

Toward Laws in History: Carl G. Hempel and the Evidence Dilemma.

By John Jefferson

In high school chemistry, students learn that there are certain experiments that can be repeated if we recreate the exact set of circumstances as the original experiment. Being in the realm of natural science, chemistry deals primarily with movable evidence and verifiable laws. In the realm of history, a member of the social science family, we historians deal primarily with sociological observations more so than finite statements that can apply to more than one situation or event. Or do we? Historians are trained to think that due to the nature of individual persons, events are not repeatable. Things just never seem to happen the same way twice. The justification for which has always been this: No two people are built the exact same way. Therefore, no two people do things the exact same way, and any verifiable evidence would be deficient and any experiment would be flawed because we are not dealing with the same circumstances.

The primary aim of this discussion is to investigate further the possibility that movable evidence and verifiable, general laws exist in history. Our approach, given our historical nature, will be through the historical lens and not through a natural science lens. Much of our discussion will take place in the abstract relationship between philosophy and history although we must prove our propositions in the field of history with concrete evidence. First, we must address concerns of language. Movable evidence shall be taken to mean a set or sets of circumstances and actions that can be moved from place to place or time to time in history. General laws shall be taken to mean verifiable statements that can be proven to apply to more than one historical event or act

The concept of laws in the field of history has more in common with abstract thinking than the observant nature of sociology. Our cast of characters deals not with statesmen or war heroes but with philosophers, thinkers, and historians who are relatively unknown outside the research community. Carl G. Hempel is the prime example. As a philosopher and natural scientist, his work remains relatively untouched by historians because he does not have the appearance of being a social scientist or someone interested in the propagation of history. However, Hempel's career is compatible to historians and social scientists since his theories and

philosophies regarding laws in the field of history possess the power to completely redefine the way people and scholars have viewed history for the past few centuries.

Regarding the concept, Fischer has written: "Some extraordinarily ingenious arguments have been invented, but the enterprise is, at bottom, absurd." ¹ In contrast, Bender explains: "The historian needs to be a cosmopolitan. For that to happen, both historiography and the historian have to restore some sense of strangeness, of unfamiliarity, to American historical experience." ² The nature of laws in history as strange and unfamiliar as that may seem is, as we will see, entirely understandable. Laws are necessary, as Hart has shown us, because "history has limitations as a guiding signpost...for although it can show us the right direction, it does not give detailed information about the road conditions." ³ When a historian is researching a topic, s/he must narrow the locations in which s/he will pursue information. S/He does not always know where s/he will go but s/he must know how to get there and that aim is accomplished by general laws. Atkinson supports this contention by stating: "human knowledge. . . is an orderly and systematic whole; and . . . if what we acquire is to serve any purpose, either of utility or discipline, the main question in regard to it is the question of order and method." ⁴

As he explains in "The Function of General Laws in History," Hempel does not take the term "law" to connote exactly the same as we view other laws. A law in the field of history does not have any relation at all to a law created by a legislature or judge. Nor is it the same as a theory in biology or chemistry, such as Newton's theory of motion. Rather, a general law in history is "a statement of universal conditional form which is capable of being confirmed by suitable empirical findings," best explained as a statement explaining a cause and a directly related effect. ⁵ Further, the term "law" suggests that the available evidence relevant to an issue provides confirmation of some kind to the statement explained in the text of the law. Hempel finds that to be rather "irrelevant," preferring to use the term "hypothesis of universal form" or "universal hypothesis," as those terms point toward a cause and effect explained as a "regularity of the following type: In every case where an event of a specified kind *C* occurs at a certain place and time, an event of a specified kind *E* 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." ⁶

Hempel explains that history and natural sciences are similar in that "both can give an account of their subject-matter only in terms of general concepts, and history can 'grasp the unique individuality' of its objects of study no more and no less than can physics or

chemistry.”⁷ Gallie provides a supplement in stating that a historian is not unlike a chemist: “Frequently, in order to get his available generalizations to apply at all, an historian has to suppose the existence of some unobserved or at least unrecorded factor in the situation that he is seeking to explain. In this respect, his position seems at first not unlike that which often faces a chemist, for example, when he is trying to apply general physical formulae in some highly complex physical situation.”⁸ Due to the nature of experiments and the fact that historical events cannot be reproduced in any experiment exactly as it occurred, Gallie intimates that the “historian's suppositions...must inevitably seem[,] to any critic trained in the natural sciences[,] to be of a dangerously *ad hoc* character.”⁹ However, an examination of Hempel’s ideas reveal that the creation of general laws is not *ad hoc* at all. Rather, general laws must serve a definite purpose if they are to be relevant to any historian.

Possessing a universal hypothesis, or general law, enables the user to perform what is known as scientific prediction. Naturally, if the statement relates a cause to an effect, then that effect is guaranteed. However, due to the ever-changing nature of circumstances in which humans live and the changing nature of human activity, if a statement relating a cause to an effect in history is to be true at all, it must be general and not specific. Creating a general law does not diminish or lessen the validity of specific behavior but, instead, seeks to view history in a synthetic viewer on a larger scale. Martin further explains that the actual job of a historian is to connect details to each other and the only way to accomplish such a task is to establish some sort of generalization as it “serves to show that the assertion of a particular detail is connectible with another. For its effect is to subsume the particularized assertion, as a special case, under a general assertion of appropriateness.”¹⁰ Cronin furthers Martin’s point by stating that “In history proper, one seeks to establish a linear connection among events in order to constitute the meaning of the object under investigation.”¹¹ Such a process of connecting events is absolutely essential to establish laws.

One example of a specific law of history following Hempel’s direction would be “each radical change in policy on the part of an American president has a long-lasting, negative effect on the economic well being of the people it affects both directly and indirectly.” Such a statement requires application of a narrow, limited statement to the wide range of history. The exact opposite must be done to accomplish our goals. One example of a general law would be “assassinations of major American leaders are followed by investigations conducted by major

groups.” Not only is the cause expressed in general terms, the effect is explained in that same manner. Specific statements cannot be proven across the board because the nature of human behavior is simply too much of a variable that cannot be entirely defined and replicated naturally and subconsciously. That view has been held for centuries. However, if we narrow the group referring the cause and expand the effect, we will find a general law that is provable. We know that the first statement, being specific, is not true in every application. We also know that the second statement, being general, is true in every case.

Hempel writes that, using the Dust Bowl as an analogy and taking into consideration the uniqueness of humans and human behavior, we may be limited to statements indicative of a more global action.¹² The Dust Bowl caused farmers in the Midwest to migrate to California in their quest for better living conditions. Though there might not be another example of that same set of causes and effects in history, we may create, with reasonable certainty, the general statement “unfavorable living conditions will cause those living in the unfavorable setting to seek out a more favorable location to move.” For the purposes of truth, we need not be concerned with whether or not those affected actually pursue a new location, only that they consider leaving the unfavorable one. Hempel writes that the fact that the historian attempts to put himself in the shoes of the figure in history about whom he inquires serves only as “a heuristic device” which will enable the historian to better understand, in an empathic fashion, why a historical act occurred.¹³ That act on the historian’s part does not have any relevance toward a general statement naturally because it focuses upon a single, singular event.

The relationship between laws and history is not without precedent. Hempel also explains that history and historians repeatedly employ the use of laws from other fields, frequently in the natural sciences, so the prospect of having general laws relating to history is not completely foreign. In order to determine the date of fossils, we use a technique known as carbon dating. We know that a prolonged lack of supplies will lead to negative outcomes in military situations because we understand the biological relationship between humans and the need for sustenance. An army with no food and no way to find food in the wilderness will absolutely starve.

The precise nature of history, existing solely in the past, forces historians to invent ways to examine past events indirectly, including laws. In order to form and create a deeper and more thorough understanding of the past, historians rely upon generalizations that we may take as laws. Hempel explains that laws in history are culled from other sciences such as economics,

sociology, biology, and psychology, among others, and, as such, these laws have no specific tie to history alone. Wang and Iggers explain further:

The science of history, whose ideal was objectivity and whose main aim was to develop a strictly defined methodology, was fully developed as historicism. Based on methodological tools of philology and a hermeneutic approach to history, German historians made the critique of sources, (*Quellenkritik*) the basis of their research, and emancipated the writing of history from the philosophical synthesis of history in Kant and Hegel.¹⁴

Due to the crossover between the natural sciences (given the biological factors in humans) and social sciences (given the observable behaviors), historians may be better suited to remove the distinctions of natural and social, and simply lump each branch together under the heading “science” - as Hempel points out: all branches share “the methodological unity of empirical science.”¹⁵ Iggers and Parker concur and state that the “the satisfactory explanation of any event—*the explanandum*,” when it is “logically deducible from a set of empirical laws, together with statements asserting the initial and boundary conditions referred to in the laws; the laws of statements and initial conditions together constitute the *explanans*” which is a testament to the unity between all sciences regardless of affectation toward natural or social.¹⁶

Criticism of the issue of laws in the field of history is often misplaced and disjointed. Wilkins criticizes Hempel’s covering law by stating "Two other objections to the covering law model need noting: (1) that covering laws explain kinds of events, not particular events, and (2) that probability laws or hypotheses cannot explain particular events since such laws only make the occurrence of certain kinds of events seem likely or probable rather than necessary." ¹⁷ What needs noting here is that the second statement is redundant as it is given that probability laws cannot explain particular events. Both of Wilkins’ statements suggest that he had misread Hempel’s intentions. Further, Verene writes: "It is dangerous in matters of history to claim to have discovered the origin of something, because it is the nature of historical investigation to uncover precedents." ¹⁸ Verene’s logic here is fatally flawed as precedents are *de facto* origins. Again, Hempel’s suggestion is that historians employ the use of general laws to investigate origins.

Aydelotte, conversely, takes a view similar to Hempel:

...generalizations should be suggestive rather than demonstrable and that they should appeal to the imagination rather than to the external facts. Such a position does not, as I

mean it, imply that the historian should fail to examine the evidence, disregard it, or openly flout it. The case is rather that, in view of the difficulties of adequate proof and the impossibility of final proof, the key to understanding the past is not the pedestrian pursuit of documentation but imagination and vision.¹⁹

Such vision and imagination could only come through a detailed examination of the available evidence, which, as Gray points out, is limited. "Only a small proportion of all the things that happen leaves any permanent record."²⁰ However, a detailed examination of available evidence requires generalizations made by the historian. As such, the vision and imagination created by the historian in the final product are a direct by-product of the process of examination and generalization performed while the writer researched historical events.

Hegel concurs with Aydelotte in pointing out the emotional relationship between the historian and the evidence. In mentioning that the historian "brings the categories with him," Hegel hints at the statement that Hempel has expounded. That is, historians create laws when they generalize history and find the relationships that link evidence to other evidence. White criticizes Hegel for suggesting that "history could...be a deductive science, whether the deduction was guided by the rules of the old or those of the new logic."²¹

Hegel writes that even the historiographer who contends that he is the most passive, most receptive to his evidence "brings his categories with him, and sees the phenomena presented to his mental vision, exclusively through these media."²² White points out that Hegel's new view of history was not without criticism during Hegel's lifetime. The alternative that would serve as an organon to "...this older logic, a logic of human praxis, that is, of history as lived..." was criticized by most professional historians who believed "...he had been wrong to attempt this, for they believed that history could never be a deductive science, whether the deduction was guided by the rules of the old or those of the new logic."²³

Collingwood opposes the argument that Hempel would create nearly fifty years later but, upon closer inspection, Collingwood espouses a view more akin to Hempel despite his statements to the contrary. He writes:

There is no such thing as empirical history, for the facts are not empirically present to the historian's mind: they are past events, to be apprehended not empirically but by a process of inference according to rational principles from data given or rather discovered in the light of these principles; and there is no such thing as the supposed further stage of philosophical or scientific history which discovers their causes or laws or in general explains them, because a historical fact once genuinely ascertained, grasped by the

historian's re-enactment of the agent's thought in his own mind, is already explained. For the historian there is no difference between discovering what happened and discovering why it happened.²⁴

An analysis of Hempelian logic and discourse would conclude that rational principles are synonymous with generalizations. In order for the historian to re-enact a historical event in his own mind, he must first find it and that much is done through the process of generalization. Therefore, Collingwood is correct to state that the further stage of scientific history that discovers historical laws does not exist because that task is accomplished by the historian himself during the process of researching the historical event and it may be as unique and different as each individual historian. There may not be a uniform system of generalization. However, we find that the result is almost always the same: generalizations are made regardless to what they refer. We find our proof of historians' creation of these conclusions in Morgan's statement: "Mine becomes an essentially inductive method. I put together the facts that I find, after assessing them according to what I think their worth may be, and thus slowly and painfully I build toward central conceptions."²⁵

Sir Lewis Namier also criticizes the generality of historians' conclusions. According to him, "the subject matter of history is human affairs, men in action, things which have happened and how they happened; concrete events fixed in time and space, and their grounding in the thoughts and feelings of men - not things universal and generalized..."²⁶ However, Namier fails to realize that generalizations are the primary method of historical instruction. The minutest details of historical events can only be fully understood after the historian has fully understood the larger concept. An understanding of the uses of an M1A1 Abrams tank comes only after understanding warfare in the larger sense. A historian needs to understand that tanks are sent in response to a concrete military threat posed by a tangible enemy. Without that understanding, the uses of that tank are lost on the historian. This contention is further proven by the nature of historical education at university. Before a student is permitted to enroll in upper level history courses, she or he must first take the introductory surveys which deal primarily in generalizations. In the survey course, history is grouped into decades, centuries, and defining moments. Upper level courses delve into smaller periods of time for greater analysis that builds upon the knowledge gained from the introductory surveys.

To the contrary, Smith takes Hempel's logic too far in assuming that "the conclusion is that there are no such things as historical explanations. The explanations that historians give, 'to the extent that they are acceptable explanations, must be scientific ones.'" ²⁷ While any explanation is bound to be scientific given the standing of history as a social science, these explanations must, *a priori*, be historical because they deal with history. Melchert's argument of defined logic illustrates the difference between validity and verifiability. Validity exists when "it is not possible for the conclusion to be false. An argument can be valid, however, even if the premises are false." The verifiability principle is "the rule adopted by logical positivists to determine meaningfulness in factual statements; if no sense experience can count in favor of the truth of a statement—can verify it at least to some degree—it is declared meaningless, since meaning is said to consist in such verifiability." ²⁸ History, not being tangible, cannot be smelled, tasted, or seen. It can only be experienced but it need not be experienced by those who were alive while it was occurring. Through the power of the literary relationship to history, a power which Canary and Kozicki say is as important as the relationship between history and philosophy, history can be appreciated by those interested in it, who approach it long after the historical actors, on the various stages, have left the earth. ²⁹

Perhaps Durant explains it best in explaining the nature of laws from a philosophical point of view: ". . . a law is not an eternal and necessary decree to which events are subjected, but merely a mental summary and shorthand of our kaleidoscopic experience; we have no guarantee that the sequences hitherto observed will re-appear unaltered in future experience." ³⁰ Durant's statement illustrates the relationship between the whole of history and the small portion of that which the historian investigates. He points out the uniqueness of history and historical events but he also provides the basis for Hempel's general law in the "mental summary and shorthand" aspect of the historical research process. However, Flew tempers Durant's argument by stating that "it is no tautology at all to say that whatever will be will occur, necessarily, inevitably, and unavoidably." ³¹ The balance of the two statements points to the separation between those who favor laws and those who are opposed.

Hempel was not the only philosopher to espouse a movement toward laws in history. Two other noted philosophers, Karl Popper and William Dray, have also written about historical laws. Popper proclaimed that the job of history is not to make predictions concerning future events yet he understands that no predictions can be made without intrinsic general laws. In his

writings, Popper held that “history does not evolve in accordance with intrinsic laws or principles, that in the absence of such laws and principles unconditional prediction in the social sciences is an impossibility, and that there is no such thing as historical necessity.”³²

William Dray supports the idea of laws in history but takes a different approach from Hempel. Dray proposes that general laws designed for use in history, which he calls covering laws, are too general and are not applied properly. The problem lies not in the existence of the covering laws but in their loose application to specific historical circumstances. Due to that fact, the laws become useless and irrelevant for any purpose at all. General laws need to be applied to a general situation. Dray proposes that if historians need something to apply to specific circumstances, then there needs to be the invention of specific laws. Beard seconds that analysis by stating “in the 1960s a number of philosophers writing on history opposed the Popper-Hempel view. . . . The opposition, led by William Dray, argued that history had more in common with the type of explanations that occur in ordinary discourse that history's concern was with particular narrative, rather than general laws.”³³

Fain offers a counterpoint to Hempel’s arguments by applying Hempelian logic to the case of scientific evolution. According to Fain, the story of evolution produces no explanatory insight because “the importance of the story of evolution in the development of the theory of evolution is completely overlooked, and therefore, Darwin's contribution to the history of science cannot be appreciated.”³⁴ Fain, in the instant case, completely misses the point. Hempel’s contention, as it can be concluded, is that the historian need only concern himself with historical laws if he wishes to relate one historical topic to another, or apply the lessons of the various topics within a larger grouping to a more general topic, thereby necessitating a general law. The task of relating the story of evolution is not overlooked, as that implies that the historian has not bothered to investigate such an idea. The historian, in order to properly generalize evolution, must have considered the story in order to round out the knowledge base. The entire point is to synthesize as much of the complete conglomerate of historical information as possible into a law that covers the entire topic. A complete investigation of as much of that information as possible must be conducted in order for said law to be relevant and proper.

In exploring general laws, we need not worry about the moral implications that careful selection may bring with it, as Salvemini explains. He believes that quantitative problems such as determining the cause of an event or the results that follow are no moral difficulty. However,

posing qualitative inquiries into the historical acts themselves such as ascertaining whether an act is worthy of praise or censure puts the historian in the tall grass. He perceives the problem as one for a different kind of analyst. "It belongs to the domain of the moralist and not of the historian or the social scientist. When they encroach upon the task of the moralist, the activities of the historian or social scientist fall under Aristotle's definition of practical activities. What is imperative is that the historian or social scientist should draw a line between the moments in which he is writing as a moralist and the moments in which his purpose is to impart information concerning the ways things did and do happen." ³⁵

According to some historians and philosophers, historians seeking to create general laws need to place the concepts of time and evidence at the top of their concern list. Barzun writes that because history "has its origin in man's awareness of continuity" the concept of time is "modified by that of separateness—of moments, days, years, hours, centuries, Ideas and objects find their place in Time. . ." ³⁶ Stanford takes that concept one step further by affirming that "the use of evidence requires a correct understanding of the processes – that is, the temporal series of changes – that have produced the evidence. Processes are the chains along which the historian's thinking can move from present to past." ³⁷ Lefebvre bolsters that contention by illuminating the relationship between scholarship and history, the practical end result of any historians' research efforts. "No documents, no history. Without scholarship, there can be no history." ³⁸

Donovan is careful to tie together historians as writers with their actions as researchers and philosophers. "Historiography at any particular moment in time is a reflection, to a greater or lesser degree, of the age in which it was written. Historians, consequently, become not only the chroniclers of the past but also indicators of the currents of their own time." ³⁹

Walsh differentiates between historical thinking and scientific thinking by pointing out that the concept of time makes the two species separate and equal. "It appears from this that there functions in historical thinking a subjective element different from that which is to be found in scientific thinking, and that this factor limits, or alters the character of, the objectivity which historians can hope to attain." ⁴⁰ Given the nature of geologic time and historical time, Hempel accepts that history is influenced by non-scientific concepts such as time. Time, as it is understood in the natural sciences, factors into discussion in terms of evolution, whereas in history, and historical thinking, time factors into the discussion as a classificatory grouping.

Contrary to Walsh's assertion, there need not be a complete divide between historical thinking and scientific thinking. Chandler has provided a blueprint by which we may be able to construct laws of history. According to this process, the four processes that constitute the scientific method: "1. assumptions; 2. deduction of the consequences of the assumptions; 3. observations to test the consequences, where necessary and; 4. inductions that lead to generalizations (called also hypotheses, or laws)." ⁴¹ These four items provide the necessary ingredients for the creation of scientific laws in the field of history.

Beringer makes a good case for the necessity of laws in history in stating that "some historians even today may attempt to satisfy their needs by adopting an attitude of absolute certainty about the past, a condition supposedly achieved by putting oneself in tune with the *Zeitgeist* of one's own era." ⁴² He goes on to mention that because of this immersion: "[t]he result is a narrow, deterministic view of history in which eras and ideas become equivalents, and inevitable trends are discovered and projected into either the past or future." ⁴³ When the similarities of a historical period are placed in common, general laws may be created. However, such creation need not be at the expense of the historians' authenticity. The most effective method of establishing laws, as is evidenced by Hempel and Popper's logic and statement, would be a removal from the *zeitgeist* of a period into a place where a historian may compare and contrast any era or idea to each other so that the resulting fervor to which the historian will expose himself does not cloud the global view.

Tosh provides an interesting point for consideration. He proposes that "if the outcome of historical enquiry is so heavily conditioned by the preferences of the enquirer and can so easily be altered by the intervention of another enquirer, how can it merit any credibility as a serious contribution to knowledge? If fact and value are inextricably tied together, how can a distinction be drawn between sound and unsound history?" ⁴⁴ The distinction between sound and unsound history, by applying Hempelian logic, may be made by reasserting Donovan's claim that history is a snapshot of the time in which the historiographer lives and much may be deduced from an understanding of that relationship between the historiographer and his times.

The distinct relationship between facts and the writing of history is mentioned by Bunzl albeit somewhat missing the mark. He proffers: "Even if there is a tradition about history that allows for the givenness of facts themselves, when it comes to *writing* history, how much good will this do us?" ⁴⁵ The question fails to consider the nature of evidence as explanatory in itself.

Eventually, despite Verene's statement, evidence points toward a certain chain of events that leads to the exact beginning of the timeline. This is our absolute starting point; nothing happened or existed relative to the facts before this point in time. Therefore, facts need givenness in order to exist, otherwise nothing would be provable because we cannot provide evidence of existence before the beginning.

The quantification (or measuring) of history, is also a discussion proper to the topic of historical laws. Part of creating historical laws rests upon finding ways to measure the substance of those laws, which is not an easy task. As Flout professes: "qualitative questions complement qualitative questions, and quantitative evidence complements qualitative evidence; neither can replace the other, and neither can pretend to comprehend the whole of historical study."⁴⁶ Chaunu sees the issue of quantification quite differently as "a history interested less in the individual facts...than in the elements which can be integrated in a homogenous series."⁴⁷

Chaunu's somewhat pessimistic viewpoint illustrates the tug of war between the whole of history and the specific subgenre of particular interest to the historian. Hempel's statements illustrate the importance of thorough investigating to uncover all the facts. Since the historian cannot know everything, as not everything is recorded according to Gray, an investigation can, at best and most unlikely, only include every known fact, not every fact ever in existence. Such facts may lend themselves to homogenization, naturally, because the entire gamut of facts is not available to the historian. Whatever is left over may meld together better as the result of natural circumstances.

Fischer, who thinks of historical laws as absurd, has explained the concept of Hempelian laws enough to substantially question whether or not laws can ever truly exist. According to him, a law must have a conclusion reachable by deduction and must have, essentially, been a prediction.⁴⁸ He proffers, quite correctly, that the facts in history point toward the notion that any statement containing the word "all" must be severely questioned and scrutinized. All of one kind of people does not do the same things. All Chinese do not eat with chopsticks, as Fischer illustrates; certainly the Chinese man who does not have fingers does not eat with chopsticks.

Consequently, any statement that has been modified from the universal to the specific would need to replace the word "all" with "some" or "certain" in order to make it applicable to the rest of history. Fischer thinks that such a replacement automatically transforms that law into a statistical description. Therefore, stating that some Chinese men eat with chopsticks at certain

times has no historical relevance because it attempts to over-quantify the premise of eating with chopsticks; it does not even matter that such a statement can be reused in some other historical investigation.

Part of what negates Fischer's argument is that he does not see the idea in the proper perspective. He has interpreted Hempel's contentions to mean that any historical law that focuses upon a narrow topic is not general enough to qualify as a general law. Thus, he discounts the proposal that there might be a place in history where all of some kind did the same thing, even if it pertains to a small, narrow topic such as military materiel used in the Civil War. Thus, the true statement that "every recorded usage of a wheeled cannon was followed by a vicious motion in the opposite direction of the discharge", is a scientific law based upon Newton's law, stating that every action has an equal and opposite reaction.⁴⁹ However, Fischer's argument also places the notion that the wheels on the cannons were not blocked, not a scientific law, as not even considered because it focuses upon too narrow a subject. Thus, we have found a historical law: every Civil War cannon that recoiled did not have its wheels blocked. Though we may tie it to natural science, the nature of the wheels not being blocked is not the result of the natural sciences but rather, the result of the soldiers loading the cannon.

Fischer's bias towards historians shows through here in his implication that there should be a separation between the fields of statistics and history. Fischer fails to remember the close relationship between history and statistics as those historians who have learned how to crunch numbers properly have also learned how to put history into perspective. A historian does not need to be the only person who might find an applicable general law. Someone from any other field, natural or social, may invent or even stumble upon a statement that works in more than one place.

Over the course of this examination of historical laws, we have found that laws, or global generalizations, are quite useful to the historian. They exist in virtually all forms and facets of historical study, from economic history to cultural history but they are not touted in the same fashion as the laws of the natural sciences due to a wide range of factors and circumstances. The argument of historical law illustrates Day's statement that "history is both meaningful and meaningless, progressive and static, ordered and chaotic."⁵⁰ The heady argument that large quantities of history, even as "the source of philosophy," as Acton has written," can be

synthesized into general laws that cover the entire argument mad by a historian is a task owing as much to abstract philosophical discussion as to historical literature application.⁵¹

Yet, for all the discussion in the abstract and realist realms, important questions remain: Can valid historical laws truly exist? Are any two historical events alike? Are laws in the field of history necessary? Are they useful? Building upon the premise that a good discussion creates more questions than it provides answers, we have arrived at such a place. Only through the attempt to create historical laws can the historian discover historical events that are similar enough to be considered alike. The need to generalize history for consumption among certain audience, notably young, inexperienced children, will dictate the necessity and usefulness of historical laws.

Hempel has written that the laws of which we have investigated, and have worked toward explaining, only refer to the logic of the laws not the psychology of explanation.⁵² The exact reasons for the necessity of historical laws, other than generality, in terms of any reasons for using them or any aims they may accomplish, are not considered in any substantive way in any of Hempel's writings and are, thus, the subject of considerable speculation and conjecture. His findings have been the same as suggestions that have spurred debate, questions, criticism, but most of all, the expansion of historical thought toward a concept criticized long ago without any decisive proof. Hempel's research also proves that the discovery of the purposes and benefits of historical laws lies in an investigation of a wide range of interdisciplinary sources, as we have done here and as Hempel has done himself.

As can be plainly seen, the topic of historical laws requires further and more elongated discussion if it is ever to be taken seriously and with merit. The idea of narrow, or limited, historical laws clashes with many historians but, as we have touched upon here, it may yield historical fruit. It is plainly seen that wide-sweeping attempts to lump every one of a kind together just does not work. There will always be the exception. Therefore, in order to create historical laws, we must travel to the narrow and very specific to find "all" of some classification that works properly. The limits placed on the scope differ from Hempel's contentions but not from his logic. His logic refers not to size and scope of the topic but to the verifiability and validity of the statement. Such laws can be proved and that makes them valid.

Endnotes

1. Fischer, David Hackett. *Historians' Fallacies: Toward a Logic of Historical Thought*. P. 130.
2. Bender, Thomas. Ed. *Rethinking American History in a Global Age*. P. 12.
3. Hart, B.H. Liddell *Why Don't We Learn From History?* P. 15.
4. Atkinson, W. P. *On History and the Study of History: Three Lectures*. P. 15.
5. Hempel, Carl G. "The Function of General Laws in History" *The Journal of Philosophy*, Vol. 39, No. 2. (Jan. 15, 1942) P. 35
6. Hempel, Carl G. *Ibid.* P. 35.
7. Hempel, Carl G. *Ibid.* P. 37.
8. Gallie, W.B. *Philosophy and the Historical Understanding*. P. 106.
9. Gallie, W.B. *Ibid.* P. 106.
10. Martin, Rex. *Historical Explanation: Re-Enactment and Practical Inference*. P. 100-1
11. Cronin, Joseph. *Foucault's Antihumanist Historiography*. P. 168.
12. Hempel, Carl G. "The Function of General Laws in History." P. 41.
13. Hempel, Carl G. *Ibid.* P. 44.
14. Wang, Q. Edward and Georg G. Iggers, Eds. *Turning Points in Historiography: A Cross Cultural Perspective*. P. 149.
15. Hempel, Carl G. "The Function of General Laws in History." P. 48.
16. Iggers, Georg G. and Harold T. Parker, Eds. *International Handbook of Historical Studies: Contemporary Research and Theory*. P. 19.
17. Wilkins, Burleigh Taylor. *Has History Any Meaning?: A Critique of Popper's Philosophy of History*. P. 47.
18. Grafton, Anthony T. and J.H.M. Salmon. *Historians and Ideologues: Essays in Honor of Donald R. Kelley*. P. 305.
19. Aydelotte, William O. *Quantification in History*. P. 83.
20. Gray, Wood, et. al. *Historian's Handbook: A Key to the Study and Writing of History*. P. 2.
21. White, Hayden and Frank E. Manuel. *Theories of History*. P. 13-4.
22. Hegel, Georg Wilhelm Friedrich. *The Philosophy of History*. P. 11.
23. White, Hayden and Frank E. Manuel. *Theories of History*. P. 13-4.
24. Collingwood, R. G. *The Idea of History*. P. 176-7.
25. Topping, Gary. *Utah Historians and the Reconstruction of Western History*. P. 147. This quote is taken from a conversation between Dale Morgan and Juanita Brooks, both Mormon historians.
26. Stern, Fritz. Ed. *The Varieties of History: From Voltaire to the Present*. 2nd Ed. P. 372.
27. Smith, Page. *The Historian and History*. P. 94.
28. Melchert, Norman. *The Great Conversation: A Historical Introduction to Philosophy*. 3rd Ed. P. G-6.
29. Canary, Robert H. and Henry Kozicki, Eds. *The Writing of History: Literary Form and Historical Understanding*. P. xii.
30. Durant, Will. *The Story of Philosophy*. Rev. Ed. P. 258.
31. Flew, Anthony. *An Introduction to Western Philosophy: Ideas and Argument from Plato to Popper*. Rev. Ed. P. 247.
32. Thornton, Stephen. "Karl Popper." <http://plato.stanford.edu/entries/popper/>
33. Dray, William. *Laws and Explanation in History*. P. 22, P. 28; Beards, Andrew. *Objectivity and Historical Understanding*. Pp. 131-2.

34. Fain, Haskell. *Between Philosophy and History: The Resurrection of Speculative Philosophy Within the Analytic Tradition*. Pp. 306-7.
35. Salvemini, Gaetano. *Historian and Scientist: An Essay on the Nature of History and the Social Sciences*. Pp. 15-6.
36. Barzun, Jacques and Henry F. Graff. *The Modern Researcher*. 4th Ed. P. 44.
37. Stanford, Michael. *The Nature of Historical Knowledge*. P. 62.
38. Halperin, Samuel W. Ed. *Some 20th Century Historians: Essays on Eminent Europeans*. P.61. Gordon H. McNeil, in a biographical essay on Historian Georges Lefebvre, quotes Lefebvre.
39. Donovan, Timothy Paul. *Historical Thought in America: Postwar Patterns*. P. 9.
40. Walsh, W.H. *An Introduction to the Philosophy of History*. P. 98.
41. Chandler, William J. *The Science of History: A Cybernetic Approach*. P. 5.
42. Beringer, Richard E. *Historical Analysis: Contemporary Approaches to Clio's Craft*. Pp. 55-6.
43. *Ibid.* Pp. 55-6.
44. Tosh, Josh. *The Pursuit of History: Aims, Methods, and New Directions in the Study of Modern History*. 3rd Ed. P. 121.
45. Bunzl, Martin. *Real History: Reflections on Historical Practice*. P. 27.
46. Floud, Roderick. *An Introduction to Quantitative Methods for Historians*. P. 3.
47. Barraclough, Geoffrey. *Main Trends in History*. P. 84; Chaunu, Pierre. "L'Histoire Sérielle, Bilan et Perspectives." *Revue Historique*. CCXLIII/2 (494), P. 297.
48. Fischer, David Hackett. P. 128.
49. Stern, Dr. David P. "Newton's Third Law of Physics."
<http://www-istp.gsfc.nasa.gov/stargaze/Snewton3.htm>.
50. Day, Jerry. *Voegelin, Schelling, and the Philosophy of Historical Existence*. P. 193.
51. Acton, Lord. *A Lecture on the Study of History*. P. 57.
52. Fetzer, James H. Ed. *The Philosophy of Carl G. Hempel: Studies in Science, Explanation, and Rationality*. P. 299.

Bibliography

Acton, Lord. *A Lecture on the Study of History*. London, Eng.: Macmillan and Co., 1895.

Atkinson, W. P. *On History and the Study of History: Three Lectures*. Boston, MA: Roberts Brothers Publishing, 1884.

Aydelotte, William O. *Quantification in History*. Reading, MA: Addison-Wesley Publishing Company, 1971.

Barraclough, Geoffrey. *Main Trends in History*. New York, NY: Holmes & Meier Publishers, 1978.

Barzun, Jacques and Henry F. Graff. *The Modern Researcher*. 4th Ed. San Diego, CA: Harcourt Brace Jovanovich Publishers, 1985.

Beards, Andrew. *Objectivity and Historical Understanding*. Aldershot, Eng.: Avebury Ashgate Publishing, 1997.

Bender, Thomas. Ed. *Rethinking American History in a Global Age*. Berkeley, CA: University

Beringer, Richard E. *Historical Analysis: Contemporary Approaches to Clio's Craft*. New York, NY: John Wiley & Sons, 1978.

Bunzl, Martin. *Real History: Reflections on Historical Practice*. London, Eng.: Routledge Publishers, 1997.

Canary, Robert H. and Henry Kozicki, Eds. *The Writing of History: Literary Form and Historical Understanding*. Madison, WI: University of Wisconsin Press, 1978.

Carter, Dale and Robin Clifton, Eds. *War and Cold War in American Foreign Policy, 1942-62*. Hampshire, Eng: Palgrave Publishers, 2002.

Chandler, William J. *The Science of History: A Cybernetic Approach*. New York, NY: Gordon and Breach Science Publishers, 1984.

Chaunu, Pierre. "L'Histoire Serielle, Bilan et Perspectives." *Revue Historique*. CCXLIII/2 (494), Apr-June 1970, pp. 297-320

Chomsky, Noam. Interviewed by David Barsamian. *Secrets, Lies, and Democracy*. Tucson, AZ: Odonian Press, 1994.

Collingwood, R. G. *The Idea of History*. Rev. Ed. Oxford, Eng.: Oxford University Press, 1994. Reprint. Orig. 1946.

Cronin, Joseph. *Foucault's Antihumanist Historiography*. Lewiston, NY: The Edwin Mellen Press, 2001.

Day, Jerry. *Voegelin, Schelling, and the Philosophy of Historical Existence*. Columbia, MO: University of Missouri Press, 2003.

Durant, Will. *The Story of Philosophy*. Rev. Ed. New York, NY: Washington Square Press, 1963. Reprint.

Dray, William. *Laws and Explanation in History*. Westport, CT: Greenwood Press, 1957.

Donovan, Timothy Paul. *Historical Thought in America: Postwar Patterns*. Norman, OK: University of Oklahoma Press, 1973.

Fain, Haskell. *Between Philosophy and History: The Resurrection of Speculative Philosophy Within the Analytic Tradition*. Princeton, NJ: Princeton University Press, 1970.

Fetzer, James H. Ed. *The Philosophy of Carl G. Hempel: Studies in Science, Explanation, and Rationality*. Oxford, Eng.: Oxford University Press, 2001

Flew, Anthony. *An Introduction to Western Philosophy: Ideas and Argument from Plato to Popper*. Rev. Ed. New York, NY: Thames and Hudson, 1989.

Fischer, David Hackett. *Historians' Fallacies: Toward a Logic of Historical Thought*. New York, NY: HarperCollins, 1976.

Floud, Roderick. *An Introduction to Quantitative Methods for Historians*. London, Eng.: Methuen & Co, Ltd, 1973.

Gallie, W.B. *Philosophy and the Historical Understanding*. New York, N.Y.: Schocken Books, 1964.

Grafton, Anthony T. and J.H.M. Salmon. *Historians and Ideologues: Essays in Honor of Donald R. Kelley*. Rochester, NY: University of Rochester Press, 2001.

Gray, Wood, et. al. *Historian's Handbook: A Key to the Study and Writing of History*. 2nd Ed. Boston, MA: Houghton Mifflin Company, 1964.

Halperin, Samuel W. Ed. *Some 20th Century Historians: Essays on Eminent Europeans*. Chicago, IL: University of Chicago Press, 1961.

Hart, B.H. Liddell *Why Don't We Learn From History?* New York, NY: Hawthorn Books, Inc., 1971.

Hegel, Georg Wilhelm Friedrich. *The Philosophy of History*. New York, NY: Dover Publications, Inc., 1956. Reprint

Hempel, Carl G. *Aspects of Scientific Explanation and Other Essays in the Philosophy of Science*. New York, NY: The Free Press, 1965.

----- "The Function of General Laws in History" *The Journal of Philosophy*, Vol. 39, No. 2. (Jan. 15, 1942), pp. 35-48.

Hempel, Carl. G., et. al. *The Isenberg Memorial Lecture Series, 1965-1966*. East Lansing, MI: Michigan State University Press, 1969.

Iggers, Georg G. and Harold T. Parker, Eds. *International Handbook of Historical Studies: Contemporary Research and Theory*. Westport, CT: Greenwood Press, 1979.

Martin, Rex. *Historical Explanation: Re-Enactment and Practical Inference*. Ithaca, NY: Cornell University Press, 1977.

Melchert, Norman. *The Great Conversation: A Historical Introduction to Philosophy*. 3rd Ed. Mountain View, CA: Mayfield Publishing Company, 1999

Rescher, Nicholas, Ed. *Essays in Honor of Carl G. Hempel: A Tribute on the Occasion of His Sixty-Fifth Birthday*. Dordrecht, Holland: D. Reidel Publishing Company, 1969.

Salvemini, Gaetano. *Historian and Scientist: An Essay on the Nature of History and the Social Sciences*. Cambridge, MA: Harvard University Press, 1939.

Smith, Page. *The Historian and History*. New York, NY: Alfred A. Knopf Publishers, 1964.

Stanford, Michael. *The Nature of Historical Knowledge*. Oxford, Eng.: Basil Blackwell, Ltd., 1986.

Stanford, Michael. *The Nature of Historical Knowledge*. Oxford: Blackwell, 1987.

Stern, Fritz. Ed. *The Varieties of History: From Voltaire to the Present*. 2nd Ed. New York, NY: Vintage Books, 1972.

Stern, Dr. David P. "Newton's Third Law." Retrieved June 2, 2004, from the World Wide Web. <http://www-istp.gsfc.nasa.gov/stargaze/Snewton3.htm>.

Thornton, Stephen. "Karl Popper." Retrieved May 28, 2004, from the World Wide Web. <http://plato.stanford.edu/entries/popper/>.

Topping, Gary. *Utah Historians and the Reconstruction of Western History*. Norman, OK: University of Oklahoma Press, 2003.

Tosh, Josh. *The Pursuit of History: Aims, Methods, and New Directions in the Study of Modern History*. 3rd Ed. Harlow, Eng.: Longman Publishing, 2000.

Walsh, W.H. *An Introduction to the Philosophy of History*. London, Eng.: Hutchinson University Library, 1958.

Wang, Q. Edward and Georg G. Iggers, Eds. *Turning Points in Historiography: A Cross-Cultural Perspective*. Rochester, NY: University of Rochester Press, 2002.

White, Hayden and Frank E. Manuel. *Theories of History*. Los Angeles, CA: William Andrews Clark Memorial Library, 1978.

Wilkins, Burleigh Taylor. *Has History Any Meaning?: A Critique of Popper's Philosophy of History*. Ithaca, NY: Cornell University Press, 1978.