

Max Weber's Theory of Causality: An Examination on the Resistance to Post-Truth

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Post-truth as a form of epistemological democracy (Fuller, 2018) is a fight for authority between equal explanatory models with epistemological methods. What should a disciplinary reaction of sociology be to the dawn of post-truth? We are to re-investigate models of causal imputation within the domain of sociology in order to eliminate not any particular "bad" judgments of post-truth, but their logical forms. Max Weber spent at least five years developing a consistent theory of causation for sociology. To build his complex theoretical apparatus of causal imputation, Weber used the ideas of Johannes von Kries, a German psychologist and a philosopher of science. Because of logical vulnerabilities of von Kries's theory, both Weberian models of causal imputation can lead to the emergence of at least two forms of illegitimate judgments. However, Weber was not only mistaken but he also succeeded. The reading of his second model of causation, the "chance causation," can contribute to the debates over the notion of the subjective meaning in Weber's interpretative sociology.

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It looks like the more knowledge we bring to causal imputations in any area of life, the less we are able to verify them. Trials like the one of "Lucia de B," a Dutch nurse mistakenly accused of and convicted for multiple manslaughter of her patients (Derksen, Meijnsing, 2009) on the basis of statistical calculations and conflicting toxicological reports, demonstrate that the complication of a causal chain of judicial proof dramatically increases the risk of a perversion of justice.

The economic epoch that started in 2008 is marked with a similar trait: we can no longer distinguish between scams, organized crime, and complex or risky businesses, even with a growing number of facts and digits at hand. We are still unable to figure out whether "Fannie May" and "Freddy Mac" were parts of an ineffective stimulus program (Mian, Sufi, Trebbi, 2010) or criminal fraud,¹ although both companies were nationalized eleven years ago. This means that whether you pursue criminal or unlawful goals or a legal business interest, the market, the state, or academia can only randomly tell the difference by building causal chains. Here, to make a clear distinction, we more likely need

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1. <https://www.sec.gov/news/press/2011/2011-267.htm>

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a sort of an epistemological miracle in a form of a leak or whistleblowing (Dyck, Morse, Zingales, 2007).

The decline of trust should be mentioned among the most dramatic social aspects of this evolution. The influential cultural and gossip magazine “New York” made a special web tag “#SummerofScams” in 2018, combining a considerable number of articles regarding high-profile frauds on one web page. These articles included college admission fraud, politicians’ impersonations, McDonald’s lottery winning chips fraud, and others, and proclaimed the beginning of the era of scams where “the scams are winning.”

Since 2016, when Oxford Dictionaries named “post-truth” as the word of the year, this new era has an official name. Post-truth is a challenge of a bigger scale than just a deficit of rational political speech, or the proliferation of scams, or a decline of trust. Those are not only criminal and agnotological, but also epistemological phenomena (Block, 2019). Post-truth does not just change the way and the scale in which ignorance is spread, but also the way how we process this world, whether we understand it only as the social world or as the world as a whole. One can hardly find a better explanation when Fuller wrote that “I believe that a post-truth world is the inevitable outcome of greater epistemic democracy. In other words, once the instruments of knowledge production are made generally available — and they have been shown to work — they will end up working for anyone with access to them” (2018: 61).

The recently published “Mueller Report,” also known as “Report on the Investigation into Russian Interference in the 2016 Presidential Election” and delivered by US Special Counsel Robert S. Mueller, was a tremendous monument of epistemic democracy. Even after an explicitly intentional component was made public, misbehaviors and wrongdoings were still denied with causal imputation. At the same moment, this imputation was delegated to the public. Justice in a political sense has turned into a DIY kit for casus belli, impeachment, international tribunal, or re-election.

What should a disciplinary reaction of sociology be to the dawn of post-truth? The question may seem provocative or derisive since the first official biography of post-truth intimates that the sociology of science was one of the triggers of its dawn because it eroded the authority of science (McIntyre, 2018: 128–133). The sociology of science can be blamed for arousing post-truth, but we cannot “uncreate” the idea of the social construction of scientific facts; its ultimate and most known idea that all of the history of secular science itself is a history of “crafting of the concept of evidence” (Fuller, 2018: 37). However, the situation is so serious that even Bruno Latour states that “we are indeed at war” of “alternative facts” with science (de Vrieze, 2017), at least in the case of global warming.

Post-truth is a fight for authority between equal explanatory models since it is a democracy, but with epistemological methods. In terms of causal imputation, it requires both the ability to destroy causal chains of opponents and to build new ones. It is not just “Complete and Total EXONERATION,” as the American president Donald Trump wrote on his Twitter account after the publication of the four-page summary of the Mueller report. Another popular Trump tweet is that it is also “A TOTAL Witch-hunt.” It is not just “we are not there” about the presence of Russian troops in Ukraine, but also a “CIA-

backed coup” about events in Kyiv in February, 2014. In general, what we can do is to investigate models of causal imputation within the domain of sociology and the domain of post-truth in order to eliminate not any particular “bad” judgments, but their logical forms. Here, we are again to “re-inspect the starting-block” (Outhwaite, 1987: 55).

We need to review not only working causal models but also the mistakes made along the way of building those models. We can find both in the legacy of Max Weber, who spent at least five years developing a consistent theory of causation for sociology. Causality actually is the most important epistemological topic of his methodological period. The so-called “adequate causation,” one of his causation models developed in the short masterpiece “Critical Studies in the Logic of the Cultural Sciences” (1906), may be seen as similar to post-truth. Its logical form not only opens a door for “ethical arbitrariness using a new interpretation of causality to self-justification” (Davydov, 1997: 184), i.e., the instant re-writing of the past on the demand of the present, but also works as an example of illegitimate “retroactive causality” (von Wright, 1971: 81).

However, Weber was not only mistaken but he also succeeded. The reading of his second model of causation, the “chance causation,” can contribute to the debates over the notion of the subjective meaning in *verstehende Soziologie* (interpretative sociology). Is it the sociologist who should be able to somehow reveal the subjective meaning of an action, or is it statistics that tells the truth about society? If the latter is true, then society itself is just an illegitimate retroactive phenomenon. Or, if society is oriented toward something that is penetrable only for both actor and observer, can statistics be meaningful or meaningless? Furthermore, if meaningful means penetrable, what is meaningful? We suggest that in “Critical Studies” and other methodological works, we can find some new answers.

Most of Weber’s works written from 1902 to 1907 are not only “mentally strenuous essays” (Sica, 1990: 113), but also preliminary and, if one may say so, “internal” works not always intended for the public (Weber, 1975: 8–9). In the following sections, we will, in a respectful manner, (a) reveal their relevant theoretical context, (b) re-examine two models of causation developed by Weber, (c) explain their mistakes, and (d) formulate a few ideas concerning more “immune” models of causal imputation.

J. von Kries’s Theory of Objective Possibility

To build his complex theoretical apparatus of causal imputation, Weber, as he himself put it, “plundered”² (2012b: 182) the ideas of Johannes von Kries, a German psychologist and a philosopher of science. We speak here about two interconnected theories, that is, two parts of the probabilistic logic of von Kries; his interpretation of non-numerical probabilities (“objective possibilities”), and the theory of causal imputation of an action (Tun) or an event. J. von Kries outlined the general principals of his theory in a 1886 treatise on

2. We do have at least one strong piece of evidence that Weber did not initially use this word. In the original version of “Kritische Studien” in the “Archiv” Weber wrote that he “organized” (*gegliedert*) von Kries’s article (Treiber, 2015).

a logical investigation of the principles of probability. In this work, he presented the basic concept of objective possibility and explained the logical rules of its establishment, mentioning that they can be established not only logically. In 1888, von Kries published an article entitled “Über den Begriff der objectiven Möglichkeit und einige Anwendungen desselben,” which was addressed to philosophers rather than to physicists or physiologists; this particular work drew the basis of the argument about the objective possibility for theorists, including Weber, among a wide range of disciplines.

How was von Kries’s probabilistic theory positioned in the context of German-speaking epistemological ordeals of the early 20th century? First of all, it was Kantian. In von Kries’s theory of probability, “objective randomness is integrated into a deterministic Kantian universe” (Stöltzner, 2011: 512). In his memoirs published in 1925, von Kries wrote that it was his “juvenile interest in Kant’s epistemology” that led him to investigate both psychology and logic (Fioretti, 2001: 246). J. von Kries’s theory was compatible with both Baden versions of the theory of knowledge, since one can treat such a theory as a tool of generalizing science, and the other as a fundament for ideographic causal logic. J. von Kries himself remained neutral on this question in a sense because his theory as an instrumental one was not supposed to be attached to only one domain.

Additionally, as Kantian, this theory was compatible with the natural scientific version of determinism,³ on the terms that each event is causally necessary because of all previous circumstances (von Kries, 1888: 180–181). At the same time, however, it was a basis of the new “probabilistic-causal” physics which emerged with the statistical mechanics of Ludwig Boltzman who had quoted von Kries in his 1886 academy address on the probabilistic character of the second law of thermodynamics (Stöltzner, 1999: 96).

In the domain of statistics, von Kries’s theory was a “mediating paradigm” (Heidelberg, 2010a: 261) between the successors of the “social physics” of Adolphe Quetelet, such as Wilhelm Lexis and the Younger German Historical School. J. von Kries’s theory of probability offered tools for the statistical analysis and detection of disturbances in sequence, and it was suitable for the analysis of individual action through its legal part. Gustav Radbruch, a German philosopher of law, had reservations about the logical coherence of some methods of von Kries’s logic. Radbruch found a serious contradiction between von Kries’s methods and the *sine qua non* legal principle (Ibid.: 258–260), but the relevance of such debates and reservations was limited to the community of judges, since those arguments vanished into thin air outside the courtroom walls.

3. Ernst Cassirer believed that this version of determinism appeared in 1872 when Emil Du Bois-Reymond, in his lecture “Über die Grenzen des Naturerkennens,” repeated, after Laplace, that the only purpose of scientific knowledge is The Universe, taken as “a single fact, one great truth” (1872: 5). Not a single phenomenon, not a single event in this Universe is possible or probable from the point of view of its causality (Cassirer, 1956: 4). Ian Hacking supplements Cassirer’s narrative alongside with a number of refinements. Determinism, in the sense Du Bois-Reymond postulated it, did not appear in 1872, but about 20 years earlier in the works of the philosophers and physicists Barre de Saint-Venant, Joseph Boussinesq, James Maxwell, and Charles Renouvier. The antithesis of Du Bois-Reymond’s determinism was “pre-determinism,” taken in the same sense as it was addressed and criticized by Kant, which implies that “our choices are predetermined by our motives, desires and beliefs” (Hacking, 1990: 152).

Edmund Husserl did not name von Kries as a “psychologist” in his *Logical Investigations* (1900), but made several suggestions on his theory of knowledge (Farber, 1943: 188–189) in order to distinguish logical laws as forms of reason from the laws of common sense. Also, von Kries was not mentioned in the list of scholars labelled with the title of “psychologist” by their colleagues, as presented by Martin Kusch (1995: 94–96).

Who were von Kries’s opponents? One, Ernst Mach, can be named immediately. He shared von Kries’s presumption that causality is a logical procedure, and only logical. However, Mach wanted to push this argument farther than von Kries. As one of Mach’s followers formulated it, “constancy of dependences of relations determined by law, takes the place (in Mach’s thought) of constant substances, of immutable things-in-themselves” (Becher, 1905: 545). Since our experience is a limit of our knowledge (in the Humian sense), causality can be grasped only as a relation that we can prove or empirically observe, and only as a function but not as a strict sequential chain (Mach, 1900; Heidelberger, 2010c). Ten years later, Bernard Russell gave a logical form to the functional understanding of causality (von Wright, 1974: 3). It had severe consequences for von Kries’s version of psychology⁴ and for his probabilistic logic. Since von Kries stated that not all probabilities are numerical (Fioretti, 2001; von Kries, 1888), those that are not have to either be represented numerically or leave the functionalist universe altogether. Statisticians, politicians, and courts have to operate with functional expressions, not with the apparatus of causal reasoning.

All in all, we have to say that the von Kries’s theory was a true safe haven for Max Weber in political terms. It was a widely recognized meso-theory used by a number of applied sciences and disciplines, and had a small number of explicit opponents. Whether it was for Weber’s academic instincts or for the true strengths of the theory, in a sense, it was indeed neutral to almost all philosophical and methodological debates splitting the German academia, at least around 1905. Equally important, the von Kries’s theory was a meso-theory, not a school in the realm of philosophy of knowledge, and was thus open to considerable modifications.

To begin with a summary of von Kries’s theory, we must characterize one crucial methodological match between the postulates of this theory and Weber’s initial theoretical presumptions, outlined in “Roscher und Knies und die logischen Probleme der historischen Nationalökonomie” (1903), where von Kries’s name was mentioned only once in a footnote. Boldly speaking, Weber wanted to discover individual causal laws similar to the law of gravity, but for individual social phenomena, as did his friend Georg Simmel, although clearly, they saw the nature of these phenomena very differently. But Weber did not believe that we can have access to an individual event as to a thing-in-itself. There is no ontological distinction between a natural event and a human action; the difference lies

4. J. von Kries argued that vitalistic (e.g., work of muscles or electricity chains) theories are unable to explain the grasping of external objects as things; his principle was “the physically similar corresponds to the psychically similar” (Ash, 1995: 96), and that the associative abilities of consciousness are responsible for recognizing objects in experience. Mach’s followers, the neurophysiologists Erich Becher and Sigmund Exner, argued that cognition could be described in constants of functioning relations as found in the peripheral processes in the eye, brain, and in muscle reactions.

in the degree of interpretation available to the observer: “In other words: because, and to the extent that, it can be meaningfully interpreted, individual action is in principle in a specific sense less ‘irrational’ than the individual natural event. But only to the extent that it can be interpreted: beyond that limit, human action is no different from the fall of that boulder: ‘incalculability,’ in the sense of inaccessibility to interpretation, is, in other words, the principle [governing the actions] of the ‘madman’” (Weber, 2012a: 43–44) and “The individual event, taken in isolation (the single throw of dice, the fragmentation of the falling boulder), remained completely irrational” (Ibid.: 44).

If only interpretation makes a difference, it is crucial to have valid laws of interpretation. This is why the interest in methodological problems of logic led Weber to von Kries. J. von Kries distinguished between a “particular event” (*individuelle Ereigniss*) and a “designated event” (*bezeichnetes Geschehn*) in a slightly different manner (1886: 87). To call something a “particular event,” the observer must abandon any framework of classification. Regarding a “particular event,” it is impossible to make a judgment on any concept or rule since the only empirical component available is what von Kries called “ontological knowledge,” i.e., a “mass, a location at a time.” We may say that both theorists treated isolated (or, in Weberian terms, “irrational”) events as a sort of ontological prints. In belonging to the Kantian camp, both von Kries and Weber believed that it is only reason that connects events in a causal, i.e., a knowledgeable way. J. von Kries called such a specific faculty of reason “nomological knowledge.”

All kinds of judgments that are derived from ontological knowledge are subjective in a sense. All probabilistic (*Wahrscheinlichkeit*) judgments are purely subjective; when one says that there is a certain probability “that under 10 throws [of dice] at least once six will fall,” it means only that “we do not know whether it will occur or not” (von Kries, 1888: 180). However, some of the probabilistic, i.e., subjective expectations can be objectified, and they are “objective possibilities.”

In a purely logical sense, possibilistic (*Möglichkeit*) judgments address directly the only objective item of any event, that is, the terms of its impossibility. Therefore, one can say that it is objectively possible that a dice will fall on six ten times in a row. Nothing can exclude the possibility of such a success with the legitimate necessity (Ibid.: 181). If one says that a dice will fall on a seven ten times in a row, it would be impossible because it is a contradiction, since dice only have six sides. To demarcate the scope of legitimate judgments of objective possibility, one needs *Spielraum*,⁵ a specific logical construct that establishes “a range of objective possibilities of a hypothesis or event” (Treiber, 2015: 49; Heidelberger, 2001: 178).

Spielraum must meet three rules to keep all possibilities logically equal (von Kries, 1886: 66). The comparability rule requires dividing an event into a set of equal observing

5. Boltzmann’s most significant innovation was his statistical model of entropy. Reaction was divided into three levels; the macro level, for which only temperature and pressure were known, the mid-level (*Zustandeverteilung*), where only the number of molecules was determined but not their properties, and the micro-level (*Komplexion*), where the energy and speed of each individual molecule were determined irrespective to their number (2015: 1973). In a sense, Boltzmann’s thermodynamic model is close by construction to *Spielraum*.

units, i.e., molecules, households, knights, or species, as examples. The indifference rule requests to arrange possible outputs of an event into a set of “equal alternatives” (Heidelberger, 2001: 179). The originality rule means the non-derivability of one *Spielraum* from another, which is more fundamental (Ibid.), or precedes the former in time (Kamlah, 1983: 247).

However, *Spielraum* is not the only source of “objective possibilities.” All simple games of chance are equal to *Spielraum* by their nature; the classical example is a game of dice which was described in the first text on probability theory by Christiaan Huygens (1714). Games of chance represent the very core of von Kries’s theory, that is, the idea that the ontological cause of the event is almost always undetermined, and even “the infinitesimal variation of the initial conditions secures the periodical change of the outcome” (Heidelberger, 2010b: 180).

Besides *Spielraum* and games of chance, we do have some generally recognizable expectations; we expect that probabilities of getting either a one or a six on a dice are approximately equal. If someone starts getting a six many times in a row, we would be surprised at the very least. These conventions are merely commonsensical estimations of likelihood and unlikelihood of different events. They cannot be expressed in numerical values, but they are also “objective possibilities.” Speaking about the conditions that establish a set of certain “objective possibilities,” von Kries takes pneumonia and sepsis as examples. Pneumonia increases the risk of death, but it is very difficult, if not impossible, to precisely quantify this risk for each individual patient (1888: 191). Common sense will tell us, that for medical personnel, there is a greater “objective possibility” to catch an infectious disease than for peasants, but this cannot be properly quantified (Ibid.: 194).

There is a third group of “objective possibilities.” When we discuss something concrete (*in concreto*), we approximate the likelihood of success of an undertaking. There are some “objective possibilities” rooted in the context of ontological data, but still one cannot quantify them. J. von Kries defines them as dependable on “the physical state of force or other power relations” (*physischen Kräftezustand oder sonstigen Machtverhältnissen*) (Ibid.: 191). These are the estimations of to what extent these particular circumstances can affect a prospected action or the one that has already taken place. Those objective possibilities could vary from the simplest form of the physical power of a fighter,⁶ to a political situation and power dispositions.

The fate of von Kries’s probability theory was not quite successful. Physics abandoned him in the early 1920s when a “full-blown” (Stöltzner, 2003: 10) version of Vienna Indeterminism opened a way to quantum physics. Twenty years after Weber published “Critical Studies,” von Kries’s name ceased to appear in logical and psychological treatises. A small part of von Kries’s legacy remained in the economical theory of John Maynard Keynes. In 1936, Moritz Schlick, the organizer of Wiener Kreis and the last of logicians and theoreticians of science loyal to von Kries, was shot. Some of von Kries’s ideas re-

6. Wittgenstein, another possible reader of von Kries’s logic (Heidelberger, 2010b: 184; von Wright, 1982: 147), understood the discernibility of chance in a similar way; “Two people pointing out alternately certain features of the two competitors whose chances, as we should say, they are discussing” (Wittgenstein, 2007: 111).

mained in Ludwig Wittgenstein's works. At the end of the 1940s, right after the Second World War, two American readers of Weber, Peter Winch and Talcott Parsons, made an important theoretical and linguistic decision and translated the whole semantic line of the concepts of *Wahrscheinlichkeit*, *Möglichkeit*, and *Chance*⁷ as "probability," with a regard to the strong statistical connotations of these concepts in Weber's works (Winch, 1990: 115; Weber, 1947: 100). In the English-speaking world of sociology, these important theoretical distinctions remained covered up for the next forty years.

Adequate Causation

The only methodological work where Weber addresses the logic of von Kries in detail is the second part of "Kritische Studien auf dem Gebiet der kulturwissenschaftlichen Logik." Weber's models of causal imputation derive from the question of how to estimate the true causal value of an event or a specific factor, whether sustained or sporadic, in a causal chain. Almost the same question of how to distinguish between a disturbance and a normal course of events was asked by Wilhelm Lexis and his followers in the domain of statistics. While statisticians were searching for rules for detecting the causes of mass phenomena, Weber wanted to detect the bifurcation points of a sort, or points of no return in causal chains. He uses the Battle of Marathon, an example from the book of historian Eduard Meyer, of which he sharply criticized in the first part of the article. As a method, Weber uses the first model of causation proposed by von Kries, that of "adequate causation." He is weighing an "adequacy" of Meyer's conclusion that in case of losing the Battle of Marathon, Greece could become a Persian protectorate which would change the course of European and world history.

Weber did not include the concept of *Spielraum* in the list of the "the most elementary components" of von Kries's logic that can be useful for social science (2012b: 171). However, it is clear that Weber used and set the *Spielraum* of a logical type to determine the value of Battle of Marathon by estimating its "objective possibilities." Weber fulfilled only one logical rule of *Spielraum* out of the three, that is, the rule of "indifference," where the Greeks won, or the Persians won. The rule of "comparability" was ignored to eliminate the differences between the two armies. The rule of "originality" was intentionally broken.

Event Xo (the Battle of Marathon) becomes an element of the event of a larger scale X₁ (the Persian Wars). In fact, Weber uses the *Spielraum* of a specific event as an integral element of another, which also has its own *Spielraum*. To access the *Spielraum* of the event of a bigger scale, one needs to choose a different logical possibility for the event of a smaller scale. By losing the Battle of Marathon, Greece could become a "Persian protectorate"

7. In his early works, Weber uses the words *Wahrscheinlichkeit* (probability) and *Möglichkeit* (possibility) to distinguish between two types of judgments (numerical and non-numerical respectively), so all "objective possibilities" in principle are unquantifiable but sometimes can be expressed in numbers. He uses the word *Zufall* to define an unexpected event, in the sense of Windelband's logic, an accident. He uses the word *Chance* (chance) to address preferable conditions or advantages. In the Russian language, there are rather strict equivalents for all the four words: *veroyatnost* (probability), *vozmozhnost* (possibility), *sluchai* (event), and *shans* (chance).

(Ibid.: 174), and this would change the outcomes of the third event, that is, the development of the European civilization, as well as of the fourth event — the development of the world civilization. The linear sequence of the throws of dice has been replaced here by “The Garden of Forking Paths,” or by a tree of scenarios, or by a “nesting doll” type of event, when an event is “nested” within another one of a different scale.

Weber expressed the idea that “in order to grasp the real causal interconnections” we should “construct unreal ones” (2012b: 182), but instead, he changed the meaning of causation itself. He did not say that the Battle of Marathon was the reason for the “secularly oriented, the free Hellenic spiritual universe” to win in on a world scale (Ibid.: 174). Rather, the cause of the importance of the Battle of Marathon is the result of the preservation and flourishing of the Hellas secular democratic culture. As Weber bluntly puts it, the very fact that we still “register the consequences of certain decisions taken by Themistocles” is the reason for our interest in the investigation of “objective possibilities” of the decisions he made (Ibid.: 151).

For Weber, it is true that “the result is used . . . as a tool for constructing more and more new ‘possibilities’ that can be stretched back into the past and projected into the future” (Davydov, 1997: 179). Now we have a monstrous perspective on the necessary causes of past events contained in events that have not yet happened in the future. This is not just relativism, an “ethical arbitrariness using a new interpretation of causality to self-justification” (Ibid.: 184). If we already know the last event in the causal chain, then the “adequate causation” endows it with coercive force in regard to the events of the past. After each new future event in the causal chain has happened, the “adequate causation” will inherently rewrite all the previous events included in this chain. It looks as if the same rules of arithmetic change the “given” of a math problem depending on its solution. In a sense, it is a perfect example of exportation of negentropy (Brillouin, 1964: 8–9), but in a most peculiar way, that is, retroactively.

Another effect, probably an unexpected one, is the competition of future causes for past events as their possible effects. In John Stuart Mill’s logic, this effect is called the “plurality of causes” (1964: 434). The “cause” of the Battle of Marathon can be both the Enlightenment and the industrial revolution; moreover, choosing one of these two causes with the help of inductive judgments would not be successful. The choice between competing causes of past events is a procedure of “reasoning, which may explain and verify them [only] deductively” (Ibid.: 436). Another implication is the competition of different logical orders for the events of the past. For a military historian, the success of the Greek phalanx would be an adequate “consequence” of the success of the Infantry Square in colonial wars. Why should we prefer the adequate causation as a chain of “secular culture — Battle of Marathon,” and not as a chain of “European colonization — infantry square — phalanx?”

In his 1886 treatise on the theory of logical probability, von Kries clearly pointed out the disciplinary boundaries of the concept of “objective possibility,” defining it as “objective or *physical* [emphasis added] possibility” (1886: 87). In his 1888 article, von Kries reminds us several times that when making judgments about possibilities, one must take

into account a “risk of losing yourself in questions or assertions that do not have a definite meaning,” especially in the field of historical science (1888: 191).

Weber violated the rules of *Spielraum* when he fused two types of “objective possibilities” in one causal chain. In *Spielraum*, all such possibilities are objective because, according to von Kries, they are bound only by non-contradiction (180). Aristotle illustrated this by using an example of a triangle: “So will the definer prove if not what a triangle is? Yet then he will know by definition what it is and yet not know if it exists; and this is impossible” (Hintikka, 2004: 18). In Plato’s *Protagoras*, Socrates proves, that if a number of things have one contrary, like all virtues and *aphrosyne*, they are the same (1996: 192). This is why, according to the rules of *Spielraum*, all sets of data from outputs, elements, as well as the settings themselves, have to be logically equal.

Weber used logical non-contradiction in the first step in his example where he says that the Greeks won, and the Persians won; if only one is true, it is non-contradictory. However, in the second step, he used the possibility of Greece becoming a Persian protectorate not in a logical sense, equal to not becoming, but in a sense of “objective possibilities” of the third type, that being of power relations. The position of power would give the Persians an advantage to impose their religious and political order over Greece. We choose this possibility in the *Spielraum* of a bigger scale — the fate of Hellas democracy and culture — not because it is logically equal, but because it was more likely. All “likelihoods” are more or less possible, not just “possible” and “impossible.” When Meyer and then Weber claimed that Greece could become a theocracy because it happened in other Persian protectorates, they based this judgment on the causal chain that it was logically possible that the Greeks would lose the battle. However, it was not logically possible, but more likely that in that case Greece would become (a) a Persian protectorate, and (b) a theocracy.

Does it mean that the whole idea of modeling the possibilities to weight causes was a blunder from the very beginning? Let us retrace the sequence of steps Weber took. He wanted to define the principles of causal imputation for an individual, that is, individual causal laws. He employed von Kries’s probabilistic logic and his concept of objective possibility. He tried to “weight” the Battle of Marathon, but in the end, it turned out that it was not a cause but an effect of a future cause. Weber mixed a logical understanding of possibility with nomological (if we use von Kries’s terms, and can agree that objective possibilities of the second and third types of his theory can be called “nomological”). Was that mistake something shockingly new in Weber’s times and in his intellectual surroundings?

It appears that it was not. On May 1, 1894, Wilhelm Windelband gave an address on the occasion of his appointment as the rector of the Kaiser Wilhelm University in Strasburg. Discussing the perspectives of historical investigation, he originally drew a distinction between “nomothetic” and “idiographic” sciences that was almost similar to Heinrich Rickert’s distinction of generalizing and individualizing sciences. Windelband lamented that logic, as a queen of methodology, always has an inclination toward nomothetic sciences, that it abandoned idiographic sciences, and that “it would be desirable — but there

are still very few treatments of the matter at hand — if logical reflection would do justice to the great historical reality which lies before us in historical thought itself at a level commensurate with how it has made comprehensible the forms of natural inquiry down to the finest details” (1998: 14). Thus, Windelband literally proposed to do what Weber did in 1906, while also expressing a hidden concern about what logic can bring in to history:

That in 1780 Goethe commissioned the manufacture of a house clock and a door key, as well as, on 22 February, a ticket box, is documented by an entirely authentic bill of sale that has been handed down over the years. It is thus enormously true — it happened — and yet it is not an historical fact, either for the history of literature or for a biography. But this raises the question as to whether it is always possible to decide from the beginning whether or not the particular that is given to observation or handed down over the years warrants regard as a “fact.” (Ibid.: 18)

We do not know what is going to be a historical fact from the next year or the next millennium. What kind of logical laws can grasp this ambiguity? We can say that such a question was probably asked by all of the major philosophers of the epoch, with Heinrich Rickert (a leader of neo-Kantians) and Edmund Husserl (the founder and one of the leaders of phenomenology) both agreeing that logic should not be mixed with history.

Rickert claimed that the idea of establishing a sequence of events determining each other is alien to the nature of history. A historian is only interested in causality dealing with “secondary historical individuals” (1986: 112). For example, the history of German literature has a modest deal of interest in the figure of Schiller’s father as the parent of the great German poet. However, with regard to the “primary historical individual,” Schiller, who can also be called “not divided (Individuum)” (Ibid.: 101), Rickert stated that everything that history is doing is limited to “the peculiar character of the content of its manifold” (Ibid.: 112). No causation is possible or necessary here.

In *Logical Investigations*, Husserl appeals to the nature of logic itself rather than to the nature of history to build his argument. He referred to von Kries’s theory of knowledge directly and proposed some modifications to it:

Following a suggestion of J. von Kries, one could say, almost as characteristically, that these sciences are *nomological*, in so far as their unifying principle, as well as their essential aim of research, is a law. The name ‘explanatory science’ which we have used from time to time, will also do, provided it is used to stress the unity reached by explanation, rather than explanation itself. < . . . > There are, in the second place . . . *the ontological sciences*, such as geography, history, astronomy, natural history, anatomy etc. The truths of geography are united by their relation to the earth, the truths of meteorology concern, even more restrictedly, the weather-phenomena of the earth etc. (Ibid.: 147–148)

The foundation of this argument lies in Husserl’s critique of two versions of psychological logic, that were formulated in the works of Christoph von Sigwart and John Stuart Mill and were the most discussed at the time. The word “psychologism” was indeed be-

ing used as a label (Kusch, 1995: 5–6), but Husserl did have a strict definition of it: “The psychologistic logicians ignore the fundamental, essential, never-to-be-bridged gulf between ideal and real laws, between normative and causal regulation, between logical and real necessity, between logical and real grounds. No conceivable gradation could mediate between the ideal and the real” (Husserl, 2001: 50). It means that there cannot be such a thing as probabilistic logic or logical rules of causality. Logic is the science of formal laws, and causality is a method used by ontological sciences or simply a word to describe an intention of an individual. Husserl did not attack the idea that logic could help discover causal laws to explain the behavior of a historical individual, as did Rickert; he attacked the very idea that pure logical forms, such as non-contradiction, can give access to something beyond itself.

A number of authors believe that von Kries’s probabilistic theory has its roots in Mill’s logic. The Russian sociologist Bogdan Kistiakovsky noticed in 1902 that von Kries’s understanding of causality is “quite adjacent to Mill’s” (Kistiakovsky, 1998: 67). The same was stated by Hans Gross, the creator of criminology (Gross, 1918: 153–154). The mixed nature of knowledge in Mill’s logic probably was not an issue for von Kries, since he himself did not believe, that logic and history could be connected consistently. Yet, Weber seems to have inherited that risk of confusing “a law as a term in causation with a law as the rule of causation” (Husserl, 2001: 49) from von Kries’s theory, which in its turn led to the emergence of at least two forms of illegitimate historical judgments. The first misinterpretation implies that logical possibility as a non-contradiction allows to link several cause-and-effect chains into one; the second one has to do with the effect of the “plurality of causes” that allows the researcher to edit the history over and over again.

Chance Causation

We know just one explicitly formulated logical model of retroactive causation. The Finnish philosopher Georg von Wright did not quote von Kries or Weber, but directly addressed Windelband’s notion of the undetermined nature of “facts” in history, calling such a model of causation “retroactive causation.”⁸ Von Wright found it logically legitimate, but on very strict terms. Muscular efforts in the arrow of time precede results in “basic actions” (1971: 76) of me grabbing a coffee cup or pushing a button of the computer. In terms of causality, the action of grabbing a cup precedes the neural function that makes it happen: “The result of a basic action may have necessary, and also sufficient, conditions in antecedent neural events (processes) regulating muscular activity. These neural events I cannot “do” by simply making them happen. But I can nevertheless bring them about, viz. by performing the basic action in question. What I then bring about is, however, something, which takes place immediately before the action” (Ibid.). Basic action forms a pair, which von Wright called a “closed system.” One needs an observer, an agent able to distinguish between the action of “grabbing,” and a neural effort. Additionally, this type of

8. In economics, Clive Granger disproved of the idea of retroactive causation (Granger, 1969).

causality is of a “very short reach” (Ibid.: 81), because it is a cognitive loop but not a type of objective possibility. Therefore, it does not work for Weber and his sociology.

In the footnotes to “Critical Studies,” Weber recognized the partial correctness of Kistiakovsky’s counter-arguments regarding “adequate causation” (2012b: 183; Davydov, 1997: 186–187). In the last paragraph of the article, Weber intimated that he would give more detailed explanations regarding the matter, but never kept this promise. Of whether he saw his adequate causation as a mistake or not, we cannot be sure. Perhaps one of the most peculiar facts related to causal models developed by Weber on the basis of von Kries’s theory of the “objective possibility” is that “causality does not in the later writings play a role analogous to the role it played in the earlier writings” (Turner, Factor, 1981: 21). After the creation of two working models of causation, Weber almost immediately abandoned them.

However, since we have distinguished between the logical and nomological possibilities, can we push this further and ask whether nomological knowledge is able to provide us with a working causal model? Let us set logic aside and investigate Weber’s presumptions toward nomological knowledge. His own premise was that nomological, or “empirical”⁹ knowledge makes history and society understandable because it is “derived from our own life experience and our knowledge of the behavior of others” (Weber, 2012b: 176). This knowledge is a hybrid. Roughly speaking, Weber understood “nomological knowledge” as opposite to Husserl’s understanding, precisely as “the technical rules of a specifically human art of thought” — one could not give a better definition — and these combinations are imprints of society, and are to be investigated in comparison with ontological data.

In his second model of causation, “chance causation” (*zufälliger Verursachung*), Weber demonstrated how this knowledge works. Here, he weighted not logical possibility and impossibility, but the objective possibility of an action being “a ‘fortuitous’ . . . and not one with an ‘adequate’ cause” (2012b: 178):

Suppose that a temperamental young mother is annoyed by some kind of unruly behavior on the part of her young child, and that she boxes his ears soundly . . . Suppose that the howling of the child awakens in the head of the family — who, as a male German, is convinced of his superior grasp of all matters, including the bringing up of children — the desire to remonstrate with “her” on “teleological” grounds. In that case, “she” may, for example, have the reflection, which she may offer as an excuse, that if, at that moment, she had not been “agitated” (let us suppose: by a quarrel with the cook), that disciplinary measure would not have been applied at all, or at least not “in that way”; and she will be inclined to admit to him that “he knows that otherwise, she is not like that.” By saying this, she is referring to his “empirical knowledge” of her “constant motives,” which would, under the vast majority of all possible constellations [of factors], have had another and less irratio-

9. Manuel DeLanda perfectly illustrates this unavoidable entanglement of pure logic and “technical rules” in Weberian sociology: “Successful solution of practical problems will involve consideration of relevant causal events, such as physical interactions with the means to achieve a goal, not just calculations in an actor’s head” (2013:24).

nal effect. In other words, she is claiming that the box on the ear was, on her part, a “fortuitous” reaction to the behavior of her child, and not one with an “adequate” cause . . . (Weber, 2012b: 177–178)

The narrative and analytical structure of this case can be outlined as follows; we need to compare the action of “boxed ears” to the young mother’s “constant motives” (Ibid.: 177). The husband’s experience is this nomological knowledge of her motives. Ontological knowledge is the action itself. Having had compared the former with the latter, the husband realized that it was an incident and not an expression of a pattern. The cause of the “box” was not irrational aggression, but an event unknown to him that triggered the disturbance. It is not retroactive causation since the cause of “boxed ears” precedes and not follows the result, as we know at the end. However, it is a loop in the same sense as in the example from von Wright because “ears” and “quarrel” form a closed system. Dispute resolved. According to von Kries’s theory, the story can be explained in terms of “objective possibilities” of the second type. The husband (and we as observers) is weighing the two objective possibilities that his wife in general doesn’t use physical force, and that small unresolved disputes might affect human actions. The husband’s knowledge of his wife’s constant motives explains both his tirade and his presumable acceptance of her causal imputation of “chance.”

The second example that Weber employed as an illustration of “chance causation” demonstrates how this scheme does not work. If we presume that everything was almost ready for the March Revolution of 1848, then “two shots” in Berlin cannot be its “chance” cause since revolution was in the air. What does make a difference? When Gustav Radbruch criticized von Kries, one of his arguments was “that one could declare almost any condition as the adequate one (1902, 350 = 26; doubly paginated)” (Heidelberger, 2010a: 259). This is why Radbruch praised the *sine qua non* principle as superior, for one part of the cause cannot be named as more essential than the others. If the Revolution happened, then it happened, and the only admissible logical fuse is a requirement that we take everything for granted, including the “two shots” as the necessary cause.

When Weber said that a historian “can, with considerably better chances of success than (for instance) Bismarck himself, pose the question: what consequences could have been ‘expected’ if another decision had been taken?” (2012b: 170), we have almost the same composition as in the case with “two shots.” The observer knows more than the actor. We do know that revolution was in the air, despite the fact that Frederick William IV might not have known it. As in the case of adequate causation, the case of “two shots” in Berlin does not work, for in the end, we know as much as we knew in the beginning.

One new form of asymmetry can be added. We already knew that retroactive causality is an extremely controversial procedure. Also, we knew that a logical operator (such as non-contradiction) can illegitimately connect causal chains that were not connected at the time of the event even by objective possibilities of the second and third type, i.e., by nomological knowledge. However, the presumption of an observer’s privilege also provides some illegal causal connections if we presume that we must stay on the ground on

nomological knowledge in the meaning that Weber described above as “derived from our own life experience and our knowledge of the behavior of others.” The observer’s privilege, his “favorable chance,” turns any causation into retroactive causation, since, as Radbruch noted, it is up to the observer to choose whether all causes were adequate or not.

There are two theoretical takeaways of Weber’s *verstehende Soziologie* that are praised in almost all of the current schools of sociological thought. We can observe the “collective unintended consequence of intentional action, that is, as a kind of statistical result” and can understand it, for instance, in terms of “traditional reasons for action” (DeLanda, 2013: 24). Also, we can see what the emerged or imposed patterns of different choices that create such consequences are (MacIntire, 1962: 54–55). This begs the question: can we achieve a result which was meaningless for the actor but has a meaning for us?

Logic and statistics can show us something that the actor didn’t see, such as Greece as a theocracy or the “spirit of capitalism” as a historical individual (Weber, 2001: 13), which is a commonly accepted reading of Weber’s model of causality. While an actor thought that he was saving his soul or fighting for “ashes of his fathers, and the temples of his Gods” in Marathon, we can see something else. Using this model, “what sociologists do is . . . offer a hypothesis that claims to explain the pattern of action-orientation or motivation that lies behind the observed behavior” (Rex, 1977: 158). To push this further, if this kind of asymmetrical retroactive causation is legitimate, then society itself is retroactive phenomena (Rawls, 2009: 503; Stepantsov, 2013).

The privilege of an observer means that he will choose elements of a causal chain, whether the vehicle for connecting different causal chains will be logic or access to ontological knowledge inaccessible to the actor. Both “adequate causation” and “chance causation” offer a possibility for fabricating meaning with such instruments. Statistical devices are perfect examples of combining both formulas (as pure rules in terms of Husserl) and a huge amount of ontological data. In terms of both models of causation, such devices are legal in sociology as tools of asymmetrical retroactive causation and are open for all negative effects outlined at the end of Chapter II.

It must be noted that we have to also admit that “chance causation” used in the story of the German family gives access to a different understanding of meaning. We started with the presumption that Weber was fascinated with an idea of connectivity of more or less (in the degree of possible interpretation) “irrational” external events. He used von Kries’s probabilistic logic to engage the roots of this connectivity. However, at the initial stage of his undertaking, he did not view von Kries’s logic as a statistics reader-device. In a 1906 letter to the Polish economist Ladislaus von Bortkiewicz, Weber wrote that he “cannot understand how it came about: of course one cannot speak of the ‘statistical theories’ of Kries” (2012c: 385).

In a series of fragments written from 1911 to 1913, Weber tried to distinguish between social and non-social data of statistics:

There are statistics of processes devoid of subjective meaning, such as death rates, phenomena of fatigue, the production rate of machines, the amount of rainfall, in

exactly the same sense as there are statistics of meaningful phenomena. But only when the phenomena are meaningful do we speak of sociological statistics. Examples are such cases as crime rates, occupational distributions, price statistics, and statistics of crop acreage. Naturally there are many cases where both components are involved, as in crop statistics. (1978: 9)

As a weak thesis, we may admit that even after the end of his methodological period, Weber was in doubt and wanted to build a fuse into the “adequate causation” as a method of legitimate connection of events, addressing one of his most controversial concepts of “subjective meaning” of action. As a strong thesis, we may say that his methodological frame gives us such fuse. We cannot eliminate nomological knowledge of an actor from causal imputation; it is the only way to exclude the retroactive causation and minimize the degree of asymmetry of knowledge. Another option is to employ the *sine qua non* principle and exclude the idea of weighting different components of a cause of an event that has already happened.

In a small fragment of “Roscher und Knies,” Weber demonstrates how causal imputation that preserves the nomological knowledge of an actor as part of the equation works. Weber comes to a paradoxical conclusion for his times when he wrote: “To explain [why we find those ‘miscalculations’] in, say, the Peruzzi account books, we can put forward all sorts of reason – except one: that the multiplication table was not yet ‘correct’ at that time” (2012a: 39). If such a disturbance was not a sign of anything for merchants, maybe it was not a disturbance at their time?¹⁰

Conclusion: Causality and Post-Truth

In my reading, Weber’s models of causation sometimes are alarmingly close to post-truth. Substitution of likelihood with logical possibility can be one of the vehicles of post-truth because it connects causal chains in an illegitimate manner: one logical jump, common sense, jumps again, and so on. Any conspiracy theory uses such a trick. It is logically possible that the chief officials of Hillary Clinton’s presidential campaign were pedophiles because nothing can logically exclude such a possibility. However, such logical possibility can not be used for modeling causal chains with “likelihoods,” as it happened in the so-called “Pizzagate conspiracy theory” (McIntyre, 2018: 109).

The idea of retroactive causation leaves us unprotected before the “plurality of causes.” When the Christchurch murderer wrote the names of old battles on his gun together with the names of white fascist terrorists of recent times (Elliot, 2019), he probably also made

10. Weber relied on the interpretation made by Werner Sombart who believed that “medieval bookkeepers were grossly inefficient and inept at simple arithmetic” (De Roover, 1958: 33). It is true only to certain extent. Roman numbers and the lack of the decimal system, “which may have existed in embryo as early as the early thirteenth century, but lacked a useful notation system for another three hundred years” led to mistakes and “quicksand of fractions like 33453121/4320864” (Crosby, 1997: 118). However, in the case of the Peruzzi books, “the computations were remarkably accurate; in all of the surviving Peruzzi documents, Saporì was able to detect only a few minor errors” (Hunt, 1994: 112).

a sort of a claim for “adequate causation” on the ground of the re-writing of the causal chain, connecting his crime and crime of other terrorists with the history of “Christian civilization.” The idea that the nomological knowledge of an actor can be removed from the perspective of legitimate causal imputation denies the right of historical actors for meaningful action; we can “animate” actors within any frame of reference, from statistics to psychoanalysis. It is the worst implication of post-truth for humanitarian knowledge because it is the worst thinkable case of exploitation.

What we can do, besides investigating the landscapes of nomological knowledge and objective possibilities, is to be vigilant about the techniques of causal imputation mentioned above. In the field of political discourse, we must stay conscious about any type of judgments where different events are mixed with pure logical instruments without regard to common sense. In the field of sociology, when causal imputation is being applied, a strong methodological reading of meaning requires mandatory intersection between the planes of nomological knowledge of the observer and the actor. Therefore, the applicability of historicist models of thinking in sociology should be re-examined. One of the possible avenues leads to the idea of overcoming of the “circle of correlationism” (Meillassoux, 2008: 123) in sociological explanation.

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Теория причинности Макса Вебера: испытание на устойчивость к постправде

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Постправда, будучи формой эпистемической демократии (Fuller, 2018), представляет собой борьбу разных объяснительных моделей за власть и признание. Какой может быть реакция социологии как дисциплины на расцвет постправды? Чтобы не отвечать на каждое ошибочное суждение, мы можем изучить имеющиеся в социологии модели установления причинно-следственных связей и указать на ошибочные логические формы этих суждений. Макс Вебер потратил пять лет на разработку нескольких моделей установления причинно-следственных связей. Чтобы построить свои модели, Вебер воспользовался теоретическим аппаратом немецкого физиолога и философа науки Иоганна фон Криса. Унаследовав

логическую уязвимость теории фон Криса, модели каузальности Вебера приводят к производству нелегитимных логических суждений, как минимум, двух типов. Однако Вебер также и преуспел. Предлагаемое прочтение одной из моделей, «случайной» причинной обусловленности, добавляет новые аргументы в полемику относительно субъективно полагаемого смысла в понимающей социологии Вебера.

Ключевые слова: Макс Вебер, Иоганн фон Крис, каузальность, событие, объективная возможность, субъективный смысл, постправда