



Stanford's Perfect Storm

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It was the 1960s. Chase-Dunn was an undergraduate at Berkeley and crossed the bay to get his Ph.D. at Stanford. It was a perfect storm: Berkeley moral imperative bleeds into quantitative Stanford research training. The result was Chase-Dunn's dissertation, published as "The effects of international economic dependence and inequality: a cross-national study," *American Sociological Review*. 1975. 40:720-738. There was nothing quite like it; data, statistics and causal modeling all pressed into service to demonstrate what had been suggested since at least Hobson and Lenin, that a developing country's economic dependence upon a developed country had detrimental effects. No longer was this just an argument over how imperialism or colonialism might work, but it was now an empirical finding that had to be recognized. And recognized it was, setting off a huge literature of quantitative research on dependency effects and their generalization into hierarchal world-system core-periphery effects. One could now be radical and do normal science. There was nothing quite like it.

Standing on the shoulders of giants is one way of acknowledging the contributions of others to a piece of scientific research like this, but another way to acknowledge the influence of others is to think of it as a perfect storm. That is, a confluence of a number of situational factors that contributed to the research outcome. I will try and identify a few.



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1960s Zeitgeist

The Vietnam War raised the whole question of colonialism, imperialism, the independence, and not, of the developing world, and with that America's role as the global hegemon. Among a generation of doctoral students this led to both protest activity of a demonstration and a mental sort. For radical graduate students this often appeared as the question of how to be both true to theoretical claims of radical theorists, from Marx through Latin American *dependencia* theorists, and at the same time seriously engage with the methods of modern social science. What would come to be known as world-system analysis, with its focus upon core-periphery relations between the underdeveloped South and developed North was largely one of heavy theoretical assertion with supplemental historical evidence. One thinks here of Andre Gunder Frank and Immanuel Wallerstein who's work, while very important, didn't directly engage with the empirical and statistical thrust of mainline social science. The issue for many, then, was how to combine a radicality of theoretical thrust with advanced statistical techniques.

To many this was an impossible combination. Chase-Dunn, though, pressed normal science into service to address radical hypotheses. And while this is standard practice today it must be remembered that close to half a century ago merging high-end theory with high-end statistical techniques was a first for its time. If the larger geopolitical culture of the time set the stage for research into questions raised by Hobson, Lenin, R. Prebisch, A.G. Frank, I. Wallerstein and others, there were also more immediate contributing factors located within the Stanford sociology department. There were no doubt many of course, but at least three can be identified.

Theory Construction

Stanford Sociology had recently hired three Harvard Ph.D.'s (Joseph "Joe" Berger, Morris "Buzz" Zelditch, and Bernard P. "Bernie" Cohen) who brought with them an emphasis upon theory construction and whose own research was of the more micro interactional sort, legitimated by claims to having explanatory power of a broader sort. Professor Berger taught a required theory course for all new graduate students, which would include Chase-Dunn. The key here is that this wasn't theory in the sense of reading everyone, hence knowing what they said, and thereby becoming a Weberian, Durkheimian, or Marxist, but more in the sense of theory construction, e.g. how to assemble your own testable theory. The task was easier when the object was internal structures of small task oriented groups, or highly stylized models of actor/other status relations as this didn't involve challenging Marx, Weber, or Durkheim. Chase-Dunn, though, had a larger explanatory target in mind—underdevelopment itself—and through that the essential North/South hierarchal structure produced by the political economy of the modern world-system. It remains somewhat ironic that the moral impetus to construct your own theory

originated with researchers of the most micro of social contexts but it was most successfully applied to the most macro of social relations, North South dependency relations. When theory is but explanans and explanandums, which anyone can propose and test, it can be emancipatory as it was for Chase-Dunn, who could now test hypotheses to assess the validity of radical theories of economic development.

The Language of Social Research

A graduate student empowered to hypothesize as he sees fit is one thing; finding a way to unravel theoretical ideas and match them up with specific lines of data that assesses the theoretical assertion, is another altogether. The contribution here would come from another Stanford sociology professor, John W. Meyer. He was a student of Paul Lazarsfeld, the great social research methodologist at Columbia University. Meyer brought with him Columbia's distinctive approach to argument and data analysis. Broadly speaking Columbia sociology held a middle ground between the descriptive particularism of the University of Chicago's urban ethnographies and the broader more abstract general theorizing of Harvard. The Columbia focus was neither interacting individuals on street corners nor abstract social systems, but institutional analysis which lay between the two. It was here that the Columbia mind worked best, for data was not discovered facts on the ground revealed by the astute Chicago trained ethnographer but marshaled evidence to support, or not, operational logics of institutional processes. Institutional analysis as something half way up a social system puts it too crudely, but in some sense captures the distinctiveness of the Columbia approach.

In this regard Meyer's gift was to preach finding indicators for the operational specifics of some social structure, process, or cultural template. In Meyer's worldview there was nothing that didn't leave a trace, and that trace could be counted, coded, or reflected in the patterns of already existing data sets. The mantra for generations of Stanford graduate students was simple: find the thing of interest, understand what it was supposed to do, and then see if that was so by finding indicators of its purported operation. Period. That was it. If element one in Chase-Dunn's perfect storm dissertation was the freedom to test, challenge, reformulate classic theories from Marx to neo-classical economics, element two was a similar opened approach to organizing a test of what said self-constructed theory proposed. From Berger the torch was passed to Meyer.

Should dependency effects exist, out there in the real world, there should be indicators, and it should be possible to link purported causal relations with these indicators. That's all that's required. Again, no sense of fealty to any particular perspective. Just propose, x, y, or z. Then marshal evidence in a systematic way such that the causal linkages in question can be directly measured and their effects determined. Again, the genius of the Columbia half/theory half/data method, where data movement is, at one and the same time, theory movement. It isn't just a

separate peek at the world from which one then re-thinks some picture of how the world is to work, but peeking at the model's coefficient is a peek at the very movement of the world, hence, a theory/data statement at one and the same time.

That the theoretical model in question had radical roots, or was a study of imperialism or colonialism, or a critique of the West or American foreign policy and investment decisions, didn't matter. If you can operationalize it, measure it, show it is correlated with other things, then, well, it's supported as a fact about the natural world of international economic relations; radical origins or not.

Panel Analysis/Multiple Regression

The third ingredient into Chase-Dunn's perfect storm came from another Stanford Professor, Mike Hannan, who brought from the University of North Carolina a working knowledge of panel analysis and a dexterity with multiple regression. This was the final straw; the necessary statistical tools to carry out the research program of Meyer. Chase-Dunn could not only study dependency effects, but statistically control for alternative theoretical accounts of third world underdevelopment. So, yes, it was a quantitative analysis, but its intricacy in statistically controlling for other factors enabled Chase-Dunn to conduct a theoretical argument through regression analysis. His results showed dependency had negative economic results contrary to free trade and other theoretical perspectives.

Appreciating a Research Article

Triply armed with Berger's conception of theory construction, Meyer's data orientation within a shop context, and Hannan's statistical technology, Chase-Dunn was set to provide a normal science proof of radical theorists such as the Hobson/Lenin thesis of Imperialism and Latin American ideas of core-periphery dependence relations. His research design allowed the effect of each variable to be identified. Yes, of course, this is the essence of multiple regression, and something we take for granted. But at the time and for the processes it was assessing, it was truly a break with past radical analysis, which was largely discursive supplemented with historical examples and strength of moral argument.

With Chase-Dunn the voice of the argument was now data, numbers, and statistical coefficients. And while an argument could be made about losing something in an analysis of imperialism devoid of overtones of explicit moral judgment, it was more than compensated for by transforming the debate over origins economic backwardness not only into one of the development of underdevelopment, but also of grounding its existence into strength of coefficient rather than strength of argument. It also importantly blurred the lines between radical analysis and normal social science. In effect, if there are detrimental dependency effects then

there is no reason why they can't be objectively observed and statistically linked to theorized causes. For the first time some of the most statistically advanced normal science techniques could be harnessed in the cause of unveiling damages done by rich countries to poorer ones.

This possibility opened the door for others to follow up Chase-Dunn's original research, and a rich literature on dependence, then generalized as world-systemic effects of the core-periphery structure, followed. Since 1975 there has been a continuous literature of cross-national quantitative research on the effects of direct foreign investment, trade and export dependence and a variety of other indicators of dependent economic relations between countries. The range of dependent variables has dramatically widened as well, moving beyond the economic to consider almost any property of a society or polity or the natural environment itself, as a potential dependent variable to be put into the dependency model.

At some point all of this became normal science; just a matter of adding one more variable to the basic model. It is going on half a century since this article first appeared and it is natural that it is taken for granted. But as with all things institutionalized, from Cubism in art to free form expression in jazz, it must always be remembered that there was a time when those models didn't exist and someone had to make the first step and do what hadn't been done before. For quantitative research into dependency effects generated by the core-periphery hierarchy of the capitalist world-system that first step was taken by Chris Chase-Dunn. Few are the scholars who make important contributions to a literature; fewer still are those who create that literature in the first place.

About the Author

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