Early Logical Empiricism and the Contributions of Female Philosophers

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Autumn 2024

Introduction



Aim: Write an overview of the her-&history of logical empiricism.

Or: Write a story about logical empiricism.

Be aware, I'm no expert, be aware of Q!

Introduction: SOPhiA

Salzburgiense Concilium Omnibus Philosophis Analyticis





2012

Introduction

I like to combine systematic and historical considerations.

I struggle in this respect not only in ...

- ... research/writing
- ... event organisation

But also in

• ... teaching

This attitude of searching for traditions pushes me into "male-marking fields".

Contents



2 Steps Towards a Female-Inclusive Overview



Logical Empiricism

Early Logical Empiricism

Linked to:

- Vienna Circle (Verein Ernst Mach)
- Berlin Group (Berlin Society for Empirical/Scientific Philosophy)
- Lwów–Warsaw School in Poland (particularly with respect to its logical component)
- individual philosophers in the UK (such as, e.g., Alfred J. Ayer)
- individual philosophers in the US (such as, e.g., the early *Willard van Orman Quine*)

Logical Empiricism and Logical Positivism

Logical positivism's three core pillars:

- Verificationism
- **2** A strict a priori analytic/a posteriori synthetic distinction

3 Reductionism

Ad 3: Long-time discussion about the reductionist basis (phenomenological or physical: Protokollsatzdebatte).

Ad 2: Wittgenstein's *Tractatus* was essential (purely formal: logical symbols are not about objects in reality but purely representational).

Ad 1: Verficationism: The meaning of a sentence is determined by its method of verification.

Logical Empiricism and Logical Positivism

Verificationism was given up early on: laws/universal statements are not verifiable in a strict sense (cf. Karl Popper's *falisificationism*; for a less "strict" account of verificationism, cf. Reichenbach 1938).

Out of this, in principle, two big *logical* camps of *logical empiricism* arose:

- Reichenbach's frequentist account of probability
- Carnap's logical account of probability

Logical empiricism was still upholding 2 and 3—these are also the "Two Dogmas of Empiricism" that were later on famously criticised by *Quine*

Logical Empiricism: Key Topics

Due to this methodological shift, logical empiricism had its initial focus (topical cluster) on:

• probability and confirmation

However, soon it expanded its discussion to other topics highly relevant to science, its methodology, and practice, such as:

- reductionism (with, e.g., Herbert Feigl and Ernest Nagel as key figures)
- *explanation* (e.g. *Carl G. Hempel and Paul Oppenheim*)
- causation (e.g. Hans Reichenbach)
- and the general question of truth in science as we find it, e.g., in discussions of *scientific realism* (e.g. *Hilary Putnam*).

Logical Empiricism



Overviews

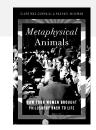
Stanford Encyclopedia Entry on Logical Empiricism (Creath 2023):

Section on "some major participants in the movement" of logical empiricism:

- list of 28 philosophers
- all of them are male
- only one female contributor mentioned *Susan Stebbing* (as second supervisor, next to *Reichenbach*, of *Olaf Helmer*)

Also other collections:

 Hardcastle and Richardson (2003) with the introduction (Richardson and Hardcastle 2003): no female contributions; mentions only Lorraine Daston as secondary source, despite: Logical Empiricism in North America (LENA) Other areas seem to be a bit better off.



One does not struggle to find *Elizabeth Anscombe*, *Philippa Foot*, *Mary Midgley*, and *Iris Murdoch* in overviews of early analytic philosophy.

They were also highly relevant for widening the scope of analytic philosophy by demonstrating the importance of moral theory ("humans are *metaphysical animals*") (cf. Mac Cumhaill and Wiseman 2022).

Steps Towards a Female-Inclusive Overview

Things Start Moving

New studies in the history of philosophy target female involvement:

- Focusing on the contemporary situation, Hutchison and Jenkins (2013) aim at a discussion about what needs to change in order to adequately incorporate female contributions in philosophy.
- Thorgeirsdottir and Hagengruber (2020), Ebbersmeyer and Paganini (2020), and Detlefsen and Shapiro (2023) provide a general discussion on women in the history of philosophy in general.
- van der Schaar and Schliesser ((5:2) 2017) and Peijnenburg and Verhaegh (2022) provide one of the first overviews and venues for the discussion of the role of women in the history of *analytic philosophy*.
- Elkind and Klein (2024) study the role of women philosophers in the work and circle around *Bertrand Russell*.
- For our project of utmost importance is Janssen-Lauret (2021b) who provides a major overview and discussion of women in *logical empiricism*.

Experts



- Anna Brożek (Warsaw): amongst others the Lwów–Warsaw School
- Silke Körber (Berlin): amongst others Susan Stebbing
- Katarina Mihaljević (Tilburg): amongst others Rose Rand
- Marta Sznajder (Vienna): amongst others Janina Hosiasson-Lindenbaum
- Q! . .

Including Female Contributions

Possibilities of Including Female Contributions:

- Topic + Section on Female Contributions E.g.: Routledge Handbook of Logical Empiricism and (Janssen-Lauret 2021b)
- Make Female Contributions *the* Topic E.g.: Publications on the work of female logical empiricists
- Systematically (but possibly "a-historically") weave in Female Contributions into the Topic
 E.g.: Hopefully my approach (of a brief overview of the her-&history of logical empiricism)



My List so Far: The Vienna Circle

Among the core members of the Vienna Circle were: Olga Hahn, Rose Rand, and Olga Taussky (all working mainly on mathematical logic)

Also, *Else Frenkel* (philosophy of psychology) and *Käthe Steinhardt* (epistemology) were oftentimes attending meetings of the circle.



My List so Far: The Berlin Group

Wilma Papst (with a PhD on Gottlob Frege's work as a philosopher as early as 1930) and *Hilda Geiringer* (statistics and probability theory)



Q!

My List so Far: Lwów-Warsaw School

Wolenski (2021) mentions besides his own teacher, *Izydora Dambska*, also *Eugenia Ginsberg*, *Janina Hosiasson* (probability, confirmation), *Maria Kokoszyńska* (truth theory, logic), *Daniela Tennerowa-Gromska*, *Maria Ossowska* (moral philosophy), *Seweryna Łuszczewska-Rohmanova* (mathematical logic), *Halina Sloniewska*, and *Janina Kotarbińska* (epistemology, reductionism).



My List so Far: The UK

In the UK, for the logical empiricist movement *Susan Stebbing*'s criticism of verificationism and Carnap's syntactic account was early on very important, as well as *Mary Hesse*'s contributions on confirmation.



Q!

My List so Far: The US

For the US: *Susanne Langer*'s criticism of logical positivism and her alternative non-discursive theory of meaning, and *Ruth Barcan Marcus*' contributions on modal logic testify early important involvement of female philosophers in the development of logical empiricism and its formal toolbox.



A "Negative" Example: The VC-Tractatus Reception

Detailed in 1924–1925, discussion until 1932/33:

	,
Buiwicklung_der_Thesen_des_"Wiener_Kreises"	2006
bearbeitet von Rose Hand, Nov.1932 bis Mär	z 1933.
blau: ja, rot: nein, grün: sinnlos, : fehlt, ?: unbest S.: Schlick, W.: Waismann, C.: Carmap, N.: Neurath, H.:	immt, Hahn, K.: Kaufmann.
Thesen	S.W.C. HH.K
die Begriffe und Regeln der Wissenschäft klären.	vor Tractatus
2. Die Ehilosophie will die Begriffe und Sätze der Wissenschaft und des täglichen Lebens klären, inden sie zwar Keine Regeln des Gebrauche der Worte von- geinrelbt, doch die Regeln des Gebrauche eines Wortes ausbreitet und auf die logiehene Tokgen einer Regel aufmerkass macht, Schärfer: Die Philosophie gebietet nicht einen bestümston Gebrauch eines Wortes, doch verbietet sie es die Polgerungen der angenommenen Regeln zu vermischen oder sich an sie nicht zu hal- ton.	* * * * * * * * * * * * * * * * * * *
5. Die Sprache bildet die Wirklichkeit ab.	000007
4. Die Sprache ist ein System von Sätzen, das untereinande: verglichen wird. Von einer Abbildung der Wirklichkeit darf nicht gesprochen werden, denn damit wäre ein meta- physischer Begriff eingeführt.	00000
5. Der Satz ist eine Konfiguration von Worten, die durch ihre Syntax bestimmt werden.	000000
6. Der Satz bildet den Sachverhalt ab.	00000



(Stadler 2023, p.26)

A "Positive" Example: Confirmation and Analogy: History

History:

Carnap's idea of an inductive logic:

- its continuous with deductive logic
- it avoids Hume's problem of induction

There are several problems—two very central ones:

• the probability of a genuinely universal statement

(in many systems it holds that $Pr(\forall xB(x)) = 0$)

• the probability of (imperfect) analogies

(in many systems $Pr(Q(b)|P_1(a), P_1(b), \ldots, P_n(a), P_n(b), Q(a))$ is inadequate, particularly if P and Q are similar)

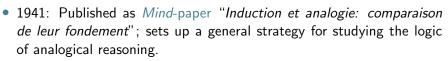
This led Carnap and others to introduce several free parameters: λ , μ , γ . Which make the choice less logically determined (and looking more like a degenerative research programme). Analogies play a central role.



A "Positive" Example: Confirmation and Analogy: Herstory

Herstory: (cf. Sznajder 2024)

- Provided an account of analogical reasoning;
- Talk in May 1940, where Hosiasson presented her work on analogical reasoning seemingly for the first time.



- October 1941: imprisoned in Vilnius;
- Until Spring 1942: Hosiasson managed to write "a serious study on reasoning by analogy"—probably the text translated and published (Sz-najder 2024, sect.4); studies necessary and sufficient conditions for analogical reasoning;



My Example: Confirmation and Analogy: Her-&history

Her-&History/A Story:

- Carnap started to publish on induction only in 1945.
- A simple form of analogical reasoning (perfect a.) is found in his 1950 *LfP*



- Carnap's more elaborated discussion of the "analogy influence" appeared in print only in 1980, although he had worked on this approach at least from the early 1960s. (cf. Sznajder 2024, p.1361)
- Hosiasson and Carnap met multiple times in the 1930s (first time in November) during Carnap's first visit to Warsaw. (p.1359)
- Carnap mentions her (11 times) in his LfP, e.g. in using 'c' for confirmation functions; not on analogies;

Similarly with Marry Hesse.

Generalisation

Similarly as in the example, I aim at a general overview that ...

- ... discusses all other mentioned female authors ...
- ... with respect to all key topics of logical empiricism.

In the best case we find not only a systematical connection, but also a historical (\Rightarrow her-&historical) one.

Depends also a bit on how well the work and summaries of female authors are accessible.



EDHIPHY

Using EHIPHY

edhiphy: https://edhiphy.org/

part of the ERC and NWO-funded project "*Exiled Empiricists: American Philosophy and the Great Intellectual Migration*"

Team: Sander Verhaegh, Eugenio Petrovich, Claudia Cristalli, Fons Dewulf, Ties van Gemert, Nina IJdens, Gregor E. Bös, Wessel Dankers, Paul van Geldrop

... I know about work on the same topic.

Yea	r †	Journal	Title	Article Source	Context	Mentioned Philosopher	Author(s)	Author ID(s)	Disamb. Status	Mention ID
1:	945	Philosophy of Science	On Inductive Logic	edhiphy jstor	e. Most authors of modern axiom systems of probability (Keynes (), Waismann (), Mazurkiewiczi?, HOSIASSON, W Wright'2) are cautious enough not to accept that principle. An examination of these systems sho	<u>Janina</u> <u>Hosiasson-</u> lindenbaum	Rudolf Carnap	<u>P:5858</u>	Non ambiguous	184280_128 P
1:	945	Philosophy of Science	On Inductive Logic	edhiphy jstor	ik der Wahrscheinlichkeitsrechnung C. R. Soc. Science Varsovie, Cl. III, vol. 25, 1932, pp. 1-4, 11 JANINA HOSIASSON-LINDENBAUM, On Confirmation, Journal Symbolic Logic, vol. 5, 1940, pp. 133-148. 12 G. H. von Wright, The Logic	<u>Janina</u> <u>Hosiasson-</u> lindenbaum	Rudolf Carnap	<u>P:5858</u>	Non ambiguous	184280_144 Þ
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1	945	Philosophy and Phenomenological Research	The Two Concepts of Probability: The Problem of Probability	edhiphy jstor	(, p. 481), in order to see how it overcomes the well-known difficulties of Laplace definition. 14 JANINA HOSIASSON-LINDENBAUM, On Confirmation, Journal of Symbolic Logic Vol. V (1940), pp. 133-148. A book exhibiting this sys	<u>Janina</u> Hosiasson- lindenbaum	Rudolf Carnap	<u>P:5858</u>	Non ambiguous	2102817_146

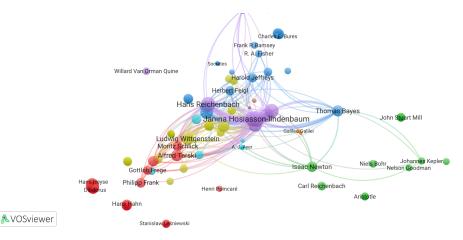
... I know about work on the same topic.

¢ Article ID	\$	Year of 🌢 Publication	¢ Authors	Author 🌢 IDs	∳ Journal	Mentions to Janina Hosiasson- 🍦 lindenbaum	Mentions to Rudolf 🌢 Carnap
edhiphy jstor	Impressions and Appraisals of Analytic Philosophy in Europe. II	1936	Ernest Nagel	<u>P:1774</u>	The Journal of Philosophy	1	74
edhiphy jstor	Studies in the Logic of Confirmation (I.)	1945	Carl G. Hempel	<u>P:844</u>	Mind	6	7
edhiphy jstor	Philosophical Periodicals	1936		<u>P:1</u>	Mind	2	5
edhiphy jstor	A Definition of *Degree of Confirmation*	1945	Carl G. Hempel; Paul Oppenheim	P:844 P:5053	Philosophy of Science	1	8
edhiphy jstor	After Six Years	1946	Otto Neurath	<u>P:4904</u>	Synthese	1	5
edhiphy jstor	A Note on Some Quantitative Theories of Confirmation	1961	R. H. Vincent	P:5288	Philosophical Studies	1	3
edhiphy jstor	On the Derivation of Probabilities from Frequencies	1945	Donald Williams	<u>P:1103</u>	Philosophy and Phenomenological Research	2	1
edhiphy jstor	Hypotheticals	1950	David Pears	<u>P:1327</u>	Analysis	2	1
edhiphy jstor	On Probability and Induction	1938	Hans Reichenbach	<u>P:2621</u>	Philosophy of Science	1	1
edhiphy jstor	The Two Concepts of Probability: The Problem of Probability	1945	Rudolf Carnap	<u>P:5858</u>	Philosophy and Phenomenological Research	1	1
edhiphy jstor	On Explanation	1969	Roger D. Rosenkrantz	<u>P:5775</u>	Synthese	1	1

Montions to Janina

Montion

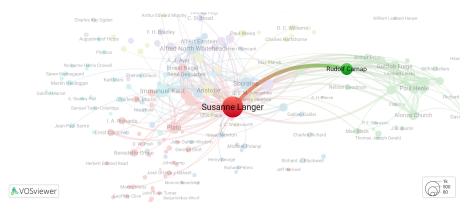
... I want to know in which "neighbourhood" the author is in.



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184280_128	e. Most authors of modern asiom systems of probability (Keynes (), Walamann (), Mazurkiewiczi?, HostASCM, k. Wright?) are cautious enough not to accept that principle. An examination of these systems 5%	On inductive Logic	1945	P.0838	Non anbiguous	ndhisire i int	
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184280_403	m shows that the ratio of the increase of c* is greater than 1, since w, > we, 20 Janina Lindenbaum- HOSLASSON, Moduritor et analogie: Companiese de leur fendement, Mind, vol. 50, 1941, pp. 351-365; see especi	On inductive Legic	1945	P.6838	Non ambiguous	edhioire l ist	
184281_385	The postulates of general probability theory." 5 We shall summarize them here in a form adapted from ANNA MOSLASSON. UNICEEMAN article On confirmation.36 The probability of H relatively to E, or, briefly, p.H. E) is a single-x.	A Definition of "Degree of Confirmation"	1945	P:844 P:5033	Non ambiguous	edition () (c)	
184569_49	neralization of Russell formal implication, This question has been discussed in some detail by Miss JAMAA - Advascent (La thronic das probabilities est- ells une togique generaliseet?, Actes du Congr?s International de P	Probability and the Theory of Knowledge	1939	<u>P:1774</u>	Non ambiguous	edhisire Lief	
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2016015_469	ments of Ajdukiewicz differ in important ways evenings sparts in talk high and deep, the work of Dr. JANNA - Addission on probability and induction, and of Dr. Aleksander Wundheiler and Wr. Edward Poznalski on general	Impressions and Appraisals of Analytic Philosophy in Europe. II	1936	P.1774	Non anbiguous	ndhielty I ist	
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... I want to know how the author is linked to another author.



... I want to know how the author is linked to another author.

Mentions

Display Mentions to Susanne Langer

Found 362 occurrences

100 entrie	s per page	Search	Carnap	٥			
Mention ID	Context	Title		♦ Year	Authors	Disamb. Status	Mentioning Article
20114636_222	, Method, and Meaning: Essays in Honor of Henry M. Sheffer (ed. by Paul Henle H. M. Kallen, and S.K. LANGER), Liberal Arts Press, New York, 1951, pp. 3-24. 5 Rudolf Carnap, Meaning and Necessity, University	Quine	on Modality	1968	<u>P:1195</u>	Disambiguated 0 mentions	edhiphy jstor
20114638_735 P	c of Sense and Denotation', in Structure, Method, and Meaning (ed. by P. Henle M. Kallen, and S. K. LANGER), New York 1951. [6] A. Church, 'On Carnap Analysis of Statements of Assertion and Belief, Analysis	Quant	ifying In	1968	<u>P:1298</u>	Disambiguated 0 mentions	edhiphy jstor
2102865_118 P	e Dr. Hoekstra is not stating the issue accurately since most of the modern semanticist , Carnap, LANGER, Russell, Morris, would not agree with Dr. Hoekstra in his contention that a certain sign sug		ogic of Art: A Rejoinde ekstra	r to 1945	<u>P:4717</u>	Disambiguated 0 mentions	edhiphy jstor
2251466_139 P	, even if my written statement is. It is not merely the picture theory of language which leads Mrs. LANCER to the argument for two kinds of symbolism. She attributes to Carnap Russell, et. al., certain fur	Discu Symb	sive and Presentation ols	al 1955	<u>P:5078</u>	Disambiguated 0 mentions	edhiphy jstor
27901483_67 P	E. Moore L. Wittgenstein C. K. Ogden I. A. Richards R. Carnap R. M. Eaton E. M. Whetna and S. K. LANGER, correct or incorrect, it is only because it is 'meaningless/ 6 The truly sensational charge that s		IS THE THEORY OF ING ABOUT?	1936	<u>P:4184</u>	Disambiguated 0 mentions	edhiphy jstor
3749815_43 P	n the identification of all. In distinguishing practical and expressive symbolism as she does, Miss LANGER is following Camap, from whom she quotes these remarks: 'Metaphysical propositions-like lyrical ve	Reaso	n and Ritual	1968	<u>P:4496</u>	Disambiguated 0 mentions	edhiphy jstor
3749815_45 P	press not so much temporary feelings as permanent emotional and volitional dispositions.4 When Miss LANGER view of symbolism is added to Carnap view of metaphysical propositions, the result is a close analo	Reaso	n and Ritual	1968	<u>P:4496</u>	Disambiguated 0 mentions	edhiphy jstor

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Mentions

Display Mentions to Susanne Langer

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Mention ID	Context	• Title	¢	Year 🎈	Authors 🍦	Disamb. Status	Mentioning Article
2251466_15	ne today accepts. It would be hard to find anyone who now identifies meaning and verification, Mrs. LANGER herself does not. More important, the view that language has only a cognitive function, and that I	Discur Symbo	sive and Presentational Is	1955	<u>P:5078</u>	Disambiguated 0 mentions	edhiphy jstor

... I want to know what female authors are in the system.

Include philosophers born from	1850 © until 1930	(excludes unknown birth years)		
Show				
10 entries per page		Search: female	0	
Philosopher ID	Philosopher Standard Name	Gender 🔶	Birth Year 🍦	# Mentions 🍦
<u>P:2115</u>	G. E. M. Anscombe	female	1919	1656
<u>P:6140</u>	Susan Stebbing	female	1885	695
<u>P:5196</u>	Philippa Foot	female	1920	660
<u>P:3886</u>	Judith Jarvis Thomson	female	1929	424
<u>P:6141</u>	Susanne Langer	female	1895	362
<u>P:4430</u>	Margaret Macdonald	female	1907	324
<u>P:4585</u>	May Brodbeck	female	1917	324
<u>P:4541</u>	Mary Whiton Calkins	female	1863	308
<u>P:7560</u>	Grete Hermann	female	1901	308
<u>P:27400</u>	Gertrud Jung	female	1894	296
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Summary

Work on an overview article on logical empiricism.

The idea is to combine a systematic perspective (topics) with a her- &historical perspective.

Particularly not to +topic and make it *the*-topic.

Rather, to weave in contributions by female authors.

Aiming for a good balance between her-/his-/a-historical treatment.

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pp. 107-123. DOI: dx.doi.org/10.15633/ss.1771.

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