An Untimely Meditation:

F.A. Hayek and the Study of the Mind from the "Beiträge zur Theorie der Entwicklung des Bewusstseins" (1920) to *The Sensory Order* (1952)

Ohad Reiss-Sorokin,
Institute for Advanced Studies in Culture
University of Virginia

Dear Readers,

Thank you very much for taking the time to read the first draft of my article. At first, I planned to include this article as a chapter in my dissertation which deals with Hayek's Viennese intellectual circle the *Geistkreis*. It did not find a natural place in the dissertation, so I am thinking of making an article out of it. I imagine it could fit in either history of science or intellectual history journals.

This project, however, ballooned far beyond what I expected it to be. Therefore, I bring you some excerpts from it, and notes to give you a sense about the missing parts. I hope there is enough meat here for our forthcoming discussion, to which I am very much looking forward.

Thank you, Ohad Reiss-Sorokin May 17, 2023

Introduction

In 1952 the economist and political thinker Friedrich A. Hayek published his only major contribution to theoretical psychology, a slim book titled *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology*. Five years earlier, Hayek, tooting his own horn, described *The Sensory Order* to John U. Nef, the chair of The University of Chicago's Committee on Social Thought, as "the most important thing that I have yet done."

Not everyone, as it will become apparent in what follows, agreed with Hayek's assessment of his own work. Both the experts who were called by The University of Chicago Press's editors to evaluate Hayek's work pre-publication and the reviewers who reviewed the book for scholarly journals found Hayek's book difficult to digest. Many failed to pinpoint the natural disciplinary home for Hayek's intervention; is it a work in philosophy? In psychology? In neurobiology? they could not decide. The author's reputation as a political economist, historian of political thought, and the author of the widely popular *The Road to Serfdom* only made the classification of his work more confusing. Hayek's expertise, they thought, had nothing to do with the content of the work, and, for that reason, the book should not be treated as cutting-edge research, but as musings of an amateur, or worse, as an outright infringement.

About one thing, however, many of the early reviewers of *The Sensory Order* did agree: they judged Hayek's ideas, writing style, and forms of argumentation as *dated*. Hayek's work, they argued, was an odd fit with its contemporaneous scholarly debates, in any discipline. Its relevance, interest, or truth notwithstanding, *The Sensory Order* struck its early readers as reminiscent of a different age of scholarship.

Ironically, the readers' impressions were not far from the truth. Hayek based *The Sensory Order* on an article he wrote—but did not publish—more than three decades prior to the book's publication. In 1920, as a young student at the University of Vienna, Hayek wrote an article, titled "Beiträge zur Theorie der Entwicklung des Bewußtseins" ("Contributions to a Theory of How

¹

¹ Friedrich A. Hayek, *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology* (Chicago, IL: The University of Chicago Press, 1952). *The Sensory Order* was recently reprinted, alongside a number of relevant articles, as the fourteenth volume of Hayek's collected works series, see: Friedrich A. Hayek, *The Sensory Order and Other Writings on the Foundations of Theoretical Psychology*, Viktor J. Vanberg, ed., *The Collected Works of F.A. Hayek, vol. XIV* (Chicago, IL: The University of Chicago Press, 2017). In what follows I refer to the XXX version

² Letter: Hayek to Nef, 6 November 1948 cited in Bruce Caldwell, "Some Reflections on F.A. Hayek's *The Sensory Order*," *Journal of Bioeconomics* 6 (2004): 239-54 at 239.

Consciousness Develops") which contained the basic ideas he presented in *The Sensory Order*.³ The kernel of *The Sensory Order* did not only seem dated; it was, in reality, over 30 years old.

The book's initial lukewarm reception made its strange career in the following decades even more improbable. Hayek's "most important" book failed to make a dent in any contemporaneous scholarly debate. It was all but ignored by psychologists, philosophers, and neurobiologists alike. The book was forgotten to collect layers of dust in The University of Chicago Press's warehouse.⁴ To be forgotten, however, is sometimes a necessary step in the process of *rediscovery*.

The psychologist Walter B. Weimer was perhaps the first to bring *The Sensory Order* back from oblivion.⁵ "[P]sychologists are quite slow, especially in recognizing anything of significance," Weimer wrote to Hayek in 1976 as he invited him to speak at a conference that later would be recognized as a milestone in the history of the "cognitive revolution" in psychology.⁶ More than two decades after the publication of *The Sensory Order*, it finally received the recognition its author thought it deserved.

And yet, even as it found new receptive readership among psychologists, neurologists, computer scientists, and eventually also among economists, *The Sensory Order* was still considered *untimely*. The book, which from the perspective of 1950s Chicago, appeared dated, was increasingly recognized as *prophetic*. The disappointment with Hayek's antiquated approach and style cleared the way for calls of amazement: how could he have foreseen the future of cognitive psychology and machine learning with no access to recent developments in neurobiology nor without having any real acquaintance with computers?

This article consists of four sections. Sections I to III tell the story of the creation and reception of *The Sensory Order* in three acts. The first act (I) focuses on the social and intellectual contexts in which Hayek wrote and failed to publish his article "*Beiträge zur Theorie der Entwicklung des Bewußtseins*." The section tries to answer two principal questions: what aspects of the Viennese

³ Friedrich A. Hayek, "Contributions to a Theory of How Consciousness Develops," in Hayek, *The Sensory Order and Other Writings on the Foundations of Theoretical Psychology*, 321-47. The original German version remained unpublished until 2006. See Friedrich A. Hayek, "Beiträge our Theorie der Entwicklung des Bewußtseins (1920)" in *Die sensorische Ordnung: Eine Untersuchung der Grundlagen der theoretischen Psychologie* (Tübingen: Mohr Siebeck, 2006), 199-226.

⁴ cite the selling stats. doc.

⁵ I need to add a fn. about Weimer

⁶ add a reference to Vanberg + something about the cognitive revolution.

context, and especially the legacy of Ernst Mach, had made the conception of the "Beiträge" possible? And why did Hayek leave the piece unpublished? Section II focuses on the events that preceded the publication of the book and its reception by the scholarly community. The internal correspondence of The University of Chicago Press, as well as the correspondence between Hayek and the editor, would shed light on the circumstances of the book's publication. The published reviews of the work, together with the book's sales records and the details from the negotiations between Hayek and the Press regarding a publication of a second edition, teach us about *The Sensory Order*'s initial cold reception. Section III begins with the correspondence between Hayek and Weimer and gives us a glimpse into the process of the book's rediscovery; first by psychologists and later by economists, neurobiologists, and computer scientists.

Section IV addresses the most interesting aspect of *The Sensory Order*'s layered reception—its alleged *untimeliness*. What did the first readers of the book mean when they judged it as *dated*? What were its late adopters achieve by declaring the work as prophetic? And, perhaps the most intriguing question: What made *The Sensory Order* a suitable object for such contradictory interpretations? The answers to these questions, I argue, reveal how scientists and philosophers mobilized the inherent tension between the general truthfulness of science and its concrete historical existence in order to legitimize and delegitimize specific scientific claims as well as entire fields of knowledge.

Part I—Vienna State of Mind: Vienna, 1920s

The Aftermath of World War I

In the aftermath of World War I, Vienna was bursting at its seams. An ongoing crisis—caused by the explosive combination of battlefield losses, dwindling resources, infectious diseases, rising nationalisms, and tensions between the city's original population and what they saw as "intruders" from the east—tore the Habsburg Empire apart and left Vienna, which once was its splendorous capital, unrecognizable⁷. At the end of the war, 19 year-old Friedrich August Hayek (1899-1992) returned from the Italian front to his native Vienna⁸. "[I]t was like after a shipwreck which leaves

⁷ Maureen Healy, Vienna and the Fall of the Habsburg Empire: Total War and Everyday Life in World War I (Cambridge: Cambridge University Press, 2004).

⁸ On Hayek's experience as a soldier on the Italian front see Bruce Caldwell and Hansjoerg Klausinger, Hayek: A

no doubt that one has to start a new," he later described his impressions from the city's dire situation.9

Hayek hurried to enroll in the University of Vienna and started his law studies in November 1918.¹⁰ However, he made good use of the university's policy that allowed its students to wander between the faculties. He was a law student *de jure* while *de facto* pursuing his interests in philosophy and psychology before he turned to economics.¹¹

In the winter of 1919/20, the situation in Vienna further deteriorated, and Hayek and his family found refuge in Zurich. There, Hayek had an opportunity to work for a few weeks at the laboratory of the Russian-born Swiss neurologist Constantin von Monakow (1853-1930).¹²

Constantin von Monakow

Hayek described his work with von Monakow as quite technical: "tracing fiber bundles through the different parts of human brains." Yet, von Monakow himself was a man of great vision. He was a member of a cohort of scientists who set out to topple the deterministic-mechanistic worldview of the golden generation of German science (Hermann von Helmholtz, Emile Du Bois-Reymond, and Rudolf Virchow) in order to "reenchant" science with new holistic and vitalistic theories. ¹⁴

By the time Hayek arrived at Monakow's laboratory, the esteemed neurologist was occupied with questions that far exceeded the anatomy or physiology of the nervous system. Harrington described Monakow as a unique hybrid of a "German scientist" and a "Russian mystic." He started his career as a disciplined disciple of the reigning paradigm of brain anatomy. Before long, however, Monakow started looking for new directions. He surrounded himself with young neurologists and psychiatrists that met regularly for an informal *Kreis* (circle). Among the *Kreis* members, we find the neuroanatomist August Forel (1848-1931), the psychiatrist Eugen Bleuler

Life, 1899-1950, Vol. I (Chicago, IL: The University of Chicago Press, 2022), 71-84.

⁹ Cited in Caldwell and Klausinger, *Hayek*, 87.

¹⁰ Caldwell and Klausinger, *Hayek*, 124.

¹¹ Caldwell and Klausinger, *Hayek*, 127-36.

¹² Caldwell and Klausinger, *Hayek*, 130.

¹³ F.A. Hayek, *Hayek on Hayek: An Autobiographical Dialogue*, Stephen Kresge and Leif Wenar (Eds.) (Chicago, IL: The University of Chicago Press, 1994), 51.

¹⁴ Anne Harrington, *Reenchanted Science: Holism in German Culture from Wilhelm II to Hitler* (Princeton, NJ: Princeton University Press, 1996), xvi-xvii.

(1857-1939), who remained in touch with Hayek years after the latter's visit to the laboratory, the psychoanalyst Carl Gustav Jung (1875-1961) and other staff members from the Burghölzi psychiatric hospital. Steeped in the new philosophical and psychological ideas that were discussed in his *Kreis*, Monakow adopted a dynamic, organismic model to understand brain functioning, he became a "theorist of the living brain in health and disease."¹⁵

The emphasis on inquiring about the functioning of the living brain led Monakow to adopt a "connectionist" approach to the brain-consciousness question. He compared the brain to a music box. The melody, he argued, cannot be pinned down to any specific part of the music box's cylinder. His work on the subject, which owed much to the writings of the British neurologist John Hughlings Jackson (1835-1911), anticipated much of Hayek's own argument (Hayek, by the way, did not mention Monakow nor Jackson as sources of influence on his work).¹6

When Hayek arrived at Zurich, however, Monakow was already deep in the third and final part of his career. Shaken by the outbreak of the Great War, Monakow looked to harness the explanatory power of neurology to tackle larger societal and cultural issues. He found that the neurological concepts he discovered earlier in life ("Diaschisis" [sympathetic shock] and "Abbau" [regression]) were potent metaphors to explain the ongoing political and cultural catastrophes. In culture, like in the brain, the more refined and late-to-evolve functions are the first to give, and beneath them, we find only the most animalistic urges of humanity.

Monakow's studies on the development and disintegration of the human species led him to take on the evolutionary approach as the be-all and end-all explanation at all levels of human existence: biological, neurological, psychological, and cultural-historical. The evolutionary perspective was not foreign to Hayek, who was actively interested in theoretical biology from an early age, but the way he used it later to explain the development of consciousness itself clearly echoed Monakow's approach. We have no reason to believe that Monakow read Hayek's work, as it was never published, yet in 1928 Monakow repeated the idea which Hayek considered as the most important and controversial conclusion of his study—"the brain" Monakow declared, "had created itself."

¹⁵ Harrington, *Reenchanted Science*, 78-9.

¹⁶ Harrington, *Reenchanted Science*, 80-1.

¹⁷ Constantin von Monakow and Raoul Mourge, *Introduction biologique à l'etude de la neurologie et psychopathologie: Intégration et désintégration de la fonction [A Biological Introduction to the study of neurology and psychopathology: Integration and disintegration of its function]* (Paris: F. Alcan, 1928) cited in Harrington,

Hayek's Contributions

Following his experience with von Monakow in Zurich, Hayek dedicated his stay in Norway over the summer of 1920 to drafting an essay that would "create a basis for a general physiological explanation of consciousness phenomena...".¹⁸ Hayek tried to kill two birds with one stone. In philosophy, he aimed at "the dogmatic-atomistic concept of sensations," i.e., Ernst Mach's theory of knowledge.¹⁹ In the field of neurology, he tried to take down "localization theory," the assumption that each idea or function corresponds to a particular area in the brain²⁰. "The author," Hayek spelled out his methodological commitment, "has no intention to deal with philosophical questions head-on."²¹ Hayek believed that a proper understanding of the brain's physiology, on the one hand, and proper clarification of the term "consciousness," on the other hand, would turn philosophical epistemology obsolete.²²

At the core of Hayek's article lay a question: "What the term 'consciousness' really means." For the most part, psychology managed to deflect this question by assuming parallelism between psychic and physiological phenomena (i.e., localization). To be conscious of something, to know something, Hayek answered, is to be able to integrate a newly acquired impression with the entirety of past impressions. A preexisting "nexus of meanings" is necessary for any particular consciousness because qualities can only be defined in relation to other qualities (e.g., the color "red" has meaning only as a part of the color wheel, and being six feet tall cannot be comprehended without it being compared to 5-feed and 7-feet). In other words, we are never conscious of just one thing; to be conscious of something requires one to "keep in mind" an entire nexus of interconnected qualities.

Hayek's major observation, therefore, was that isomorphism exists between the brain and

Reenchanted Science, 93 fn. 96.

¹⁸ Hayek, "Contribution to a Theory of How Consciousness Develops," 321. For the circumstances in which Hayek wrote this essay, see Caldwell and Klausinger, *Hayek*, 131.

¹⁹ Hayek, "Contribution to a Theory of How Consciousness Develops," 321.

²⁰ mention Katja's book

²¹ Hayek, "Contribution to a Theory of How Consciousness Develops," 321.

²² On the history of the "psychologism" debate, that dealt with the question of whether philosophical questions can be solved by psychological or physiological means, see Martin Kusch, *Psychologism: A Case Study in the Sociology of Philosophical Knowledge* (London and New York: Routledge, 1995).

²³ Hayek, "Contribution to a Theory of How Consciousness Develops," 323.

²⁴ Hayek, "Contribution to a Theory of How Consciousness Develops," 323-4.

consciousness. However, it was not the one-to-one correspondence presumed by localization theorists and the champions of the atomistic theory of sensations.²⁵ What Hayek noticed was that both systems—consciousness and the nervous system—function only in a state of *interconnectedness*.

The isomorphism between the two systems served as Hayek's major clue for escaping the circular reasoning that looms large over any connectivist theory of meaning. If each of our particular experiences relies on the entire system of meaning, how does one manage to set up the system to begin with? To answer this question, Hayek had to distinguish between "stimulus" (i.e., the action of the external world on our nervous system) and "sensation" (i.e., the quality of consciousness). In opposition to Machian atomism, Hayek did not assume that the stimulus "contains" the sensation. For him, sensations were processes that stimuli underwent by an already existing nervous system.

Hayek defined physiological memory as an established connection between two isolated nerves. Such linkages are created when multiple stimuli act simultaneously on the nervous system; nerves that are often stimulated together create a permanent connection between them. Sensations, we saw, are sensed only by a fully developed cerebrum. The conversion of impulses into sensations, therefore, is a result of the physiological memory that was shaped by external stimuli before they could turn into sensations.²⁶ The ongoing effects of the environment on the organism form the cerebrum that, when formed, would be able to sense it. This process of pre-, and ongoing formation, determine one's perception, not any inherent quality of the world (atoms of perception). "One might justly say," Hayek summarized his argument, "that each human being thinks with his past."²⁷

After he unpacked the core of his argument, Hayek turned to describe his theory's implications.²⁸ This section is peppered with well-crafted arguments on issues such as the reality of "free will," the place of the individual vis-a-vis the species, and so on. For the sake of brevity, however, I wish to focus on a single argument that best encapsulates how, I believe, young Hayek envisioned his project's stakes.

²⁵ It is important to note the co-dependency between these two theories.

²⁶ Hayek, "Contribution to a Theory of How Consciousness Develops," 327.

²⁷ Hayek, "Contribution to a Theory of How Consciousness Develops," 329.

²⁸ Hayek, "Contribution to a Theory of How Consciousness Develops," 333-47.

Once we recognize, however, that the totality of existence is the infinite source from which a minuscule segment—a living being—acquires uptaking relationships with those aspects of existence that concern it, we will cease to think of our limited minds as standing outside of or even above existence. Thus, all the solid components from which an autonomous mind was to be constructed have now been demolished. The a priori structures of apperception (*Anschuauungsformen*) posited by Kant have been overturned primarily by Ernst Mach, and now Mach's elements, sensations, may have suffered the same fate in the light of the reflections here.²⁹

The first thing to jump out of these words is the radical immanence of Hayek's worldview. For him, knowledge is primarily *of* the world, stemming from it, and its epistemic content is only secondary, a derivative of the process of its creation. It is reasonable to tie this argument with Hayek's later interventions regarding the epistemic superiority of "local knowledge." Secondly, it is worth noting the esteemed lineage into which Hayek tied himself: Kant, Mach, and Hayek. Kant, according to Hayek, led us astray with his notion of the transcendental subject, the "autonomous mind," the condition of possibility for experience.

Mach looked to correct Kant's mistakes, to undo the gap Kant had entrenched between the object and subject (or between the physical and the psychical, to use Mach's terms).³¹ In his "phsyhiolgico-physical research," Mach asked to do away with "mysterious entities, which by their interaction with another, equally mysterious entity, the ego, produce sensations." The "business" of the "antimetaphysicain" (Mach insisted that he makes "no pretensions to the title of philosopher," yet he titled the introduction to his *The Analysis of Sensations* "antimetaphysical") is to investigate the connexions between "colors, sounds, spaces, times,... [that] are provisionally the ultimate elements."³²

Hayek aspired to be more Machian than Mach himself. Like Mach, he relied on the cuttingedge science of his time. But if Mach, for the most part, relied on his contemporaneous study of the physiology of the senses, Hayek had at his disposal more advanced neurophysiological science.

²⁹ Hayek, "Contribution to a Theory of How Consciousness Develops," 347.

³⁰ E.g., F.A. Hayek, "The Use of Knowledge in Society," in *Individualism and Economic Order* (Chicago, IL: The University of Chicago Press, 1948), 77-91. C.f. Vanberg, "The Knowledge Problem".

³¹ Ernst Mach, *The Analysis of Sensations*, trans. Sydney Waterlow (London: Routledge, 1996), 71.

³² Mach, *The Analysis of Sensations*, 29-30. In a footnote, Mach mentioned the decisive role that reading Kant's *Prolegomena to any Future Metaphysics*, which he borrowed from his father's library at the age of fifteen, had on the development of his thoughts on the topic.

Like Mach, Hayek looked to purge metaphysics from our scientific understanding of the world. The most important aspect, however, which young Hayek inherited from Mach is the notion that further scientific progress would stem from the study of the mind. In the summer of 1921, Hayek noted in his diary:

The next great revolution in science will be owed to the exploration of man himself, that is, of his mind. The results of this research will be the new point of departure that will provide us with a new world view beyond the present one..."33

Hayek's "Beiträge" was very much a product of its time and place—early 1920s Vienna. Hayek relied on recent developments in neurology; he worked within the Machian scientific and (anti-)philosophic paradigm and, thus, unwittingly followed what the philosopher Otto Neurath described as the Austrian Sonderweg (special path) in philosophy—the rejection of the "kantisches Zwischenspiel" ("Kantian intermezzo") which inflicted German philosophy.³⁴ The rest of this section is dedicated to further exploration of the "Beiträge"'s intellectual context, focusing on three major issues: Monakow's broadening of the scope of neurology as a result of World War I, Mach's lingering legacy in Vienna following his death in 1916, and Hayek's direct teachers Adolph Stöhr, and Alois von Riehl.

Mach's Legacy in Vienna

[I don't know whether it is necessary, but I consider adding here a short section on Mach's legacy in interwar Vienna. Hayek, at least in his view, specifically criticized Mach from within the Machian paradigm. But Mach's spirit, and especially his anti-metaphysics and the notion of the unity of science, is essential for understanding anything about the time period.]

Hayek's Immediate Teachers

[Another option section here would follow Hayek's immediate teachers in the 1920s to understand

³³ Hayek's diary August 25, 1921 cited in Hayek and Klausinger, *Hayek*, 131.

³⁴ Otto Neurath, *Gesammelte Schriften*, Bd. I, 303, cited in: Gideon Freudenthal, "Overturning the Narrative: Maimon vs. Kant," *Discipline Filosofice* 29/1 (2019): 47-68 at 50.

the context within which he worked].

The Publication of the "Beiträge"

by refraining from publishing the "Beiträge." "I was certainly wise not to attempt to publish at the time even though it contains the whole principle of the theory I am now putting forward," he wrote.³⁵ Hayek explained why he thought, "even at the time," that further work was needed before turning the article in. That is, despite his persuasion that he "found the answer to an important problem," Hayek realized that he could not "explain precisely what the problem was."³⁶ It was surprising, therefore, to learn that, in spite of what he argued in *The Sensory Order*, Hayek tried several times to publish the "Beiträge" in the early 1920s. Caldwell and Klausinger relied on Hayek's own diary when they argued that he submitted the "Beiträge" for publication on four different occasions. Hayek sent the completed manuscript to his teachers, Stöhr and Riehl, who encouraged him to continue working on it. Later, he sent a revised manuscript to Braumüller, a Viennese publishing house.³⁷ Despite receiving favorable reviews, the publisher declined the "Beiträge" due to excessive printing costs. Hayek did not despair and tried again with two esteemed journals. He first sent it to the Annalen der Naturphilosophie ["Annales of Natural Philosophy"], and after his manuscript was declined, he tried the Zeitschrift für allgemeine Physiologie ["Journal of General Physiology"]. The latter journal was edited by the German physiologist Max Verworn (1863-1921), whose works Hayek studied to prepare the "Beiträge" and, judging from one of his journal entries, he very much admired. 38 In 1923, during his long stay in New York, Hayek retyped an abridged and revised version of his original manuscript, following the advice of the Swiss psychiatrist Eugen Bleuler (1857-1939), a member of Monakow's *Kreis*, with whom he met during his time in Zurich. That revised version, however, remained

In the preface to *The Sensory Order*, Hayek congratulated the restraint his younger self had shown

³⁵ Hayek, The Sensory Order, 115.

³⁶ Hayek, The Sensory Order, 115.

³⁷ In a different interview (with W.W. Bartley on June 11, 1984), Hayek said that it was Stöhr who sent the article on his behalf to the Viennese publisher Deuticke, see Vanberg, "The 'Knowledge Problem'," 6 fn. 29.

³⁸ The works by Verworn Hayek used were: Die Mechanic des Geisteslebens [The Mechanics of Mental Life] (Leipzig: Teubner, 1907) and Die Entwicklung des menschlichen Geistes [The development of the Human Mind], 4th ed. (Jena: G. Fischer, 1920). In his diary, Hayek used Verworn's work as an example of a scientific project that is in line with what Hayek believed to be "the next great revolution in science"—the exploration of the mind as a point of departure for scientific renewal beyond materialism. Cited in Caldwell and Klausinger, Hayek, 131.

unpublished.39

Before analyzing Hayek's "memory lapse" in the preface to *The Sensory Order*, it might be beneficial to explore the different drafts of the "Beiträge." The "Beiträge" was first published in the original German in 2006 as an appendix to the German translation of *The Sensory Order* [*Die sensorische Ordnung*].⁴⁰ In English, it appeared only in 2017 as part of volume XIV of *The Collected Works of F.A. Hayek* series, which was edited by Viktor J. Vanberg and dedicated to Hayek's psychological works. Both versions rely on a transcript that is being kept in the Hoover Institute with the rest of Hayek's papers. In the relevant file (box 93 folder 1), however, one can find a number of different, mostly partial, versions of Hayek's essay. A brief examination of the other versions suffices to show that throughout the writing process, Hayek was struggling to find the proper disciplinary home for his project.

For example, in the "canonized" version, Hayek chose the word "Beiträge" ("contributions") to describe his interventions. In a previous iteration, however, he tried a stronger title "Grundsätzliches zur Theorie der Entwicklung des Bewusstseins" ("Fundamentals of the Theory of the Development of the Consciousness") [version A]. Later on, with a blue pencil, Hayek substituted the perhaps over-promising "Grundsätzliches" with a noncommittal "Bemerkungen" ("comments," "remarks") [version B]. But the changes did not stop with the different titles. Both versions [A and B] are missing the introductory (untitled) section of the published versions and begin with a section titled "Zur Kritik des Empfindungsbegriffes" (was translated as "Critical Comments on the Concept of Sensations"), section 1 in the published version. The opening of this section in version B is virtually similar to the published version; it opens with a criticism of "conversational psychology" that by assuming a one-to-one correspondence between psychic experience and the physiology of the brain it ignores its most fundamental problem—how physiological phenomena are translated into consciousness entities. Version A, however, begins with a quick analysis of contemporary philosophy:

Even if the common approach in philosophy today has increasingly turned behind a unified, "monistic" explanation of the mental and corporeal phenomena, the empirical science

³⁹ Caldwell and Klausinger, *Hayek*, 131.

⁴⁰ Hayek, "Beiträge zur Theorie der Entwicklung des Bewußtseins," in *Die sensorische Ordnung* (Tübingen, Mohr Siebeck, 2006), 199-226.

⁴¹ In version A the section title is added in a pencil (not the blue pencil of the title change).

⁴² Box 93 Folder 1, F.A. Hayek Papers...

whose special task is to study the relationship between body and soul, namely psychology, still has not succeeded in bridging the dichotomy that, for human thinking, divides the two.⁴³

Unfortunately, we do not have enough evidence to determine whether the differences between the versions are of any significance at the argument level. Yet, it is important to note that Hayek, perhaps between one failed publication attempt to the other, has definitely tried to adjust the argument's framing. In version A he started by pointing out an inconsistency between the *philosophers*' presumptions and the state of the empirical science on which they allegedly rely. In version B he addressed "conventional *psychology*" ("die herkömmlische Psychologie," emphasis mine) and argued that they begged the question when it came to the most fundamental causal relations of their field, the brain-consciousness relations. Finally, in the version that had been ultimately published, he pushed down this entire discussion, the presentation of the problem, and added an introduction that reads like an opening line of a treatise in *physiology*:

This study is an attempt to create a basis for a general physiological explanation of consciousness phenomena by investigating the simplest conscious experiences, particularly those of a sensory nature, and explaining them in terms of the operation of established physiological laws.⁴⁴

Hayek, so it seems, did not have a specific audience in mind. Was it an essay that philosophers, psychologists, and physiologists should have appreciated? Or rather, it was (to use another quip by Nietzsche) an essay "for no one"?⁴⁵ Hayek allowed himself the liberty to adjust the framing, possibly according to the focus and the readership of the journal he was aiming for. The *Annalen der Naturphilosophie*, which was edited by the Noble Prize winner chemist and philosopher Wilhelm Ostwald (1853-1932), touched on issues in the natural sciences but definitely showed a more philosophical band. For example, volume number 14 (1921), the one which would have included Hayek's essay had it has been accepted for publication, contained several articles in the philosophy of physics (e.g., "Relativity Theory and Euclidian Geometry" and "A Fundamental Problem of Modern physics"), an essay on Kant and Mach (by Gustav Peter), some articles in

⁴³ "Grundsätzliches zur Theorie der Entwicklung des Bewusstseins," Box 93 Folder 1, F.A. Hayek Papers...

⁴⁴ Hayek, "Contributions," 321.

⁴⁵ Friedrich Nietzsche, *Thus Spoke Zarathustra: A Book for All and None*, trans. Adrian Del Caro (Cambridge: Cambridge University Press, 2006).

psychology and biology (e.g., "Several Examples of Psychological Methods for the Vegetable Kingdom," or "The connection between Biology and Energetic and the Concept of Life"), and an article titled "Logico-Philosophical Tractatus," by Hayek's cousin, Ludwig Wittgenstein.⁴⁶ It looks like Hayek was aiming for that journal with "version A" of the essay.

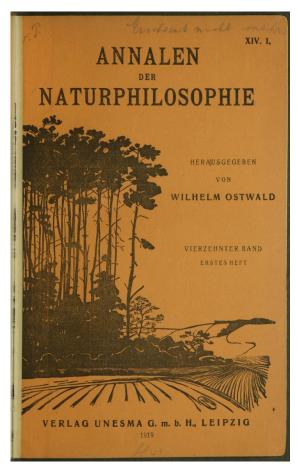


Figure 1. The title page of the Annalen der Naturphilosophie

The Zeitschrift für Allgemeine Physiologie had, we can assume, a different kind of readership. The articles of the 1921 edition (volume 19) deal with specific physiological issues and neurophysiological issues (e.g., "Lifespan and Aging Factor," "Rhythm Building and Excitability," or "Hydrogen-ion Concentration as a Peripheral Regulatory Agent of the Blood Supply").⁴⁷ It is safe to assume, therefore, that Hayek scratched the "philosophical" opening to the

⁴⁶ Wilhelm Ostwald (ed.), Annalen der Naturphilosophie, vol 14 (Leipzig: Verlag Unesma, 1921).

⁴⁷ Max Verworn (ed.), Zeitschrift für Allgemeine Physiologie, vol. 19 (Jena: Gustav Fischer, 1921).

piece and added the "physiological" opening to his article either when he submitted the article to Max Vorworn's journal.

Despite the upsetting results, i.e., the ultimate rejection of the piece, Hayek was right in adjusting his article to fit the demand of different crowds. Neither Hayek nor his study object, were, at the time, subjects of one disciplinary realm. Caldwell and Klausinger followed Hayek, "the peripatetic student," in his journey between the disciplines before he committed to the study of economics.⁴⁸ The mind, as a scientific object, however, was no less nomadic than Hayek. Ernst Mach, for example, aspired to solve or do away with philosophical problems by translating them into psychological questions. Monakow, to cite another source of influence on young Hayek, believed that he could repurpose the tools and insights of neurophysiology to interpret and perhaps solve world crises such as World War I.⁴⁹ In other words when it came to the study of the mind, the boundaries between the relevant disciplines, neurophysiology, psychology, and philosophy, were porous. Not only that, neither discipline could claim ownership of the mind as a research object, but also the respective limitations of the different methodologies have not yet been authoritatively posited.⁵⁰ For this reason, Hayek was able to claim that he could solve philosophical problems without engaging with philosophy at all.

Hayek's "Beiträge" remained unpublished; not because its author did not want to see it published, despite his 1952 remarks; and also not because it was a complete outlier in its intellectual environment. The different editors must have had their own justifications for rejecting Hayek's piece. Yet, it is worth taking Hayek's remarks seriously; for him, the main difference between the "Beiträge" and *The Sensory Order* was not the *answer* they provided. It is rather that the latter provided a better articulation of the *problem* that the former lacked.

The next section explores the publication process of *The Sensory Order* and its reception in the intellectual context of 1950s Chicago. Hayek may have found the "problem" he had previously solved, but, in 1950s Chicago, no discipline had accepted this problem as its own.

⁴⁸ Caldwell and Klausinger, *Hayek*, 124-39.

⁴⁹ Harrington, *Reenchanted Science*, 86-7.

⁵⁰ Cf. Kusch, *Psychologism*.

Section II - "Aristocratic Fritz": Chicago, 1950s

Hayek returned to work on his theoretical psychology project almost a quarter century after he first abandoned it. With the conclusion of World War II, Hayek was searching for a new project to pursue. His wartime project, which he considered his contribution to the war efforts, culminated with the publication of *The Road to Serfdom*. *The Road to Serfdom*, and especially its *reader's digest* version, made him a household name—a symbol of anti-centralist and freedom oriented politics. It also, at least in Hayek's view, diminished his status as a "serious" intellectual. This is why, he explained, he decided to take on his work in psychology again with the hope of regaining his lost intellectual status. Moreover, the methodological introduction to his larger wartime project, which was published in three parts in the journal *Economica* as "Scientism and the Study of Society," left him in want of a better account on the underlying logic of the social science vis-avis the natural sciences.

In 1945, therefore, Hayek started working on an essay titled "What is Mind?" which slowly ballooned into a book which he decided to call *The Sensory Order* and was published in 1952. In the years in which Hayek worked on the project, he had opportunities to present his thoughts to diverse crowds; in 1949, he was invited by the physicist Felix Ehrenhaft to present his project in Alpbach (an Austrian mountain town).⁵¹ The philosopher Paul Feyerabend, who was in attendance, captured perhaps the atmosphere in the room: "During the discussion he [Ehrenhaft] rose, bewilderment and respect in his face, and started in a most innocent voice, 'Dear Professor Hayek. This was a marvelous, an admirable, a most learned lecture. I did not understand a single word…"⁵² Hayek's convoluted presentation of his ideas became part of the book's reputation for the decades to come.

In early 1950 Hayek was given another opportunity to work out his ideas—he was invited to deliver a lecture class at The University of Chicago titled "The Place of the Mind in the Natural and the Social Science." During this time, Hayek became familiar with the interdisciplinary Committee on Social Thought, which was soon to become his new institutional home.⁵³ When he returned to Chicago in October 1950 to take on his new position as a Professor of Social and Moral

⁵¹ F.A. Hayek, "What is Mind?" in Vanberg (ed.), The Sensory Order and Writing on the Foundation of Theoretical Psychology, 348-60.

⁵² Paul Feyerabend, *Killing Time: The Autobiography of Paul Feyerabend* (Chicago, IL: The University of Chicago Press, 1995), 256. Cited in Caldwell and Klausinger, *Hayek*, 707.

⁵³ Caldwell and Klausinger, *Hayek*, 711.

Science at the Committee, he brought the complete draft of *The Sensory Order* with him.

This section focuses on the production process of Hayek's book and its immediate reception in different academic circles. The initial goal is, therefore, to highlight the bewilderment many of its first readers felt when encountering Hayek's work in the early 1950s. Following the paper trails that the production of the book left, however, yields an unexpected benefit. Since many of its initial readers rejected Hayek's book, each of them had, in their report or review, to explicitly portray the disciplinary boundaries (in both the synchronic and diachronic levels) that do not allow them to accept Hayek's work as a meaningful contribution to *their own* field. Tracing the different types of rejections Hayek's book faced, reveals that the malleable disciplinary boundaries we found in 1920s Vienna, especially as it came to the study of the mind, had significantly hardened by the time Hayek attempted to pass them again in the early 1950s.

The Sensory Order

[In this section I plan to describe the main differences between *The Sensory Order* and the "Beiträge." The focus would be on Hayek's critique of neo-behaviorism and his meditations on the nature of explanation possible in sciences which describe "complex phenomena"]

"The Kind of Scholarship That Must Be More Common in Europe than It Is in America"

Late in the Spring of 1951, Hayek's first full academic year in Chicago was winding down. As he was making his last arrangements for his summer trip back to Europe, Hayek sent a carbon copy of *The Sensory Order* manuscript to The University of Chicago Press with a special request: "[T]he topic of my book, long neglected, is coming back into favour and similar ideas seem to be in the air. I am therefore anxious to get it out before long." Hayek's rush stood in sheer contradiction to how he portrayed the state of the field in the introduction to the book: "It was with considerable surprise that, thirty years later [after finishing his work on the "Beiträge"], in examining the literature of modern psychology I found that the particular problem with which I had been concerned had remained pretty much in the same state in which it had been when it first occupied

⁵⁴ Letter Hayek to Rollin D. Hemens, 3 June 1951, Box 231 Folder 1, *The University of Chicago Press Archives*.

me."55 Hayek, therefore, was the first to highlight the strange temporality of his work; a theoretical problem that was very much in vogue in the 1920s but remained dormant since was now on the brink of a comeback. And Hayek, who had solved the problem once—in the previous iteration—wanted to be ahead of the curve this time around. He even cited the slow turnaround at Routledge (who, in his eyes, mishandled the production of his book on J.S. Mill and Harriet Taylor) as the reason he chose to publish with Chicago. That despite his claim that the British press had already approved the project.

Hayek was nervous for a reason. Not only that the Canadian psychologist Donald O. Hebb had already published, two years earlier, a more technically competent version of what Hayek saw as the main points of *The Sensory Order*. ⁵⁶ But also, The University of Chicago Press took its sweet time with the manuscript before green-lighting it. The main reason the press did not rush to follow Hayek's order was simple—they did not want to publish the book. The reports were inconclusive; none of the referees saw eye-to-eye with Hayek on the merits of his manuscript.

In his initial letter to the press, Hayek foresaw some of the difficulties.

It is difficult to explain what the book really is about; I usually refer to it as a book on psychology, but psychologists have for years not been very interested in the problem. It is somewhat on the borderline of psychology, physiology, physics and philosophy.⁵⁷

Perhaps because Hayek anticipated some difficulties with the proper appreciation of his work, he suggested that the press would ask the German émigré and University of Chicago psychologist Heinrich Klüver (1897-1979) to judge it.⁵⁸ The press did not follow Hayek's orders. Initially, they sent the manuscript to the philosopher Arthur Campbell Garnett (1894-1970), at the time the chair of the Philosophy Department of the University of Wisconsin.⁵⁹ Garnett's philosophical position was sympathetic to Hayek's. He, too, rejected Gilbert Ryle's version of "neo-behaviorism."⁶⁰. The

⁵⁵ Hayek, The Sensory Order, 118-9.

⁵⁶ Donald O. Hebb, *The Organization of Behavior—A Neuropsychological Theory* (New York: John Wiley&Sons, 1949). In the preface to *The Sensory Order*, Hayek mentioned Hebb and added that he could not integrate Hebb's findings into his own work because the book "appeared when the final version of the present book was practically finished." He justified the publication of *The Sensory Order* by arguing that his version of the argument engaged better with "the general significance of a theory of that kind" (Hayek, *The Sensory Order*, 120-1).

⁵⁷ Letter Hayek to Rollin D. Hemens, 3 June 1951, Box 231 Folder 1, *The University of Chicago Press Archives*.

⁵⁸ Letter Hayek to Rollin D. Hemens, 3 June 1951, Box 231 Folder 1, *The University of Chicago Press Archives*.
⁵⁹ P. P. Ammerman, F. I. Dratske, et al. "Arthur Compbell Cornett 1894, 1970," *Proceedings and Addresses of th*

⁵⁹ R.R. Ammerman, F.I. Dretske, et al., "Arthur Campbell Garnett 1894-1970," *Proceedings and Addresses of the American Philosophical Association*, 44 (1970-1971): 212-3.

⁶⁰ A. Campbell Garnett, "Mind as Minding," Mind 61 (1952):349-58.

critique of behaviorism was, indeed, what Garnett found worthy in Hayek's manuscript, and, granting some editorial reconstruction, suggested publishing the book.⁶¹

Despite the favorable review, the press decided to send the manuscript for an additional expert judgment. They sent it to the University of Chicago neuropsychologist William Dewey Neff (1912-2002) to evaluate Hayek's competence in neuropsychology and the accuracy of his descriptions. Hayek's theory, Neff argued, is not restricted by specific knowledge derived from current research and relied on general knowledge about the function of the central nervous system. Psychologists, he continued, may find parts of *The Sensory Order* worth their while. Yet the presentation of the argument, he continued, is lengthier than desired, and perhaps writing two journal articles in lieu of a book would better serve the ideas. He doubted psychologists would make it past the first couple of chapters, "Mr. Hayek," he concluded, "is more a philosopher than a physiological psychologist." He did not mean it as a compliment.

In general, it was difficult for both the editors and the readers to identify the proper (disciplinary, cultural, etc.) contexts in light of which Hayek's contribution should be read. Consider, for example, the editor's, Hayden Carruth, thank-you letter to Garnett.

This book appears to be a rather remarkable case. It gives us a pleasant glimpse of the kind of scholarship that must be more common in Europe than it is in America, the scholarship which embraces a number of disciplines, including the humanities, and which allowes [sic] writers a good deal wider frame of reference than the usual academic training in this country.⁶⁴

Despite the mostly favorable reviews they received, the press's internal correspondences revealed that they did not know how to digest Hayek's work. It seems like the unusual characteristics of the book led them to distrust the discretion of the referees they chose to assess it. They dreamt up a foreign context that only in the light of which Hayek's book should be appreciated—"Europe." Their "Europe," however, had nothing to do with actual Europe, definitely not with the Europe of the 1950s. What they had in mind was that long abandoned fertile grounds in which such wide-

⁶¹ A. Campbell Garnett, Manuscript Report 27 June 1951, Box 231 Folder 1, *The University of Chicago Press Archives*.

⁶² Letter Carruth to Neff 5 July 1951 Box 231 Folder 1, *The University of Chicago Press Archives*.

⁶³ W.D. Neff to Mr. Hayden Carruth, 18 September 1951 Box 231 Folder 1, *The University of Chicago Press Archives*.

⁶⁴ Letter Carruth to Garnett, 3 July 1951 Box 231 Folder 1, *The University of Chicago Press Archives*.

ranging yet not too technical or accurate works bloomed. Hayek, we recall, asked to reestablish himself as a cutting-edge scientist. In the minds of his readers, however, he was still associated with the spirits of long-lost Vienna, or rather with its myth.

In the autumn of 1951, a couple of months after the first round of reviews was concluded, a letter from Europe, actual Europe, hit the editor's desk. The sender was John Harvard-Watts, an editor at Routledge, and the news it carried was somewhat unnerving. Hayek, we remember, thought that a publication with Routledge was in his pocket and submitted the text to Chicago only because he thought that they would produce the book faster. Harvard-Watts, however, begged to differ. Routledge, he wrote, had also sent the manuscript for review (Hayek assumed that they would make a British version based on the American publication). The report concluded that not only that Hayek's argument is not novel in any way, but also his basic scientific competency was also put into question. "I am doubtful," Harvard-Watts expressed his concerns, "whether Hayek really understands much about this kind [neurophysiology] work." His conclusion was devastating: "I am rather doubtful whether this book would have a wide public or whether it would be considered quite good enough in its field for publication by a University Press." "65

Carruth was delighted to find camaraderie in his struggles with Hayek's manuscript. In a letter to Harvard-Watts, he confessed that Hayek must be very "anxious" because of their own, i.e., The University of Chicago Press's, "slowness." Had Hayek known the reason for their sluggishness he would have been even furious rather than anxious. "I am safe in saying that we will not want to publish his book unless he makes revisions. It is possible that we may decide not to publish it at all." Imaging the context in which such a book made sense was for Carruth a nice pastime reverie. Books, however, can only be sold in the present, not in a mythical past.

Two things happened in the following months which made the complex situation around the publication of *The Sensory Order* even tenser. First, the press received what seemed to be an unsolicited review from Heinrich Klüver, the University of Chicago German-émigré psychologist Hayek initially recommended as the best judge for his manuscript. Secondly, after a long discussion by the Publication Committee in Biology and Medicine (13 December 1951), the press decided to solicit additional reports and sent the manuscript to the Chair of the Psychology Department at The University of Chicago Ward C. Halstead (1908-1969). Klüver and Halstead

⁶⁵ Letter Harvard-Watts to Carruth, 19 October 1951 Box 231 Folder 1, *The University of Chicago Press Archives*.

⁶⁶ Letter Carruth to Harvard-WattsBox 231 Folder 1, *The University of Chicago Press Archives*.

agreed about the untimeliness of Hayek's work. They both argued that it was out of touch with any significant ongoing debate of any discipline. Yet the two psychologists drew diametrically opposed conclusions from their analysis of the work.

Klüver was not the typical émigré intellectual from Germany that left Germany fully formed with the rise of Nazism in the 1930s. He left earlier, in 1924, at the age of 26 after completing his studies in Hamburg and Berlin, to pursue a Ph.D. at Stanford University. He was a product of both systems and, as such, should have been intimately acquainted with the American system, which to Hayek was still foreign. He opened his letter to the editor in an unusual way "I infer from the attached letter that I got the Hayek book by mistake. However, I did read the whole typescript."67 In his unsolicited review, Klüver made the case, perhaps better than any of the other referees, that Hayek's book is anachronistic. He opened by arguing that "[T]he book deals with fundamental problems... which have been greatly neglected during the last decades." He gave the editor very little hope for a large readership: "there seem to be only a few psychologists left who are able to handle such problems." After showing some reservations about Hayek's solutions to the problems the book raised, Klüver mentioned once again that psychology, the discipline, is no longer interested in problems such as those Hayek tackled. For Klüver, however, the manuscript's untimeliness was precisely the reason it must be published. Hayek's less-than-satisfactory solutions to the problems he presented were of little importance, he argued, "compared with the fact that the problems of *The Sensory Order* are being systematically considered and discussed at a time when 'psychology' (so-called) appears to be reduced to discussion problems of 'psychological massage-parlors."68

Klüver's non-commonsensical approach—to publish not *despite* the work's untimeliness but *due to* this specific peculiarity of it—was understood by some members of the press as a mere expression of Klüver's friendship with Hayek. W. H. Taliaferro the Chair of the Publishing Committee explained to his colleague, Leonard Carmichael, Tufts College's President and a psychologist by training that Klüver's divergent opinion can be easily understood when we take into consideration that "Hayek is a close friend of Heinrich [Klüver] and is highly complementary of his work." Besides the warranted suspicion for bias on the side of Klüver, weak notes of xenophobia toward his German and Austrian colleagues can be read between Taliaferro's lines.

⁶⁷ Letter Klüver to Carruth 21 November 1951, 231 Folder 1, *The University of Chicago Press Archives*.

⁶⁸ Letter Klüver to Carruth 21 November 1951, 231 Folder 1, The University of Chicago Press Archives.

Beyond the xenophobia, perhaps, another line of thinking can be detected: for the Americans, both Hayek and Klüver had stakes at their imagined "Europe" which has been, and must have remained, an object for nostalgia.

Halstead, to whom the publishing committee turned for a final judgment of the book, was a neuropsychologist of eminent reputation. As an expert both in neurology and psychology, Halstead wrote a devastating report on Hayek's work and judged it as a complete failure. As a man of science of his time, Halstead had very little patience for ideas that seemed to push the discipline backward by ignoring cutting-edge research and relying on the discipline's past. Halstead insisted that Hayek misunderstood the neurophysiology he relied upon and confused serious popular science with serious research. Overall, Halstead thought that "[T]he resulting dialectic is an interesting but relatively un-important hodge-podge of Descartes, Hume, Berkley, Bain, Spencer, Kant, and Hegel in philosophy and various exponents of neo-behaviorism and Gestalt psychology."69 When asked about the contribution the manuscript to science, Halstead warned the editor that Hayek's book "projects into the twentieth century an essentially sterile view of human nature." Halstead compared Hayek's work to the much superior An Essay on Man, Ernst Cassirer's penultimate book that summarized his life project to the American audience after he emigrated from Hamburg to New Haven. I am not sure what Halstead had in mind making this comparison, there is little in common between Hayek's and Cassirer's works, at least in terms of their argument and content. Yet both books do not delimit themselves to the confines of any discipline but rather insist on mixing the exact sciences with humanistic knowledge. In other words, what brought both works together in Halstead's mind, supposedly, was their connection with that fantastic "Europe" we had previously discussed.

Halstead concluded his report with a suggestion: "I am somewhat reluctant to plant this suggestion, but I would like to see a book from Hayek on general theory of economics in which he incorporates some parts of the present manuscript...." Let the cobbler stick to his last.

The press did not know how to proceed. On the one hand, Hayek enjoyed the respect of his colleagues, and they did not want to turn him down. On the other hand, they protected the prestige of the publishing house, and the reviews they received were not enough for them to feel secure in the scientific value of Hayek's work. Leonard Carmichael (1898-1973) the president of Tufts

⁶⁹ Reader Report Ward C. Halstead, 12 January 1952 File 231 Folder 1, *The University of Chicago Press Archives*.

⁷⁰ Reader Report Ward C. Halstead, 12 January 1952 File 231 Folder 1, *The University of Chicago Press Archives*.

College and a psychologist by training, was next in line to informally advise the publishing committee. He, too, thought that the book had quite a high floor, Hayek was famous enough to sell some books, but a similarly low ceiling in the present state of the field: "very few people are interested in systematic studies of the sort I judge the manuscript to be. [...] Such a book would make almost no ripples in the placid and probably far too matter-of-fact modern professional psychological world."

The reviews kept coming, and the committee remained unpersuaded. On 21 February 1952, a representative of the press (most probably the managing editor Alexander J. Morin) met Hayek to discuss a number of future projects. When they came to discuss *The Sensor Order* Hayek expressed his dissatisfaction with the press. In order to alleviate the press's concerns, he suggested he would ask Klüver to write an introduction that would help the book to slide down the throats of contemporary psychologists.⁷² Morin acted fast, perhaps fearing to lose the trust of an important author. He overruled the publishing committee and informed Hayek of the press's decision to publish the book, even before the committee chair, Taliaferro submitted the final report.⁷³ Morin appointed himself to handle the production of the book.⁷⁴ Hayek was far from being satisfied: he was furious about the delay despite his demand to publish the book immediately. He scolded Morin for pinching pennies at the price of delaying the book's publication. Moreover, Hayek was offended by the editor's request to change the book's style. The Sensory Order consisted of a long string of discrete numbered paragraphs. Morin, based on a number of reports, requested that Hayek would replace the numbered paragraph with more streamlined prose. Hayek defended his stylistic choice. This style—paragraphed numbers—is "becoming more and more common because of its convenience," he argued. And, in support of his argument, he summoned his cousin's famous book—Ludwig Wittgenstein's Tractatus Logico-Philosophicus which famously used numbered paragraphs and back in the days, was chosen for publication over his own "Beiträge" in the Annalen der Naturphilosophie. 75 Morin, in reply, tried to appease Hayek (allowed him to keep the numbered paragraphs and promised the press would proceed as soon as possible) but could not

⁷¹ Letter Carmichael to W. H. Taliaferro (the Chair of the publishing committee) 29 January 1952 Reader Report Ward C. Halstead, 12 January 1952 File 231 Folder 1, *The University of Chicago Press Archives*.

⁷² Report: "Hayek, Future Project" 21 February 1952, File 231 Folder 1, *The University of Chicago Press Archives*.

⁷³ Report *The Sensory Order* F.A. Hayek, 8 March, 1952.

⁷⁴ Letter RDH to Morin, 14 March 1952, File 231 Folder 1, *The University of Chicago Press Archives*.

⁷⁵ Letter Hayek to Morin, 27 March 1952, File 231 Folder 1, *The University of Chicago Press Archives*.

hold back and added that he "must confess that I still do not quite understand the sense of urgency with which you approach the matter."⁷⁶

By the end of 1952 Hayek's *The Sensory Order* hit the bookstores. It did not sell. Out of the 1,500 copies that were produced for the American audience, mere 713 copies were sold in the decade following its publication.⁷⁷ When Routledge suggested sending The University of Chicago Press more copies, Morin bitterly responded that "at the present state of sales we have roughly a ten-year supply. Consequently, I think you might just as well pulp your overstock…"⁷⁸

A decade later, and amidst the book's commercial failure, the question of whether to publish *The Sensory Order* in paperback came up. Hayek pushed for it and mentioned that W.C. Halstead, the book's most critical referee, suggested that he would do it. After consulting with a number of experts, including Hebb, who recalled that the book at the time "was a *succés d'estime*" but could not wholeheartedly endorse its republication; and the psychologist Gordon W. Allport (1897-1967) who anticipated the "prophetic" reading of Hayek's work and argued that recent development in the study of "the body-mind implications of transactionalism (Dewey-Bentley, Kilpatrick-Cantril)" supported Hayek's theory. "Surely no 'economist' has ever made a more important contribution to 'psychology'...," he concluded.⁷⁹

Andres Richter, then the managing editor of The University of Chicago Press, sardonically summarized the situation in a letter to Norman Franklin, a legal consultant to Routledge:

We are launched on a mad venture to reprint Hayek's THE SENSORY ORDER in our Phoenix Science Series. The *aristocratic* Fritz [Hayek] has a soft spot in his heart for this title, and looks forward longingly to its reappearance.⁸⁰

Hayek, originally von Hayek, had lost his hereditary nobility title to the republican spirits in the

⁷⁶ Letter Morin to Hayek, 1 April 1952, File 231 Folder 1, *The University of Chicago Press Archives*.

⁷⁷ "Memo: Profit and Loss on Hayek: THE SENSORY ORDER," 21 November 1962, File 231 Folder 1, *The University of Chicago Press Archives*. In comparison, by the year 1951 *The Road to Serfdom* sold 70,000 copies in the USA alone. Other, more technical works, such as *Individualism and Economic Order* and *The Pure Theory of Capital* sold 1,600 and 500 copies respectively (in the United States), see F.A. Hayek "Replies to U.o.Ch.Press Author's Questionnaire E-16" File 231 Folder 1, *The University of Chicago Press Archives*.

⁷⁸ Letter Morin to Mr. Cecil Franklin (Routledge), 28 June 1957 File 231 Folder 1, *The University of Chicago Press Archives*.

⁷⁹ Letter Hebb to Richter, 7 March 1963 & Letter Allport to Hayek, 23 June 1962, File 231 Folder 1, *The University of Chicago Press Archives*.

⁸⁰ Letter Richter to Franklin, 4 November 1963, File 231 Folder 1, *The University of Chicago Press Archives*. (emphasis mine).

aftermath of World War I. For his American publishers, however, he remained an "aristocrat": aloof, out-of-touch, unbounded by conventions, a fossil from the world of yesterday, from "Europe."

An Untimely Meditation

[Unfortunately, I did not have time to write this section properly. This section follows the published reviews of Hayek's work. What comes across clearly is that no discipline was willing to "adopt" Hayek's book and that the representatives of each discipline believed the book belonged to a different discipline or to a different historical period of their own discipline. I am attaching an excerpt from a conference presentation that quickly glances over these issues.]

The majority of the academic reviews of *TSO* agreed on three things: Hayek is a serious and bright thinker, the book is very badly written, and Hayek's opaque and Germanic style make some part of the book incomprehensible, and the book cannot be taken as a contribution to the discipline of the *reviewer*, at least not in its current state.

The Harvard **psychologist** Edward Boring went as far as to "tear my hair at his lack of historical orientation in psychology. Even when he is right (and that, I should say, is most of the time), you wish he would do a reasonable share of the work in connecting up his thought with that of his predecessors." While the Brown **philosopher** Chisholm summarizes his review by saying that "...it is difficult, in the present state of philosophy, to evaluate the philosophical significance of his work." Since Hayek is trying to jump from psycho-neurological details to "significant implications for epistemology and the philosophy of mind" without any "...attempt to make a clear and accurate statement either of the philosophical questions or of the data which give rise to them." The anonymous reviewer of the *Archives of Neurology and Psychiatry* was very enthusiastic about the book but still had a little misgiving – Hayek, he says, didn't get the neurology right. And David Hamlyn, another philosopher, writes in *Mind* that while Hayek leads us all the way back to the 19th century, his psychology is interesting, but he adds, "...should a scientific theory have such consequences [philosophical]? I think that Professor Hayek has not taken sufficiently seriously his statement that psychology must concern itself with cases where what we claim to see does not correspond to what is to be seen; in consequence, he has slipped over into talking epistemology."

His final allegation was that the book, sometimes, delves into metaphysics – and it is probably the harshest one, which can teach us something about 1950s philosophy when we remember that it appeared in a philosophy journal.

"A Fossil from the 19th Century"

[This section tells the story of the reintroduction of *The Sensory Order* into different scientific discourses. I have relatively little to add to this narrative which was told competently by Viktor Vanberg in his introduction to the relevant volume of Hayek's *Collected Works* (2017). This section should explain the context of the "Cognitive Revolution" in the 1970s that reshuffled the already established division of labor between the disciplines (neurology, psychology, and philosophy, to which we should add linguistics and computer science) when it comes to the study of the mind. More importantly, this section will emphasize how the different actors looked at Hayek's text as prophetic, as a text that foresaw recent developments long before the technological conditions ripened.]

An Untimely Meditation

[This section should be a meditation on the concept of timeliness in the history of science; Why did Hayek's book was considered dated in Chicago and prophetic later in the century? What does it mean to call a scientific work *dated*? And so on and so forth. Unfortunately, I spent all my time on empirical work, and I could not complete this more theoretical section. I have some ideas that I will be happy to share during the workshop, but mainly I plan to learn from all of you.]