Wittgenstein's Influence on Carnap's Conception of an Inductive Logic

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Rudolf Carnap is renowned for several key contributions: (1) his critique of metaphysics, labeling metaphysical statements as pseudo-problems; (2) his work in epistemology, particularly the quasi-analysis of scientific systems in his seminal work, the *Aufbau*; (3) his pioneering approach to explication, offering the explication of "explication"; and (4), his foundational work on the logical basis of probability and confirmation, initiating the first modern and comprehensive program of inductive logic.

With respect to (1) and (2), Carnap explicitly mentions his influence from Ludwig Wittgenstein. They met for the first time in person on June 20, 1927, in Vienna. Carnap noted about Wittgenstein's personality in his diary: "In the evening to Schlick; there Waismann and Wittgenstein (for the first time); very interesting, original, likeable person. [...] Artistic nature. [...] He always takes an intuitive position quickly, and only then thinks about it to justify it" (Carnap, Diaries, 1920-1935, my translation). Regarding (2), he wrote in his *Aufbau*: "Through conversations in Schlick's circle in Vienna and through the influence of Wittgenstein's ideas [the basis of my book] developed into the mode of thought which characterized the 'Vienna Circle'." (Carnap, *Aufbau*, preface to the 2nd edition). Regarding (1), we find in his autobiography the following claims: "For me personally, Wittgenstein was perhaps the philosopher who, besides Russell and Frege, had the greatest influence on my thinking. The most important insight I gained from his work was the conception that the truth of logical statements is based only on their logical structure and on the meaning of the terms. [...] Another influential idea of Wittgenstein's was the insight that many philosophical sentences, especially in traditional metaphysics, are pseudosentences" (Carnap, Autobiography, 1963).

Whether there was also some influence with respect to (3), can be doubted. However, with respect to (4), there seems to be also relevant influence. In this talk, we want to address this question about Wittgenstein's influence on Carnap's account of inductive logic. In the previous quote, we find already a hint about Wittgenstein's influence regarding the purely formal understanding of logic. Carnap pushed the boundaries of what we consider as "logical" further and incorporated also inductive reasoning into its domain. In doing so, he relied on several propositional notions that he took from Waismann's treatment of probability. Waismann, in turn, based his thinking on that of Wittgenstein. Our talk will work out the details of the underlying chain of thoughts.