

Further reading

- Alker, Hayward R., Jr., Ariane B. Antal, Meinolf Dierkes, Klaus von Beyme, Thomas R. Cusack, Wolf-Dieter Eberwein, Bruno Fritsch, Hartmut Jäckel, Wolf-Dieter Narr, Fritz W. Scharpf, Dieter und Eva Senghaas, Udo E. Simonis and Wolfgang Zapf. 1992. 'Karl W. Deutsch zum 80. Geburtstag.' *WZB-Mitteilungen* 56: 5–51.
- Dierkes, Meinolf, Bruno Fritsch, Rainer Mackensen, Heinz Riesenhuber, Richard von Weizsäcker and Rudolf Wildenmann. 1983. *Karl W. Deutsch: Fest-Colloquium—Ehrenpromotion*. *WZB-Mitteilungen, Sonderheft*. Berlin: WZB.
- Merritt, Richard L. and Bruce M. Russett (eds.). 1980. *From National Development to Global Community, Essays in Honor of Karl W. Deutsch*. London: Allen and Unwin. (includes a complete bibliography through to 1980)
- Merritt, Richard L., Bruce M. Russett and Robert A. Dahl. 2001. 'Karl Wolfgang Deutsch, 1912–1992.' Pp. 58–79 in *Biographical Memoirs of the National Academy of Sciences Volume 80*. Washington, DC: The National Academies Press. (22 pages with a selected bibliography)
- Senghaas, Dieter. 1966. 'Kybernetik und Politikwissenschaft.' *Politische Vierteljahresschrift* (7): 252–276. (an extensive appraisal)
- Senghaas, Dieter. 1967. 'Sozialkybernetik und Herrschaft.' Pp. 554–576 in *Methoden der Politologie*, edited by Robert Schmidt. Darmstadt: Wissenschaftliche Buchges.
- von Beyme, Klaus. 1987. "'Kritische Verehrung"—Laudatio auf Karl W. Deutsch.' *WZB-Mitteilungen* 37: 13–16.

Empirical Data for Theory Development

Karl Wolfgang Deutsch had little patience with fanciful intellectual schemes not carefully supported by accurately gathered and ordered facts. He frequently referred to such machinations as grand theories 'planted firmly in mid-air'. For him, speculating without returning regularly to hard data was, well, speculating: speculating in the sense of conjecture, guesswork, predicting without evidence. Surely one of his most important contributions to political science was the insistence upon the vital relationship between theoretical understanding and empirical research.

This was no rejection of theory. Indeed, he was a grand theoretician; his work in a number of areas confirms this. It is nowhere better demonstrated than in his cybernetic conception of behaviour in *The Nerves of Government*.¹ There he compared the role of government to a cybernetic regulator, conceiving the governing process as one of command and control. In cybernetic theory, the regulator is that part of the system designed to detect an intolerable conflict between what is preferred and what is empirically true, and then to effect an appropriate

¹ Karl W. Deutsch, *The Nerves of Government: Models of Political Communication and Control* [1963]. A second edition was published in 1966.

behavioural change. As always, Deutsch had a way of putting this graphically. 'To the statesman, guiding a difficult program to success may thus resemble the art of driving an automobile over an icy road', he wrote, 'his problem is to anticipate the skids quickly enough so that he can still control them by small corrections at the steering wheel, where slowness of action or over steering would provide worse skids and might wreck the car' [ibid.: 185]. And doing that requires knowing some of the factual details not only of road conditions but also of torque and reflex.

Deutsch was in a particularly good position to understand this imperative relationship between theoretical understanding and empirical research. He owed much not only to the humanistic education that he had received in his native Prague but also to his early study of mathematics and optics. He had been encouraged to turn to the latter as a safer route through the troubled 1930s. The marriage of the scientific method and the humanities suited his inclinations very well indeed and it informed his thinking throughout his career. Thoroughly grounded in European history, he was able to interpret both quantitative and qualitative data with an intimate knowledge of their social, political, cultural, and economic contexts. Creative thinking for him then involved both broad descriptive knowledge and careful measurements not only to test theories but also to serve as feedback into furthering them. Yet he always maintained that data were aids to and not substitutes for political judgment.

While still a doctoral student at Harvard, Deutsch developed a theory of nationalism based upon the notion that people were bound together through an intensity of communication with one another relative to their interactions with others. A nation was bound together by habits of communication made possible by a conflux of appropriate facilities. Making use of psychology and anthropology, he offered insights that modified the previous understanding of nationalism. In the very same research project, however, he rigorously tested this theory against case studies of integration and disintegration in Finland, Bohemia, India, and Scotland. Meticulous examination of the historical details of national assimilation and fragmentation was for him every bit as important as building the theory. This work, later published as *Nationalism and Social Communication* [Deutsch 1953], was followed by other studies that dominated the study of nation building and international integration for a long time.²

In 1960, Deutsch published 'Toward an Inventory of Basic Trends and Patterns in Comparative and International Politics' [Deutsch 1960]. This seminal article proposed the creation of large data banks that could make available empirical information for theory testing and development. In it, Deutsch suggested a number of indicators that would be useful for testing a variety of theories that had been published in the literature. A second article entitled 'Social Mobiliza-

² Prominent among data rich successors by Deutsch and others was *Political Community and the North Atlantic Area* [Deutsch et al. 1957].

tion and Political Development' appeared the following year [Deutsch 1961]. It proposed a programme of research that could make use of cross-national aggregate data to investigate modernisation and political change. In it Deutsch listed a number of indices for facets of social mobilisation and put forward an underlying conceptual dimension for them. These two articles in the *American Political Science Review* were to bring a fresh approach to the study of political, economic, and social modernisation in the world. Together they revolutionised the understanding of the importance of data for cross-national analysis.

Deutsch's argument was to begin with whatever was available but then to work for more reliable data and to do so within a theoretical framework that would inform the choice of indicators chosen. Later he would write:

We are not remotely beginning to work out the full implications that can be extracted from the indicators that we have We have large numbers of theories that could tell us what indicators might be important. And they tell us what the indicators should say if the theories are right. It may turn out that as we test the theories many of them will become dubious. As we make the test broader some of them may survive, whereas others may definitely be relegated into the large museum of human error and human illusions [Deutsch 1980].

This was to be a project greater than one to be conducted by any single individual or even by a small group of scholars. It would require multidisciplinary action and perhaps multinational teams. And all of this was to end in the analysis of data in a theoretically relevant way.

In the 21st century, it is difficult to grasp the radical nature of this argument. Much of the empirical work in political science during the first half of the 20th century and earlier had been oriented almost entirely towards relatively narrow problems and specific cases. The broader scope of scholarship was in the hands of philosophical and literary scholars such as Max Weber, Karl Mannheim, and Carl Friedrich. While they made frequent use of plausible and historical examples to illustrate their arguments, counter narratives could be used to support competing theories taking quite different directions. What was needed, Deutsch argued, was a three-way conversation among theory, data, and public policy. He encouraged his graduate students to seek greater analytical rigor, making use of quantitative evidence. Due in part to the work of these former students, aggregate and survey data began to appear in great quantities in the past 50 years. And the application of these hard data to the study of comparative and international politics grew apace.

Deutsch did not limit his efforts to encouraging others. He organised and found funding for two of the early centres for data creation. The Yale Political Data Program was made possible by a grant from the American National Science Foundation in the early 1960s. Scholars and students gathered political, economic, social, and cultural data within a theoretical framework that informed the indica-

tors to be measured. Together under the leadership of Bruce Russett, they quickly produced the first volume of the *World Handbook of Political and Social Indicators* in 1964 [Russett et al. 1964]. The book not only included political, economic, social, and cultural data of use in testing theories, but also offered selected examples of theory testing. Its stated purpose was 'to compare nations on a great variety of politically relevant indices . . . to present some of the data necessary for the further development of a science of comparative and international politics, and to illustrate some of the means of analyzing the data' [ibid.: v]. Simultaneously, he put together a multi-university team to examine the possibilities for arms control and for Western European integration.

A second edition of the *World Handbook* was published at Yale eight years later and a third another eleven years later [Taylor and Hudson 1972; Taylor and Jodice 1983]. These editions continued to include indicators of nation-state economic and political performance. The focus remained the polity consisting of 'sets of inter-related structures and processes that allocate value resources in society through the creation, exercise, and transfer of power'. Beyond descriptive attribute data of political, economic, and cultural structures, however, these editions introduced measures of the patterns of political violence and government change events, coded from publicly available media. In the third edition, an entire second volume was given to measurements of political events. Indicators included not only those of political protest and internal violence, but also those of transition events in the exercise of central government power. The justification for these measures was that the processes through which power is transferred, shared, or maintained illuminate patterns in the creation and maintenance of democratic or authoritarian regimes. These measures of conflict and cooperation began to expand quite considerably the scope of empirical information available to the discipline.

Over time, reports of the political event series have become more prominent in academic publications than the social, economic, and cultural indicators. To a large degree, this is because the latter have become increasingly available in other periodic publications. Often, these publications use a format for tables that Deutsch originally designed for the first *World Handbook*.

The coding of political events from media sources by human coders is both time consuming and expensive. Early efforts at this data collection had to be done in this manner. Fortunately, however, parsers and protocols have been developed that can promise data at considerably less cost, once a system is in place.³ Moreover, better quality is more easily available given the greater number of reports that can be analysed. And one can virtually eliminate biased error and keep random error to the same scale as human error. Although Deutsch did not live to see

³ A variety of projects have taken this route. Among them is Integrated Data for Events Analysis (IDEA) of Virtual Research Associates creating conflict and cooperation data (<http://vranet.com/vranet.com/new-page-3.aspx>). Another is the research over many years conducted by Philip Schrodt. See P. Schrodt [forthcoming] and P. Schrodt and D. Monroe [2008].

this development, it stems from content analysis projects that were under way as early as the 1950s and in which he had a lively interest. But from these beginnings, systems have developed that lead to real time monitoring and forecasting of crises, based not just upon theory but also upon mammoth datasets.

Until very late in life, Deutsch continued an active participation in the nexus of data gathering and theory building. His last major undertaking was the GLOBUS world model developed at the Wissenschaftszentrum-Berlin. Several earlier computer-based models had examined global processes of demographic, economic, and environmental change, but they assiduously avoided politics. Their dire predictions appeared too simplistic for Deutsch who with his wonderful optimism for human possibilities believed that wise decision-making and leadership could make a difference. 'We have to do a good deal of work', he said, 'before these models of the Club of Rome, now firmly suspended in mid-air, can be brought to earth' [Deutsch 1980: 16]. Consequently, the new model found that politics did make a difference in economic and political relations, arms races, domestic political stability, economic growth, demographic change, and alternative economic systems. These conclusions were based upon both theory and very extensive tables of attribute and interactive data for 25 nation-states.

Deutsch's influence upon the discipline of international and comparative political science continues even when it is not consciously noticed. In the *International Encyclopedia of the Social and Behavioral Sciences*, Mattei Dogan emphasises the significance of Deutsch's two seminal articles of 1960 and 1961 by noting that they have become such standard information and common knowledge that they no longer need to be cited. The concept of social mobilisation now 'belongs to the common patrimony of the social sciences' [Dogan 2001]. So also does the understanding that theory needs data.

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References

- Deutsch, Karl W. 1953. *Nationalism and Social Communication: An Inquiry into the Foundations of Nationality*. Cambridge, MA: MIT Press.
- Deutsch, Karl W. et al. 1957. *Political Community and the North Atlantic Area*. Princeton, NJ: Princeton University Press.
- Deutsch, Karl W. 1961. 'Social Mobilization and Political Development.' *The American Political Science Review* 55 (3): 493–514.
- Deutsch, Karl W. 1963. *The Nerves of Government: Models of Political Communication and Control*. New York: Free Press.
- Deutsch, Karl W. 1980. 'On the Utility of Indicator Systems.' Pp. 11–23 in *Indicator Systems for Political, Economic, and Social Analysis*, edited by Charles Lewis Taylor. Cambridge, MA: Oelgeschlager: Gunn and Hain.
- Russett, B. M., H. Alker, Jr., K. W. Deutsch and H. D. Lasswell (eds.). 1964. *World Handbook of Political and Social Indicators*. New Haven, NJ: Yale University Press.
- Schrodt, P. forthcoming. 'Precedents, Progress and Prospects in Political Event Data.' *International Interactions* 38 (5): forthcoming.

Schrodt, P. and B. Monroe (eds.). 'The Statistical Analysis of Political Text.' *Political Analysis (Special Issue)* 16 (4): 351–355.

Taylor, Charles Lewis and Michael C. Hudson. 1972. *World Handbook of Political and Social Indicators*. 2nd ed. New Haven, NJ: Yale University Press.

Taylor, Charles Lewis and David A. Jodice. 1983. *World Handbook of Political and Social Indicators*. 3rd ed. New Haven, NJ: Yale University Press.

Karl W. Deutsch: Teacher, Scholar, Mentor, Mensch¹

In thinking about Karl as a teacher one fact stands out. His mind soared. What was so extraordinary for his students, was to him a way of life. It happened spontaneously in any setting: while answering questions in a lecture hall filled with 250 undergraduates; while debating research strategies in an advanced graduate seminar; and in discussions, one-on-one. Karl often appeared to be unprepared for class, ready to jump on any possible diversion. The unfocused questions of his students were opportunities for him to teach us how to soar. Rather than 'winging it', he was simply taking another exhilarating leap. Working his magic—a blend of analytical abstraction steeped in relevant evidence and presented with telling detail called up from an evidently inexhaustible store of historical knowledge—Karl never shied away from taking intellectual risks in the classroom. Attempts to make an ordinary idea, any idea, soar, or to extract a testable hypothesis, any hypothesis, from a confused insight, entailed the risk of having to abort during take-off or suffering the occasional indignity of a crash landing. Devoid of professorial stuffiness, Karl accepted this as the inevitable by-product of creative thinking and vigorous teaching rather than a cause for embarrassment. Typically, though, he would succeed effortlessly in getting that ordinary idea or confused insight off the ground and in reformulating and extending it until its origin was almost unrecognisable. And then he would cut the string quickly, look around the room with a faint smile, thus sharing with us the sense of a world full of exciting, unthought thoughts. Karl never paraded his brilliance; rather, he used that brilliance to sharpen ideas and correct misconceptions. He never treasured insights as his own; he always insisted that ideas were a common property.

This was only natural for a man whose work centred on the concept of communication and the making and unmaking of national communities. Karl's scholarship was visionary and transcended an emphasis on the power to threaten and hurt. Imbued by a sociological perspective on politics his innovative analysis

¹ An abbreviated version of these remarks were read on 20 November 1992 at the memorial service for Karl Deutsch held at Memorial Church, Harvard University.