

Barry B. Hughes

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Birthdate: October 29, 1945

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Education

- B.S. Stanford University, Department of Mathematics, 1967
Other Concentrations: Political Science and German
- M.A. University of Minnesota, Department of Political Science, 1969
- Ph.D. University of Minnesota, Department of Political Science, 1970
Fields of concentration: International Relations, Comparative Politics, and Political Behavior. Supporting Programs: History and Sociology. Dissertation on "The Study of Regional Integration: Subconcepts and Research Methodology," October, 1970

Awards and Honors

Full Tuition Scholarship: Stanford, 1963-1967
Study at Stanford-in-Germany: Summer and Fall, 1966
Graduation with Distinction: Stanford, 1967
NDEA Title IV Fellowship: Minnesota, 1967-1970
Nomination for University Best Teaching Award, 1981
University Scholar/Teacher Award, 1985
PEW Faculty Fellowship Program in International Affairs: Harvard, 1991
University of Denver, All-University Lecturer, 2006
Named John Evans Professor, 2008
Lifetime Achievement Award, USA Chapter of Club of Rome, 2009
Member of Club of Rome, 2009-

Academic Appointments

1970-74	Assistant Professor, Political Science Department, Case Western Reserve University
1975-79	Associate Professor, Political Science, Case Western Reserve University
1980-82	Associate Professor, Graduate School of International Studies, University of Denver
1982-	Professor, Graduate School of International Studies, University of Denver

Courses Taught

International Politics, Introduction to International Studies, Global Issues, Alternative World Futures, Comparative Energy Policy, Computer Applications and Analysis, World Modeling, American Foreign Policy, Political Behavior, Global Megatrends, Political Risk Analysis, Art of Forecasting, Millennium Development Goals, International Futures.

Administrative Appointments

1980-82	Director, Institute for the Study of Development. Structured graduate curriculum in development
1985-89; 1991-92	Director, Undergraduate International Studies Program Proposed, developed, secured funding, and directed international studies major
1989-92	Director, Graduate Concentration in Policy Analysis. Proposed and developed concentration
1992-01	Vice Provost for Graduate Studies, University of Denver. Instituted university-wide cycle of program review and NCA accreditation review; oversaw development and approval of many new graduate programs; assisted in transition of university to revenue center structure; improved student recruitment processes
2007-	Director, Frederick S. Pardee Center for International Futures

Authored Books

The Domestic Context of American Foreign Policy (San Francisco: W.H. Freeman, 1978). Chapter 1 reprinted as "El Contexto Interno de la Política Exterior Norteamericana," in *La Toma de Decisiones Hacia América Latina* (Mexico 10, D.F.: Centro de Investigación Decencia Económicas, 1981).

World Modeling (Lexington, MA: Lexington Books, 1980).

World Futures (Baltimore: The Johns Hopkins University Press, 1985).

Disarmament and Development: A Design for the Future? (Englewood Cliffs: Prentice-Hall, 1990), with Stuart A. Bremer.

Continuity and Change in World Politics: The Clash of Perspectives (Englewood Cliffs: Prentice-Hall, 1991, 1994, 1997, 2000). Third edition translated into Chinese by Richard Qu and published by Weber Publication.

International Futures: Choices in the Search for a New World Order (Boulder, CO: Westview, 1993, 1996, 1999). Published with computer simulation. Licensed for translation into Chinese.

Exploring and Shaping International Futures (Boulder, CO: Paradigm Publishers, 2006). Co-authored with Evan E. Hillebrand. This was a major reworking of the book above.

Reducing Global Poverty. Volume 1 in series on Patterns of Potential Human Progress. (Boulder, Denver, and New Delhi: Paradigm Publishers, the Frederick S. Pardee Center for International Futures, and Oxford University Press-India, 2008). With Mohammad T. Irfan, Haider Khan, Krishna Kumar, Dale S. Rothman and José Roberto Solórzano. Also serve as series editor and main author.

Advancing Global Education. Volume 2 in series on Patterns of Potential Human Progress. (Boulder, Denver, and New Delhi: Paradigm Publishers, the Frederick S. Pardee Center for International Futures, and Oxford University Press-India, 2010). With Janet R. Dickson and Mohammad T. Irfan.

Improving Global Health. Volume 3 in series on Patterns of Potential Human Progress. (Boulder, Denver, and New Delhi: Paradigm Publishers, the Frederick S. Pardee Center for International Futures, and Oxford University Press-India, forthcoming late 2010 with 2011 copyright). With Randall Kuhn, Cecilia Mosca Peterson, Dale S. Rothman, and José Roberto Solórzano.

Edited Volumes, Other Monographs, and Computer Simulations

United States Energy, Environmental and Economic Issues: A Study of Public Policy, a National Science Foundation sponsored Learning Package, distributed by the Inter-University Consortium for Political Research, published by The American Political Association, August, 1975. Used as the basis of a role-playing lesson in Robert Hanvey, *Explorations in the Emergent Present*, theme issue of *Intercom* (Winter, 1974-1975).

Evaluating Transnational Programs in Government and Business (New York: Pergamon Press, 1980), co-editor with Kenneth Grundy and Vincent McHale, and contributor.

International Futures Simulation (Iowa City: CONDUIT, 1982). Simulation, User's Manual and Technical Document. Microcomputer version, 1985.

Energy in the Global Arena (Durham: Duke University Press, 1985), co-editor with James Harf and Thomas Trout, and contributor.

Basics in Forecasting (Iowa City: CONDUIT, 1986). Winner of 1987 Media and Methods Award.

International Futures (IFs), completion of 4th generation in 2003 and the 5th generation in 2005. The most widely available and used multi-issue, long-term global computer simulation. In 2005 the model became available on the web as well as CD.

Articles and Contributions to Books (*Peer-Reviewed)

*"Behavioralism in the Study of the United Nations," *World Politics*, January, 1970, with others.

*"Distance in Foreign Policy Behavior: A Comparative Study of Eastern Europe," *Midwest Journal of Political Science*, August, 1970, with Thomas Volgy.

*"Transaction Analysis: The Impact of Operationalization," *International Organization*, Winter, 1970.

*"Dimensions of Political Integration and the Experience of the European Community," *International Studies Quarterly*, September, 1972, with John Schwarz.

*"Transaction Data: In Search of Concepts", *International Organization*, Autumn, 1972.

*"An Interactive Multilevel World Model, *Futures*, August, 1973, with others.

*"On the Difficult Business of Conducting Empirical Research in a Data-Poor Area, *American Journal of Political Science*, Fall, 1973, with Thomas Volgy.

"The Relationship Between Public Opinion and Government Foreign Policy: A Cross-National Study," Patrick McGowan, ed., *Sage International Yearbook of Foreign Policy Studies* (Beverly Hills: Sage, 1973) with Martin Abravanel.

"Public Attitude and Foreign Policy Behavior in Western Democracies," in William O. Chittick, ed., *The Analysis of Foreign Policy Outputs* (Columbus, Ohio: Charles E. Merrill, Inc., 1975) with Martin Abravanel.

"Teaching International Studies; Involved Organization and Available Teaching Aids," Occasional Paper in the New Dimensions in Teaching Series of the Consortium for International Studies Education, 1975.

Series of four articles on the world oil crisis, *L'Express*, March and April, 1975, with others.

"The Use of Events Data for the Measurement of Cohesion in International Political Coalitions: A Validity Study," in Edward E. Azar and Joseph Ben Dak, eds., *Theory and Practice of Events Analysis* (New York: Gordon and Breach, 1975), with P. Terrence Hopmann.

"Current Status of the Mesarovic-Pestel World Model Project," in Bossel, Klaczko, Mueller, eds., *Systems Theory in the Social Sciences* (Basel: Birkhauser Verlag, 1976).

"U.S. Energy Policy Options in the World Economic System" in Kenneth D. Wilson, ed., *Prospects for Growth: Changing Expectations for the Future* (New York: Praeger Publishers, 1977), with Mihajlo Mesarovic.

*"Analysis of the WAES Scenarios Using the World Integrated Model (WIM)," *Energy Policy*, June, 1978, with Mihajlo Mesarovic.

*"Testing the Hudson Institute Scenarios: Is Their Optimism Justified?" *World Future Society Bulletin*, vol. 12, no. 6 (November-December, 1978), with Mihajlo Mesarovic.

"Probable Changes in the World's Population, Natural Resources and Environment Through the End of the Century," *Futures*, August, 1978, with Mihajlo Mesarovic. An extended version of the same article was printed in Kee Hyong Kim, ed., *21st Century: Prospects and Problems*, (Seoul, Korea: Kyung Hee University Press, 1980), pp. 128-159.

"Using the World Integrated Model (WIM) to Evaluate African Development Prospects, in Timothy Shaw, ed. *Alternative Futures for Africa* (Boulder: Westview Press, 1981), with Patricia Strauch.

"Global Modeling and Decision-Making," in William Evan, ed., *Knowledge and Power in a Global Society* (Beverly Hills: Sage Publications, 1981), with Mihajlo Mesarovic.

"The Impact of the First Oil Shock on Domestic and International Conflict," in Paul M. Johnson and William R. Thompson, eds., *Rhythms in Politics and Economics* (New York: Praeger, 1985).

*"World Models: The Bases of Difference," *International Studies Quarterly*, March, 1985.

"Using GLOBUS to Explore Alternative Taxation and Security Policies in the West," in Margaret Karns, ed., *Persistent Patterns and Emergent Patterns in a Waning Century* (New York: Praeger, 1986), with Thomas R. Cusack.

*"The First Two Oil Shocks: Policy Response and Effectiveness," *Policy Studies Review*, vol. 5, no. 4 (May 1986), pp. 722-741. Selected by the Policy Studies Organization for the Fourth Annual Jeffrey Pressman Award as the outstanding article published in *Policy Studies Review* during 1986.

"Domestic Economic Processes," in Stuart A. Bremer, ed., *The Globus Model: Computer Simulation of Worldwide Political Economic Development* (Frankfurt and Boulder: Campus and Westview, 1987), pp. 39-158.

"International Futures (IFs): History and Status," *Social Science Computer Review* (Spring, 1988) Vol. 6, No. 1

*"Disarmament and Development: An Analysis using GLOBUS," *International Political Science Review*, Vol. 11 No.2 (April 1990), pp. 187-206, with Stuart A. Bremer.

"Delivering the Goods: The EC and the Evolution of Complex Governance," in Dale L. Smith and James Lee Ray, eds. *The 1992 Project and the Future of Integration in Europe* (Armonk, New York: M.E. Sharpe, 1993), pp. 45-69.

*"Observations on the Study of International Relations in China," *International Studies Notes*, Vol. 19, No. 3 (Fall, 1994), pp. 17-22, with Steven Chan and Charles W. Kegley.

"Evolving Patterns of Regional Integration and Governance: Implications for Theories of World Politics," in Charles W. Kegley, Jr., ed. *Controversies in International Relations Theory: Realism and the Neoliberal Challenge* (New York: St. Martin's, 1995), pp. 223-243.

"The Future of The Global Political-Economy," in C. Roe Goddard and John Passe-Smith, eds., *The Politics of International Economic Relations* (Boulder: Lynne Rienner, 1995), pp. 509-532.

*"Rough Road Ahead: Global Transformations in the 21st Century," *Futures Research Quarterly* 13, No. 2 (Summer, 1997), pp. 83-107.

"The International Futures (IFs) Modeling Project," *Simulation and Gaming* 30, No. 3 (September, 1999): 304-326. Invited in peer-reviewed journal.

"Choices in the Face of Uncertainty: The International Futures (IFs) Model, *Futures* 33 (2001): 55-62. Invited in peer-reviewed journal.

*"Global Social Transformation: The Sweet Spot, the Steady Slog, and the Systemic Shift," *Economic Development and Cultural Change* 49, No. 2 (January 2001): 423-458.

"International Futures (IFs) Model," *UNESCO Encyclopedia of Life Support Systems (EOLSS)*, Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford, UN, [<http://www.eolss.net>], 2002. Invited.

"Regimes and Social Transformation," in Arild Underdal and Oran Young, *Regime Consequences: Methodological Challenges and Research Strategies*, Kluwer Academic Publishers, 2004.

*"Sustainable Futures: Building Policy Options into A Scenario for Development in a Global Knowledge Society," *Futures* 37 November, 2005: 813-831, with Peter D. Johnston.

Forecasting Globalization: The Use of International Futures (IFs)," in George Modelski, Tessaleno Devezas, and William R. Thompson, eds., *Globalization as Evolutionary Process: Modeling, Simulating, and Forecasting Global Change*. London and New York: Routledge (Taylor and Francis), 2007.

*"Assessing Strategies for Reducing Poverty," *International Studies Review* 9, no. 4 (Winter 2007): 690-710, with Mohammad T. Irfan.

"Assessing Strategies for Meeting the Millennium Development Goals," in Rafael Reuveny and William R. Thompson, eds., *North and South in the World Political Economy*. Blackwell, 2008: 313-340 with Mohammad T. Irfan.

*"The Future Today," Chapter 9 of the United Nations Environmental Programme's Global Environment Outlook-4, UNEP 2008. Lead Author with many others. Available at http://www.unep.org/geo/geo4/report/GEO-4_Report_Full_en2.pdf

Book Reviews

Journal of Comparative Sociology, American Political Science Review, The Journal of Politics, Public Opinion, Journal of Forecasting, Journal of Asian Studies, Journal of Public Policy, Foresight, Political Science Quarterly

Grants Received

The George Gund Foundation, 1978-1979. Co-principal Investigator on a \$106,562 grant to scientifically document the World Integrated Model.

The Cleveland Foundation, 1979-1980. Principal Investigator on a \$50,000 grant to develop a classroom version of a world model.

The National Science Foundation, 1980-1982. Principal Investigator on a \$80,000 grant to test, refine and disseminate a classroom version of a world model.

The National Science Foundation and IBM, 1983-1984. Principal investigator on a \$33,846 grant to develop modeling instruction material for microcomputers.

The Exxon Education Foundation and The Kettering Family Fund, 1984-1986. Principal investigator on a \$28,196 grant to develop a microcomputer version of a world model.

The Department of Education, 1985-86. Director of \$82,000 project to develop and administer an undergraduate international studies major.

The National Science Foundation, 1985-87. Co-principal Investigator on a \$60,000 grant to develop a General Synthesis Model of Dependency and Liberal Development Theory.

The Pacific Cultural Foundation, 1989-90. Principal Investigator on a \$3,000 grant to adapt a General Synthesis Model to Taiwan.

The United States Institute of Peace, 1991-93. Co-principal Investigator on a \$50,000 grant to update a microcomputer world model and develop exercises.

RAND Europe (originally from the European Commission), 2001-2003. Principal Investigator on a \$115,000 subcontract for modeling and data work associated with IFs for TERRA.

University of Michigan, European Union Center, 2002-2004. Principal Investigator on a \$25,000 grant to make IFs for TERRA more user friendly.

RAND Santa Monica, 2003-2004. Principal Investigator on a \$35,000 grant for work with IFs on the Global Social Safety Net.

United Nations Environmental Programme. 2005. Principal Investigator on a \$120,000 contract for support of the UNEP in preparation of its *Global Environmental Outlook 4*. Additional support of \$75,000 was received in 2006.

Frederick S. Pardee, 2004-2007. Principal Investigator for \$1,075,000 in gifts on IFs Web-Conversion and Analysis.

European Commission, Directorate General Information Society, 2009. Principal Investigator on Euros 66,000 project on Using State-of-the-Art Models and Tools for the Assessment of ICT Impacts on Growth and Competitiveness in a Low-Carbon Economy.

European Commission, Directorate General Research, 2010. Oversaw Euros 25,000 project of the Pardee IFs Center for training program in Seville, Spain on "IFs Modeling"

United States Institute of Peace. 2010. Secured \$10,000 contract to produce a document comparing various projects on vulnerability of states to armed conflict.

Frederick S. Pardee, 2007- Principal Investigator for very generous gifts (forthcoming) to build a Pavilion at Ben Cherrington Hall and to establish the Frederick S. Pardee Center for International Futures. Received \$500,000 in 2007 for the building and \$700,000 for the Patterns of Potential Human Progress and other Center work. Have continued to receive \$700,000 annually.

Professional Service

Political Science Editor, CONDUIT Computer Software, 1985-1990

President, ISA West, 1991-92

National President, Sigma Iota Rho, the international studies honor society, 1992-94

Member, editorial board, *International Studies Quarterly*, 1990-92, 1994-97

Member, editorial board, *Mershon Quarterly*, 1994-1998

Member, editorial board, Dilemmas series of Westview, most of 1990s.

Member, editorial board, Millennium series of Rowman Littlefields, much of 1990s and 2000s

Research and Consulting Experience

Research Associate at the Institut für Systemtechnik und Innovationsforschung, Karlsruhe, Germany, Summer, 1983.

Joint appointment, Systems Research Center, Case Western Reserve University, 1974-1977.

Consultant, Plan and Budget Organization, Tehran, Iran, 1975-1978.

Consultant, Institute of National Planning, Cairo, Egypt, 1976-1977.

Consultant, Ministry of Research and Technology, Bonn, Germany, 1975-1977.

Consultant, Latin American Long Range Planning Project, Simon Bolivar University, Caracas, Venezuela, 1975-1976.

Consultant to Edison Electric Institute in preparation of *Economic Growth in the Future* (New York: McGraw Hill, 1976).

Demonstrations and Presentations of the World Integrated Model at over 15 meetings with national and international leaders, 1975-1978.

Consultant in preparation of *The Global 2000 Report to the President* (Washington, D.C.: USGPO, 1980).

Consultant, Organization of Petroleum Exporting Countries, Vienna, Austria, 1975-1978.

Consultant, Colorado Energy Research Institute, 1981-84.

Consultant, Computer Sciences Corporation, Washington, D.C., 1979-1989.

Guest Scientist and GLOBUS team member, Wissenschaftszentrum Berlin, summers and periodically, 1980-1988. Consultant and officer, GLOBUS Associates, 1989-99

Consultant, U.S. Army National Ground Intelligence Center, 1993-1998.

Consultant, General Motors, 1999- (intermittent).

Advisor, World Bank's Multilateral Investment Guarantee Agency (MIGA), 2001.

Consultant, RAND Corporation on the European Commission's TERRA Project, 2000-2003.

Consultant, Strategic Assessment Group, Central Intelligence Agency, 2000-2006

Consultant, United Nations Environmental Programme, *Global Environment Outlook 4*, 2005-2007

Consultant, National Intelligence Council, *Mapping the Global Future 2020, Global Trends 2025*, plus assorted analyses 2004-

Revised: August 2010

Biography of Barry B. Hughes

Dr. Barry B. Hughes is John Evans Professor at the Josef Korbel School of International Studies, University of Denver, and Director of the Frederick S. Pardee Center for International Futures. He also served the university as Vice Provost for Graduate Studies. Dr. Hughes earned a B.S. in Mathematics from Stanford in 1967 and his Ph.D. in Political Science from the University of Minnesota in 1970.

His principal interests are in (1) global change, (2) computer simulation models for economic, energy, food, population, environmental, and socio-political forecasting, and (3) policy analysis. The fundamental concerns that synthesize these interests are (1) developing effective response to long-term global change and (2) improving the long-term human condition. He has developed International Futures (IFs), the widely-used computer simulation for study of long-term issues (see <http://www.ifs.du.edu/>).

Dr. Hughes has consulted for the governments of Germany, Iran, Egypt, and the U.S, as well as for the European Union and the United Nations Environment Programme. He has taught in Costa Rica and China. He has written or co-authored *The Domestic Context of American Foreign Policy* (Freeman 1978), *World Modeling* (Lexington 1980), *World Futures* (Johns Hopkins 1985), *Disarmament and Development* (Prentice-Hall 1990), *Continuity and Change in World Politics* (Prentice-Hall 1991, 1994, 1997, 2000), *International Futures* (Westview 1993, 1996, 1999), *Exploring and Shaping International Futures* (Paradigm 2006), *Reducing Global Poverty* (Paradigm and Oxford University Press, 2009), *Advancing Global Education* (Paradigm and Oxford University Press, 2010), *Improving Global Health* (Paradigm and Oxford University Press, 2011), as well as numerous articles.