

Was Rasmus Nielsen a Windbag?

Hans Halvorson

November 24, 2023

Rasmus Nielsen was a 19th century philosopher from Copenhagen whose work has been utterly forgotten.



I PETERSEN
Rasmus Nielsen T 817 h4. 1866
ENSKERSTIGET.

Rasmus Nielsen
(1809–1884)

Introduction

- If you've heard of Nielsen, that's probably because he's discussed briefly in Garff's biography. SK originally thought of Nielsen as his comrade in arms, but then pushed him away.
- Not a single page of the thousands that Nielsen wrote has been translated to a "world language".
- I will begin by explaining reasons to be interested in Nielsen — not just for historians, but also for understanding our contemporary predicament.

Four reasons to be interested in Nielsen

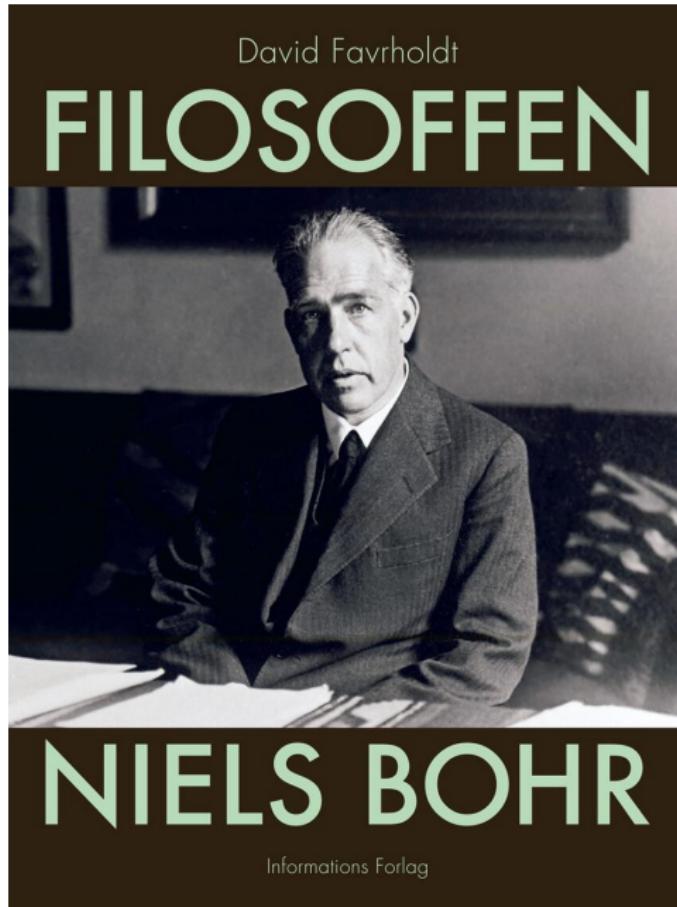
- ① Kierkegaard
- ② Niels Bohr
- ③ Nielsen upsets standard narratives about the novelty of analytic philosophy.
- ④ Nielsen develops a Kierkegaard-inspired philosophy of science — and so provides a link between Kierkegaard and science.

1. Kierkegaard

- Nielsen's relevance for Kierkegaard studies is described well in Jon Stewart, "Rasmus Nielsen: From the object of 'prodigious concern' to a 'windbag'".
- Nielsen deserves the credit for transmitting SK's ideas to subsequent generations (Brandes, Høffding, etc.).
- Nielsen is "patient zero" for reception and transformation of SK's ideas.

2. Bohr

- My project began with wanting to make sense, philosophically, of contemporary physics. What do all of these new discoveries mean for us?
- Niels Bohr had wrestled with such questions more than anyone else.
- But contemporary philosophers are either uninterested in Bohr, or say that they cannot make sense of him, or say that he was obviously wrong.
- Bohr did have one defender ...



Favrholdt makes explicit what Bohr left implicit

Del I: Noget om fysik

Kapitel I Fra antikken til Ørsted

Kapitel II Bruddet med den klassiske fysik

Kapitel III Bølge-partikel-dualismen

Kapitel IV Filosofiske misforståelser

Del II: Filosoffen Niels Bohr

Kapitel V God's Eye View

Kapitel VI Spørgsmålet om Niels Bohrs inspirationskilder

Kapitel VII Niels Bohrs syn på religion

Kapitel VIII Kierkegaard-myten

Kapitel IX William James-myten og den psykofysiske parallelisme

Kapitel X Fri vilje-determinisme-problemet

Kapitel XI Biologiens filosofiske status

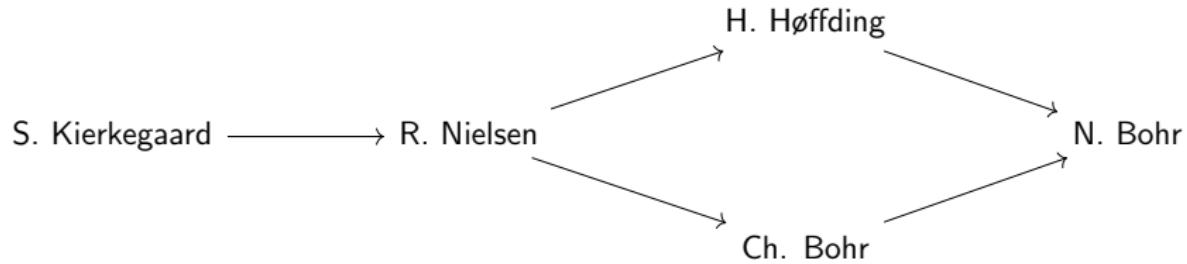
Kapitel XII Den sidste myte

Kapitel XIII Den erkendelsesteoretiske lære

Kapitel XIV Niels Bohr på Filosofisk Laboratorium

- Contemporary philosophers write Bohr off as being a logical positivist, or unclear, or [fill in the blank].
- Others argue that he is Kantian.
- Denmark has its own philosophical tradition that doesn't fit neatly into this "world historic" classification scheme.
- One is struck by thematic similarities between Bohr's philosophy and Kierkegaard's (especially *Postscript*).
 - Favrholt unequivocally denies that Bohr was influenced by Kierkegaard.

Hypothesis: Nielsen transformed Kierkegaard's epistemological ideas into something that was accessible to scientifically minded people such as Bohr.



3. Nielsen challenges the dominant narrative

- At a given moment in history, philosophers from prevailing cultures tend to see the history of philosophy as leading up to them.
 - Hegel
 - Reichenbach. *The Rise of Scientific Philosophy*
 - Anglo-American philosophy
- Example: The apriori from Kant to Carnap to Quine

3. Nielsen challenges the dominant narrative

- Nielsen's philosophy has several themes in common with Marburg neo-kantianism (especially Cassirer and Reichenbach).
 - Nielsen claims that science always has apriori truths, but they are changeable.
- Nielsen's view of the relationship between philosophy and science anticipates themes in logical positivism and in contemporary philosophy of science.

4. Nielsen links Kierkegaard to science

As for Nielsen providing a bridge between Kierkegaard and science, that will emerge in what follows!

Early life

- 1809 bondefødt in Rorslev, Middelfart
- 1820 intellectual talents recognized by local priest
- 1829 begins studies at Viborg katedralskole
 - 1830 SK begins university studies
- 1832 graduates Viborg katedralskole
- 1837 passes theologisk embedseksamen
 - 1839 SK remarks satirically about RN in his journal

Nielsen's Hegelian period

1840 PhD thesis: *De speculativa historiæ sacræ tractandæ methodo*

1841 SK submits *Begrebet Ironi*

1841 appointed chair of moral philosophy (Poul Møller's chair)

1842 SK remarks satirically about RN's unfinished system in *Fædrelandet*

1845 *Den Logiske Propædeutik*

Relationship with Kierkegaard

- 1846 SK. *Afsluttende Uvidenskabelig Efterskrift*
- 1848 SK and RN begin taking regular walks together. Brøchner reports SK as saying that RN is the only one of the younger thinkers in Denmark who “may amount to something”
- 1849 RN. *Evangelietroen og den moderne Bevidsthed*
SK: “*The writings are plundered in many ways*
... *And then my conversations!*”

Relationship with Kierkegaard

- 1849 Martensen. *Den Christelige Dogmatik*
- 1849 RN. Mag. S. Kierkegaards "Johannes Climacus" og Dr. H. Martensens "Christelige Dogmatik." En undersøgende Anmeldelse.
- 1850 RN. *Evangelietroen og Theologien*

Nielsen's scientific turn

- 1855 *Om Theologiens Naturbegreb med særligt Hensyn til Malebranche: De la recherche de la vérité*
- 1857 *Philosophisk Propædeutik i Grundtræk*
- 1857 *Philosophie og Mathematik. En propædeutisk Afhandling*
- 1859 *Mathematik og Dialektik*
- 1862 *Forelæsninger over "Philosophisk Propædeutik" fra Universitetsaaret 1860–61*

Nielsen's scientific turn

As my recent writings show, it has been my goal, for a number of years, to clarify and demonstrate the relationship between philosophy and the separate sciences as comprehensively as possible. The future of philosophy depends in an essential way on a thorough understanding and accurate determination of this relationship. (1864, p 18)

The second battle about faith and reason

- The first battle between faith and reason: the flareup between Martensen and Nielsen at the beginning of the 1850s.
- The younger generation was decidedly less religious: Brøchner, Brandes, etc.
- In *Grundideernes Logik* (1864), Nielsen declared that “Tro og Viden er uensartede Principper”.
 - Unlike recent views (e.g. Gould’s non-overlapping magisteria), Nielsen’s account flows out of a systematic metaphysics and epistemology.

But the assumption of duæ veritates ceases to denote a dispute between reason and revelation, or between philosophy and religion, when it is realized that the two different truths belong to two such different spheres, that what is decided in the one must be left undecided in the other. (1864, p 23)

The (second) conflict about faith and reason

1865 Larsen. *Samvittighed og Videnskab*

1866 Høffding. *Philosophie og Theologie: En historisk-kritisk Afhandling*

1866 Brandes. *Dualismen i vor nyeste Philosophie*

Brandes argues that Nielsen's dualism is not a healthy way to be a person.

- 1867 Martensen. *Om Tro og Viden. Et Leilighedsskrift*
Anticipating Karl Barth (?), Martensen distinguishes
knowledge of the absolute from relativized forms of
knowledge (the empirical sciences).
- 1867 Nielsen. *Om 'Den Gode Villie' som Magt i Videnskaben*
- 1868 Brøchner. *Problemet om Tro og Viden*
- 1868 Nielsen. *Hr. Professor Brøchners Philosophiske Kritik
gjennemseet*

Remarks

- The Danish conflict about faith and reason is a unique case study that should be more widely known.
- This case has some interesting features:
 - Emphasis on *personlighed* (See Høffding's later work on *personlighedsprincippet*.)
 - Focus on subjective versus objective
 - Revival of the medieval doctrine of two truths (Averroes, Boetius of Dacia)
- An analytic philosopher can't help but wonder whether they weren't confused by the connotations of the words "Tro" and "Viden".

- Nielsen and Sibbern alternated teaching “det indledende filosofikum” (introductory philosophy course) for many years.
 - This course was mandatory for all first-year students at the university, in any subject.
- Circa 1860, students complaining that Nielsen demanded too much knowledge of math and science.

- Nielsen's students include an entire generation of influential philosophers, theologians, and scientists.
- The only one who maintained strict allegiance to Nielsen was P.A. Rosenberg (who wrote a panegyric in 1903).
- Did Nielsen's outlook work its way into the consciousness of many more than explicitly acknowledge it?

At first it was Rasmus Nielsen, whose enthusiastic references to Kierkegaard and whose rousing eloquence had the greatest influence on me. (Høffding 1909)

No one who studies the life of the mind in nineteenth-century Denmark, will be able to skip over [Nielsen's] great philosophical writings, and everyone who got to hear his lectures at the university will remember him as a great awakener and a rare personality. (Brandes 1899)



Heegaard



Brandes



Høeffding



Kroman



Ch. Bohr

G. J. P. J. Bolland.

Forelesninger

13. fev. C. 3

over

„Philosophisk Propagandistik“

fra

Universitetsaaret 1860—61,

af

R. Nielsen.

II.

Philosophien og de særskilte Videnskaber.

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Grundriss der Logik.

2. Aufl.

Efter Prof. Rasmus Nielsen.

Først 1864.

Hans Hoffmeyer

20.



den vinkelige direction. Vi skulle nu se, hvorledes dette var et ved en graphiske Rechnungs af Kraften. $\frac{dx}{dt}$ er Tangensvinkelen. Etent Punkts Rechnungen vilde sig ved forsk. ved Jaen den Yderste del Raay, eller $\frac{dx}{dt}$ af dem, eller alle 3. Ved de 3 Dimensioner, den eneste Rechnung koncerne. Denne Rechnung satter vi ved Hjælpe af den Differentialcoefficient ved forsk. m. de andre. F. $\frac{\delta x}{\delta t} + \frac{\delta y}{\delta t} + \frac{\delta z}{\delta t} + p = 0$

Dette er lidt svært for, at Kraften vokser; Det betyder, at graphiske og reelle Rechninger kreftte sammen.

Nuværende Hældningsvinkel er forenklet, bl. det nærmest Zeyne aften af Edder (der nærmest Hældningsvinkel er constant et jv. moment afd. af Edder o. Kraften): $\frac{dr}{dt} = v = gt$; $ds = v \cdot dt = gt \cdot dt$: Indstykkelets v er nu konstant ved den v. det end. Kraft. genn. Hældning; Hældningsvinkel er der sig selv lig (men varierer ej): $\frac{dr}{dt} = gt$, men nævnes m. de end. Kraftslabber, ethvert $v \cdot dt = gt \cdot dt$, men mindre end oven (se afhæng. i t. m. v); De findt desuden delen af Δ -momentet).

Nuværende indstykke: Δ -momentet $\int g \cdot h \cdot dt$, som Integren H nærmest afd. af Edder:

$$H = \int g \cdot h \cdot dt = \frac{g \cdot t^2}{2}, \text{ jv. moment afd. af Edder}$$

dermed $x = f(t) = \frac{1}{2} g t^2 - h \cdot v$ vil nu Δ -momentet

$$\text{dette: } x + dx = f(t + dt) = \frac{1}{2} g (t + dt)^2$$

$$x + dx = \frac{1}{2} g t^2 + g t dt + \frac{1}{2} g (dt)^2, \text{ og da } x = \frac{1}{2} g t^2$$

og $(dt)^2$ er nærmest null:

Hegel refresher

- Elimination of distinction between subject and object (solution to post-kantian skepticism)
- Elimination of distinction between reality (*virkelighed*) and concept (*begreb*)
 - The real is the rational, and the rational is the real.
- Elimination of distinction between reason and cause
- Insofar as science is rational, it is subsumed by philosophy.

Kierkegaard's critique of (Hegelian) objectivity

- No decision without subjectivity
- A god's eye view description is unattainable for existing human beings

Misunderstanding Bohr

- Bohr talked about a moveable boundary (*skillelinien*) between subject and object.
- Contemporary physicists and philosophers misunderstand what Bohr was saying.
- For example, some think that Bohr was suggesting that the physicist draw a boundary between macroscopic and microscopic.
- John Bell called it Bohr's "shifty split".
- Many physicists and philosophers are busy trying to fix Bohr's "confusion".

readers' forum

Commentary

Quantum mechanics: Fixing the shifty split

Quantum mechanics is the most useful and powerful theory physicists have ever devised. Yet today, nearly 90 years after its formulation, disagreement about the meaning of the theory is stronger than ever. New interpretations appear every year. None ever disappear.

Probability theory is considerably older than quantum mechanics and has also been plagued from the beginning by questions about its meaning. And quantum mechanics is inherently and famously probabilistic.

For the past decade, Carl Caves, Chris Fuchs, and Ruediger Schack have been arguing that the confusion at the foundations of quantum mechanics arises out of a confusion, prevalent among physicists, about the nature of probability.¹ They maintain that if probability is properly understood, the notorious quantum paradoxes either vanish or assume less vexing forms.

Most physicists have a frequentist view of probability: Probabilities describe objective properties of ensembles of "identically prepared" systems. Caves, Fuchs, and Schack take a personalist Bayesian view: An agent assigns a probability p to a single event as a measure of her belief that the event will take place.²

Such an agent is willing to pay less than \$ p for a coupon that will pay her \$1 if the event happens, and she is will-

ing, she would pay somebody to take a coupon from her that might cost her another \$1.) Avoiding certain loss is the only constraint on an agent's probability assignments.

The probability of an event is not inherent in that event. Different agents, with different beliefs, will in general assign different probabilities to the same event.

The personalist Bayesian view of probability is widely held,³ though not by many physicists. It has profound implications for the meaning of quantum mechanics, which Fuchs and Schack call quantum Bayesianism—QBism for short. Since quantum states determine probabilities, if probabilities are indeed assigned by an agent to express her degree of belief, then the quantum state of a physical system is not inherent in that system but assigned by an agent to encapsulate her beliefs about it. State assignments, like probabilities, are relative to an agent.

QBism immediately disposes of the paradox of "Wigner's friend." The friend makes a measurement in a closed laboratory, notes the outcome, and assigns a state corresponding to that outcome. Wigner, outside the door, doesn't know the outcome and assigns the friend, the apparatus, and the system an entangled state that superposes all possible outcomes. Who is right?

For the QBist, both are right. The

pressions of our knowledge. John Bell tellingly asked, "Whose knowledge? Knowledge about what?" The QBist makes a small but profound correction: Replace "knowledge" with "belief." Whose belief? The belief of the agent who makes the state assignment, informed by her past experience. Belief about what? About the content of her subsequent experience.

Bell also deplored a "shifty split" that haunts quantum mechanics. The shiftiness applies both to the nature of the split and to where it resides. The split can be between the quantum and the classical, the microscopic and the macroscopic, the reversible and the irreversible, the unspeakable (which requires the quantum formalism for its expression) and the speakable (which can be said in ordinary language). In all cases the boundary is moveable in either direction, up to an ill-defined point. Regardless of what is split from what, all versions of the shifty split are vague and ambiguous.

For the QBist, there is also a split. It is between the world in which an agent lives and her experience of that world. Shiftiness, vagueness, and ambiguity all arise from a failure to realize that like probabilities, like quantum states, like experience itself, the split belongs to an agent. All of them have their own split. What is macroscopic (classical, irreversible, speakable) for Alice can be

Hypothesis: Bohr's talk about the movable line between subject and object is a continuation of the anti-Hegelian tradition of Poul Martin Møller, Søren Kierkegaard, and Rasmus Nielsen.

Bohr saw the utility of this idea for scientific practice, especially for attaining objective descriptions in situations where the subject is "entangled" with the object.

Every unambiguous communication about the state and activity of our mind implies of course a separation between the content of our consciousness and the background loosely referred to as “ourselves”, but any attempt at exhaustive description of the richness of conscious life demands in various situations a different placing of the section between subject and object.

In order to illustrate this important point, I shall quote a Danish poet and philosopher, Poul Martin Møller, who lived about a hundred years ago and left behind an unfinished novel called “The Adventures of a Danish Student”, in which the author gives a remarkably vivid and suggestive account of the interplay between the various aspects of our position . . . (Bohr 1960, p 65)

- Møller's novel gives a humorous description of a person (*licentiaten*) who creates an endless series of new *jeger*.
- The target of Møller's jest appears to be the Hegelian aspiration to achieve objectivity through infinite reflection.
- Møller never states clearly his objections, or his alternative vision.
- SK makes the objection more forcefully.
- But SK doesn't leave us with any suggestions about the positive role of *viden* or *videnskab*.



Actually, ordinary language, by its use of such words as thoughts and sentiments, admits typical complementary relation between conscious experiences implying a different placing of the section line between the observing subject and the object on which attention is focussed. We are here presented with a close analogy to the relationship between atomic phenomena appearing under different experimental conditions and described by different physical concepts, according to the role played by the measuring instruments.

In fact, the varying separation line between subject and object, characteristic of different conscious experiences, is the clue to the consistent logical use of such contrasting notions as will, conscience and aspirations, each referring to equally important aspects of the human personality. (Bohr 1953, pp 389-390)

In emphasizing the necessity of paying proper attention to the placing of the object-subject separation in unambiguous communication, the modern development of science has created a new basis for the use of such words as knowledge and belief. (Bohr 1955, p 61)

- As already mentioned, the large majority of contemporary thinkers don't see anything interesting in Bohr's talk about subject and object.
- Favrholt thought that Bohr received inspiration from reading Poul Martin Møller, but otherwise he created these great new ideas completely from scratch.
 - He unequivocally denies any influence by Kierkegaard.

Hypothesis: Nielsen inherits the idea of the moveable boundary from Møller and Kierkegaard, and he sharpens it into a form that is applicable in philosophy of science.

Corollary: Kierkegaard influences science (including Bohr's approach to quantum physics) via Nielsen.

Nielsen: The boundary between apriori and aposteriori is moveable.

But when the boundary between apriori and empirical is supposed to be conceived of as definite and exact, then troubles arise. (1880, p 30)

A fixed, unmovable boundary line between the apriori and aposteriori cannot be set. (1880, p 37)

Objectiveringslov

No Object without a corresponding Objectification; it is an a priori law that underwrites all empiricism, a basic law that in science is, if possible, even more unshakable than Newton's law of gravity. From this it can be seen, that a critical boundary, a boundary line, on whose one side we have the objectivizing subjectivity, while the object is standing on the other side, is confusing and meaningless.
(1880, p 41)

Rosenberg on Nielsen

Her fremsætter Nielsen den 'Objektiveringslov', som senere blev et saa betydningsfuldt Led i hans Metafysik: Objekterne kan ikke objektivere sig selv, og da Objekter uden Objektivering er umulige, forudsætter Objektiviteten en objektiverende Subjektivitet. Paa den anden Side kan Subjektiviteten ikke undvære Objektiviteten, eftersom dens Selvbegriben og Selvmagt saa vilde blive uden Indhold.

Rosenberg on Nielsen

Opfatter vi Forholdet udialektisk faar vi en kritisk Adskillelse som hos Kant, der ganske fornagler Problemet om Subjektets og Objektets indbyrdes Forhold, eller en mystisk Realisme som hos Schelling, der fortørner Problemet i Taage. Men naar Objektiviteten og den bærende Subjektivitet paa ethvert Punkt dialektisk ses at forudsætte hianden, da forstaas 'Naturens aandrige Aandløshed', og man øjner Muligheden af Problemets Løsning — saavidt muligt er paa menneskelige Vilkaar. (Rosenberg p 13)

Høffding on Nielsen

Nielsen imagined that to describe the interrelationship between the subjective and the objective, or as he calls it, knowledge and power, an infinite analysis would be needed, since every subject presupposes an object, and every object in turn a subject. When one does not want to conclude in a speculative and theological way, it becomes a duel [Holmgang] without end.

... Nielsen did not perceive the matter in this way. His way of thinking was that since every object must be objectified, i.e. presupposes a subject, and since the human subject cannot perceive (objectify) everything, there must, if the reality of objects is to be asserted, be an absolute ('ontological') subject for whom the absolute reality exists.

He overlooks the fact that the game must begin again here; even a God would be bound to the Law of the Relation between Subject and Subject and Object. The attempt to justify an abstract theism through Grundideernes Logik has therefore not succeeded. We could not get further than to determine and describe a subject in relation to which certain phenomena (objects) apply, just as the astronomer must determine a point (on the earth, on the sun, or wherever) from which the positions and movements of the celestial bodies could be described as if they were absolute. (Høffding 1909, p 189-190)

Was Rasmus Nielsen the first analytic philosopher?

- circa 1900: Bertrand Russell and G.E. Moore reject Cambridge Hegelianism
- circa 1915: Wittgenstein reads Kierkegaard
 - “language on holiday”
 - “logic must take care of itself”
- The logical positivists argue that philosophy has no content of its own; instead, it is to be the logic of science

Open questions: backward

- Low-hanging fruit in research on 19th century Danish philosophers
 - Reading and interpreting Nielsen's books is a big job: Danish, fraktur, mathematics, etc.
 - Nielsen's handwritten papers in KB
 - Notes by students in KB
- Can we say something more specific about what triggered Nielsen's turn to *fagvidenskaberne*?
 - The timeline between 1853 and 1860 is a bit hazy

Open questions: backward

- What role does the concept of power (*Magt*) play for Martensen and Nielsen?
- The notion of *objectivering* does heavy lifting for Nielsen, and it appears already in *Den Propædeutiske Logik* (1845). Does it appear elsewhere before that? Do other Danish philosophers use the concept?
- Did Nielsen know about non-euclidean geometry, and did that influence his view about the moveable apriori?

Open questions: forward

- Does RN represent a betrayal of SK's ideas, or an innovative application of these ideas to a life with more typically modern concerns?
- Does RN provide a positive development of SK's conception of the role of objective knowledge in a good human life?
 - Does Nielsen provide an alternative to the views of Spinoza and Hegel?
- Does RN have any helpful ideas about the relationship between science, philosophy, and theology?

Further reading

- Stewart. "Rasmus Nielsen: From the object of 'prodigious concern' to a 'windbag'"
- Garff. *Søren Kierkegaard: A Biography*
- Koch. *Den Danske Idealisme* (chapter on Nielsen)
- Høffding. *Danske Filosoffer* (chapter on Nielsen)
- For primary sources, I recommend Nielsen's late works *Almindelig Videnskabslære i Grundtræk* and *Philosophiske Grundproblemer*