Chapter Fourteen

The “Paths-to-War” Concept

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The chapters in part 1 of this volume focus on “factors that increase the probability of war,” including territorial contiguity and disputes, alliances, arms races, rivalry, and related variables. The implicit logic underlying most of these analyses, individually and collectively, is that the more of these factors that are present and the higher their magnitude, the higher the probability of war. The more intense a territorial conflict, rivalry, or arms race, the greater the probability of war. In addition, a higher value of one variable can compensate for a lower value of another variable. Thus, these factors collectively constitute an additive linear model of the probability of war.

The chapters in part 2 focus on “factors that promote peace” and include discussions of the deterrent role of nuclear weapons and of the democratic peace, including related hypotheses about the market capitalist peace and the territorial peace. The implicit causal logic underlying these chapters is different from that in part 1. The form of the relationship between the independent variable and the onset of war is not additive and linear. The authors do not argue that the more democratic a state (or a pair of states), the greater the probability of peace, or that the greater the number and destructiveness of nuclear weapons, the greater the probability of peace. Instead of more being significantly better, some is enough. The argument is that dyads consisting of two minimally democratic states never (or almost never) go to war with each other, and that a reasonably secure nuclear deterrent, however modest, prevents war between the two parties.

Moreover, the presence of more than one of these factors does not significantly increase the likelihood of peace. Adding a nuclear deterrent to each side of a democratic dyad does not make them significantly more peaceful. Joint democracy is close to a sufficient condition for peace, regardless of what other factors are present. The same is true for nuclear deterrents. The
factors in this section do not just “promote” peace; they very nearly guarantee it. Collectively, these factors do not constitute an additive linear model. Instead, peace within a dyad can arise either from two democratic states or from two reasonably secure nuclear deterrents. These are two alternative paths to peace.

Thus the form of the hypothesized causal relationships between independent and dependent variables differs in parts 1 and 2 of this volume. Hypotheses in the first are additive and linear, whereas those in the second are not. The first proposes what is essentially a single path to war, consisting of the additive combination of many different variables, whereas the second suggests several analytically distinct paths to peace.3

EQUIFINALLY AND MULTIPLE PATHS TO WAR

The idea of multiple causal paths goes back to general systems theory and the concept of equifinality.2 Bertalanffy (1968) contrasted open systems, which interact with other systems and with the external environment, with closed systems, which do not. In closed systems, such as a clock or a planetary system, the final state is determined unequivocally by initial conditions (and by the laws of behavior in the system). In open systems, such as social and biological systems, an end state can be reached from different initial conditions and in different ways. This is the principle of equifinality—the existence of different causal paths or trajectories to the same outcome.

Although the concept of equifinality has been influential in biology, developmental psychology, organizational theory, archaeology, anthropology, and a number of other disciplines, it has received only scattered attention in the literature on war and peace, which has been dominated by the implicit assumption of an additive linear process. This is reflected in the common use of regression models, and also in qualitative work that attempts to assess the relative causal weight of different variables in the processes leading to war.

One can find occasional references to the concept of multiple paths to war, along with theoretical analyses that clearly refer to the concept without explicitly naming it. In their typology of deterrence failure, George and Smoke (1974) identified several different ways in which deterrence can fail, precipitating war. Lebow (1981: 23) identified three types of international crises, each “with distinctive origins, patterns of development, and probabilities of resolution.” In his typology of different types of misperceptions, Levy (1983) suggested hypotheses about the different causal paths through which each can contribute to war (or to peace). In a subsequent study he emphasized equifinality and several distinct causal sequences leading to war (Levy 1989: 296). Fearon’s (1995: 381) analysis of “rationalist theories of war,” which identified three “general mechanisms” or “causal logics” that can lead to war between rational unitary actors (private information and incentives to misrepresent that information, commitment problems, and indivisible issues), can also be thought of as identifying analytically distinct paths to war.5

Vasquez has further developed and applied the concept of multiple paths to war. In his book The War Puzzle, Vasquez (1993: 7) argued that there are different types of war and different causal sequences leading to each, and that “to explain war requires identifying the various paths that lead to war.” He developed a “realist road to war” that involved the combination of a territorial dispute and states’ use of “realist practices” (alliances, arms races, and coercive threats) to resolve disputes on favorable terms. Vasquez emphasized that his “steps-to-war” model focuses on “one path, for one type of war, in one historical era.” He acknowledged that there are other paths to war, including a path involving disputes over policy (rather than over territory).

Hinting at one source of multiple paths to war, Bremer (1995: 21) argued that war, as a rare event, is “often generated by a particular concatenation of not-so-rare events,” and consequently “there are several different and unique paths to war rather than one.” From a different analytic perspective, Suganami (1996: 190) argued that “wars come about in different ways,” driven by “a wide variety of mechanisms” or “causal processes” and captured by different narratives.

Scholars have also applied the multiple causal paths concept to outcomes besides the outbreak of war. Stinnett and Diehl (2001) identify distinctive behavioral and structural “paths to rivalry,” and Valeriano (this volume) constructs a “steps-to-war” model of rivalry.2 Valeriano and Vasquez (2010: 566) and Vasquez et al. (2011) identify multiple paths through which war might spread. In their article “The Equifinality of War Termination,” Stanley and Sawyer (2009) argue that shifting domestic coalitions and Bayesian bargaining define alternative causal paths to war termination. Levy and Thompson’s (2011: ch. 2) argument that war originated in different places at different times under different conditions suggests that there were multiple paths to the origins of war nearly ten millennia ago.

The concept of paths to war is sometimes used in a more idiosyncratic way to refer to a sequence of events leading to a particular war or perhaps to alternative causal interpretations of the outbreak of a particular war. When historians argue that “each war is unique” or that “the number of causes of war equals the number of wars,” they presumably mean that each war comes about through a unique causal path. When policy analysts identify alternative scenarios through which a particular war might occur in the future, they implicitly assume that there are multiple paths to war. Cronin (2010), for
example, identifies three paths through which a war might break out on the Korean Peninsula: accidental escalation, the breakdown of deterrence, or a sudden regime change or collapse.

Although references to the paths-to-war concept are increasingly common, scholars have yet to come up with a fully satisfactory conceptualization of what the term means and how it might be used to construct better theories and guide empirical research. As Vasquez (2011b: 134) states, “It is one thing to assume that there are various paths to war, but it is quite another to identify and document them.” The remainder of this essay is an exercise in conceptual clarification, in the hope of moving the discussion of paths to war a few steps forward.

WHAT IS A “PATH TO WAR”?

I begin this discussion of what a path to war is with a brief discussion of what it is not. To say that there are multiple causal paths does not simply mean that an event or outcome has multiple causes. Monocausal models are a thing of the past, and today nearly all theories of war and peace incorporate multiple variables. The issue is not the number of causal variables, but the existence of several analytically distinct causal paths or sequences. Most linear regression models include many independent variables, but their additive nature, and the fact that more of one factor can compensate for less of another, suggests a single path rather than several analytically distinct causal paths. Nor is it useful, in historical explanation, to equate a causal path with a particular set of conditions, decisions, actions, and events leading to a particular historical outcome. As Vasquez (2011b: 135) argues, “A path to war is not simply an idiographic historical listing of events thought to bring about a particular war.” For the path-to-war concept to be useful for social scientific analysis, a given path must be generalizable beyond a particular case. Otherwise, the multiple paths-to-war concept would be equivalent to the argument that there are as many causal paths to war as there are wars, significantly diminishing the theoretical utility of the paths-to-war concept.

I provisionally define causal path as a combination and/or sequence of factors that leads, with high probability, to a particular outcome. The idea of multiple causal paths to war means that there is more than one combination or sequence of factors that leads to war with high probability. This is similar to but not identical to Vasquez’s (2011b: 135) definition: “Different paths to war embody different variables that singly or in combination greatly increase the probability of war. Any given path to war delineates the sequence of events, actions, decisions, and/or conditions that bring about war in general.”

The combinatorial/conjunctural/interactive form of the causal relationship is critical to the paths-to-war concept. As Bremer (1995: 21) argued, we must “be skeptical of models that assume simple additivity. . . . What counts is not the value of any particular condition but rather the interactive effect of all conditions.” The importance of interaction effects is also implied by Beck, King, and Zeng’s (2000) argument that a particular set of variables has a large impact on dyads with a high ex-ante probability of war but a much smaller impact on the vast majority of dyads. This leads Bennett and Stam (2004: 213) to write that if explanations for war are “highly contingent and interactive . . . then the approach of including multiple independent factors in additive fashion will surely prove inadequate.” This appears to be the basis of their argument that “there is no single story of war” (p. 201).

HOW MANY CAUSAL PATHS?

My definition of a causal path raises a number of questions. One is how broadly a path should be defined. Consider the steps-to-war model, as further refined by Senese and Vasquez (2008). Does the “realist road to war” constitute a single path to war? Or do territorial disputes constitute one path to war, territorial disputes between rivals another, territorial disputes between rivals that form outside alliances still another, and so on? Or consider domestic politics. Is there a single “domestic path to war,” or should we identify distinctive paths constituted by diversionary behavior, pressure from influential economic or ethnic groups, the impact of institutional transparency on signaling, and identity conflicts?

A closely related question is whether a causal path is defined by a particular combination of variables, or whether the temporal sequence of variables is important. Senese and Vasquez (2008) and Vasquez (2011a) define distinct paths to war in terms of different combinations of variables, but they do not (as yet) include the different sequences in which the same combination of variables might occur. Is it one path to war if states with a territorial dispute first form outside alliances and then initiate an arms race, and another path if they initiate an arms race and then form outside alliances?

Vasquez (2011b: 137) is right to argue that the order and sequence of the steps to war might make a difference, because the occurrence of one step might increase the likelihood of a second step. But this raises another issue. The more narrowly a path to war is defined, the greater the number of paths to war. This involves some difficult trade-offs between parsimony and complexity. After a certain point, identifying more paths to war moves us further away from parsimonious theory closer to the view that each war is unique,
defined by a unique causal path. There is no single answer to the question of how far we should go in decomposing a broad causal path into a number of more specific paths within it, but there is a clear criterion—the theoretical and empirical utility of the resulting classification. For Vasquez and Valeriano (2010: 296), “the real utility of a classification . . . is whether it can guide empirical research.” For Levy and Thompson (2010b: 214), “The question is not how many paths to war there ‘really are,’ but what definition is most useful in helping us understand the causes of war.”

The issue is empirical as well as conceptual. Presumably, the introduction of the paths-to-war concept is only useful to the extent that it can advance our understanding of variations in war and peace in time and space. If all paths to war are equally likely to arise and equally likely to lead to war, then it would be hard to argue that the identification of distinct paths to war has any value. Thus one of Vasquez’s many contributions is to demonstrate that different paths to war within the realist road to war have a different probability of arising and, once in place, have a different probability of leading to war (Vasquez and Valeriano 2010; Valeriano and Vasquez 2010; Vasquez 2011a, 2011b).

One possible middle ground—one way of balancing the trade-offs between parsimony and complexity—is to adopt a nested hierarchical framework with a limited number of “first-order” paths, more specific “second-order” paths nested within each, and possibly “third-order” paths nested within them. This is how I interpret Vasquez’s steps-to-war model. The realist road is a first-order causal path to war that includes a number of second-order paths defined by different combinations of key variables, with different sequences of variables defining third-order paths within each combination. This maintains some degree of parsimony while permitting considerable complexity within it.

That still leaves the question of order and sequence. I agree in principle with Vasquez (2011b: 135) that the concept of a causal path implies some sense of a dynamic process (Bremer 1995; Diehl 2006), implying that a path involves a causal sequence and not just a combination of variables.10 The more complete the theoretical specification of the causal mechanisms leading to conflict, the better, subject to one important constraint: the conceptualization must remain generalizable, in the sense that we must be able to identify multiple empirical cases for most theoretical paths. My hunch, however, is that going beyond combinations to focus on sequences would leave us with too many causal paths, with few historical cases per path. Consequently, I am inclined to focus on combinations of variables rather than on specific causal sequences, and I define causal path as a combination of variables with a high probability of war.

One implication is that a combination of variables that correlates highly with war would be a path to war, even in the absence of a fully specified causal mechanism or sequence. Twenty-five years ago I would have said that democratic dyads constituted a path to peace, even in the absence of a strong theoretical argument underpinning the observed correlation. I would say the same thing today with respect to other combinations of factors that correlate highly with either war or peace (overwhelming power preponderance within a dyad, for example).

THE “HIGH PROBABILITY” CRITERION

If a causal path involves a combination of variables that lead to war with high probability, we must specify what we mean by “high probability.” Should we define a causal path to include all the factors that “cause” a war to occur? If so, do we mean the complete set of conditions and processes that are jointly sufficient for war? Or should we define a causal path as a set of factors that make war highly probable? If the latter, what threshold of probability is appropriate? This question raises some difficult issues.

It would be useful to start with the ideal-type case of strict sufficiency, with a path to war defined as a set of variables that are jointly sufficient for war. The concept of multiple paths to war, then, would involve two or more sets of variables, each of which is jointly sufficient for war.11 We can think about this in terms of the “INUS” conception of causation (Mackie 1965: 246): a factor is an INUS cause if it is an “insufficient but necessary part of a condition which is itself unnecessary but sufficient for the result.”

A good example from comparative politics is Moore’s (1966) argument that the path to democracy in early modern Europe required a strong bourgeoisie and an aristocracy that either aligned with the bourgeoisie or that had been historically weakened. In this model, there is one necessary condition for a democratic pathway (a strong bourgeoisie) and two INUS conditions (alliance between the bourgeoisie and the aristocracy, or a weak aristocracy), generating two causal pathways to democracy. This can be represented as follows:

\[ Y = X \times A + X \times W \]

where \( Y = \) democratic pathway, \( X = \) strong bourgeoisie, \( A = \) alliance between bourgeoisie and aristocracy, and \( W = \) weak aristocracy, using \( \times \) for the logical AND and \( + \) for the logical OR.
This is a simple model with two causal paths. There are presumably more than two possible paths to war, with no single factor common to all paths (unlike $X$ in the above model), so that no single factor is either necessary or sufficient for war. If war could be modeled as a combination of INUS causes, each factor would be a necessary component of a set of variables that would be jointly sufficient for war, but no single combination of variables would be necessary for the outcome. Many readers will recognize this causal model as reflecting multiple conjunctural causation, which Ra- gin (1987) has modeled using Boolean algebra and described as qualitative comparative analysis (QCA).

Most international relations scholars would agree that if a set of factors is jointly sufficient for war, they collectively constitute a path to war. Those who conceive of war in probabilistic terms and incorporate an error term into their models would argue, however, that this standard is too demanding and would leave us with few if any paths to war, undermining the theoretical utility of the concept. Thus it is preferable to lower the threshold and say that a combination of factors constitutes a path to war if it makes war highly probable.

Although some define both necessary and sufficient conditions in exclusively deterministic terms (Lieberson 2001), others define these concepts in probabilistic terms, often (but not always) accompanied by the language of “nearly” or “almost always” (Dion 1998; Ragin 2000; Goertz and Starr 2003). It is often said, for example, usually with minimal qualification, that joint democracy is a sufficient condition for peace (Gleditsch 1995; Russett and Starr 2000: 96). I have no problem with a probabilistic conception of necessary and sufficient conditions, though I prefer the language of nearly necessary and nearly sufficient. If a factor or set of factors leads to an outcome with 95 percent probability, then to call it a nearly sufficient condition is more informative than to describe the relationship as probabilistic, which covers an enormous range of probabilities.

Even if we conceive of sufficiency in probabilistic terms, we are still faced with the fact that international relations scholars have been able to identify very few lawlike propositions about international conflict, relatively few combinations of variables that lead to war even with a high probability. Although a disproportionate number of wars involve territorial disputes, most territorial disputes do not lead to war (Vasquez 2011a, 2011b). War is a relatively rare event, and most combinations of factors do not lead to war under most conditions. Moreover, even those combinations of factors that have the highest probability of resulting in war can also result in other outcomes. Many argue, for example, that in crisis situations some strategies are riskier (more war prone) than others, and that careful crisis management can reduce the probability of war (George 1991). Context, contingency, and idiosyncrasies are important. In a crisis situation, individual belief systems, risk orientations, time horizons, and personalities can push toward war or toward peace. These considerations lead to the argument that “war is in the error term” (Gartzke 1999).

We can describe this pattern with another concept from systems theory, multifinality, in which similar initial conditions lead to different outcomes. Equifinality and multifinality each create enormous difficulties for the task of developing universal or unconditional laws of behavior (Most and Starr 1987), including problems applying linear models to social behavior (Bremer 1995; Ragin 2000; George and Bennett 2005). This issue needs far greater attention, as it is one of the most serious methodological hurdles confronting students of the causes of war. In his attempt to suggest the complexity of analyzing war, Bremer (1995: 25) likened the task of understanding the puzzle of war to that of opening a combination lock. Knowing the combination of numbers, and even their sequence, is not enough. In addition, one must know the rules for dialing the numbers (e.g., how many complete rotations before each number). He also suggested that to “pick” the lock required an understanding of “what is inside it and how it works.”

One interpretation of Bremer’s argument is that an understanding of war requires opening up the “black box” of decision making. This is almost certainly necessary (but not sufficient) for the understanding of the outbreak of individual wars. Whether that can be done in a more general theory of war, in a way that satisfies social scientific concerns for a reasonable degree of parsimony, raises a more difficult set of issues.

NOTES

1. As the chapters in this volume by Kang and Benson each suggest, the relationship between alliances and war is more complex.
2. Rasler and Thompson have a different focus, and I exclude their chapter from this discussion.
3. The fact that part 1 focuses on explanations for war and part 2 on explanations for peace is coincidental. One can easily imagine a linear probabilistic explanation for peace (consisting of low values of all the variables in a linear model of war onset), or multiple paths to war, as discussed below.
4. Alternatively, one might trace the multiple causal paths argument back to the development of path analysis by the geneticist and biometrician Sewall Wright (1920).
5. Fearon (1995) acknowledges the existence of nonrational and nonunitary logics that can lead to war.
6. Many qualitative methodologists propose the identical analytic strategy, in the form of “typological theory” (George and Bennett 2005: ch. 11) or “explanatory typologies” (Elman 2005).

7. Young and Levy (2011) specify several alternative paths through which economic rivalry might lead to war.

8. In contrast to a “compensatory” decision rule, in a “noncompensatory” decision rule, benefits on one dimension cannot compensate for losses on another (Redlawsk and Lau, forthcoming).

9. More accurately, if we defined a causal path as a particular set of conditions or sequence of events leading to a particular war, and if we included additional paths through which a given war could have started even if a few things had been different, then the number of causal paths to war would be far greater than the number of wars.

10. Some causal sequences might involve a causal chain consisting of either necessary or sufficient conditions or both (Goertz and Levy 2007: 23–29).

11. A particular war is overdetermined if two or more of these sets of conditions are present, because eliminating one set of conditions would not eliminate war.

12. Contrary to Bremer’s (1995: 21) argument, seconded by Geller (2004: 233), that complex combinatorial causation requires us to “give up the notion of necessary/sufficient causation,” those concepts can be quite useful as part of more complex causal relationships.


14. This is the opposite of equifinality, in which different initial conditions lead to the same outcome.

15. King, Keohane, and Verba (1994: 87–89) acknowledge that equifinality complicates the analysis of mean causal effects but do not explore its implications for research design in any detail. They say only that equifinality can be incorporated into their conception of causality and that one must be careful to precisely specify the counterfactual conditions associated with each causal effect. On the analysis of counterfactual arguments in case studies, see Levy (2008).
References for this Chapter
(the volume combines all references at the end)

Levy, Jack S. 2008. “Counterfactuals and Case Studies.” In Oxford Handbook of Political Methodology, edited by Janet Box-
Steffensmeier, Henry Brady, and David Collier. 627-44. New York: Oxford University Press.