE (for the sake of precision, we should say at this point these names have been selected after an exploratory analysis of the whole archive, the results of which have generally confirmed what professional philosophers already may suspect in terms of distribution of attention and rankings of presence in current debates). offer some useful information to characterize the philosophical production on LW, according to some relevant variables such as language, publication venue, publisher, author, topic. LW's results are compared with those of different authors.

Publication type	N
Journal Article	2579
Book Review	835
Contribution in book	474
Monograph	317
Dissertation	4
Total	4209

Table 1. Records by publication type.¹ Source: PI, 1951-2015 (Tag 'Wittgenstein' in TITLE).

English is clearly and foreseeably the most used language in the works on LW. This reflects both the dominance of this language in academic and scientific communication and the Anglophone scenario in which LW mainly worked during his life. It is worth noticing that German is the third in this language ranking—much below English and even below Spanish.² Considering that LW was Austrian, that German was his mother tongue, and that almost everything written by LW available in English is also available in German, this gap is quite impressive. Of course, we are dealing with intellectual communities with different demographic sizes. But at the same time the data mirrors the trajectory LW has followed after his death, and indeed even before it (recall he spent a

¹ Of course, in the world there are many more Dissertations on LW (also having W. in their title) than four. This is a clear indicator of the quantitative limits of our source (a standard source for professional philosophers, anyway). Also Monographs on LW are more than those indexed in the PI-a comparison between the latter and a local (i.e. Italian) bibliographical commercial database as Ibs would suffice to prove this. At the same time, it is arguable along these same lines that nothing minimally relevant—published not only in English but in any language or in recognized international journals—can miss being indexed in this archive. This is our working assumption, anyway, at least at this stage of analysis.

 $^{\rm 2}~$ The Spanish philosophical production on LW, accounting for the 7,3% of the total—247 titles—is something to be explored carefully, we would like to suggest, much more than we are able to do here.

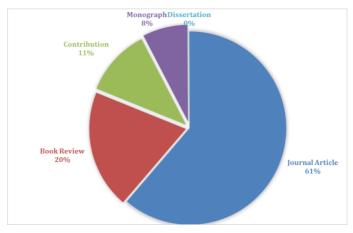


Fig. 5. Percentage distribution of records by publication type.

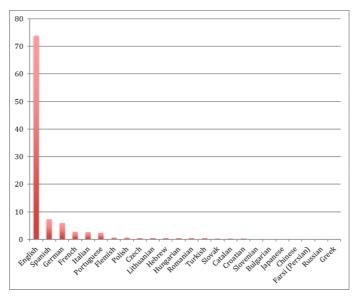


Fig. 6. Distribution of records by language (percentage).

few weeks in his last living years at Ithaca, the small town where Cornell University is located, hosted by his former student and friend, Norman Malcolm). It was through his American reception—mediated by Carnap and later by Malcolm (Tripodi 2009)—that LW moved from the highly prestigious but relatively limited British (or better: Oxbridge) environment to the global scenario, in the same period in which American philosophy was becoming more and more central and predominant (Kuklick 2001).

3.2. Publishers

As emphasized by the sociology of science and knowledge, journals and publishers play a central role in the reception processes and the circulation of ideas. Not only are they responsible for the material venues (the book as a vehicle of texts and ideas) but also for *visibility* and *retrievability* (Boschetti 1985; Clemens et al. 1995; Fleck et al. 2018; Sapiro, Santoro and Beart 2019). In the case of LW's writings there exists a long lasting pattern—Basil Blackwell as the main publisher for the English editions, and Suhrkamp for the German ones (with the main exception of the *Tractatus*, originally published by Routledge).

What about texts not *by* LW but *on* him? Tables 2 and 3, which respectively refer to journals and publishers, provide a rough description concerning the structure, the institutional character and the geography of the publications. Let us single out some features of this description:

As shown in Table 2, there is a great dispersion among many different journal sources (the total amounts to 616) with a limited number of records each (more than 250 have just one publication on LW; average number of publications for each source is 3.5).

2 THERE is a high concentration of records in just one source, i.e., *Philosophical Investigations*, a quarterly peer reviewed journal established in 1978 with the aim of publishing work on LW. *Philosophical Investigations* seems to work like a 'school journal': nowadays it is indeed the official journal of the British Wittgenstein Society, a scholarly association founded in 2008 which is currently hosted by the University of Hertfordshire (UK).

3 THERE are other, more specialized 'sources' devoted to LW (e.g., the *Nordic Wittgenstein Review* (NWR), the official journal of the Nordic Wittgenstein

Society (NWS); or *Wittgenstein Studies* (WS), a journal founded in 2010 by the International Ludwig Wittgenstein Society and "designed as an annual forum for Wittgenstein research").

 $\begin{array}{l} \textbf{4} \quad M\!\mathit{IND}, \text{ the flag journal of Oxford-Cambridge philosophy (i.e. the philosophical tradition on which LW had the stronger impact in the fifties) occupies "only" the 12^{th} position. \end{array}$

5 NOTICE that a German-speaking journal occupies the fifth position in the ranking: this seems to indicate the persistence of a specifically Austrian tradition of philosophy with its special identity.

6 AMONG the sources with at least 20 publications we find two Indian journals, two journals from Israel, one from Portugal, and one from Canada. Seventh, in the list we find a journal not specifically devoted to philosophy, namely, *Religious Studies*.

Table 3 shows the distribution of publications on LW according to their publishers (data are referred to books and book chapters). Clearly, there is no strict correspondence between the structure of LW's published work (mainly based on two publishers, Blackwell and Suhrkamp, as said above) and the works on him. Blackwell (6% in both the UK and US) is the fifth in the ranking, after Routledge (an international group based in London), Cambridge UP and above all Rodopi (whose NL/USA branches account for 7,5% of the total). LW's German publisher, Suhrkamp, is not a benchmark for scholars working on LW. Oxford University Press comes after Cambridge University Press (5,1%, including Clarendon). As Table 3 shows, the most frequent publisher is the young German publishing house Ontos Verlag, accounting for 13,6% of the entire dataset. Small, specialized publishers such as Open Court, Thoemmes and Humanities Press are comparatively important venues. Stricto sensu, University Presses are a minority in the list-a datum which is, however, difficult to interpret as such (rather than in a comparative way). As to national distribution: beyond Anglo-American publishers, German language is well represented; small countries such as Norway and the Netherlands, but even larger countries that are less central in the international philosophical establishment such as Spain, figure in the top list.

Source	Ν	%
Philosophical Investigations	164	5.5
Synthese. An International Journal for Epistemology,	53	1.8
Methodology and Philosophy of Science		
Philosophy. The Journal of the Royal Institute of Philosophy	49	1.6
Inquiry. An Interdisciplinary Journal of Philosophy	40	1.3
Grazer Philosophische Studien. Internationale Zeitschrift	38	1.3
für Analytische Philosophie		
Southern Journal of Philosophy	33	1.1
Philosophical Quarterly	32	1.1
Indian Philosophical Quarterly	31	1
Dialogue. Canadian Philosophical Review	31	1
International Philosophical Quarterly	29	1
Philosophy and Phenomenological Research	28	0.9
Mind	28	0.9
Analysis and Metaphysics	27	0.9
Philosophy and Literature	25	0.8
Philosophical Review	25	0.8
Revue Internationale de Philosophie	25	0.8
Journal of Indian Council Of Philosophical Research	23	0.8
Revista Portuguesa de Filosofia	22	0.7
Metaphilosophy	22	0.7
Deutsche Zeitschrift Für Philosophie	21	0.7
Philosophia. Philosophical Quarterly of Israel	21	0.7
Religious Studies	20	0.7
Iyyu. The Jerusalem Philosophical Quarterly	20	0.7
Philosophy Today	20	0.7
American Philosophical Quarterly	20	0.7
Total Sources (N = 616)	2290	

Table 2. Distribution of records by source.¹

 $^1\,$ Sources may be academic journals (above all), book series, or multi-authored books (such as handbooks, companions, and so on). The total amounts to 616 different sources (N = 2990; reported only sources for 20+ occurrences).

Publisher	N	%
Ontos Verlag (Germany) ¹	108	13.6%
Rodopi (NL) ²	60	7.5%
Routledge (UK/International)	59	7.4%
Cambridge Univ Press (UK)	53	6.7%
Blackwell Publishing* (UK)	48	6.0%
Hölder-Pichler-Tempsky (Austria) ³	22	2.8%
Clarendon Press (Oxford, UK)	21	2.6%
Oxford Univ Press (UK/International))	20	2.5%
Continuum International Publishing Group (USA) ⁴	18	2.3%
University of Chicago Press (USA)	17	2.1%
De Gruyter (Germany)	15	1.9%
Springer (Germany)	15	1.9%
Garland (NY, USA) ⁵	14	1.8%
Ed Univ Castilla-La Mancha (Spain)	14	1.8%
MIT Press (USA)	13	1.6%
Rowman & Littlefield	13	1.6%
Humanities Press (USA) ⁶	12	1.5%
Suny Press (USA)	12	1.5%
Open Court (USA) ⁷	11	1.4%
Wittgenstein Archives (Berge, Norway)	11	1.4%
University Press of America (USA)	10	1.3%
Thoemmes (UK) ⁸	10	1.3%
[]		
Total	795	100.0

Table 3. Publications by publishers (at least 10+).

¹ Founded in 2003, Ontos has been publishing some 50 titles and three journals of international repute each year in the fields of philosophy and mathematical logic. The publishing house's backlist comprises more than 300 publications (in 23 book series), 90% of which contain English content. It has been acquired by De Gruyter in 2013, even if its founder Rafael Hüntelmann continues to manage its portfolio.

3.3. Who are the Wittgensteinians?

First of all, how many are they? Our dataset shows 1,863 names, 1,255 of which are authors of just one publication (this means that only the 33% of the authors have written more than occasionally on LW). Only thirty authors (1.6%) have ten or more than ten publications, accounting for 11.7% of the total number of publications (415 out of 3547). Their names (see Fig. 8) are familiar ones to those who study Wittgenstein and, more in general, analytic philosophy and its subareas: epistemology, logic, philosophy of language, philosophy of mind,

² Rodopi was founded in 1966 in Amsterdam; it is an academic publishing company specialised in humanities and social sciences with offices in the Netherlands and the United States. Rodopi publishes over 150 titles per year in around 70 peer-reviewed book series and journals. Although the main language of publication is English, the multilingual list includes Germa, French, and Spanish. The backlist contains around 4,000 titles. In 2014 Rodopi was taken over by the international academic publisher Brill.

³ The same publisher of LW's children dictionary of 1926.

⁴ Continuum International Publishing Group was an academic publisher of books with editorial offices in London and New York City. Continuum International was originally created in 1999 with the merger of the Cassell academic and religious lists and the Continuum Publishing Company, founded in New York in 1980. The academic publishing programme was focused on the humanities, especially the fields of philosophy, film and music, literature, education, linguistics, theology, and biblical studies. Continuum published Paulo Freire's seminal *Pedagogy of the Oppressed*. In July 2011 it was taken over by Bloomsbury Publishing. As of September 2012, all new Continuum titles are published under the Bloomsbury name (under the imprint Bloomsbury Academic).

⁵ Founded in 1969 by Gavin Borde, the New York firm initially reprinted 18th-century literary criticism; by the late 1970s, its chief business was academic reference books, although its facsimile and reprint editions were also popular with niche markets. The firm began publishing scientific textbooks in 1983. Among textual critics, Garland is best known as the publisher of Gabler's genetic edition of Joyce's *Ulysses* (1984). In 1997 Garland was acquired by Taylor & Francis, and is now known as Garland Science Publishing.

⁶ No information on the web, but it seems it published in 1980 an edition of LW's *Tractatus*.

⁷ The publisher of the *Collected Works of Carnap* and of various books on scientific and analytic philosophy (e.g. Tait 1997), it is also known for a successful series in Philosophy & Popular Culture. More important, it is the publisher of *The Library of Living Philosophers* (LLP), which commenced in 1939 with a volume on John Dewey, and is "an unparalleled series that has made an advancement to the understanding of philosophy through rational debate." (from the official website). Among the authors G.E. Moore and Russell, but not Wittgenstein (and never will be, as the series is on *living* philosophers).

* Established in Bristol, it became an imprint of Continuum, and currently is part of Bloomsbury). It had a series on "Wittgenstein Studies", where also Rhees published among others.

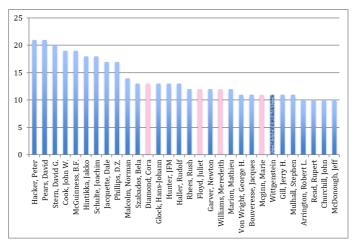


Fig. 7. Authors of publications on LW (at least 10).1

ethics, aesthetics and even cognitive sciences. A few social properties of this more restricted population are apparent at first sight: they are predominantly male (there are just four women), white (no black, no colored people), mainly located in the UK (at least eight of them) and the US (at least 11), but there are also one Canadia, a few Continental Europeans (from Germany, Austria, France, Hungary) and two Finnish authors.

Names in Fig. 7 are representative of the scholarship on LW since the 1950s. There are authors born in the 1910s as well as authors born in the 1960s, authors dead some years ago as well as living authors, students or pupils of LW (such as Malcolm and Rhees) and students of his students or pupils (such as Phillips or Hintikka). A temporal division of the same dataset is presented in Fig. 8. Looking at these data longitudinally you can have a sense of the growth of an industry: the growth occurred is impressive, as the histograms show.

Dividing the author's population into decades, some patterns emerge. In the first period (two decades, 1951-70, N = 162) the more productive author has just

¹ Wittgenstein appears misleadingly in the list because there are works in which Wittgenstein is the author and "Wittgenstein" occurs in the title.

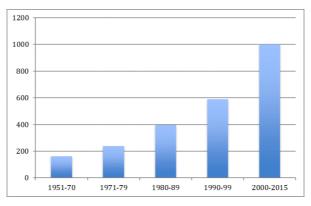


Fig. 8. Number of authors publishing on LW, by period.

	N max publication per author (N)	N with more than 3	% authors with just one publication (N)
1951-70	4(1)	1	76 (162)
1971-79	6 (1)	2	78 (237)
1980-89	8 (2)	17	74 (397)
1990-99	12 (1)	25^	75 (590)
2000-15	11 (2)	76	73 (1000)

TAB. 4. Ratio authors/publications, by decade	TAB. 4	4. Ratio	authors/	publications,	by decade
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^ not including LW himself

4 publications (Engel), followed by 7 authors with 3 publications (among them von Wright, Moore, Rhees and Malcolm), 31 with 2 publications (including Hintikka and Winch) and 123 with just one publication. In the decade 1971-1979 it is apparent a trend of increasing concentration and hyper-productivity among a few authors (the highest point is in the 1990-99 decade when a single author is responsible for 12 publications, i.e., Pears). A further pattern is the following: the percentage of people publishing just one text remains constant (around 15%) for the entire period.

Some further information on the social structure of this intellectual microcosm is available in Fig. 9, where we diagrammatically represent the networks

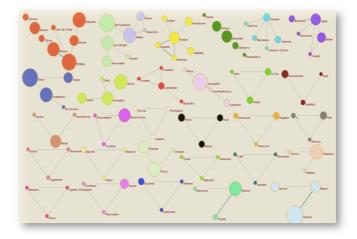


Fig. 9. Networks of co-authorship among authors publishing on LW. The size of the nodes is proportional to the number of publication ties.

of co-authorship linking selected subsets of our population of Wittgensteinians. This is just an essay of a research line we are not pursuing in this paper but for which we would make a plea, i.e., the social network analysis of intellectual communities. The figure includes only systems of at least three linked authors (in other words, couples are not included in the figure). As the figure shows, the more common structure is the complete triad (three authors publishing together, or three couples). There are instances however of the so-called 'impossible triad' (two couple of authors with one of them acting as a 'broker'). The largest network comprises seven nodes, including reference authors in this microcosm, such as Malcolm, Moore, Rhees, Winch, and Phillips.¹

¹ The rationale behind this kind of social analysis is that different network configurations account for different intellectual outcomes (Collins 1999; de Vaan et al. 2015). We don't pursue this line of investigation in this paper however, and we are just happy to suggest this research opportunity.

4. Mapping topics and modelling topics: the symbolic space of Wittgensteinianism

4.1. A data-driven exploration

In the previous section we attempted a sociological reconstruction of the Wittgensteinian research field from 1951 to 2015. We identified a few social properties and some structural features, as well as some patterns of change and continuity. However, we said nothing about the symbolic dimension of this field, i.e., about the identity and structure of the ideas circulating across it. This is the main aim of the present section, where we show the main results of two distinct research paths.

The first aim is that of identifying the *conceptual map* of the intellectual production on LW: which themes, concerns, and topics do scholars working on LW consider worth investigating? How did these topics change during time? First, we focus on the occurrence of 'subjects' (as reported in the PI), identifying their ranking and temporal trends—at least for the most frequent ones. Second, we search for relationships and patterns. Methodologically, we have been looking for *patterns* of co-occurrence among (a) subjects and (b) words featuring in titles and abstracts (on the methodology of scientometrics see Callo, et al. 1983; Callo, Law, Rip 1986; Whittaker, J. 1989; Leydesdorff 1991; Kreuzma, H. 2001; Gerli and Santoro 2018).

The second research line is the application of so-called 'topic modeling' (TM) to this set of abstracts, in order to identify textual patterns. TM is an increasingly popular statistical technique which allows the fast exploration of large amounts of text data (see Mohr and Bogdanov, 2013; see also Airoldi 2016 for an application to social media). In our study, we apply Latent Dirichlet Allocation (LDA)—that is, the most common and simple topic modeling algorithm (DiMaggio et al., 2013)—to the abstracts in English that are present in our dataset (N = 1650). This technique has already been used for this purpose (McFarland et al., 2013; Jiang et al., 2016). In plain words, LDA discerns the semantic structure of a corpus of documents on the basis of patterns of word co-occurrences (DiMaggio et al., 2013). Its key assumption is that the analyzed corpus of documents features a number k of distinct topics. In practice, the algorithm automatically identifies sets of words statistically associated to the k topics (each

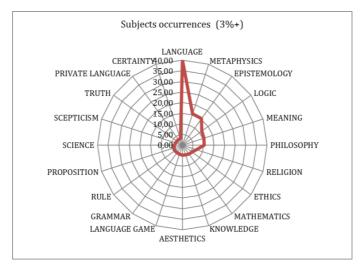


Fig. 10. Subjects' occurrences (% on the total records; min. 3%).

word can appear in more than one topic). The, these coherent lists of words can be inspected and interpreted ex post. After qualitatively inferring the logic or the meaning underlying each topic, it is possible to analyze the topics' distribution in the corpus and relate it to external variables. This has been done by considering the year of publication, as well as a field-level variable, that is, the number of different journals publishing about Wittgenstein each year.¹

A methodological remark is in order here. To explore the semantic structure of a research field devoted to LW, some knowledge is required about the recurring topics in LW's work. As is well know, there is not just *one* 'Wittgenstein' but (at least) *two*: the *Tractatus* and the *Philosophical Investigations* imply two different philosophical approaches and, so to say, belong to two different philosophers. This simple bipartition can be criticized, for example by introducing a middle period, preparatory of the latter (Thompson 2008). We could

¹ The same procedure could be implemented with other external variables as well, e.g. number of authors by period, distribution of languages of publication, etc. For now we just present some preliminary and general results of our analysis.

certainly move from this picture (even the most sophisticated one) searching for its 'reflection' in the literature on LW. *But this would entail a drastic reduction of the value and potentialities of our research methodology*. Adopting a *distant reading* approach means, in our view, to sidestep the results of previous (close) readings and to look for fresh information collected (but not immediately visible) in aggregate data. In other words, instead of searching in our data a confirmation of what we already know, we should consider the data an original source of new knowledge (this is what we mean by 'data-driven research').

4.2. Mapping topics

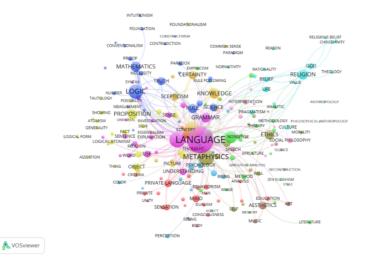
The number of recorded subjects included in our dataset is impressive:¹ we have collected 1,496 items for a total of 13,965 occurrences. As Fig. 10 shows, dispersion is only relatively high, as the most frequent subject accounts for 40% of the total of the publications in our dataset, which seems a relatively high ratio.

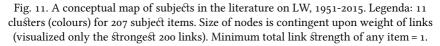
It is not surprising that this subject is LANGUAGE. Maybe more surprisingly, the second more frequent subject is METAPHYSICS (15,6%)—the kind of intellectual endeavor against which Wittgenstein was fighting. EPISTEMOLOGY, LOGIC, MEANING are the topics everyone would expect to find. Less foreseeable are perhaps RELIGION and ETHICS—subjects about which there has been much attention in most recent years. Relatively low in the ranking are topics strongly associated with Wittgenstein and his thought—and even to his iconic image²—such as RULE, LANGUAGE GAME, PRIVATE LANGUAGE and even PROPOSITION.

Fig. 12 maps the topics according to the strength of their co-occurrence. The more two topics are associated with one another, the greater the link on the map (the map measures the 'Total link strength'). Frequently associated topics form colored clusters. Distance is relative to the strength of association (closer items co-occur more frequently).

¹ After excluding book reviews, only four records lack subjects.

 $^{^2}$ On the notion of an "iconic intellectual" see Bartmansky (2012). There is no doubt LW has become such an icon—a process started already in his life. See for an early instance of public "iconization" Malcolm (1958) and for a recent exemplary demonstration Nedo (2013), whose subtitle reads as "a biography through images".





As suggested, Fig. 11 is a map representing the conceptual structure of Wittgenstein scholarship, the network of concepts and themes he has addressed in his work *as it is made available to his readers and scholars*. Some clusters are easily identifiable (Language, Religion, Logic, Psychology, Aesthetics, etc.). The most interesting thing is indeed the network of concepts that create clusters. So we can see that *culture* and even *anthropology* are strongly associated with *religion* and other "theological" topics, *rule* and *rule following* are linked with logico-mathematical topics (the blue cluster), and so on. To make things more readable, we present the data disaggregated by three periods, an early one (1951-1970), a middle one (1971-1990) and a more recent one (1991 to 2015). The results are presented in the three following maps.

Comparing the three figures a few elements emerge: (a) the persisting centrality of 'language' as a subject; (b) a pattern of increasing connectivity among the subjects (i.e. a reduction of the subjects' dispersion, which is still visible in

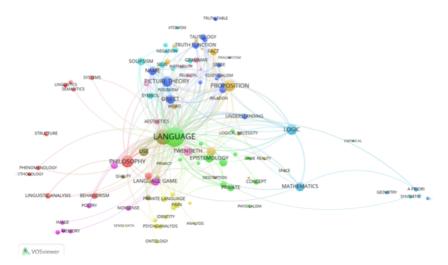


Fig. 12. A conceptual map of subjects in the literature on LW, 1951-1970 (threshold co-occurrences: 10; minimum cluster size: 5).

Fig. 12); (c) the rise of 'metaphysics' and 'mathematics' as central subjects in the period 1971-1990 and their relative decline in the following period; (d) a focus shift toward subjects such as 'ethics', 'aesthetics', 'religion' and 'knowledge'¹ in the last period (1991-2015). These are just very preliminary and still impressionistic results we can infer from an inspection of the three maps.

A way to read these maps is to compare their structural or formal features, e.g., to compare the total number of nodes (subjects) and the total number of clusters.² In the period 1951-70, these numbers were respectively 149 and 10. In the period 1971-90 they were 292 and 18. In the last period, 1991-2015, they were 466 and 20. This suggests that the general trend was a growth in both subject

¹ Possibly due also to the growing centrality of Wittgenstein in the "sociology of knowledge" after Bloor (1973, 1983).

² The data concerning the number of clusters should be taken with some caution because it might depend on several factors, which do not necessarily reflect the 'objective' structure of the field.

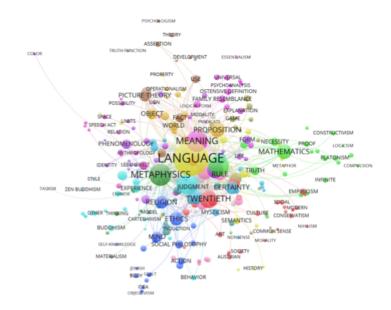


Fig. 13. A conceptual map of subjects in the literature on LW, 1971-1990 (threshold co-occurrences: 10; minimum cluster size: 5. Links in the map are the strongest 400).

number and subject clusters, but also a reduction of the dispersion of subjects across clusters (that is, clusters have become more internally articulated and therefore more complex).

4.3. Modelling topics

In this section we apply topic modeling, a statistical technique that allows the fast exploration of large amounts of text data (Mohr and Bogdanov 2013). First, we pre-processed our corpus of 1,650 abstracts following standard text analysis procedures (Krippendorff 2013)—e.g. stop-words removal and content lemmatization using R library *tm*. Second, we removed generic academic terms frequently occurring regardless of the discipline (e.g. 'essay', 'book', 'analysis'), aiming to reduce the 'noise' and better highlight the discursive facets of Wittgensteinian scholarship. For this purpose, we employed a customized version of the Academic Word List (Coxhead 2000), obtaining 2,940 terms, and filtered them out together with other frequently occurring and scarcely informative terms in our corpus (e.g., 'Wittgenstein'). Third, we selected a 16-topics LDA solution after different attempts (e.g., k = 15; 20; 10). By selecting k = 16, we have maximized at the same time the ex-post, qualitative interpretability of the resulting topics (DiMaggio et al., 2013) and the statistical accuracy of the model—verified using the R package *ldatuning* (Nikita 2014). The 16-topic solution has been obtained using the R package *topicmodels*, which enabled also the detection of each abstract's 'prevalent' topic. This information has been then used to analyze the distribution of topics over time (see Fig. 15, 16). The authors have jointly labelled and interpreted the 16 topics, based on the lists of the most associated 300 terms.

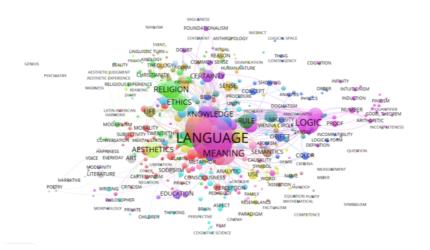


Fig. 14. A conceptual map of subjects in the literature on LW, 1991-2015 (threshold co-occurrences: 10; minimum cluster size: 5. Links in the map are the strongest 500).

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This analysis reveals (a) the fragmentation and dispersion of topics and (b) their weights changing in time. From the inspection of the data (see the Appendix for subtler information and evidence) we suggest this list of topic labels (question marks mean that we had doubts, so that we asked historians of philosophy and Wittgenstein scholars to help us):

- Topic 1 (rules/action)
- Topic 2 (philosophy of mind/psychology)
- Topic 3 (truth or normativity?)
- Topic 4 (metaphysics)
- Topic 5 (mathematics)
- Topic 6 (aesthetics)
- Topic 7 (epistemology?)
- Topic 8 (music?)
- Topic 9 (critical publishing history and metaphilosophy)
- Topic 10 (ethics)
- Topic 11 (religion)
- Topic 12 (practice)
- Topic 13 (Tractatus)
- Topic 14 (phenomenology?)
- Topic 15 (language)
- Topic 16 (LW in the history of ideas)

The three following figures give an idea of these topics' relative weight and their change over time. First, you can notice that at the end of the 1960s both the overall number of publications on Wittgenstein and the heterogeneity of topics sharply increase. There seems to be evidence of a relative decline of topics that used to characterize the very first publications on Wittgenstein (e.g. topic 2, philosophy of psychology, topic 14, phenomenology), while other topics seems constant (e.g. 13 on the *Tractatus*), and new topics are emerging and gaining relative importance: for example, we notice an increasing relevance of rule/action theory (topic 1) and metaphilosophical topics and topics that concern publishing history (topic 9) and historical influence of Wittgensteinian thought (topic 16) (see Fig. 17).

With the aim of understanding better how the structure of the Wittgensteinian field affects the contents of the publications, we have correlated the number of topics per year and the number of publishing journals per year.

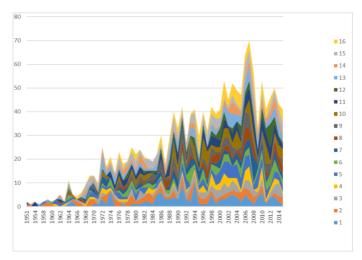


Fig. 15. Topics, 1951-2015, absolute figures.

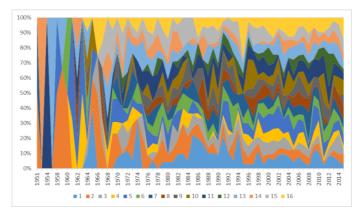


Fig. 16. Topics, 1951-2015, percentages.

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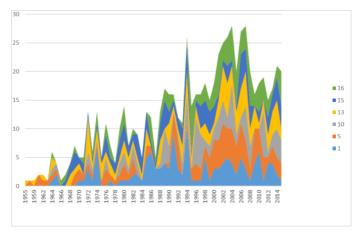


Fig. 17. A zoom on some specific topics of theoretical relevance.

For this purpose, we have focused on a subset of 1,281 journal articles written in English, published in 274 different venues (we didn't analyze monographs, Ph.D. dissertations and other kinds of contributions). The correlation between number of journals per year and number of topics per year is, predictably, very high (0.92). Interestingly, it is even higher than the obvious correlation between number of publications per year and number of topics per year (0.90)—which is partly due to the way in which topic models are calculated. The longitudinal distribution of these three variables is presented in Fig. A4 in the Appendix. The strong correlation between number of publishing journals and number of topics appearing in articles about Wittgenstein clearly suggests that the structure of the Wittgensteinian field has an impact on its symbolic space.



Reading Wittgenstein Between the Texts

5. By way of conclusion: Wittgenstein beyond philosophy

How can the structural changes in content that we have detected be explained from a sociological perspective? Clearly, to understand how the changes in the social structure of the philosophical field and the Wittgensteinian microcosm can account for such variations is the central problem for a sociological reading of the legacy of Wittgenstein. This is indeed the final question of our research, even if for the moment we have to limit ourselves to just a few conjectures.¹

Let us distinguish between *exogenous* and *endogenous* (hypothetical) explanations. The first class comprises the sociological approaches that try to make sense of variations in cultural systems by focusing on elements which do not belong, at least prima facie, to the market, institutions, and socio-structural boundaries. Variations in cultural and symbolic systems are conceived as contingent and independent from variations in institutional systems. This first group of approaches, long dominant in the sociology of culture (see Crane 1992, Griswold 1995, Santoro 2008, Santoro and Solaroli 2016), has been more recently

¹ What follows may be read as a research program for a (historical) sociology of analytic philosophy. For a famed (and in someone's view infamous) predecessor see Gellner (1958), whose analytical strength is compromised by his negative normative judgment of what was at the time a recent and fashionable trend in British academic circles, which he read as a form of elitist idealism: "[A]t that time the orthodoxy best described as linguistic philosophy, inspired by Wittgenstein, was crystallizing and seemed to me totally and utterly misguided. Wittgenstein's basic idea was that there is no general solution to issues other than the custom of the community. Communities are ultimate. He didn't put it this way, but that was what it amounted to. And this doesn't make sense in a world in which communities are not stable and are not clearly isolated from each other. Nevertheless, Wittgenstein managed to sell this idea, and it was enthusiastically adopted as an unquestionable revelation. It is very hard nowadays for people to understand what the atmosphere was like the. This was the Revelation. It wasn't doubted. But it was quite obvious to me it was wrong. It was obvious to me the moment I came across it, although initially, if your entire environment, and all the bright people in it, hold something to be true, you assume you must be wrong, not understanding it properly, and they must be right. And so I explored it further and finally came to the conclusion that I did understand it right, and it was rubbish, which indeed it is." We cite from an interview published in the Ernest Gellner Resource Site at LSE: http://www.lse.ac.uk/researchAndExpertise/units/gellner/Section2.html. A philosopher converted to anthropology and sociology, Gellner had enough philosophical credentials to have his 1959 book Words and Things (the first he published, as a young assistant professor of the Department of Sociology at LSE) prefaced by Bertrand Russell. The book was at the time a critical success also because of the harsh debate it raised. Ryle refused to have the book reviewed in his edited journal Mind, which prompted Russell to start a protest on the pages of The Times.

supplemented by a series of approaches based on the endogenous explanation of cultural life. This means that the sociological approach to culture has abandoned the purpose of explaining culture by referring to extra-cultural factors such as the social structure (DiMaggio 1982), the economics of artistic production (Peterson 1976), the institutional makeup of criticism and dissemination of the arts (Griswold 1987), and so forth. On the other hand, endogenous explanations focus on causal processes that occur *within* the cultural stream: mechanisms such as iteration, modulation, and differentiation, as well as processes such as meaning making, network building, and semiotic manipulation. This new approach has the merit of making culture something more than a merely dependent variable (Kaufman 2004, 336).

Having clarified this distinction (but see *infra* for a further discussion on this point), we can now speculate about at least four tentative ways of accounting for the structure and transformation of LW's scholarship. The following should be regarded as thought experiments, or better, speculations for future work.

5.1. Exogenous explanations

H1: The changing topical structure, i.e., the volume and relative weight of topics, is homological (that is, corresponds) to a changing social structure in the Wittgensteinian microcosm.

To elaborate further on this hypothesis more data is required on the social properties of the Wittgensteinians, i.e., the authors writing on LW (as operatively defined in our study), including the social arrangements of their collaborations, the modes of recruitment, the modes of recognition, the international circulation of texts (papers, articles, books, including translations) and so on. This would also require an investigation of the changing institutional environments in which these scholars have been working: the creation of specialized journals, the launch of book series, the founding of societies and associations such as the Austrian Ludwig Wittgenstein Society (ALWS), active since 1974, the North American Wittgenstein Society (founded in 2000), the British Wittgenstein Society (BWS, 2008) and the Nordic Wittgenstein Society (2008), periodic conferences, and the establishment of scholarly institutions such as the Wittgenstein Archives at the Universities of Cambridge and of Bergen (WAB):¹ these are just the most visible and active institutions or organizations in the Wittgensteinian field.

This first research line would be firmly grounded in the traditions of the sociology of knowledge and the sociology of science (including their more recent development as "the new sociology of ideas", see Camic and Gross 2001), and would ultimately amount to the formation and increasing institutionalization of a specialized research field, with all its social consequences for intellectual and academic life, such as competition, conflict, patterns of alliance, spatial concentration of creativity, and so on (see e.g. Mullins 1972).

H2: The changing topical structure is a consequence of wider changes in intellectual fields, which go beyond the philosophical field and the more specialized microcosm of the Wittgensteinian scholarship.

This second hypothesis requires a wider research frame, capable to capture structure and transformations in circles and microcosms, i.e., fields which are larger than that of philosophy as a discipline (or as a set of research groups). Recall what we said at the very beginning of this paper: qua sociologists we have been interested in studying LW *also* because of his influence on our discipline. But sociology is just one of the disciplines influenced by LW's ideas in the last fifty years (see e.g. Kerr 2005 on theology; Das 1998 on anthropology; Baquero& Moya 2012 on biology; see Hughes 1977 on the social sciences more in general). In order to assess the spread and development of LW's ideas and writings, it is apparent that we cannot limit ourselves to the field of philosophy. This would misrepresent the picture and role of Wittgenstein today. After all, when discussing LW an important question is: Is he only a philosopher? Or maybe, better: Is philosophy nowadays something different from what it used to be at

¹ We can get an idea of the institutional relevance of these scholarly enterprises considering the following description about *The Wittgenstein Archives at the University of Bergen*: "[it] is a research infrastructure and project platform bringing together philosophy, editorial philology and text technology. It is a meeting place for intellectuals, technicians, scholars and students from many different research fields and geographical areas around the world. WAB has been central in the establishing of the new international Wittgenstein journal *Nordic Wittgenstein Review* (NWR) and runs its technical platform, as well as participates in the editing. WAB *has* also been central in the establishing of the new international Wittgenstein book series Nordic Wittgenstein Studies that continues WAB's earlier series Publications from the Wittgenstein Archives at the University of Berge." See http://wab.uib.no/

the time of Wittgenstein? For example: Is the decline of LW in contemporary analytic philosophy the effect of a transformation of philosophy in a direction that LW not only preconized but also fought, i.e. its *professionalization*?¹

As we can read in a popular web source on philosophy (representative, we would suggest, of the common wisdom in the discipline): "[his] style of doing philosophy has fallen somewhat out of favor, but Wittgenstein's work on rule-following and private language is still considered important, and his later philosophy is influential in a growing number of fields outside philosophy" (from *The Internet Encyclopedia of Philosophy* (IEP). In other words, "forgetting Wittgenstein" (Tripodi 2009) may not be the right slogan in order to capture what is occurring in scholarship and more in general in the intellectual debate when you look at *what happens in other fields than philosophy*.

Unfortunately, our main archive (PI) is specialized exactly in this field, philosophy, so it cannot be very useful for us. An alternative source of data—one we are also working upon—is the Web of Science (WoS), founded in the fifties by Eugene Garfield (one of the pioneers in bibliometric studies) and nowadays managed by Clarivate Analytics.²

We therefore did with WoS the same we did with PI, i.e., selected records (=publications indexed in one of the various databases) containing the tag "Wittgenstein" in the title. The total dataset comprises 3,136 records, which we analyzed in 2017 with the standard tools WoS made available to its users. In particular, we explored the distribution of these records by Research Area (an information the indexing service of WoS provides). The results of our exploration confirm that LW has a place also out of the borders of philosophy as a disciplinary endeavor, but also that philosophy (accounting for 67% of the occurrences)³ is possibly still the most important place where LW's ideas

¹ On this see also Santoro (1999) and Marconi (2014).

² Web of Science (previously known as ISI-Web of Science, later operated by Thomson-Reuters, and now part of Clarivate's Web of Knowledge) is an online subscription-based scientific citation indexing service that gives access to several multi-discipline citation databases.

 $^{^3}$ The ranking of RA is the following (data referred to December 2016): Philosophy 67%, Literature 11%, Other arts and humanities 7%, Religion 5%, Social science (general) 5%, Linguistics 5%, History and philosophy of science 3%, Psychology 2,5%. Others follow with percentages below this figure. Recall WoS attributes research areas (RA) references in a not exclusive way, i.e. the same record may have more than one RA.

are debated—which is not the same as saying that it is the most important place where they *circulate* (see Fig. 18 for a comparison with other 20th-century philosophers). We have indeed to acknowledge that Wittgenstein is still a central figure in the philosophical field more than in other fields—his presence in research areas different from philosophy is smaller than that of Rawls and Foucault, even if larger than that of Husserl. There doesn't seem to be a great difference among LW, Quine or even Heidegger. However, it can still be the case that LW's ideas have a different impact on intellectual debates which are not strictly philosophical, even though these ideas are not directly discussed and do not constitute the main topic of such publications: in other terms, they are more resources than objects of discussion.¹

5.2. Endogenous explanations

H₃. Variations in time and space in LW's scholarship, including variations in topics and their relative weight, contingently depend on processes of symbolic production of value, especially in terms of reputation-building and consecration.

LW is possibly one of the most celebrated authors of our times. His reputation goes well beyond the kind of recognition philosophers usually gain. In the following excerpts the reader can find a few exemplary statements about the curious and ambivalent place LW occupies in philosophy.

Ludwig Wittgenstein occupies a unique place in 20th-century philosophy and he is for that reason difficult to subsume under the usual philosophical categories. What makes it difficult is first of all the unconventional cast of his mind, the radical nature of his philosophical proposals, and the experimental form he gave to their expression. The difficulty is magnified because he came to philosophy under complex conditions

¹ A further interesting information we get from WoS is the geographical dispersion of the population of scholars writing on LW. Their distribution according to country (academic location) is shown in figure A3, in the Appendix. The geographical dispersion of the field is worth of being noticed: the expected majority of Anglo-American scholars is confirmed (they account for almost the 40% of the population, see also Garver 1987 and Glock 2008) but this is accompanied by a plurality of geographical standings, ranging from France to Finland, from Spain to China, from Romania to South Korea till Zimbabwe (see for LW's reception in various countries Helgeson 2011; Zhang 2014; Schulte 2003; on the Japanese case see Botz-Bornstein 2003).

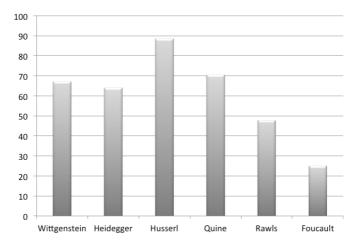


Fig. 18. Publications on selected XX century philosophers with "Philosophy" as Research Area (% on total publications for each philosopher), 1985-2015. Source: WoS.

which make it plausible for some interpreters to connect him with Frege, Russell, and Moore, with the Vienna Circle, Oxford Language Philosophy, and the analytic tradition in philosophy as a whole, while others bring him together with Schopenhauer or Kierkegaard, with Derrida, Zen Buddhism, or avant-garde art. Add to this a culturally resonant background, an atypical life (at least for a modern philosopher), and a forceful yet troubled personality and the difficulty is complete. To some he may appear primarily as a technical philosopher, but to others he will be first and foremost an intriguing biographical subject, a cultural ico, or an exemplary figure in the intellectual life of the century. Our fascination with Wittgenstein is, so it seems, a function of our bewilderment over who he really is and what his work stands for (Sluga 1996, 1).

Although Wittgenstein is widely regarded as one of the most important and influential philosophers of this century, there is very little agreement about the nature of his contribution. In fact, one of the most striking characteristics of the secondary literature on Wittgenstein is the overwhelming lack of agreement about what he believed and why. (Stern 1996, 442).

Wittgenstein is a contested figure on the philosophical scene. Having played an important role in the rise and development of not just one but two schools of analytic philosophy [...] he is for good reasons associated with the analytic tradition. Nev-

ertheless, Wittgenstein's relation to (what we now call) analytic philosophy tended to be somewhat uneasy. [...] In contemporary analytic philosophy, by contrast to its earlier phases, Wittgenstein tends to play a less central role. [...] the philosophical climate has clearly changed since the heyday of Wittgenstein's influence. (Kuusela and McGinn 2011, 4)

Considered by some to be the greatest philosopher of the 20th century, Ludwig Wittgenstein played a central, if controversial, role in 20th-century analytic philosophy. He continues to influence current philosophical thought in topics as diverse as logic and language, perception and intention, ethics and religion, aesthetics and culture. (SEP 2014).

Ludwig Wittgenstein is one of the most influential philosophers of the 20th century, and regarded by some as the most important since Immanuel Kant. [...] Wittgenstein's work on rule-following and private language is still considered important, and his later philosophy is influential in a growing number of fields outside philosophy. (Richter n.d.)

LW has also been voted as the most important philosopher of the past 200 years in the widely read blog, *Leiter Reports: a Philosophy Blog* (the description of which reads: "News and views about philosophy, the academic profession, academic freedom, intellectual culture, and other topics. The world's most popular philosophy blog for more than a dozen years"). LW got 600 votes, followed by Gottlob Frege, Bertrand Russell, John Stuart Mill, W.V.O. Quine, G.W.F. Hegel, Saul Kripke, Friedrich Nietzsche, Karl Marx, Søren Kierkegaard and so on (for our sociologist fellows: a major reference for human and social scientists, Michel Foucault, is ranked only at the 32nd place). As Brian Leiter commented: "I do hope some sociologist is prescient enough to hold on to these results; I imagine they will look both startling and revealing to the philosophers of 2059—though I'd expect some of 'the top ten' to be the same (e.g., I'd imagine that Wittgenstein, Nietzsche, Mill, and Marx will be there–perhaps even Hegel, Frege and Russell [...]".¹

Yes, qua sociologists we hold these results and set forth an explanatory hypothesis for this ranking and more in general for the ambivalent status of LW among philosophers—high and contested at the same time: we may consider

¹ Posted by Brian Leiter on March 11, 2009. See http://leiterreports.typepad.com/blog/ 2009/03/so-who-is-the-most-important-philosopher-of-the-past-200-years.html (retrieved on 29-12-2016).

it as a consequence of the difficult reputation LW has enjoyed since his early years as a would be author (of the curious, atypical work later published as the *Tractatus*) and after a few years as a Ph.D. student and professor at Cambridge, a process starting with Bertrand Russell's intellectual infatuation for his supposed, presumed exceptional talent, and continued in the following decades through the intensive symbolic work done around LW's *persona* by a few influential colleagues, a group of his early students, some students of his students (Gellner 1998a, 1998b), and a growing body of scholars who have been writing about him, including of course his biographers (from Norman Malcolm to Ray Monk, whose 1990 book on LW "as a genius" has played an influential role in rising LW's status among younger generations of philosophers).

This is a simple case of what sociologists define as a 'process of reputationbuilding' or even—when especially successful in establishing a name and her value—of 'consecration' (e.g. Heinich 1997; DeNora 1995; Bourdieu 1992; Fine 2000; Kapsis 1992; Santoro 2010; Bartmanski 2012), a process which is at the same time social and cultural: it is social because social agents and social institutions are required to consecrate—i.e., to build the recognition of an exceptional status of—someone; it is also cultural because the success of this operation can only be achieved by means of a symbolic work made of critical reviews, biographical texts, discussions of ideas, and so on.

This brings us to our fourth and last hypothetical explanation, perhaps the most basic one, though not perhaps the best from a sociological perspective (because of its apparent distance from the social structure).

H4. To make sense of the form and variation of a cultural structure as the scholarship on LW, we have to go back into the Wittgensteinian texts, to investigate the nature of the ideas expressed in them.

This is clearly the more endogenous explanation we are proposing, and we should make it clearer. We are not making a plea for a turning back to traditional humanistic work conceived of in terms of 'close reading', philology, style analysis or even strictly hermeneutical studies (e.g., Anscombe 1969; Perloff 2011; Ware 2011; Berry 2013). We are suggesting to consider texts and ideas as immanently social products which follow conventions and ask for interpretative work. Every act of intellectual or artistic creation is social, i.e., relational (Becker 1974). Wittgenstein's biography fostered a romantic interpretation of the soli-

tary genius creating his work).¹ However, even this life choice has to be read in terms of some social aspects (Becker 1982; Farrell 2001). We cannot forget that LW was born and was educated (i.e., socialized) in a given family (Waugh 2009), in a given place (Vienna) with its own social structure and cultural life (Janik and Toulmin 1996), during a given historical period (marked by two world wars, the collapse of an empire and so on), and he worked mainly in British prestigious universities (which were themselves part of a structured academic field), thus being in close relation with other people such as colleagues and students. Yet, his legacy is mainly made of unfinished and unpublished texts, made available thanks to the collaborative work of different people (with different dispositions, tastes, background, objectives, attachments, strategies, and so on). A *collective* work, one could say.

Of course, acknowledging the collective nature of a cultural work is not *ipso facto* claiming for an endogenous approach to cultural analysis. You can always limit your research to patterns of human cooperation without entering into the ideas and texts (which can be viewed as black boxes). Following an endogenous explanatory approach means on the contrary that one opens the black box in order to apply a sociological interpretation to the same texts and patterns of ideas. Tools borrowed from semiotics (e.g. Latour 1986; Cerulo 1995, 2000; Alexander 2003) and ecological studies (e.g. Abbott 2001; Lieberson 2000) may help in identifying the mechanisms of cultural change. An endogenous explanation has the advantage—as stressed by Kaufman (2004)—that it makes culture more than just a dependent variable. Language, thought, writing style "not only shape the meaning we attribute to material things and human re-

¹ On LW's way of working see Rothhaupt (2010). See also Pichler (1992), who emphasizing Wittgenstein's "solitary writing" (p. 220) says: "Wittgenstein's writing can be seen as the particular medium, the motor, the carrier of his philosophizing and of his philosophical development. We should regard the various aspects of his writing process such as deleting, overwriting, crossing out, slips of the pen, underlining, marking, inserting, varying etc., and his tendency to revise and rewrite as the tools of his work. As such they deserve our careful consideration. Significantly, writing meant for Wittgenstein—and surely not only for him—not just the pinning down of a philosophical thought but rather the causing, carrying and structuring of it, letter by letter, word by word, sentence by sentence; and it meant, contesting words with words and looking for a possible dialogue" (p. 221). However, the same Pichler acknowledge in these same pages the crucial role played by oral communication in LW's thinking, and this reminds us of the necessary social mediation also of his writing—which asks on its turn some social mediation to be made publicly available.

lationships [...] but also influence one another in ways worth understanding. Cultural change can occur independently of social structural, technological, or material change. The transformation of Calvinist theology into the 'spirit of capitalism' [...] is only one such example of the power of endogenous cultural change. An abiding strength of the new focus on endogenous explanation in the sociology of culture is its ability to unveil the internal workings of such processes in detail" (Kaufman 2004, 336).

Topic modeling goes in the same direction, providing a valuable method to identify the linguistic contexts surrounding social institutions and policy domains (DiMaggio et al. 2013) but also, we would add, cultural fields as disciplines and research areas. It is possible to conjecture, here, that variations in the scholarship on LW (including variations in topics and semantic associations) may depend on both LW's texts and the way in which such texts have been arranged and edited for publication after LW's death. As Fig. 1 and 3 show, the temporal structure of LW work is far from a common one. In a way similar to that of Antonio Gramsci, LW's published work has been for its most part a post-mortem business (on Gramsci, see e.g., Santoro and Gallelli 2016). The publication of new, previously unpublished, texts "authored" by LW has been continuous since his death, and the amount of words and sentences to be edited, discussed, interpreted, commented, written about, translated and even re-translated, has been increasing decade after decade. Moreover, as is obvious, the scholarship has its own effects on the rate of publication, re-edition and re-translation of LW's texts, in a mutually reinforcing circle.

In this situation of textual hyperproduction, distant-reading techniques such as topic modelling may work very well, especially thanks to recent technological facilities, such as for example the electronic edition of the *Nachlass* (Pichler 2002; see also Pichler and Hrachovec 2013). The affinities of topic-modelling methods with a sociological approach to the study of culture depend on devices and concepts that nowadays are well established in cultural sociology: for example, framing, polysemy, heteroglossia, and the relationality of meaning (Mohr 1998). Texts and ideas have the power to affect human agency and institutions and we should be careful not to reduce them sociologically. At the same time, we should be aware that texts as well as ideas depend in several ways on the social arrangements in which they are embedded—after all, we wouldn't have an electronic edition of the *Nachlass* if there were no department in some

rich country that was ready to invest human and financial resources on that project.

On the whole, the distinction between exogenous and endogenous explanations we have posited at the beginning of this section is just a heuristic device, though it shouldn't be taken too seriously: culture and social structure, i.e., ideas/texts and social arrangements (such as institutions and social structures) are intertwined, mutually constitutive, and always working together in real life. Research on intellectual life from this perspective is just beginning. It is worth emphasizing that in this research activity philosophers and historians of ideas should be aware that ideas, even the philosophical ones, neither exist nor live in a social vacuum and that tools and techniques to capture and detect their *social* life do exist and are easily available.

6. Appendix

Sources	Ν						
Philosophical Investigations							
Mind: A Quarterly Review of Philosophy							
Philosophy: The Journal of the Royal Institute							
of Philosophy							
Philosophical Quarterly							
Synthese: An International Journal for Episte-							
mology, Methodology and Philosophy of Sci-							
ence							
International Philosophical Quarterly							
Grazer Philosophische Studie: Internationale							
Zeitschrift für Analytische Philosophie							
Philosophy in Review (Comptes rendus	43						
philosophiques)							
Inquiry: An Interdisciplinary Journal of Philos-							
ophy							
Review of Metaphysics	38						

Table A1. Top ten publication sources (including book reviews).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
rule	mind	view	make	russell	good	problem	understand	late	form	religious	practice	tractatus	see	language	new
argument	claim	account	read	mathematics	idea	way	remark	think	life	certainty	social	proposition	relation	mean	write
follow position	reason self	suggest truth	say take	criticism frege	will also	question give	explore explain	early writing	world human	belief knowledge	critical draw	object picture	experience term	use game	important influence
action	possibility	grammar	sense	mathematica I	aesthetic	provide	explanation	point	ethic	religion	science	fact	particular	word	include
private	must	hold	attempt	remark	time	something	music	concern	ethical	know	general	sentence	also	linguistic	note
solution	expression	take	case	claim	light	like	example	present	subject	certain	connection	reality	difference	learn	three
kripke	person	grammatical	metaphysica I	set	art	whether	reference	developmen t	transcendenta I	sense	within	express	call	limit	interest
support	critique	wittgensteinia n	statement	proof	relationship	answer	model	main	moral	moore	ludwig	name	heidegger	ordinary	history
paradox	state	necessary	try	give	much	raise	passage	offer	value	basic	scientific	logico	aim	allow	year
necessity skepticism	private other	defend	thing	concern criticize	turn change	develop	regard thus	central bring	nature kant	common	study	possible sense	kind resemblance	everyday develop	especially recent
agreement	sensation	condition	term	type	lead	address	become	detail	common	epistemolog V	provide	semantic	description	treat	century
consideration	upon	need	nonsense	nature	make	find	musical	idea	man	nature	activity	philosophicus	attempt	augustine	original
fail	non	many	kierkegaard	mistake	different	point	open	place	live	believe	critique	simple	phenomenolo SY	direct	study
present	yet	quine	possible	little	judgment	arise	particular	vienna	end	latter	nature	doctrine	comparison	speak	education
accord	describe	davidson	purpose	real	without	deal	apply	nature	kantian	present	character	property	phenomenolo gical	attempt	contain
make	provide	ground	standard	objection	whole	different	frazer	treatment	existence	among	play	true	relate	meaning	importance
fect	body	certain	look	result	begin	epistemologic al	content	namely	clear	distinguish	key	must	wittgensteinia n	dissolve	historical
therefore	consciousnes	content	share	systematic	relate	aim	present	whose	idealism	examination	political	ontology	compare	system	think
base	cartesian	much	hacker	explain	attention	concern	accord	deep	matter	act	reflection	represent	husserl	speech	many
since	attack	normative	metaphysics	godel	cavell	need	people	several	belong	epistemic	lead	tractarian	although	essence	personal
right	behavior	realism	reading	good	guide	bring	talk	root	mystical	doubt	different	general	thing	family	reader
accept	even	priori	even	number	seem	difficulty	bear	continuity	ludwig	god	thinker	representatio n	sense	etc	cambridge
modowell	either	realist	call	judgment	notebook	distinguish	connect	circle	relativism	sort	attention	solipsism	close	demand	introduction
scepticism	depend	different	order	field	try schopenhaue	therapy	kind	help	death	faith	concern	elementary	family	assertion	rhees
conventionalism	essentially	propose	hold	effect	r i	basis	just	quite	event	often	cognitive	sign	order	will	freud
skeptical	inner often	emotion	long	theorem	shed	adopt important	thought	highly	nothing	view descriptive	winch causal	appear	regard	call derrida	letter
sceptical	play	metaphor normativity	appear	application	towards continue	modern	associate ability	linguistic already	point	descriptive	put	application contain	help indeed	demida dualism	review wittgensteinian
govern	peay	normativity	appear	importance	continue	modern	autity	aneady	ronty	unerent	put	contain	moded	qualism	wittgensteinian

Table A2. Topic model analysis: 15 topics, first 30 words for each topic.

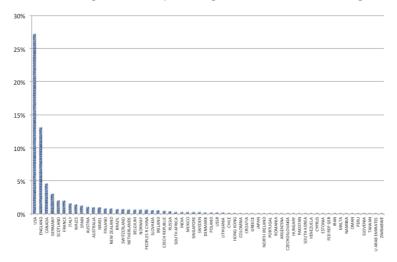


Fig. A3. Where do the Wittgensteinians come from? Source: WoS. Years covered: 1985-2015.

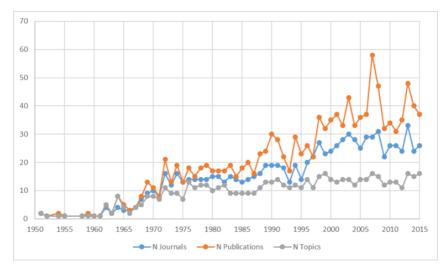


Figure A4. Distribution of number of journals, publications and topics per year.



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Wittgenstein-monument near the philosopher's hut in Luster, Sogn og Fjordane, Norway (Bair175, https://commons.wikimedia.org).