

# A USEFUL WAY TO THINK ABOUT CAUSATION

## CAUSATION<sup>1</sup>

A founder of the study of international relations, E. H. Carr, once said: “The study of history is a study of causes.”<sup>2</sup> Because a basis for thinking about international affairs is history, he could have just as well had said: “The study of international relations is a study of causes.”

The important questions of international policy require an understanding of causation. Even the seemingly normative question of what is our national interest requires consideration of how the intermediate interests are linked to the core interests – can achieving these goals cause results that are in line with the core interests. Then there is the follow-on question of how to achieve those intermediate interests, a mostly objective question that also requires an understanding of causation. In considering how to use the appropriate instruments of power arises, by necessity, the issue of what can cause what. Additionally, if the issue involves morality, then concern with consequences brings us to causation.

If we are, as we are in this course, interested in policy, getting from A to B, where B is a more desirable situation than A, then we must ask how can we cause B. What must we do to get to B? If we are not careful, we will focus only on what we can do and neglect the fact that there are causative factors that are beyond our control and such factors that others can affect. Our concept of power requires us to recognize that power is relative. This means, in the context of causation, that getting to B will require us to consider at least the most critical causative factors.

More broadly, political science is a study of events that are caused by other events. It seeks to explain why events happened so we can better understand how and why they occurred and, perhaps, be able to predict when such an event would occur again. Yet, if political science were more of a science, there would be an effective methodology that would allow us to analyze those events and determine what caused what. We have no such methodology.

The methods we do have are three: careful reasoning, comparative reasoning, and statistical reasoning. International relations are not given to statistical studies; we rarely have a large enough sample for a reliable study. Comparative thinking can help understanding and, in some cases, provide a way to test theories, but it is fundamentally based on careful reasoning. This leaves us with careful reasoning – a process of investigation, consideration, and weighing that can bring us to a deeper understanding, allow us to form reasonable opinions and judgements, and provide us a basis for more effective decisions.

What follows is an introduction to causality from the perspective of political science – the study of why things happen in the political world. The focus of this introduction is “careful reasoning – a process of investigation, consideration, and weighing that can bring us to a deeper understanding, allow us to form reasonable opinions and judgements, and provide us a basis for more effective decisions.”

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<sup>1</sup> Some of the ideas discussed in this paper were drawn from: 1) Dr. Michael Stanford, “Causation,” *New Perspectives*, Vol 7, No. 1 ([www.history\\_ontheweb.co.uk/concepts/concept71\\_causation.html](http://www.history_ontheweb.co.uk/concepts/concept71_causation.html) and 2) Dr. Jay Fleisher, “Causation” ([www.pitt.edu/~super1/lecture/lec7241](http://www.pitt.edu/~super1/lecture/lec7241))

<sup>2</sup> Stanford, “Causation,” p. 1

## THE BASICS OF CAUSATION

In our everyday life we take causation for granted. We know that rain and sunshine will cause plants to grow. They always do, so we think we understand causation. We know that studying will bring better grades. It usually does, so we make the causal tie. We depend upon this understanding to guide our actions and behavior. Every day we see how events and our behavior are followed by and, therefore, seemingly cause effects.

There is a great philosophical debate over causation. One side is summed up in Bertrand Russell's view: "The reason why physics has ceased to look for causes is that, in fact, there are no such things." The other is bound up in the idea that everything is simply the inescapable outcome of what went before, in a direct chain, leading back to the beginning of time. This debate need not concern us. We take neither road, but recognize that finding historical causes is a necessary effort and, although apparently a simple task, it is most often a frustrating task because we can rarely determine causation with very much certainty.

David Lewis, one of modern philosophy's principal thinkers about causation, defines causation by defining the causal chain as a finite sequence of actual events a, b, c, d. . . . where b depends causally on a, c on b, and so on throughout the sequence. Thus, causation occurs when: a is a cause of d, if and only if there exists a causal chain leading from a to d.<sup>3</sup>

A statement about causation is a predictive hypothesis that says that an outcome cannot be changed without changing the cause. What would or did happen requires that cause.

– To say if A then B is not the equivalent of saying A causes B. If a person has rabies (A) then they were bitten by an animal with rabies (B). Although "if A then B" can imply causality, obviously, rabies does not cause the bite.

– To gather ordinary data and infer a causal relationship is not enough. There is the old image of the rooster causing the sunrise. There is plenty of data, but certainly no causal tie.

– To say that A and B are correlated does not mean that either A or B caused the other. There may be no causal relationship. There may be other factors or both may influence each other. Correlation does not imply causation.

### **The primary learning point is to be careful about making causative relationships.**

The obvious question is then how to be careful. Historians speak of sufficient and necessary causes to help focus on the important factors and events.

- A sufficient cause is one that precedes the event and if it occurs the event will always follow.
- A necessary cause is one that precedes the event and if it did not occur the event would not

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<sup>3</sup> Menzies, Peter, "Counterfactual Theories of Causation", *The Stanford Encyclopedia of Philosophy* (Spring 2001 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2001/entries/causation-counterfactual/>.

occur.

Because most historical events are caused by many factors, we can look for those causes that are necessary for the event to occur and for those that are sufficient for the event to occur. The necessary causes must have happened, but they did not cause the event. [Japan's war on China in the 1930's was a necessary cause of the U.S.-Japanese War of 1941-45.] They provided the basis for the sufficient cause to cause the event. [The attack on Pearl Harbor was a sufficient cause for that war.] We will rarely find a factor that is both necessary and sufficient. Often we will find situations where we can find necessary factors, but cannot determine the sufficient factor(s). [The Great World Depression is an example.] In some cases, we seem to be able to determine only the sufficient causes, but that is most likely due to our inability to determine with some certainty the preceding necessary factors. [The willingness of the German people to support the extermination policies of their government is an example.] Often we must accept that our analysis leads us to no factors that we can clearly claim as either sufficient or necessary; we just do not know enough. [The basis for the terrorist attacks on American interests is an example.]

**The next learning point is we are not seeking what causes B, but we are seeking enough understanding to allow us to infer rationally what causes B.**

This requires careful reasoning and realization that our data base – history – is not about truth and answers, but depends on debate and questions. It also requires that we seek the more important factors. We must avoid simply accepting a chronological ranking of causes or being unwilling to make the effort at all because there is so much to understand.

If in political science and economics, we can rarely determine what caused what or even agree on the significant causal factors in an event, why try? Why not go with a reasonable idea and move on? If in a world of bounded ability where there is often little time to sort through the limited available information, why not just reason well with what you have?

The problem is not only how good is “what you have.” It is also how well can we think with what information we have. Most important, we must ensure that we are considering the most important causal factors and their relationships. At least we must try.

In dealing with policy, getting from A → B, our concern is not what will cause B but what we believe will cause B. It is not proof we seek, but a sufficient consideration of the factors as we can see them to allow us to reason as well as we can.

The theorist of causation would say that we are not seeking what causes B, but we are seeking enough understanding to allow us to **infer rationally** what causes B. In causative theory there is a significant difference between actual causation and rational inference. The former is about what are the sources of the effect. We can rarely discover this in the complex world of international relations. The latter is about being able to support our inference with a logical explanation.

Because in considering policy we are not trying to prove a hypothesis, we can deal with rational inference. But even that is not an easy task.

## WHAT TO DO?

### Consider All the Areas of Potential Causal Factors.

We can cast our net widely to catch what may be the potential critical causal factors. The list of seven areas of potential causal factors is designed to help you consider the entire scope of factors. The areas are:

- 1) world-wide non-political factors, some beyond the control of humans and others beyond the control of a single state,
- 2) world-wide systems and behavioral patterns, such a polarity and the diplomatic system, generally caused by humans, but for most policy issues can be taken as fixed,
- 3) factors related to the behavior among the international players,
- 4) the states' political systems and the political basis of non-state players,
- 5) non-political factors that arise internally to states and the non-stats players,
- 6) the players' decision making processes, and
- 7) factors involving individuals.

Area 1 – World-Wide Non-Political Global Factors. These fall into two categories:

1) the massive world trends over which humans have little if any control, such as the pandemics in the 15<sup>th</sup> through the 18<sup>th</sup> centuries, Western industrialization and secularization beginning the 18<sup>th</sup> century, the rapid growth in technology in the 20<sup>th</sup> century, the globalization of the 20<sup>th</sup> and 21<sup>st</sup> centuries, the growth in world population over the 20<sup>th</sup> and 21<sup>st</sup> centuries, and global change environment Often neglected as influences, these are the driving forces behind much of government and state behavior as they try to respond to the effects and learn to employ the new capabilities.

2) the transnational issues where the role of human behavior is more clear, but are still beyond the control of any single state, such as world poverty and hunger, nationalism, refugee and people migration, democratization, crime, globalization, and terrorism.

These two sets of factors are the basis for much of the interaction among states, creating the situations to which the states respond with domestic and foreign policies. They are primary forces of change that add to the complexity and interdependence of international affairs.

Area 2 – World-Wide Systems and Behavioral Patterns. The structure of the world system is the substance of much international relations theory. It, too, is largely beyond the control of governments. In the 18<sup>th</sup> and 19<sup>th</sup> centuries, the Western world was multi-polar – there were several states who were powerful. The operating mode that dominated these centuries was balancing power, in which states tried to ensure that no one state became too powerful. After World War II, the system became bi-polar. Today, the world system is moving toward a pluralist structure, where there are many players who can influence the outcome. Also included in this area are the dominant economic systems, the broad attitudes toward diplomacy and international law.

Area 3 – Factors Related to the Behavior Among the International Players. Within the

constraints of the factors of area 2, the states and the other players have developed their relationships. While the specific characteristics of the global system help to determine the pattern of interaction among the actors, the actors' relationships arise from the context and the interests, goals, and capabilities of the actors themselves.

In a world where common interest and international law are important, the basis for the relationships will be different from those where fundamental interests collide, where there is no basis of agreement, and different instruments of power become acceptable. The broad spectrum of international agreements regarding health, the environment, economics, and travel affect the behavior of states. In these areas, among others, the process of interaction is important and the choice of instruments of power limited.

This is the area of focus of much of international relations and foreign policy study.

Area 4 – the states' political systems and the political basis of non-state players. Decisions and behavior of a state come out of its political system. A democratic state's system will influence that state's behavior differently than the political system of an authoritarian state. A parliamentary democratic state's political process has significantly different influences than a constitutionally divided system such as in the United States. This area addresses the influences of a state's type of government, political processes of the players, their resources and instruments of power, and the roles of the people, the private sector, and society. It also includes how the players perceive and understand what the other players are trying to accomplish through what courses of action. International affairs is a multi-player game.

Area 5 -- non-political factors that arise internally to states and the non-states players. What happens in the world is very much a response to what is happening within the players. Foreign policy generally reflects domestic considerations, both political and non-political. Area Four is focused on the political. This Area is focused on the non-political. Although the distinction is often hazy, when looking at the world, much of what is happening is driven by non-political factors within the states and regions.

This is the arena of the sociologist. Yet the beliefs, values, and needs of the people are the basis for a society's political culture and that culture defines the parameters of political life and governmental action, the available options, and the goals. In the U.S., for example, the civil right movement, the concern for the rights of women, the continuing effect of immigration, and the attitudes toward gays are fundamentally domestic events, which influence American foreign policy.

Additionally, what is happening internally to a player can be critical to international affairs. The collapse of the Soviet Union and the rise of China are examples.

If what we are considering involves intervention in a country then it is critical that internal issues, such as ethnicity, nationalism, tribal structure, and religion, are considered as causal factors.

Area 6 – the players' decision making processes. These factors arise from areas four and five, especially four, but it is useful to recognize the critical role of decision-making as a causal factor. How a player makes decisions is critical to what those decisions might be. Every player

has its own process. The UN processes are different from NATO's. The processes in each state differ from each other, and as we will learn can differ internally depending on many factors. If, for instance, the United States were to follow what some believe are the rules in the Constitution regarding war powers rather than what others believe, it is likely that our foreign policy would be different.

Area 7 -- factors involving individuals. Because individuals make and carry out decisions and thus are responding to the other influences, this level might seem to be the most important. It might be, but it is also the hardest on which to get useful information. To the average person, it is the individuals that are the obvious figures in foreign policy. He sees the President, the Secretary of State, and other individuals involved. He does not see that these individuals make and carry out decisions within a process, which is included in level four above. Historians and biographers reinforce the role of the individuals; it is easier than trying to tease out from the record the role of all the other factors.

Individual-level of analysis focuses on human actors, by identifying the characteristics of the complex process of individual decision making. This process includes gathering information, analyzing that information, establishing goals, pondering options, and making policy choices. The individuals's role can be addressed from three different perspectives: human nature, organizational behavior, and idiosyncratic behavior. Human nature involves the way in which fundamental human characteristics affect decisions. Organizational behavior looks at how individuals interact within organized settings. Idiosyncratic behavior explores how the peculiarities of individual decision makers affect foreign policy.

Individuals have undergone a socialization process just as we have. They have developed attitudes, values, behavioral patterns, and a view of the world that influences their decisions and behavior. There will be opinion leaders and decision makers who have strong positive views of China and those who have strong negative views. Additionally, their experiences and education will reinforce their world view. In the United States, decision makers usually will see the world through lenses that are either focused on a "realist" set of factors or a "liberal" set of factors.

Difficult for an outsider or even the individual himself to determine what these influences are. Historians and bibliographers try to come to grips with why individuals act as they do to varying success. The needed information is fleeting and often never available. The means of analysis are limited. Much has been written about Hitler and Stalin. Most of which remains controversial. Little of which was available for consideration when it was needed in the 1930's and 40's.

This is the realm of the psychologist. It is an attractive realm, but a realm to be dealt with very carefully. Some people have made much over the fact that President Nixon watched the powerfully dynamic movie, *Patton*, the night before he decided to invade Cambodia. Had he watched *Snow White and the Seven Dwarfs* would he have made a different decision?

**The purpose of the list of areas of potential causal factors is to get you to look broadly at the situation when you are considering possible courses of action to get to B. Your goal is to think about what are the critical causative factors, trying to leave out none.**

**Organize Your Thinking Around the Deep, Intermediate, and Precipitating Causes and Consider Necessary and Sufficient Causes.**

An approach is to look for deep, intermediate, and precipitating causes.<sup>4</sup> Deep causes are remote in time and are fundamental to the causative chain. They are necessary causes, such as someone invented of electrical lighting. Immediate causes are more recent in time and are also fundamental to the causative chain. They are necessary causes, such as someone wired the house. Precipitating causes can be either necessary or sufficient, such as someone plugged the lamp into the wall socket (necessary) and someone turned on the switch (sufficient).

Deep causes can also be long term, major, or indirect factors such as climate, economic trends, and basic social factors. Intermediate causes can be factors such as policies, personalities of critical decision makers, or existing social and political attitudes – less indirect and more closely related to the caused event. Precipitating causes are those directly linked to the event. A legal term – proximate cause – can be of some help here. A proximate cause is one that can be fairly and justly determined to be attributed to the acts of the defendant. In the same manner, some precipitating causes are those that can be reasonably directly linked to the event so that they are sufficient causes.

Once we have what we believe to be the causes laid out over time and tentatively sorted out as necessary and sufficient, we need to determine if they are really critical causes. This determination requires us to consider:

- 1) are there reasonable and plausible explanations of cause and effect,
- 2) are the explanations consistent with all or most of the evidence,
- 3) do they seem to fit generally held theories<sup>5</sup>,
- 4) are potential confounding factors<sup>6</sup> ruled out
- 5) are the causative factors chronological (the necessary causes came before the sufficient causes),
- 6) are there no contending alternative explanations and have you weighed the various opposing views?

If the answers to these questions support our causal hypothesis, we can be generally willing to infer that these caused or will cause the event. Moreover, we can provide logical support for our inference.

In the end, we will still not be able to pinpoint a set of causes or the “causal chain leading from a

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<sup>4</sup> Nye, Joseph, *Understanding International Conflict: An Introduction to Theory and History* (NY: Longman, 2000), p. 70.

<sup>5</sup> It is best that these theories are from several disciplines or international relations approaches.

<sup>6</sup> Confounding factors are those that arise from the same event but have different causal ties to the event. An example would be crediting the drop in highway fatalities to a decrease in speed limits when at the same time people were driving less, both factors due to an oil crisis that caused oil supplies to be reduced.

to d.” There will be multiple causative factors,<sup>7</sup> some in series and some in parallel. It is not critical to get all the factors in some rank order. Neither is it necessary to account for all the factors, only what we see as the more critical.

**What is critical is to determine as many of the more important factors as we can in the time available and to avoid considering as factors those with little or no likelihood of being in reality causes. We want to focus our analysis on what we can logically infer as possible causes.**

### Avoid the Usual Errors and Pitfalls.

Avoid the extreme philosophical perspectives.

Determinism – The philosophical doctrine that every state of affairs, including every human event, act, and decision is completely determined by previously existing causes. It is the idea that everything is simply the inescapable product of what went before, usually in a direct chain. Marxism is based on such a philosophical view.

Unpredictability – In Chaos theory all behavior is very sensitive to initial conditions. Small differences in initial conditions (such as due to the Butterfly effect) means there can be no long-term predictions. Thus even if the world is deterministic, it cannot be predictable.

Do not try to find the answer. There are no final answers.

Do not conclude that all the factors have the same weight.

Be careful with overemphasis on events and factors that were close to end of the causal sequence. The Berlin Wall did not come down because President Regan speaking to a crowd of West Berliners told Gorbachev that he should take the Wall down.

Avoid the cargo cult approach to causation. During WWII in the South Pacific, Allied aircraft off loaded or parachuted goods for the natives. After the war, wanting the same thing to continue to happen, some tribes tried to replicate the process. They created runways with all the trappings necessary for the airplanes to return. Then they waited for the goods, which never came. Richard Feynman linked this to what he called cargo-cult science in which one basis analysis on the fact that A and B are associated, without understanding whether

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<sup>7</sup> Most historians stress multi-causal explanations, recognizing the probable existence of more than one cause of an event. Williams, Robert, The Historian’s Handbook (London: M. E. Sharpe, 2003), p. 108.

or not A causes B.<sup>8</sup>

The cargo cult approach is an extreme version of confusing correlation with causation. Correlation describes an apparent relationship between events or things, where there may be no actual causal relationship. Causation describes a believed relationship between events or things, where one believes one event is very likely to have been a factor causing the other. Correlation may be only an apparent association. Once one has considered the situation, the believed causal relationship may be strong enough to allow an inference of causality – the factor did or helped cause the event.

### Do

Keep a broad scope of consideration.

Chronologically - be broad ranging in looking at factors from the past to the present.

Thematically – be broad ranging looking at factors from all areas of knowledge, economically, sociologically, politically, and psychologically.

Brainstorm as many factors as you can.

Look for the reasonable causative factors.

Consider the more important causative factors and avoid those that are likely to have had or will have little or no effect.

Try to distinguish between those factors that are necessary and those that are sufficient.

Consider those factors that are immediate and those that are distant in effect.

Keep in mind what you are trying to cause happen. Keep focused on B.

Think about inference with a degree of probability, but recognize that certainty about that degree is rare.

Always consider the interests and ability to make things happen of all players, not only the U.S.

**Levels of Analysis and Areas of Potential Causes.** In political science there is a very important analytical method – levels of analysis. Its purpose is different from that of the areas of potential

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<sup>8</sup> From Feynman's speech on cargo-cult science. A good source is *The Pleasure of Finding Things Out*: <http://www.amazon.com/exec/obidos/ASIN/0738203491/>

causal factors. As David Singer said, “In any area of scholarly inquiry, there are always several ways in which the phenomena under study can be sorted and arranged for purposes of systemic analysis.”<sup>9</sup>

Levels of analysis is an analytical method that provides a method of sorting out the critical variables. It provides an approach to research and analysis focused on the set of causes and relationships within a level in order to avoid mixing the apples and the oranges of the other levels. When the goal is to prove or disprove a hypothesis, the approach will focus on “the” independent variables (cause).

In sociology, the approach focuses on three levels: Individual (Micro), aspects of individual experience that bring them to act and interact in a certain way, Interactional (Meso) the ways in which individuals come into contact and interact with others, and the Structural (Macro), the social institutions, patterns of social behavior, aggregates of acting and interacting individuals.

When David Singer discussed this approach for international relations,<sup>10</sup> he focused on two levels: the international and the state levels. Today the usual levels are: as below:

Example for International Relations<sup>11</sup>:

1. GLOBAL FACTORS – FACTORS BEYOND THE CONTROL OF STATES
2. SYSTEMIC FACTORS – STATE-TO-STATE & POWER DISTRIBUTION
3. DOMESTIC AND NATIONAL FACTORS – FACTORS WITHIN A STATE
4. INDIVIDUAL/HUMAN FACTORS – FACTORS ARISING FROM INFLUENTIAL INDIVIDUALS

How does this approach differ from the areas of potential causal factors? The purpose of the areas is not to provide an analytical approach or to focus on specific levels to be analyzed. It is to keep in front of you a list of where to look for potential causal factors. It is an effort to help you avoid overlooking critical factors.

In this course, we are not doing systemic analysis to allow us to work with hypotheses. We are trying to determine what might be the critical causal factors in an analytical effort to determine an effective policy to get from A→B. Although this is a research effort, it is a very different type of research effort than the one Singer and Lamy are discussing.

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<sup>9</sup> J. David Singer, “The Level-of-Analysis Problem in International Relations,” *World Politics*, Vol. 14, No. 1, *The International System: Theoretical Essays*. (Oct., 1961), pp. 77-92.

<sup>10</sup> Op. Cit., p. 72.

<sup>11</sup>Lamy and others, *Introduction to Global Politics* (NY: Oxford UP) 2011, 14-15

However, when trying to determine policy, it can be very useful to study the situation using levels of analysis. One needs to keep a broad view of the situation and the possible causal factor. However, by focusing on the critical levels of analysis, one-by-one, the analyst can try to determine better the causal factors, because they may become more apparent. This process can also provide increased understanding of the situation.

Remember: Early one morning you walk outside of the home where you are visiting and find the front lawn is wet. You think it must have rained last night. As you look around, you see that the neighboring lawns are not wet. Then, off to the side of the yard, you see a hose and sprinkler neatly piled up. You now “know” the cause of the wet grass. Later you ask your host why he gets up so early to water his lawn. He replies, “I don’t. My automatic underground watering system is set to start at 4:00 A.M.”