

## **Causal Explanation and Narrative in Historiography: A Chronicle**

According to the philosophy of history propounded during the 19th century by Adolphe Quetelet and Henry Thomas Buckle, unbiased, verifiable historical narrative would be the outcome of following “the methods of natural science which operate with causal laws” (Cohen 1942, 12). Quetelet, for example, considered that *statistical research* concerning social phenomena such as prosecution of witchcraft, and torture and death for religious opinions, pertains “to the history of nations, and will assist us in determining *their laws of development*” (1842, 79-80; emphasis added). He also spoke of the *average person* and how, through statistical analysis, we can discover the laws governing social phenomena. These laws would allow legislators and politicians alike to ameliorate social evils.<sup>1</sup> Buckle

---

<sup>1</sup>Quetelet’s main work, *A Treatise on Man and the Development of His Faculties* (1842) has the telling subtitle *Social Physics*. According to Hayek, the positivistic approach to history began with Condorcet (1743-1794), who considered that “to establish laws which will enable us to predict the future, history must cease to be a history of individuals and must become a history of the masses, must at the same time cease to be a record of individual facts but must become based on systematic observation” (Hayek 1941, 13). This *via regia* to historical analysis would permit, according to Condorcet’s followers, the improvement of social structures and the bet-

(who considered that historians were inferior in ‘mental power’ to physicists and mathematicians) declared:

In the whole literature of Europe there are not more than three or four really original works which contain a systematic attempt to investigate the history of man according to those exhaustive methods which in other branches of knowledge [natural sciences] have proved successful, and by which alone *empirical observations can be raised to scientific truths* (Buckle 1869, 4; emphasis added).

The idea that natural science proceeds by induction in discovering natural laws (“empirical observations raised to scientific truths”) ruled unhindered at the time Quetelet and Buckle wrote. From that perspective, the first task of the “scientific” historian should consist in the careful accumulation of data that eventually will show existing correlations among events. Once a correlation was found, the histo-

---

terment of the human condition. (But they forgot that the road to Hell is paved with good intentions!)

Alfonso Martínez Ruiz estudió economía en la Universidad Francisco Marroquín y en la Universidad Nacional Autónoma de México. Durante veinte años ocupó el cargo de economista asesor en USAID/Guatemala. Ha sido profesor de economía y de econometría en varias universidades del país.

---

rian could proceed, following John Stuart Mill's "canons of induction," to find the desired causal connections.<sup>2</sup>

A century after Buckle and Quetelet published their works, a new wave of philosophers of science and of historians began promoting again positivism as the only worthy way of writing history. A prominent example is Frederick Teggart's study of the barbarian invasions of the Roman Empire—*Rome and China: A Study of Correlations in Historical Events* (1939, note the title!). After an extensive and painstaking investigation, Teggart discovered that, during the period covering the years 58 B.C. to A.D. 107, wars in Asia and barbarian invasions in Europe were highly *correlated*. He became overjoyed for his discovery: "The discovery that certain sets of events—wars in Asia and barbarian invasions in Europe—are correlated is a matter of unusual importance, for it demonstrates the existence of a type of order of historical facts which has not hitherto received attention."<sup>3</sup> He then devoted himself to discovering the cause (or causes) of those

---

<sup>2</sup>Unfortunately, this is not the way of science. In any case, Quetelet and Buckle were proceeding by what Max Black termed "adduction," which is the "non-logical operation of leaping from the chaos that is the real world to a hunch or tentative conjecture about the actual relationship that holds between the set of relevant variables" (Blaug 1997, 17). And this hunch or conjecture comes from an act of intuition or of genius, and not by the application of rules of any sort.

<sup>3</sup>In reaching his conclusion, Teggart followed (I surmise) Mill's Method of Agreement: "If two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which alone all the instances agree, is the cause (or effect) of the given phenomenon" (Mill 1859, 224).

correlations. Finally, he found that "the correspondence of wars in the East and the invasions in the West had been due to interruptions of trade" between China and Rome (Teggart 1942, 9). The historian and philosopher of science, Edgar Zilsel, referring to Teggart's findings wrote: "With the necessary scientific accuracy a historical law has been given for the first time" (1941, 575).

Teggart, of course, dismissed traditional methods of historiography as unscientific. He wrote, "With whatever care the facts are sifted, with whatever sincerity they are subsequently presented, narrative statement remains art, and, as such, is not science" (1925, 32). Writing during World War II, he was anxious to find historical laws conducive to the abolition of tyrants and of wars. He went so far as to declare that "[a]s a contribution to the study of 'causation,' we need [historical] investigations, based upon comparison of instances, of the conditions under which Caesars, Bonapartes, and Hitlers arise" (Teggart 1942, 4). In his distress and in his ambition to help build a better world, he went so far as to transplant his conclusion concerning the barbarian invasions of Rome to a completely different historical environment, thousands of years apart from the field of his original investigations. Thus, he wrote, "I am disposed to believe that interruptions of trade still continue to be a most important factor in creating disturbances throughout the world" (1942, 10).<sup>4</sup>

---

<sup>4</sup>It is interesting to recall what Mises had to say in this regard: "These British liberals [of the Manchester School] and their continental friends were keen enough to realize that what can safeguard durable peace is not simply government by the people, but government by the people under unlimited *laissez faire*. In their eyes free trade, both in domestic affairs and in international relations, was the neces-

---

Zilsel, despite his admiration for Teggart, considered that the law found by him holds for “late antiquity only [but that] this does not impair its scientific value” (1941, 575n). In addition (according to Zilsel), Teggart had shown the way for all future discoveries of historical laws: “The investigator of historical laws must collect, interpret, and compare an immense and highly complex [historical] material ... [b]y collecting and comparing [this] material with philological accuracy historical laws will be discovered” (1941, 578-79).<sup>5</sup> An almost perfect description—applied to historiography—of what formerly was considered as the way of all science.<sup>6</sup> Teggart, however, made a more lasting and valuable contribution to historiography when he insisted that historians should not restrict themselves to historical narrative but should study historical problems: “Science is, fundamentally, a method of dealing with problems, and the initial step in any scientific undertaking is the determination of the problem to be investigated” (Teggart 1918, 1).<sup>7</sup>

---

sary prerequisite of the preservation of peace” (Mises 1963, 823).

<sup>5</sup>Zilsel forgets that “no process of reasoning whatsoever can, with logical certainty, enlarge the empirical content of the statements out of which it issues” (Medawar 1969, 24).

<sup>6</sup>The historian C. H. Haskins had given in 1923 a relatively simple example of how to apply the inductive method to historical analysis. In his *The Rise of Universities* he states: “... the mass is much diversified in time and space, so that generalization is difficult ... It would be impossible to make a true picture out of elements drawn indiscriminately from such disparate sources. Until the conditions at each university of the Middle Ages shall have been studied chronologically, no sound account of student life in general can be written ....” (Haskins 1923, 80).

<sup>7</sup> In his *Lectures on Modern History* (1906),

The philosopher of science Morris Cohen, however, was one of the first to disagree with Professor Teggart’s *inductive* approach to historiography. “Keep in mind the fallacy of *post hoc ergo propter hoc*,” Cohen admonished. A simple correlation among events does not necessarily imply the existence of a causal relation. “A causal relation asserts more than mere past coincidence. It affirms that there is some reason or ground why, whenever the antecedent occurs, the consequent must follow” (Cohen 1942, 15). In history causality means, according to Wiener (1941, 313), that a “historical fact is objectively relevant to or ‘explains’ another only if the first logically implies the second.”

Cohen also pointed out that any single historical event is preceded by a multitude of other historical events. Therefore, historians must select what they deem the most relevant explanatory antecedents of the events under study. In the examples adduced by Teggart, other causes (e.g., attraction of richer lands, ambition of powerful leaders, love of independence) besides disturbances in the trade routes between China and Rome could have been working as parallel causes of the barbarian invasions. To complicate matters, Cohen showed that the terms “war,” “rebellion,” “invasion” and “disturbance” used to describe the events studied by Teggart are too general to permit a clear analysis of the relationships involved. The reason for this shortcoming is that “[s]cientific statements are typically formulated in special terms, such as ‘mass,’ ‘force’ ... and so forth. If those terms are

---

Lord Acton advises historians to “study problems in preference to periods.” And in fact Teggart is anticipating Popper, who stated in a lecture delivered in 1963 that “... *science* [including history] *always begins and ends with problems*” (underscored in the original).

---

to serve their purpose, their meanings will have to be so specified as to make sure that the resulting statements are properly testable and that they lend themselves to use in explanations, predictions, and retrodictions” (Hempel 1966, 85).

Therefore, before attempting to find a *testable* common cause of the barbarian invasions, we must narrow the meaning of the terms used by Teggart. For example, we employ the word *War* to talk about the Boer *War* and about the Second World *War*, although they obviously are quite different events. “In the present state of our knowledge,” Cohen says, “it is futile to ask the cause of disease [in general]. We must in our etiology first deal with different kinds of diseases; and much more is this the case with wars” (1942, 17n).

But precisely, *to be or not to be*, that is the question in historical analysis. Because if, for example, we reduce the term “war” to a common denominator, we would miss all the quirks and traits of historical wars. That is why, in this sense, all historic events are unique.<sup>8</sup> And that too is why (good) history makes such fascinating reading.

In the last part of his 1942 paper, Cohen softens somewhat his critique by concluding that “... the historian as a narrator of what happens is under pressure to tell a coherent story and this does not permit him to stop to indicate every so often the inadequacy or inconclusiveness of his evidence. Hence most historians adopt much looser conceptions of

---

<sup>8</sup>Obviously, the term “unique” is relative: “No historical event could even be described, much less could it be in any sense explained, if it were wholly unique” (Mandelbaum 1961, 231).

causality.” Actually, some eminent historians had denied altogether the value of the idea of causation in historical analysis. Among the most prominent were Dilthey, Rickert, Croce, and Collingwood.<sup>9</sup> For example, the Italian philosopher and historian Benedetto Croce considered that the concept of “cause,” as used in natural science, should be banned from historiography. In *History as the Story of Liberty*, he wrote that, “[t]he concept of cause must and should remain outside history because it was born in the realm of natural science and its place is there” (Croce 1941, 28) Clearly, we can find some instances in historiography where the idea of causation, as used in natural science, plays only a marginal role. In a chronicle, for example, the historian can dispense most of the time with the concept of “causality.” However, this is more difficult to carry out when the historian is trying to solve some historical problem. (Even in our practical daily life, we cannot do without the idea of causality.)

Croce was dissatisfied with positivist historians because they disregard the role of the individual in history, and instead deal with averages, statistical tables, and with abstract concepts like “the people” and “the masses.” In his book on aesthetics, he wrote, “History does not seek for laws ... it is directed *ad narrandum, non ad demonstrandum*” (Croce 1909, 20). He also saw in the positivist approach to history another malignant force pushing in the direction of making “of society not a living organism but a mechanism” (and therefore subject to manipulation by demagogues).

---

<sup>9</sup>“Scientific history” had its opponents from the start. Teggart noted that Buckle’s historical work was described by a notable scholar as “a laborious endeavor to degrade the history of mankind to the level of one of the natural sciences” (Teggart 1910, 710).

---

However, despite the humanistic revolt against it, positivism continued fighting unabated, and a new generation of philosophers of science began to encroach anew upon historiography. In 1942,<sup>10</sup> Carl G. Hempel published an article that would generate one of the most animated and lasting discussions about historiography. He began by stating:

It is a rather widely held opinion that history, in contradistinction to the so-called physical sciences, is concerned with the description of particular events of the past *rather than with the search for general laws which might govern those events*. As a characterization of the type of problem in which some historians are mainly interested, this view probably cannot be denied; as a statement of the theoretical function of general laws in scientific historical research, it is certainly unacceptable (Hempel 1942, 35; emphasis added).

For Hempel, there are two basic patterns of scientific explanation, the *causal* (also called by him *nomological-deductive*) and the *probabilistic*. In a causal explanation of the simplest form, we link some event called “cause” with some other event called “effect” *through a general law that connects both events*. In Hempel’s words, “In every case where an event of a specified kind C [cause] occurs at a certain place and time, an event of a specified kind E [effect] will occur at a place and time which is related in a specified manner to the place and time of the occurrence of the first event” (Hempel 1943, 35). Yet many events (not necessarily one only), also called *initial conditions*, and many general laws (not necessarily one only) could be involved in explaining the cause for the occurrence

of an event E. The important thing to keep in mind is that, according to the nomological-deductive (N-D) model, in every scientific explanation we have to make explicit the universal law or laws that connect the event (E) with its antecedent conditions (C<sub>1</sub>, C<sub>2</sub> ...).

In addition, Hempel considers that certain historical explanations conform not to the causal but to the *probabilistic* model of explanation. To clarify this we can give the following example. Suppose that our daughter caught the measles a week after her brother, and she has not been in the company of other persons having the measles. In that case, we can accept the explanation that—with high probability—she caught the disease from her brother. Or to adduce another example: if a historian writes “that the Dust Bowl farmers migrate to California ‘because’ continual drought and sandstorms render their existence increasingly precarious, and because California seems to them to offer so much better living conditions” (Hempel 1942, 40-41), the historian could in fact claim that those statements are highly probable, not that they are based on well tested universal laws.

Hempel illustrates the N-D model with the following example:

Let the event to be explained consist in the cracking of an automobile radiator during a cold night ... The car was left in the street all night. Its radiator, which consists of iron, was completely filled with water, and the lid was screwed on tightly. The temperature during the night dropped from 39<sup>0</sup> Fahrenheit in the evening to 25<sup>0</sup> F in the morning; the air pressure was normal. The bursting pressure of the radiator material is so and so much ... [The] empirical [universal] laws ... [involved are the following]: Below 32<sup>0</sup> F, under normal atmospheric pressure, water

---

<sup>10</sup>The year 1942 could be considered the *annus mirabilis* for historiography. In that year many and truly important articles concerning the subject were issued.

---

freezes. Below 39.2<sup>0</sup> F, the pressure of a mass of water increases with decreasing temperature, if the volume remains constant or decreases; when the water freezes, the pressure again increases. Finally ... [we have] to include a quantitative law concerning the change of pressure of water as a function of its temperature and volume. From ... [these initial conditions and universal laws], the conclusion that the radiator cracked during the night can be deduced by logical reasoning; an explanation of the considered event has been established (Hempel 1942, 36).<sup>11</sup>

He concludes,

But no matter whether explanations in history be construed as “causal” or as “probabilistic” in character, it remains true that in general the initial conditions and especially the universal hypotheses involved are not clearly indicated, and cannot unambiguously be supplemented ... What the explanatory analyses of historical events offer ... in most cases [is] not an explanation in one of the meanings developed above, but something that might be called an *explanation sketch* (Hempel 1942, 42; italics in original).

According to Hempel, explanation sketches can adopt two forms: a scientific-

---

<sup>11</sup>Karl Popper gives the following relatively simple example of a N-D explanation:

“For every thread of a given structure S (determined by its material, thickness, etc.) there is a characteristic weight w, such that the thread will break if any weight exceeding w is suspended from it.”—“For every thread of the structure S<sub>1</sub>, the characteristic weight w<sub>1</sub> equals 1 lb.” These are the two universal laws. The two initial conditions are, “This is a thread of structure S<sub>1</sub>” and, “The weight to be put on this thread is equal to 2 lbs.” From the above argument we can deduce the single statement, “if we put the 2 lbs weight on this thread, it will break” (Popper 1992 [1935], 60n).

cally acceptable form and a pseudo-explanation. A scientifically acceptable explanation sketch must involve a general law (or a probabilistic hypothesis) linking the “initial conditions” to the “event” to be explained, and it must be “empirically testable.” A pseudo-explanation always lacks one or both of these conditions. For example, when a historian appeals to the “historic destination of a race” he is using a non-testable metaphor, and therefore his explanation does not qualify as scientific. The same negative verdict falls upon the so-called method of *empathetic understanding* (*Verstehen*) employed by some historians (Dilthey and Collingwood, for example). In part, this method consists in immersing ourselves in the mind of historical characters. For example, we can imagine ourselves in the place of Napoleon before the battle of Waterloo and, therefore, have a better grasp of that historic episode. In any case, says Hempel, this constitutes a heuristic device, but does not necessarily lead to a sound historical explanation.

Hempel summarizes his own position concerning historical explanations in the following terms:

In history as anywhere else in empirical science, the *explanation* of a phenomenon consists in subsuming it under general empirical [or probabilistic] laws; and the criterion of its soundness is not whether it appeals to our imagination, whether it is presented in suggestive analogies, or is otherwise made to appear plausible—all this may occur in pseudo-explanations as well—but exclusively whether it rests on empirically well confirmed assumptions concerning initial conditions and general laws (Hempel 1942, 45; emphasis added).

Hempel’s article had a tremendous impact on the practice of historiography. In 1954, for example, the Social Science Research Council stated that “[t]he truly

---

scientific function [in historical analysis] begins where the descriptive function stops. The scientific function involves not only identifying and describing temporal sequences; it also involves explaining them” (*Bulletin* No. 54, 86).

Two years before, the eminent philosopher of science Ernest Nagel had expressed a similar idea, “... since historians usually aim to be more than mere chroniclers of the past, and attempt to understand and explain recorded actions in terms of their causes and consequences, they must obviously assume supposedly well-established laws of causal dependence” (Nagel 1952, 163). Therefore, in the above context, to *explain* an historic event means answering the question, *what caused it?*

In an article also published in 1954, William Dray forcefully opposed the above ideas. Dray’s article purports to show that an adequate historical explanation does not necessarily have to conform to the *nomological-deductive* (N-D) model. Dray calls the N-D model the “covering-law model” of explanation—because it means subsuming what is to be explained under a general law or laws. (Dray practically disregards the probabilistic model.)

In particular, I want to point out that in history, the demand for explanation is very often interpreted in such a way that the proper answer assumes narrative form; and that in such cases, it would sometimes be quite wrong to say that even an implicit appeal to covering law was involved” (1954, 17).

Dray then proceeds to explain an occurrence taken from everyday affairs, “as it might well be given by a person beyond suspicion of having philosophical axes to grind”:

An announcer broadcasting a baseball game from Victoria, B.C., said: “It’s a long fly ball to centre field, and it’s going to hit high up on the fence. The centre fielder is back, he’s under it, he’s caught it, and the batter is out.” Listeners who knew the fence was twenty feet high couldn’t figure out how the fielder caught the ball. Spectators could have given them the unlikely explanation. At the rear of centre field was a high platform for the scorekeeper. The centre fielder ran up the ladder and caught the ball twenty feet above the ground (1954, 17-18).

In cases like this, says Dray, what the reader wants to know is, “how on earth could that catching have happened?” Moreover, he adds, to give an adequate explanation you do not have to appeal to the covering law model. (Although, trivially, one could say that in the background of the whole catching episode lurks Newton’s theory of gravitation.) This example serves Dray to conclude that in historical explanations the questions the historian has to answer most of the time adopt the form of *how*-questions, rather than *why*-questions. To answer *how*- or *what*-questions we do not need to appeal to covering laws, because the answers can just adopt the narrative form to be rational and intelligible. In historiography, narration is not inferior to explanation. Hempel and Oppenheim, however, had stated that, “To explain the phenomena in the world of our experience, to answer the question ‘why?’ rather than *only* the question ‘what?’ is one of the foremost objectives of all rational inquiry” (1948, 135; emphasis added).

In support of Dray’s thesis, Maurice Mandelbaum observes that when we want to explain the cracking of a radiator (as in the example adduced by Hempel), we do not introduce specific laws of cracking-radiators, but other, much more general physical laws (1961, 234). The same si-

---

tuation occurs in history, but with greater force. When we read, for example, that Joan of Arc was burned at the stake because she was found guilty of heresy and sorcery, we do not need additional information concerning the cause of her death. We do not need to mention specific or general physical laws to understand why she died when burned. What we *would* like to know is why she was found guilty of heresy and sorcery.

In the same vein, philosopher John Passmore considers that historians do not resort to general laws or to peculiar forms of logical argumentation when writing about past events. He contends that historians are not trained to discuss explanation, causality, and the like—they are trained to become historians and not philosophers of science. According to Passmore, the way historians use the word “explanation” is more akin to its use by “the man in the street” than by its use by physicists: “[Historians] regard themselves as ‘explaining’ when they tell us *how* Rome was supplied with water, *what* a phrase in mediaeval law means ... *why* Luther’s revolt against the Roman Catholic Church was supported by the German Princes.” And he adds: “Often enough, they count justifying as explaining; and if they detail the route taken by the British detachment from Boston to Lexington, consider themselves as ‘explaining’ how it got there” (1962, 110; italics in the original).

The philosopher Arthur C. Danto also raised his voice against Hempel’s strictures. Historians usually work with explanations subject to modifications based on new discoveries or novel approaches. History as it is known to us would come to an end if historians had to state relevant connecting laws every time they refer to some event following

another event. As he puts it: “... revolutions and wars, the unique destinies of great men and women, the sudden flourishing of high artistic styles and the epochs of high intellectual achievement, the rise and fall of nations ... have heretofore seemed singularly unamenable to explanation in [Hempel’s] sense” (1956, 16). W. B. Gallie expressed it even more forcefully: “Is it an essential part of [the historian’s] craft and calling as a historian to believe in the deducibility of any and every human historical event from certain general laws and certain earlier existing conditions, and to proceed in the light of this belief in all his characteristic ponderings and researches? It seems to me perfectly certain that it is not” (1963, 185).

Danto, Passmore, and Gallie have emphasized that narrative constitutes the basic ingredient of historical understanding. When we read a history book, they contend, we are interested in what actually happened. We are interested in the array of materials selected, in the vividness of the descriptions, in the logical coherence of the plot. Usually, we do not look for the conclusion of an historical account in order to test a theory or to corroborate a law. As Gallie puts it, “... historical narrative enables us to follow the actual course of certain events to a known conclusion, for the sake of the events themselves and their direct human interest, quite apart from whatever exemplification of scientific truths or accepted truisms they may afford.” This does not at all mean that we can get rid of explanation. When the historical picture becomes blurred or too complicated, explanation becomes indispensable. Explanations enable historians “to classify, clarify and endorse facts with at first seem puzzling or improbable,” enlarging their “vision of the context and potential relevance of

---

particular actions and episodes.” Explanations are “essentially aids to the basic capacity or attitude of following [a story], and only in relation to this capacity can they be correctly assessed and construed” (Gallie 1963, 193-194).

Hempel, after mounting criticism against his stance, reconsidered it and refined his argument. He clarified his position as follows. When he referred to an individual event, he meant an event that could be completely characterized by a statement, e.g., “the body of gas, *g*, increased in volume between 5:00 and 5:01 p.m.” In historiography, the situation is different. In that field, says Hempel, an event “is typically characterized, not by a statement describing it, but by an individual name ... such as ‘the Children’s Crusade’ [or] ‘the October Revolution’... and the like.” He concludes: “Individual occurrences thus understood cannot be explained by covering laws or in any other way; indeed, it is unclear what could be meant by explaining such an event. For any event thus understood has infinitely many aspects and thus cannot be even fully described, let alone explained” (Hempel 2001, 301).

Again, Dray disagreed. According to him, individual historical events are also unsuitable for the covering law model of explanation. Individual actions require rational explanations and not inclusion under general laws. Dray claims that “when we ask for the explanation of an action, what we very often want is a reconstruction of the agent’s calculation of means to be adopted toward his chosen end in the light of the circumstances in which he found himself” (1957, 122). Dray’s approach is similar to Popper’s *situational analysis*.<sup>12</sup> We can represent

Dray’s model of rational explanation through the following sketch:

Agent *A* was in a situation of kind *C*;

When in a situation of kind *C*, the thing to do is *x*;

Therefore, *A* did *x*.

“If we said, for example, ‘Disraeli attacked Peel because Peel was ruining the landed class,’ we might mean, and Dray would agree, that anyone sufficiently like Disraeli in relevant respects would have done the same thing in a situation sufficiently similar in relevant respects” (Leach 1966, 64). Because, according to Dray, “if *Y* is a good reason for *A* to do *X*, then *Y* would be a good reason for anyone sufficiently like *A* to do *X* under sufficiently similar circumstances” (1957, 132).

Hempel considers that Dray’s argument is incomplete because it lacks a universal (or probabilistic) covering law. Therefore, according to Hempel, the explanation should run as follows:

*A* was in a situation of type *C*;

*A* was disposed to act rationally;

Any person who is disposed to act rationally

---

three senses of ‘rationality’ (and, accordingly, of the ‘rationality principle’), all objective, yet differing with regard to the objectivity of the situation in which the agent is acting: (1) *The situation as it actually was*—the objective situation which the historian tries to reconstruct. Part of this objective situation is (2) *The situation as the agent actually saw it*. But I suggest that there is a third sense intermediate between (1) and (2): (3) *The situation as the agent could (within the objective situation) have seen it, and perhaps ought to have seen it*” (Popper 1994 [1963], n19, italics in the original).

---

<sup>12</sup>“It seems to me ... that there are at least

---

ally will, when in a situation of type C, invariably (with high probability) do X.

The last statement is the missing link in Dray's explanation, and, without it, we cannot say why in fact A did X (Hempel 2001, 291). But Hempel's disagreement with Dray runs deeper. When Dray resorts to "dispositional features" in the "agent" to explain behavior, and not to rationality or deliberation, he should invoke the peculiar character of the "agent" as brave or cunning or whatever for his explanation to be logically valid. Because, Hempel insists, individual actions must be subsumed under generalizations to count as "explanations." In any case, without covering laws, individual actions constitute mere descriptions. For example, if someone affirms that "Disraeli attacked Peel because Peel was ruining the landed class," we cannot avow that any other person with personality traits similar to Disraeli's would have acted in the same manner under similar circumstances. First, we must typify Disraeli's personality under a generalization, says Hempel.

But this seems to me a little outlandish. Should we typify Disraeli as sectarian? Because only a person biased in favor of the landed class would have acted as he did? Questions like these, I suppose, moved Popper to refer to them in the following terms. "The usual mistake here is to assume that ... the animation of a social model has to be provided by the human *anima* or *psyche*, and that ... we have to replace Newton's laws of motion ... by the laws of individual psychology pertaining to the individual characters who are involved as actors in [the] situation" (2001, 168-69; italics in the original).

But let us see what happens when Hempel proceeds to give an account of an

historical event. The event in question is the famous editing by Bismarck of the "*Ems Telegram*."

During the first days of July 1870, Prince Leopold of Hohenzollern was proposed for the Spanish throne. France strongly opposed his candidacy because this would give Prussia (whose king was also a Hohenzollern) excessive political power. But the Prince resigned his candidacy almost immediately. On 13 July 1870, the French ambassador to Prussia paid a visit to the Prussian king, who was staying at the spa of Ems. During his visit, the ambassador requested from the king an assurance that, in future, no member of his family should pretend the Spanish throne. The king calmly declined the demand and sent a telegram to his chancellor, Otto von Bismarck, narrating the incident. The king gave Bismarck freedom to make public or not the contents of the telegram.

As Bismarck states in his autobiography, he grabbed the opportunity to promote his own intentions. Bismarck wanted, among other political objectives, to unite all German states under Prussian leadership, and a war with France would generate the proper sentiment of brotherhood. But other, less "rational" objectives obsessed him as well: "In view of the attitude of France, our national sense of honor compelled us, in my opinion, to go to war ...." In addition, Moltke, his chief of General Staff told him that no advantage to Prussia would be derived from deferring the outbreak of war and that "he [Moltke] regarded a rapid outbreak as, on the whole, more favorable to us than delay" (Bismarck 1898, 2: 98). Bismarck records, "All these considerations, conscious and unconscious, strengthened my opinion that war could be avoided only at the cost of the honor of Prussia and of the

---

national confidence in it,” and he proceeded to alter the contents of the telegram in order to publish it: “I reduced the telegram by striking out words, but without adding or altering, to the following form ....” He continues:

If in execution of his majesty’s order I at once communicate this text ... [it] will have the effect of a red rag upon the Gallic bull. Fight we must ... Success, however, essentially depends upon the impression which the origination of the war makes upon us and others; it is important that we should be the party attacked, and this Gallic overweening and touchiness will make us if we announce in the face of Europe ... that we fearlessly meet the public threats of France (1898, 2: 101).

The prevailing atmosphere of bellicosity surrounding him, Bismarck himself shows when he remarks, immediately after the quoted passage, that, “this explanation brought about in the two generals [Roon and Moltke, who were with him at the time] a revulsion to a more joyous mood, the liveliness of which surprised me” (1898, 2: 101).

Bismarck’s explanation of why he doctored the Ems telegram is one of the most explicit and detailed on record. For Hempel, however, it falls short of the requirements of the model of “consciously rational action”:

Actually, however, the account is not likely to be strictly complete. For example, Bismarck must have considered, however briefly, some alternative courses of action—among them, different ways of editing the text—which are not mentioned in his own statement nor in the accounts given by various other writers who have dealt with the matter. The available studies suggest that Bismarck may have fleetingly entertained the possibility of releasing the relevant information to all

Prussian embassies but not to the press for publication ... Thus, though in the case of the Ems telegram an unusually large amount of apparently reliable information on the motivating reasons is available, and though Bismarck’s decision seems to have been arrived at by cool and careful deliberation, the rigorous requirements of the model of consciously rational action are not completely satisfied (Hempel, 1965, 480-81).

We must note that despite his detailed analysis of the *Ems Telegram* episode, Hempel never mentions a covering law of any sort, linking the different parts constituting the explanation. And recall that, according to him, without the inclusion of covering laws there cannot be “a rationally acceptable explanation of a given event.” But to press the point again, what would become of History if historians subject themselves to these rigors? How many historians have written history following Hempel’s advice?

I think that in the case of the *Ems Telegram* episode we need to go no further than explaining it in terms of rational action, that is, “*understandable* action that we need ask no more questions about” (Coleman 1986, 1). In any case, we should be thankful to Bismarck for giving us so minutely (and depressing) a report of the incident.

In analyzing causes, historians proceed as in natural science—through bold conjectures (as Popper proclaims). Obviously, historians are not blank slates registering past evidence from official documents, historical records, ruins and monuments. For, as Isaiah Berlin has expressed with his habitual lucidity:

If we ask why such [“causal”] explanations—such uses of “because”—are accepted in history, and what is meant by

---

saying that it is rational to accept them, the answer must surely be that what in ordinary life we call adequate explanation often rests not on a specific piece of scientific reasoning, but on our experience in general, on our understanding of the habits of thought and action that govern human attitudes and behavior, on what is called knowledge of life, sense of reality (1960, 20).

But “scientism” is still with us. The spirit of Quetelet and Buckle has been born anew in France with the *Annales* School of history, and in the United States with the “New Economic History” (also called “Cliometrics”). One of the most conspicuous representatives of the *Annales* School, Emmanuel Leroy Ladurie stated in his *The Territory of the Historian* (1979) that “history that is not quantifiable cannot claim to be scientific” (cited by Stone 1979, 5).

The “cliometricians,” in turn, spend millions of dollars building models and collecting and processing data through electronic means. This is sometimes done without much consideration to the subject matter under investigation. Furthermore, their “results sometimes combine the vices of unreadability and triviality” (Stone 1979, 11), and their analyses have become so mathematically involved that only a few aficionados read them.<sup>13</sup> In the United States, however, they preside over economic history. (Their undisputed contribution to historiography is that now historical arguments that require statistical bases to support them must display the relevant data to be trustworthy.)

However, as a reaction against this “scientific” approach to history, many historians have turned to the old narrative

---

<sup>13</sup>Some of their articles can be accessed via *Cliometrica*, their academic journal.

mode of explanation.<sup>14</sup> They, again, are interested in studying and describing political institutions and their social impact; and religious, psychological, and legal developments as relevant to our lives today. Even the history of witchcraft and of outcasts has become a common theme for their inquiries. They are less interested in studying circumstances, and more in the role played by human agents. They are conscious that History is full of the unexpected and contingent, and that historical prediction is practically impossible. According to one of its members, the dilemma now facing historiography can be stated as follows: “The quantitative and anti-anthropocentric approach of the sciences of nature from Galileo onwards has placed human sciences in an unpleasant dilemma: they must either adopt a weak scientific standard so as to be able to attain significant results, or adopt a strong scientific standard to attain results of no great importance” (Ginzburg 1979, 276).

For those of us just aspiring to become members of the universal Republic of Letters, I think that there are—as in Philosophy—only two brands of History: bad History and good History. The rest is, in the immortal words of Don Juan Tenorio, *pláticas de familia de las que nunca hice caso*.

---

<sup>14</sup>In natural science, the approach to its subject is also changing. The French philosopher Jean-Francois Lyotard has expressed in his *The Postmodern Condition* (1984) that the paradigm in modern science has become a search for instabilities, asymmetries, and indeterminacies, and the construction of narratives of explanation more metaphorical than quantifiable.

---

## REFERENCES

- Adelman, Howard. 1974. Rational Explanation Reconsidered: Case Studies and the Hempel-Dray Model. *History and Theory*, 13 (3) (Oct): 208-24.
- Berlin, Isaiah. 1960. History and Theory: The Concept of Scientific History. *History and Theory*, 1 (1) (Jan): 1-31.
- Bismarck, Otto. 1898. *Bismarck, the Man and the Statesman: Being the Reflections and Reminiscences of Otto, Prince von Bismarck*, vol. 2. Trans. A. J. Butler. New York: Harper & Brothers.
- Blaug, Mark. 1997. *The Methodology of Economics: Or How Economists Explain*. New York: Cambridge University Press.
- Buckle, Thomas Henry. 1869. *Essays*. New York: D. Appleton & Co.
- Cohen, Morris R. 1942. Causation and its Application to History. *Journal of the History of Ideas*, 3 (Jan): 12-29.
- Coleman, James S. 1986. *Individual Interests and Collective Action: Selected Essays*. Cambridge: Cambridge University Press.
- Committee on Historiography. 1954. *The Social Sciences in Historical Study*. Bulletin 54. New York: Social Science Research Council.
- Croce, Benedetto. 1909. *Aesthetic as Science of Expression and General Linguistic*. Trans. Douglas Ainslie. Blackmask Online [2003].
- . 1941. *History as the Story of Liberty*. Trans. Sylvia Sprigge. New York: W. W. Norton.
- Danto, Arthur C. 1956. On Explanations in History. *Philosophy of Science*, 23 (Jan): 15-30.
- Dray, William. 1954. Explanatory Narrative in History. *The Philosophical Quarterly*, 4 (Jan): 15-27.
- . 1957. *Laws and Explanations in History*. New York: Oxford University Press.
- Gallie, W[alter] B[ryce]. 1963. The Historical Understanding. *History and Theory*, 3 (2): 149-202.
- Ginzburg, Carlo, and Anna Davin. 1980. Morelli, Freud, and Sherlock Holmes: Clues and Scientific method. *History Workshop Journal*, 9 (Spring): 5-36.
- . 1979. Clues: Roots of a Scientific Paradigm. *Theory and Society*, 7 (3) (May): 273-78.
- Haskins, Charles H. 1923. *The Rise of Universities*. New York: Henry Holt and Co.
- Hayek, F. A. 1941. The Counter-Revolution of Science (I). *Economica*, N. S., 8 (Feb): 9-36.
- Hempel, Carl G. 1942. The Function of General Laws in History. *Journal of Philosophy*, 39 (Jan): 35-48.
- . 1965. *Aspects of Scientific Explanation and Other Essays in the Philosophy of Science*. New York: The Free Press.
- . 1966. *Philosophy of Natural Science*. Englewood Cliffs, N.J.: Prentice-Hall, Inc.
- . 2001. *The Philosophy of Carl G. Hempel: Studies in Science, Explanation, and Rationality*. James H. Fetzer, ed. New York: Oxford University Press.
- Hempel, Carl G., and Paul Oppenheim. 1948. Studies in the Logic of Explanation. *Philosophy of Science*, 15 (April): 135-75.
- Leach, James. 1966. Dray on Rational Explanation. *Philosophy of Science*, 33 (Mar-June): 61-69.

- 
- Lyotard, Jean-François. 1984. *The Postmodern Condition: A Report on Knowledge*. Minneapolis: University of Minnesota Press.
- Mandelbaum, Maurice. 1961. Historical Explanation: The Problem of "Covering Laws." *History and Theory*, 1 (3): 229-42.
- Medawar, Peter B. 1969. *Induction and Intuition in Scientific Thought: Jayne lectures for 1968*. Philadelphia: American Philosophical Society.
- Megill, Allan. 1989. Recounting the Past: "Description," Explanation, and Narrative in Historiography. *American Historical Review*, 94 (June): 627-53.
- Mill, John Stuart. 1882. *A System of Logic*, 8th ed. New York: Harper & Brothers.
- Mises, Ludwig. 1963 [1949]. *Human Action: A Treatise on Economics*. San Francisco: Fox & Wilkes.
- Nagel, Ernest. 1952. Some Issues in the Logic of Historical Analysis. *The Scientific Monthly*, 74 (March): 162-69.
- Passmore, John. 1962. Explanation in Everyday Life, in Science, and in History. *History and Theory*, 2 (2): 105-23.
- Popper, Karl R. 1992. *The Logic of Scientific Discovery*. New York: Routledge.
- . 1994. *The Myth of the Framework: In Defence of Science and Rationality*. M. A. Notturmo, ed. New York: Routledge.
- Quetelet, M. A. 1842. *A Treatise on Man and the Development of his Faculties*. Edinburgh: William and Robert Chambers.
- Stone, Lawrence. 1979. The Revival of Narrative: Reflections on a New Old History. *Past & Present*, No. 85 (Nov): 3-24.
- Teggart, Frederick J. 1910. The Circumstance or the Substance of History. *American Historical Review*, 15 (July): 709-19.
- . 1918. *The Processes of History*. New Haven: Yale University Press.
- . 1919. Anthropology and History. *Journal of Philosophy, Psychology and Scientific Methods*, 16 (25) (Dec): 691-96.
- . 1925. *Theory of History*. New Haven: Yale University Press.
- . 1939. *Rome and China: A Study of Correlations in Historical Events*. Berkeley: University of California Press.
- . 1942. Causation in Historical Events. *Journal of the History of Ideas*, 3 (Jan): 3-11.
- Toulmin, Stephen. 1982. The Construal of Reality: Criticism in Modern and Post-modern Science. *Critical Inquiry*, 9 (1) (Sept): 93-111.
- Wiener, Philip P. 1941. On Methodology in the Philosophy of History. *Journal of Philosophy*, 38 (June 5): 309-24.
- Zilsel, Edgar. 1941. Physics and the Problem of Historico-Sociological Laws. *Philosophy of Science*, 8 (Oct): 567-79.