

Interdependence and power: a conceptual analysis

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Priority in the use of a novel meaning of a term is no cause for pride; in fact it betrays a lack of “terminological discipline” and a want of linguistic inventiveness—for when a writer creates or modifies a concept he ought also to coin a new word to denote it, rather than corrupt the language and spread confusion.¹

The concept of dependence—mutual or otherwise—in world politics has stimulated a lively scholarly controversy during the last decade. Some view it as helpful in explaining the distribution of power in the world,² while others condemn it as an “unhelpful” and “misleading” analytical category.³ Many scholars complain about the lack of conceptual clarity,⁴ and some even deny

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¹ Fritz Machlup, *Essays on Economic Semantics* (Englewood Cliffs, N.J.: Prentice-Hall, 1963), p. 12.

² Robert O. Keohane and Joseph S. Nye, “World Politics and the International Economic System,” in *The Future of the International Economic System*, ed. C. Fred Bergsten (Lexington, Mass.: Lexington Books, 1973), pp. 121–25; Robert O. Keohane and Joseph S. Nye, *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown, 1977), pp. 3–19.

³ Sanjaya Lall, “Is ‘Dependence’ a Useful Concept in Analysing Underdevelopment?” *World Development* 3 (November 1975): 808.

⁴ Richard Rosecrance and Arthur Stein, “Interdependence: Myth or Reality?” *World Politics* 26 (October 1973): 2; Richard Rosecrance et al., “Whither Interdependence?” *International Organization* 31 (Summer 1977): 425–26; James A. Caporaso, “Dependence, Dependency, and Power in the Global System: A Structural and Behavioral Analysis,” *International Organization*

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that there is any generally accepted definition of the term.⁵ The purpose of this essay is to examine the concept of dependence, to clarify it through explication, to consider recent conceptual distinctions in analytical and historical perspective, and to address the question of whether “dependence” can be treated as part of a larger family of social science concepts sometimes called “power terms.”

It is important to be clear as to what this essay is about, but it is equally important to understand what it is *not* about. It does not offer empirical observations as to whether dependence or interdependence is increasing or decreasing. It does not offer normative observations as to whether dependence or interdependence is “good” or “bad.” And it is not an attempt either to refute or to understand *dependencia* theory as recently formulated by certain Latin American scholars.⁶

Conceptual analysis: order or anarchy?

This essay is an exercise in conceptual analysis. It is an attempt to clarify and explicate the concept of dependence and related concepts, such as “interdependence” and “dependency.” It offers no new definition, no theory of interdependence, and no new technique of measurement. I am aware that some would deny the worth of such an undertaking and dismiss it as “mere semantics” or “pure logomachy.” The advancement of knowledge, however, depends on the ability of scholars to communicate with one another; and clear concepts seem to help. If one is to theorize about interdependence or attempt to measure it, the essential first step is a clear conceptualization of the nature of interdependence. As Felix Oppenheim has argued, “the elucidation of the language of political science is by no means an idle exercise in semantics, but in many instances a most effective way to solve substantive problems of political research.”⁷

32 (Winter 1978): 13 ff; Robert Solomon with Anne Gault, *The Interdependence of Nations: An Agenda for Research*, A Report to the National Science Foundation (December 1977), p. 6; and Robert O. Keohane and Joseph S. Nye, Jr., “International Interdependence and Integration,” in *Handbook of Political Science*, eds. Fred I. Greenstein and Nelson W. Polsby (Reading, Mass.: Addison-Wesley, 1975), Vol. 8: *International Politics*, p. 368.

⁵ Hayward R. Alker, Jr., Lincoln P. Bloomfield, and Nazli Choucri, *Analyzing Global Interdependence*, 4 vols. (Cambridge, Mass.: Center for International Studies, M.I.T., 1974), vol. 1: *Analytical Perspectives and Policy Implications*, p. 2.

⁶ For discussions primarily concerned with understanding Latin American usage, see Caporaso, pp. 13–43; Raymond D. Duvall, “Dependence and Dependencia Theory: Notes Toward Precision of Concept and Argument,” *International Organization* 32 (Winter 1978): 51–78; and C. Richard Bath and Dilmus D. James, “Dependency Analysis of Latin America: Some Criticisms, Some Suggestions,” *Latin American Research Review* 11 (Fall, 1976): 3–54.

⁷ Felix E. Oppenheim, “The Language of Political Inquiry: Problems of Clarification,” in *Handbook of Political Science*, ed. Fred I. Greenstein and Nelson W. Polsby (Reading, Mass.: Addison-Wesley, 1975), vol. 1: *Political Science: Scope and Theory*, p. 284. See also Machlup, pp. 3–6.

Conceptual analysis presupposes guidelines or “rules of the game” in terms of which such undertakings may be judged. The idea that anyone is free to define terms arbitrarily, without explanation or justification, is anathema to conceptual analysis. The “rules” or “guidelines” underlying the analysis that follows are drawn from three disparate yet surprisingly compatible sources—a nineteenth-century political economist (Thomas Malthus),⁸ a twentieth-century economist (Fritz Machlup),⁹ and a twentieth-century political scientist (Felix Oppenheim).¹⁰

Writing in 1827, Malthus noted that the tendency of different writers to attribute different meanings to the same terms had given rise to complaints about “differences of opinion among political economists.” As a corrective to this situation, he offered four rules for “guidance in defining and applying the terms used in the science of political economy.” These rules are as deserving of attention by political economists today as they were then, perhaps more so. First: When terms “which are of daily occurrence in the common conversation of educated persons” are employed, they should be defined “so as to agree with the sense in which they are understood in this ordinary use of them.” Second: When common usage does not suffice, “the next best authority is that of some of the most celebrated writers in the science, particularly if any one of them has, by common consent, been considered as a principal founder of it.”¹¹ Third: Recognizing that changes in meaning are sometimes justifiable, Malthus proposed that “the alteration proposed should not only remove the immediate objections which may have been made to the terms as before applied, but should be shown to be free from other equal or greater objections, and on the whole be obviously more *useful* in facilitating the explanation and improvement of the science. A change which is always itself an evil, can alone be warranted by superior utility taken in the most enlarged sense.” Fourth: “Any new definitions adopted should be consistent with those which are allowed to remain.”¹²

Although I find Malthus’ rules eminently sensible and as applicable now as then, others may prefer the more modern criteria for evaluating concepts presented by Oppenheim in the *Handbook of Political Science*:¹³ First: Con-

⁸ Rev. T. R. Malthus, *Definitions in Political Economy, preceded by An Inquiry into the Rules Which Ought to Guide Political Economists in the Definition and Use of Their Terms; with Remarks on the Deviations from these Rules in their Writings* (London: John Murray, 1827).

⁹ Machlup, pp. 3–6 et passim.

¹⁰ Oppenheim, pp. 283–335.

¹¹ It is a fair inference that Malthus had Adam Smith in mind here. The contemporary relevance is illustrated by Albert O. Hirschman’s contention that “no one has yet given a better picture of ‘dependence on trade’ than Adam Smith.” *National Power and the Structure of Foreign Trade* (Berkeley: University of California, 1945), p. 73.

¹² All quotes in this paragraph are from Malthus, pp. 1–7. Alfred Marshall shared Malthus’ view that economics should “conform itself to the familiar terms of every-day life, and so far as possible must use them as they are commonly used.” [*Principles of Economics*, 2 vols., 2d ed. (London: Macmillan, 1891), 1: 103.]

¹³ Oppenheim, pp. 297–309.

cepts should be operational in the broadest sense, although this should not be interpreted as requiring quantification. Second: Concepts that establish definitional connections with other terms are to be preferred. Third: Concepts that draw attention to theoretically important aspects of the subject matter that might easily be overlooked are desirable. Fourth: Concepts should not preclude empirical investigation by making true "by definition" what had better be left open to empirical inquiry. Fifth: Concepts should remain reasonably close to ordinary language. "Ordinary language," however, does not necessarily mean the way most people would define the term, but rather the "set of rules they implicitly follow when applying it to a given situation." Sixth: The meaning of concepts should be "open" in the sense that the possibility of change is never completely ruled out.

The various criteria suggested by Malthus and Oppenheim will be discussed later with reference to recent scholarly treatments of dependence.¹⁴ For now it suffices to point out that Machlup, Malthus, and Oppenheim all agree that, *ceteris paribus*, deviations from common usage are undesirable characteristics in scientific concepts and that such deviations call for careful explanation and justification. Special care in discussing the nature and methods of conceptual analysis prior to examining the concept of interdependence is in order because much of the recent scholarly work on international and transnational dependence fails to satisfy the criteria articulated by either Malthus or Oppenheim.

What follows is an explication of the concept of dependence in its most general and fundamental sense. It should be noted at the outset that some would deny that explication of a generic concept of dependence serves a useful analytic purpose.¹⁵ Since the arguments for and against this position were cogently stated in Robert Dahl's classic article on "The Concept of Power,"¹⁶ there is no need to repeat them here. Dahl sought to capture the basic intuitive notion of power in the same sense that this essay will pursue the basic intuitive notion of dependence that underlies discussions of dependence, dependency, interdependence, or independence. Thus, references to concepts of dependence in the following discussion are meant to apply, *mutatis mutandis*, to these related terms as well.

To favor the elucidation of general abstract concepts of power or dependence, however, does not commit one to the view that discussions of actual power or dependence relations should be carried on at very high levels of

¹⁴ In view of recent suggestions by Caporaso and Duvall that a clear distinction be drawn between the concepts of dependence and dependency, it should be noted that such a distinction is not employed in this essay for reasons that will be explained later. Unless otherwise indicated, treatments of dependence, independence, interdependence, autonomy, and dependency are regarded as falling within the same general field of inquiry. As used here, the term "interdependence" always refers to "mutual dependence."

¹⁵ Caporaso, p. 18; Edward L. Morse, "Transnational Economic Processes," *International Organization* 25 (Summer 1971): 382; Fernando Henrique Cardoso and Enzo Faletto, *Dependency and Development in Latin America* (Berkeley: University of California Press, 1979), pp. xii-xiii.

¹⁶ Robert A. Dahl, "The Concept of Power," *Behavioral Science* 2 (July 1957): 201-15, esp. p. 214. See also, Oppenheim, pp. 283 ff.

abstraction. It is not illogical to advocate that a clearly defined generic concept of power (or dependence) be used to develop low- and/or medium-level generalizations rather than highly abstract ones.¹⁷ In short, there is a difference between defining a concept and applying it.

The concept of dependence: 1568–1968

Conventional usage is a basic reference point for evaluating scientific concepts according to Malthus, Machlup, and Oppenheim. In explicating the concept of dependence, the single most important question concerns conventional usage. Both the everyday usage by laymen and traditional scholarly usage will be examined. Since international and transnational dependence is of particular interest to the writer and likely readers of this essay, particular attention will be devoted to usage in the context of world affairs.

Common usage

Raymond Duvall provides a useful discussion of the two basic meanings of “dependence” in ordinary language.¹⁸ On the one hand, “dependence” is used in a causal sense to refer to situations in which an effect is contingent on or conditioned by something else. Keohane and Nye are apparently referring to this usage when they note that “in common parlance, *dependence* means a state of being determined or significantly affected by external forces.”¹⁹ On the other hand, “dependence” is also used to refer to a relationship of subordination in which one thing is supported by something else or must rely upon something else for fulfillment of a need. It is apparently this second meaning that Caporaso refers to as “the familiar, common sense” usage of the term.²⁰

Duvall points out that the two basic meanings of “dependence” correspond to the distinction often made between “sensitivity interdependence” and “vulnerability interdependence.”²¹ Whereas the first

¹⁷ The arguments for a contextual approach to power analysis consist largely of spelling out the implications of the absence of a political counterpart to money. See David A. Baldwin, “Money and Power,” *Journal of Politics* 33 (August 1971): 578–614; and “Power Analysis and World Politics: New Trends versus Old Tendencies,” *World Politics* 31 (January 1979): 161–94.

¹⁸ Duvall, pp. 61–68.

¹⁹ *Power and Interdependence*, p. 8.

²⁰ Caporaso, pp. 18–19, 24. See also, Ramsay Muir, *The Interdependent World and Its Problems* (Boston: Houghton Mifflin, 1933), p. 1; and Kenneth Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979), p. 143.

²¹ Duvall, pp. 62–63. Although it is customary to attribute the distinction between “sensitivity” and “vulnerability” interdependence to Keohane and Nye [“World Politics and the International Economic System”] the distinction is also found in an earlier article by Kenneth Waltz [“The Myth of Interdependence” in *The International Corporation*, ed. Charles Kindleberger (Cambridge, Mass.: The MIT Press, 1970), p. 210.]

meaning implies mere contingency, the second implies need fulfillment that would be costly to forego.

Duvall's discussion notes that the two basic meanings of "dependence" can be traced back for several centuries. Although Duvall offers no documentation for this, his assertions are compatible with the *Oxford English Dictionary*.²² Perusal of the *OED*, however, furnishes additional clues relating to usage in different contexts. The preponderance of references to world affairs pertain to the second meaning.²³ The *OED* provides examples of the second meaning with regard to "depend," "dependence," "dependency," and "dependent." In every case examples concerning world affairs are included. Especially noteworthy is a seventeenth-century reference to "the effect of depending upon forraign Countries for Hemps," a reference comparable in meaning and context to contemporary discussions of "vulnerability dependence." Neither the concept of vulnerability dependence nor its usage in the context of world affairs is new. If the *OED* is taken as an authority, it would appear that this second meaning of "dependence" is more conventional than the first in discussions of world politics and economics.

Scholarly usage: general

Scholarly usage, of course, sometimes diverges from that of the layman; therefore, conventions among scholars should be considered. Conventional treatments by economists and international relations scholars are of most direct relevance to international and transnational dependence. Scholarly discussions do not always explicitly state a definition of "dependence," thus leaving the reader two basic strategies for determining what the author has in mind. First, one might reasonably assume that failure to provide an explicit definition indicates that the author is following common usage, in which case the previous discussion suggests that the second meaning is the more likely. Second, one can look for contextual clues. Since both basic meanings of "dependence" involve influence in its broadest sense, it is not much help to look for words like "affect," "change," "influence," "impinge," "induce," or "cause." The crucial difference between the first and second meaning of "dependence" has to do with the ease of breaking the relationship; "sen-

²² *A New English Dictionary on Historical Principles* (Oxford: Clarendon Press, 1897). (Also known as the *Oxford English Dictionary*, and hereafter cited as *OED*.) Cf. É. Littré, *Dictionnaire de la Langue Française* (Paris: Librairie Hachette, 1883). Similar dependency terminology exists in English, Italian, French, and Spanish and can be traced back to the same Latin roots. Usage of the term in a political context to refer to relations in which one actor relies upon another for fulfillment of a need, a usage suggesting subjection or subordination, is several centuries old in each of these languages. "Vulnerability dependence" is not new! This concept of dependence seems to be implicit in the writings of the Stoic philosopher Epictetus. [*The Discourses and Manual*, trans. P. E. Matheson (Oxford: Clarendon Press, 1916).]

²³ This may be an overly cautious statement. Judgments as to what should be classified as "world affairs" may differ, however, and I do not wish to quibble. In my judgment, the *OED* does not contain a single example of the first meaning in the context of world affairs.

sitivity interdependence” implies nothing about the cost of altering the relationship.²⁴ Thus, if one finds a relationship or its effects referred to as “necessary,” “ineluctable,” “inevitable,” “inextricable,” or “unavoidable,” it is grounds for suspicion that the author has in mind a relationship that would be costly to break. Likewise, if terms such as “need,” “compel,” “must,” “constraint,” or “Hobson’s choice” are used to describe the relationship, it seems fair to infer that the second meaning of “dependence” is the relevant one. If “dependence” is used with reference to “self-sufficiency,” “autarky,” or the ability of one actor to “do without” another, the opportunity costs of foregoing the relationship would seem to be the underlying concern.

Scholarly usage: economists

In 1972 Richard Cooper asserted that “‘economic interdependence’ normally refers to the dollar value of economic transactions among regions or countries, either in absolute terms, or relative to their total transactions.” He distinguished this “normal usage” from his more restricted concept of “the *sensitivity* of economic transactions between two or more nations to economic developments within those nations.”²⁵ In 1973 Tollison and Willett referred to Cooper’s sensitivity concept as representing “normal usage by economists.”²⁶ Without disputing the rapid progress of the discipline of economics, “normal usage” would appear to change with remarkable speed. In 1979 Marina v. N. Whitman reiterated the assertion of Tollison and Willett that “as generally understood by economists, the term *interdependence* refers to the sensitivity of economic behavior in one country to developments or policies originating outside its own borders.”²⁷ If such references are taken to mean that many economists think of interdependence in terms of the mutual sensitivity of economic variables, they can be supported with evidence. If, however, such references are interpreted to mean that economists since the time of Adam Smith have characteristically favored the first meaning of “dependence,”

²⁴ “Costs” in this essay always refer to “opportunity costs.” Although dependency may be defined in terms of the costs of “breaking” a relationship, it can also refer to alterations in the relationship short of total severance. This point is of little consequence for the argument in this essay, however; and the terms “breaking,” “altering,” “severing,” and “foregoing” will be used interchangeably.

²⁵ Richard N. Cooper, “Economic Interdependence and Foreign Policy in the Seventies,” *World Politics* 24 (January 1972): 159.

²⁶ Robert D. Tollison and Thomas D. Willett, “International Integration and the Interdependence of Economic Variables,” *International Organization* 27 (Spring 1973): 259. This article not only asserts a view of “normal usage” that differs from Cooper’s view of “normal usage,” it even cites Cooper’s article in support of this contention.

²⁷ Marina v. N. Whitman, *Reflections of Interdependence: Issues for Economic Theory and U.S. Policy* (Pittsburgh: University of Pittsburgh Press, 1979), p. 265. Also in 1979, Kenneth Waltz concluded that “sensitivity interdependence” was “essentially an economist’s definition.” [*Theory of International Politics*, p. 139.]

based on contingency, rather than the second, based on need, supporting evidence is difficult to find.

The most important thing to note about economists' usage of "dependence" or "interdependence" is that clarity is lacking. They rarely offer an explicit definition of the concept, rarely include it in the index of a book, and often omit it from dictionaries of economic terminology.²⁸ It has not been an important analytic term for most economists.

This is not to say that references to "dependence" cannot be found. In explaining the benefits of specialization and exchange, Adam Smith made it clear that dependency was a likely consequence in the sense that exchange relationships involved benefits that satisfied mutual needs and which would therefore, by definition, be costly to forego.²⁹ Ramsay Muir has described Smith as having "revolutionized economic science by working out the theory of interdependence";³⁰ and Albert O. Hirschman has contended that "no one has yet given a better picture of the nature of 'dependence on trade.'" ³¹ Hirschman drew attention to the intimate connection between the concept of "gain from trade" and the concept of dependence:

The influence which country A acquires in country B by foreign trade depends in the first place upon the total gain which B derives from that trade; the total gain from trade for any country is indeed nothing but another expression for the total impoverishment which would be inflicted upon it by a stoppage of trade. In this sense the classical concept, gain from trade, and the power concept, dependence on trade, now being studied are seen to be merely two aspects of the same phenomenon.³²

It should be noted that Hirschman did not view the conceptual linkage between "gains from trade" and "dependence" as redefining the latter concept, but rather as clarifying it. And rightly so, for he simply provided a more precise statement of the second basic meaning of "dependence." This concept of "dependence" in terms of the opportunity costs of foregoing trade has been

²⁸ Cf. Harold S. Sloan and Arnold J. Zurcher, *A Dictionary of Economics*, 4th ed. (New York: Barnes and Noble, 1961); and *The McGraw-Hill Dictionary of Modern Economics* (New York: McGraw-Hill, 1965).

²⁹ *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), reprint ed. (New York: Modern Library, 1937), pp. 13–16. To say that specialization and exchange create dependency is not to say that each trading partner incurs an equal amount of dependency, nor does it imply dependency on each trading partner. A country that increases its economic well-being through trade becomes dependent on trade but not necessarily on any particular product or trading partner.

³⁰ Muir, p. 18.

³¹ Hirschman, p. 73.

³² *Ibid.*, p. 18. Hirschman notes that the "gain from trade" refers to "that part of a country's well-being which it is in the power of its trading partners to take away" (p. 19). Thus, vulnerability is necessarily implied by this type of dependency. Ernst B. Haas overlooks this point when he introduces "vulnerability interdependence" and "opportunity cost interdependence" as two separate concepts. They are simply different labels for the same basic concept. ["Is There a Hole in the Whole? Knowledge, Technology, Interdependence, and the Construction of International Regimes," *International Organization* 29 (Summer 1975): 861–864.]

implicit in many economists' discussions of international economic relations both before and after Adam Smith.³³

It would be a mistake to depict Hirschman's usage as "mere trade dependence." Although Hirschman's work happens to focus on trade, his explication of the concept of dependence is applicable to a wide range of social exchange relationships.³⁴ If the term "interaction" is substituted for "trade" each time it appears in the previous quotation, this point will become clear.

To show that economists have often used "dependence" in its second

³³ Edmond Silberner, *La Guerre dans La Pensée Économique du XVI au XVIII Siècle* (Paris: Librairie du Recueil Sirey, 1939), pp. 11, 14–15, 94–95, 109–14, 173, 190–91, 195, 263 et passim; *The Problem of War in Nineteenth Century Economic Thought* (Princeton: Princeton University Press, 1946), pp. 54–56 et passim; Rev. T. R. Malthus, *Observations on the Effects of the Corn Laws and of a Rise or Fall in the Price of Corn on the Agriculture and General Wealth of the Country* (London: J. Johnson, 1814), pp. 22–23; R. G. Hawtrey, *Economic Aspects of Sovereignty* (London: Longmans, Green, 1930), pp. 103–4; Whitney H. Shepardson, "Nationalism and American Trade," *Foreign Affairs* 12 (April 1934): 407; Commission of Inquiry into National Policy in International Economic Relations, *International Economic Relations* (Minneapolis: University of Minnesota Press, 1934), pp. 11, 103–9, 132–35; Franz Eulenburg, "International Trade," *Encyclopedia of the Social Sciences*, vol. 4 (New York: Macmillan, 1937), 196–200; Gottfried Haberler, *The Theory of International Trade* (London: William Hodge, 1936), pp. 239–40; A. C. Pigou, *The Political Economy of War*, rev. ed. (New York: Macmillan, 1941), pp. 5–18; George A. Steiner, ed., *Economic Problems of War* (New York: John Wiley, 1942); Hirschman, pp. 3–81; Jacob Viner, "The Prospects for Foreign Trade in the Post-War World," *Readings in the Theory of International Trade*, ed. American Economic Association (Philadelphia: Blakiston, 1950), pp. 527–28; J. B. Condliffe, *The Commerce of Nations* (New York: Norton, 1950), pp. 620–21; Jules Backman et al., *War and Defense Economics* (New York: Rinehart, 1952), pp. 113–38; William W. Lockwood, *The Economic Development of Japan* (Princeton: Princeton University Press, 1954), pp. 384–86; P. T. Ellsworth, *The International Economy*, rev. ed. (New York: Macmillan, 1958), pp. 1–3; Thomas C. Schelling, *International Economics* (Boston: Allyn and Bacon, 1958), pp. 512–13; Michael Michaely, "Concentration of Exports and Imports: An International Comparison," *Economic Journal* 68 (December 1958): 722–23; Charles J. Hitch, "National Security Policy as a Field for Economics Research," *World Politics* 12 (April 1960): 444–45; Charles P. Kindleberger, *Foreign Trade and the National Economy* (New Haven, Conn.: Yale University Press, 1962), pp. 143–45; Paul Marer, "The Political Economy of Soviet Relations with Eastern Europe," in *Testing Theories of Economic Imperialism*, Steven T. Rosen and James R. Kurth, eds. (Lexington, Mass.: Lexington Books, 1974), pp. 231–60; Jan Tinbergen et al., *RIO: Reshaping the International Order, A Report to the Club of Rome* (New York: Signet, 1976), pp. 48–50; and Fritz Machlup, *A History of Thought on Economic Integration* (New York: Columbia University Press, 1977), pp. 29, 53. This concept of dependence is grounded in the logical structure of international trade theory, as Hirschman shows. Whitman (p. 157) notes that "the idea of economic interdependence among nations has always lain at the heart of the pure theory of international trade"; but she fails to note that it is "vulnerability interdependence" that lies at the heart of trade theory, not the "sensitivity interdependence" which she elsewhere (p. 265) describes as the economists' generally understood definition of interdependence. Peter Katzenstein associates the concept of "sensitivity interdependence" with "neo-classical international trade theory." ["International Relations and Domestic Structures: Foreign Economic Policies of Advanced Industrial States," *International Organization* 30 (Winter 1976): 9.] Katzenstein does not explain the nature of the relationship; nor does he cite any "neo-classical trade theorists" to support his contention. John S. Chipman identifies Viner and Haberler as "neoclassical" trade theorists; but, as noted above, both used the term "dependence" in a way similar to Hirschman. "A Survey of the Theory of International Trade: Part 1, The Classical Theory," *Econometrica* 33 (July 1965): 478–79.

³⁴ Cf. Peter M. Blau, *Exchange and Power in Social Life* (New York: John Wiley, 1964); and Richard M. Emerson, "Power-Dependence Relations," *American Sociological Review* 27 (February 1962): 31–41.

meaning does not establish such usage as “normal”; however, it does justify a certain amount of skepticism with regard to undocumented assertions that “sensitivity interdependence” represents normal usage by economists.

Some economists, of course, have used “dependence” in its first meaning to refer to contingent relations. Ellsworth, for example, seems to employ “dependence” in this sense in discussing the interdependence of national currencies, even though he seems to use the second meaning of “dependence” in discussing why trade takes place.³⁵ Machlup uses “interdependence” in the sense of the covariance of economic variables most of the time; but when referring to the relationship between national power and self-sufficiency, he seems to revert to the second meaning of “dependence.”³⁶ And many of the essays in a volume recently edited by Robert Aliber apparently employ “interdependence” to refer to the covariance of economic variables.³⁷

In the last two decades or so, economists’ usage of the term interdependence has become so confusing that a brief digression from my main argument is in order. In addition to using “interdependence” to refer to relations that would be mutually costly to forego, some economists have used it interchangeably with “integration,” “openness,” and “mutual sensitivity.”³⁸ Each of these terms represents an analytically distinct concept, and none corresponds to “interdependence” in the sense of relations that would be mutually costly to break. “Openness” refers to the degree of interaction with the outside world and is usually measured in terms of the ratio of foreign trade to GNP.³⁹ “Sensitivity” refers to the covariance of economic variables. And “integration,” as Machlup’s careful explication has shown, has as its essential defining characteristic the degree to which opportunities for efficient division of labor are used.⁴⁰ Each of these concepts has different uses and different empirical referents; thus, it is desirable to distinguish among them. This does not rule out the possibility that a particular research project might employ an *operational* definition of interdependence in terms of “openness”; but it does imply that appropriate qualifications should be stated.

In sum, economists have paid little attention to “dependence” as a scientific concept but have frequently—dare I say “normally”?—used the term in its commonsense second meaning. I have failed to locate a single economist’s

³⁵ Ellsworth, pp. 2–3, 318.

³⁶ Machlup, *Essays*, pp. 13–23; *History of Thought on Economic Integration*, pp. 15, 19–20, 29, 53, and 81.

³⁷ Robert Z. Aliber, ed., *National Monetary Policies and the International Finance System* (Chicago: University of Chicago Press, 1974).

³⁸ On this point, see Tollison and Willett, pp. 255, 259–260, 267; Marina v. N. Whitman, “Economic Openness and International Financial Flows,” *Journal of Money, Credit and Banking* 1 (November 1969): 727–28, 745; and Cooper, “Economic Interdependence and Foreign Policy,” pp. 159–60.

³⁹ Henry C. Wallich, “Money and Growth,” *Journal of Money, Credit and Banking* 1 (May 1969): 281; and Whitman, “Economic Openness,” p. 727.

⁴⁰ Machlup, *History of Thought on Economic Integration*, p. 18.

work that explicitly acknowledges the two basic meanings of dependence and that offers reasons for preferring the first meaning in a way that would even begin to satisfy the Reverend Malthus. Indeed, conceptual analysis seems to have gone out of style among economists—with the notable exception of Machlup. With reference to the alleged propensity of economists to define interdependence in terms of “sensitivity,” the following hypotheses might be considered: One is more likely to find an economist using “dependence” in this sense: (1) the more recent the reference; (2) in discussing monetary relations rather than trade relations; (3) in relatively mathematical treatments of the topic; and (4) with reference to particular economic variables rather than with reference to purposive actors, such as nation-states.

Scholarly usage: international relations

It is a peculiar fact of intellectual history that international relations scholars writing on interdependence during the last decade have paid very little attention to treatments of this topic by previous generations of scholars in the same field. Keohane and Nye, for example, virtually ignore scholarly treatments of interdependence prior to World War II.⁴¹ Whatever else one might say about the concept of “dependence,” there can be no doubt that scholarly concern about its role in interstate relations predates World War II. The opposed concepts of “self reliance” and “dependence” are basic to an understanding of Machiavelli’s *The Prince*.⁴² Defining dependence in terms of reliance on others, of course, implies a lack of self-sufficiency, which, in turn, implies the second basic meaning of dependence, defined in terms of benefits that would be costly for one or both parties to forego. References to this concept of interstate dependence are found in the writings of the early Mercantilists as well as in the writings of Montesquieu and Rousseau.⁴³ In the twentieth century excellent scholarly discussions of international interdependence have been provided by Sir Norman Angell (1914), Francis

⁴¹ Keohane and Nye, “International Interdependence and Integration,” pp. 363–414. Edward C. Morse has suggested that “the analysis of interstate interdependence begins with a central political problem that arose in international economic interchange after World War II” [*Modernization and the Transformation of International Relations* (New York: Free Press, 1976), p. 117]; but he modified this statement to apply only to “recent writings” in a later publication. [“Interdependence in World Affairs,” *World Politics: An Introduction*, eds. James N. Rosenau, Kenneth W. Thompson, and Gavin Boyd (New York: The Free Press, 1976), p. 663.]

⁴² Niccolò Machiavelli, *The Prince*, trans. James B. Atkinson (Indianapolis, Ind.: Bobbs-Merrill, 1976), pp. 68–69, 149, 163, 171, 203, 359. Although first published in 1532, *The Prince* was written about 1514.

⁴³ Silberner, *La Guerre Dans la Pensée Économique*, pp. 7–122; Jean-Jacques Rousseau, *The First and Second Discourses* (1750, 1755), trans. Roger D. Masters and Judith R. Masters (New York: St. Martin’s Press, 1964), p. 36n; *On the Social Contract* (1762), trans. Judith R. Masters; ed. Roger D. Masters (New York: St. Martin’s Press, 1978), p. 74n; and Charles-Louis de Montesquieu, *De l’Esprit des Lois* (1748), Book XX, Chap. II, cited by Hirschman, p. 10n.

Delaisi (1925), and Ramsay Muir (1933).⁴⁴ All three works contain both conceptual explication and empirical generalizations that are well worth the attention of contemporary scholars.

The concept of interdependence, as used by international relations scholars, is often accused of having a normative bias and of being ill-defined.⁴⁵ Although specific examples are rarely cited by the accusers, some could probably be found. There is little evidence, however, that scholarly discussions of international interdependence from the time of Machiavelli to about 1960 were *characterized* by ill-defined or normatively biased concepts of dependency.

The charge of a normative bias in earlier conceptualizations of interdependence rests on a misconception of the traditional concept of the “benefits” of interdependence and a failure to distinguish between normative and factual concepts.

Keohane and Nye object to defining interdependence in terms of “mutual benefit.” “In some cases,” they contend, “an interdependent relationship may have such negative consequences that both parties would be quite happy to cease contact with one another entirely, forgoing any benefits that such contact may bring.” They cite a “tense and rapidly escalating arms race” as an example.⁴⁶ The obvious question, of course, is why either party would continue a relationship that both would prefer to end. Arms races can be ended by either side at any time. Human beings can always break off a social relationship. Mass suicide is perhaps the most extreme option, but it is not without some historical precedent. The point, of course, is that mutually unpleasant relationships of interdependence, such as arms races, are maintained because the likely alternatives would be even more unpleasant. The only reason to continue strategic interdependence between the United States and the Soviet Union is that the alternative might be worse. The “benefits” of interdependence, thus, are simply another way of stating the opportunity costs of severing the relationship. No matter how “bad” an interdependent relationship may be, it is presumably preferable to the most likely alternative. The “benefits” implied by the traditional concept of interdependence—i.e., in its second meaning—are not defined in absolute terms, but rather in terms of likely alternative situations. Avoiding value deprivation, after all, is just as much a “benefit” as is value augmentation. Thus, contrary to the view of Keohane and Nye, defining interdependence in terms of the “mutual benefits”

⁴⁴ Sir Norman Angell, *The Foundations of International Polity* (London: William Heinemann, 1914); Francis Delaisi, *Political Myths and Economic Realities* (London: Noel Douglas, 1925); and Muir, *The Interdependent World and Its Problems*.

⁴⁵ Edward L. Morse, *Foreign Policy and Interdependence in Gaullist France* (Princeton: Princeton University Press, 1973), p. 51; Morse, “Interdependence in World Affairs,” pp. 662–63; Keohane and Nye, “Interdependence and Integration,” pp. 363, 365, 368, 376–77; and Rosecrance et al., “Whither Interdependence?” p. 426.

⁴⁶ “Interdependence and Integration,” p. 367. See also a similar argument in *Power and Interdependence*, pp. 9–10.

to the parties involved does *not* limit it to situations in which “the modernist view of the world prevails: where threats of military force are few and levels of conflict low”; and it *does not* exclude such cases as “the strategic interdependence between the United States and the Soviet Union.”⁴⁷ The “benefits” of interdependence should be defined in terms of the values of the parties and the likely effects on those values of breaking the relationship. If there is little or no effect, or if the parties would actually be better off, the relationship should not be described as interdependent. It is in this sense, *and in this sense only*, that interdependence involves mutual benefits.

The charge that earlier concepts of interdependence contained or implied a normative bias is made by Morse.⁴⁸ Although he cites Ramsay Muir, it is not clear what other writers Morse has in mind. Rosecrance et al. refer to “most students” as wishing to “use interdependence in a positive sense to see higher interdependence as a fundamental force for better relations among nations.”⁴⁹ Because discussions of international interdependence prior to World War II were often found in books advocating world government or disarmament, the attribution of normative bias is understandable—but not necessarily justifiable.

If one discounts the rhetoric and crusading tone of this literature, the concepts employed and the basic logic of the argument are not usually normative.⁵⁰ Sir Norman Angell used the following story about two men in a boat to illustrate the nature of interdependence:

The boat was leaky, the sea heavy, and the shore a long way off. It took all the efforts of the one man to row, and of the other to bail. If either had ceased both would have drowned. At one point the rower threatened the bailer that if he did not bail with more energy he would throw him overboard; to which the bailer made the obvious reply that, if he did, he (the rower) would certainly drown also. And as the rower was really dependent upon the bailer, and the bailer upon the rower, neither could use force against the other.⁵¹

⁴⁷ *Power and Interdependence*, p. 9. Even states at war may be described as interdependent if each would prefer to continue the war relationship rather than incur the costs of ending that relationship, e.g., surrender, defeat, or mutual annihilation.

Robert W. Tucker’s distinction between “positive interdependence,” in which the interests of the parties vary directly, and “negative interdependence,” in which the interests of the parties vary inversely, obscures the essential characteristic of all interdependent relations—the existence of a shared interest in maintaining the relationship. [*The Inequality of Nations* (New York: Basic Books, 1977), p. 97. Cf. Rosecrance and Stein, pp. 2–3.] Poker may be a zero-sum game, but getting enough players together to have a game is not. The players’ common interest in playing poker underlies the zero-sum game they play, just as the common interest in preserving a habitable planet underlies seemingly zero-sum conflicts between states. For more on conceptualization of benefits, see David A. Baldwin, “The Power of Positive Sanctions,” *World Politics* 24 (October 1971): 23–27.

⁴⁸ “Interdependence in World Affairs,” pp. 662–63.

⁴⁹ “Whither Interdependence?” pp. 426–27.

⁵⁰ On the nature of normative inquiry and concepts, see Oppenheim, pp. 314–28.

⁵¹ *Foundations of International Polity*, p. 17.

Sir Norman drew the conclusion from this anecdote that the degree of interdependence varies inversely with the effectiveness of force. This story is a remarkably concise summary of the basic elements of the arguments presented by Sir Norman, Muir, and Delaisi. First, the situation involves division of labor since neither man can both row and bail. Second, exchange is involved in the sense that each man trades his labor for the other's—"I will row if you will bail." Third, there are mutual benefits of this exchange in that they both stay alive. Fourth, each is dependent on the other in the sense that the opportunity costs of breaking the relationship are high. Fifth, this reciprocal dependency constrains each party's behavior with respect to the other. Sixth, dependency is portrayed as a rather unpleasant "fact of life" to be endured and adjusted to rather than as a godsend to be celebrated. And seventh, Sir Norman's conclusion about the effects of interdependence on the effectiveness of force is a plausible, empirically testable proposition. It may not be true; but it is, in principle, falsifiable.

The arguments of Sir Norman, Muir, and Delaisi are simply amplifications of the story of the leaky boat in terms of international relations. The process of international specialization and exchange is viewed as creating international interdependence (empirical observation). The world is becoming, or has become, so interdependent that without world government (or disarmament or whatever) the achievement of many values to which people now subscribe, such as peace and economic well-being, will be impeded or prevented (empirical proposition).⁵² The logical implication of such arguments is that if people are willing to tolerate a world in which life is nasty, brutish, and short, world government is unnecessary. Far from presenting a rosy picture of an interdependent world, such arguments imply that such a world will be most unpleasant *unless* appropriate adaptive measures are taken—e.g., world government or disarmament. This may be mistaken or naive, but it is a line of argument that is, in principle, empirically testable.⁵³ It is not a normative argument, and it is not based on a normative concept of interdependence.

Although Delaisi, Muir, and Sir Norman may not present a "rigorous" definition of interdependence, it is quite clear what they mean by it. They are using the term in the same way it had been used for centuries: to refer to international relationships that would be costly to break. They have in mind the same basic concept of dependency as that employed by Machiavelli, Montesquieu, Rousseau, Adam Smith, and Malthus. Hirschman and Waltz would later use the term in this same sense.

Keohane and Nye contend that interdependence has "normally" been

⁵² Morse attributes to Muir the view that the growth of interdependence is a "requisite for the abolition of interstate conflict." [*Foreign Policy and Interdependence*, p. 51, and "Interdependence in World Affairs," pp. 662–63.] Actually, Muir's argument is that the abolition of war is a requisite for survival in an interdependent world in the sense that an interdependent world will be very unpleasant unless war is abolished.

⁵³ Neither the naivete nor the falsity of this line of argument is as obvious to this writer as it appears to some.

defined simply as a condition in which events in one part of the world covary with events in other parts of the world.⁵⁴ Such usage, as Duvall⁵⁵ has pointed out, corresponds to the first basic meaning of “dependence”—i.e., as a conditional relationship. If “normal usage” is intended to apply only to the last decade or so, Keohane and Nye may well be correct; but if a longer time period is considered, the validity of their assertion is less obvious.

International relations scholars have tended to discuss dependence and interdependence with reference to self-sufficiency and the vulnerability of a state to alterations in certain kinds of international relationships, especially trade.⁵⁶ Such usage implies the second meaning of “dependence,” since, by definition, the costs of severing trade relations will be lower for self-sufficient states than for dependent ones. William E. Rappard cites a rather bizarre example of mutual dependence during World War I in which the costs of breaking off trade were so high that two states on opposing sides carried on some trade with each other.⁵⁷

The work of Karl Deutsch is of special interest since it is frequently cited in discussions of interdependence. Deutsch’s work contains examples of both basic meanings of “dependence.” In 1954 Deutsch referred to “interdependence” in terms of the “interlocking relationships” arising from the “division of labor” between “highly specialized” political units. In addition, he distinguished this “interdependence” from a relationship of “mutual responsiveness” among political units that might not be dependent upon each other—i.e., might be able to do without each other’s aid.⁵⁸ Although Deutsch’s concept of “mutual responsiveness” does not correspond directly to the first meaning of dependence, his concept of interdependence clearly corresponds to the second meaning as elucidated by Hirschman, Sir Norman Angell, and Delaisi.⁵⁹

⁵⁴ “International Interdependence and Integration,” pp. 366–67, 370. They cite Oran R. Young as an example of this “normal” usage. [“Interdependencies in World Politics,” *International Journal* 24 (Autumn 1969): 726–50.] Waltz apparently agrees that this represents “common” usage. [*Theory of International Politics*, p. 139.]

⁵⁵ Duvall, pp. 62–63.

⁵⁶ Parker Thomas Moon, *Imperialism and World Politics* (Toronto: Macmillan, 1926), pp. 542–58; Frank H. Simonds and Brooks Emery, *The Great Powers in World Politics: International Relations and Economic Nationalism* (New York: American Book Co., 1935), pp. 63–94; Nicholas John Spykman, *America’s Strategy in World Politics* (New York: Harcourt, Brace, 1942), pp. 35, 270, 292–317; Quincy Wright, *A Study of War*, 2nd ed. (Chicago: University of Chicago Press, 1965), pp. 319, 367; *The Study of International Relations* (New York: Appleton-Century-Crofts, 1955), pp. 250, 598; Clyde Eagleton, *International Government*, rev. ed. (New York: Ronald Press, 1948), pp. 8–14; and Malcolm W. Hoag, “What Interdependence for NATO?” *World Politics* 12 (April 1960): 369. Cf. Joseph Dunner, ed., *Dictionary of Political Science* (New York: Philosophical Library, 1964), p. 260–61.

⁵⁷ William E. Rappard, *United Europe* (New Haven: Yale University Press, 1930), p. 261.

⁵⁸ Karl W. Deutsch, *Political Community at the International Level: Problems of Definition and Measurement* (Garden City, N.Y.: Doubleday, 1954), p. 37.

⁵⁹ Deutsch was familiar with the work of Delaisi, Hirschman, and Sir Norman Angell, and even cited their work in a later article. Although he criticized their empirical observations on interdependence, there was no indication of *conceptual* disagreement. [Karl W. Deutsch and Alexander Eckstein, “National Industrialization and the Declining Share of the International Economic Sector, 1890–1959,” *World Politics* 13 (January 1961): 267–69.]

By 1966, however, Deutsch had abandoned this earlier concept of interdependence and was defining interdependence in terms of the covariance of aspects of different systems, a usage corresponding to both the first basic meaning of "dependence" and to the current concept of "sensitivity interdependence."⁶⁰ I have been unable to locate in Deutsch's writings any acknowledgment, explanation, or justification for this shift from the traditional concept of international interdependence to a fundamentally different one.

In sum, contentions that traditional international relations usage of the term "interdependence" has been normatively biased, that it has been unclear, or that it has corresponded with "sensitivity interdependence," are all questionable. The works surveyed here suggest that the concept has been reasonably clear, generally understood, factually oriented, and has corresponded with "vulnerability interdependence." Prior to 1960 one was reasonably safe in assuming that references to "dependency" by international relations scholars corresponded to the second basic meaning as explicated by Hirschman, Muir, Delaisi, and others. Since this "traditional usage" no longer seems to be "normal," a consideration of more recent treatments of dependency relations is in order.

The concept of dependence since 1968

The year 1968 marked the publication of Cooper's *The Economics of Interdependence*, which makes it a convenient, though somewhat arbitrary, dividing line between the old and the new "traditional usage." Since 1968 the two basic meanings of "interdependence" have been embodied in works by Cooper and Waltz. "Sensitivity interdependence," grounded in the first meaning, is often associated with Cooper; and "vulnerability interdependence," based on the second meaning, is often associated with Waltz. Katzenstein notes that Cooper's *The Economics of Interdependence* "has been central to the reformulation of international relations theory attempted by Keohane and Nye."⁶¹ Ruggie points out that "much of the political science work with the concept [of interdependence] was stimulated" by this book.⁶² Whitman refers to Cooper's "now classic book," and Morse refers to it as a "seminal study" and as a "classic study of interdependence."⁶³

In a "classic" study of interdependence, one may expect to find some

⁶⁰ Karl W. Deutsch, "Power and Communication in International Society," in *Conflict in Society*, ed. Anthony de Reuck (Boston: Little, Brown, 1966), pp. 300-1. This definition is also found in Karl W. Deutsch, *The Analysis of International Relations*, 2nd ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1978), p. 255.

⁶¹ Katzenstein, "International Relations and Domestic Structures," p. 9n.

⁶² John Gerard Ruggie, "Collective Goods and Future International Collaboration," *American Political Science Review* 66 (September 1972): 875n.

⁶³ Whitman, *Reflections of Interdependence*, p. 161; Morse, "Interdependence in World Affairs," p. 663; and *Modernization and the Transformation of Society*, p. 117.

consideration of the concept of interdependence. If there is an explicitly labelled definition of “interdependence” anywhere in Cooper’s book, however, it is well camouflaged. Although “interdependence” figures prominently in the title, there is no index entry for “independence,” “interdependence,” “dependence,” or “autonomy.” At times Cooper appears to use the terms “integration” and “interdependence” interchangeably.⁶⁴ But at other times he appears to use “interdependence” to refer to relationships that would be costly to forego. Witness the following passages:

. . . *Divergent economic policy has become less possible* (p. 3).

Comment: Why has it become “less possible”? Because the costs of divergence have gone up.

[The] *United States is discovering that its policies . . . must be influenced by what happens abroad* (p. 3).

Comment: Why “must” U.S. policies be influenced? Because the costs of autonomy are so high.

. . . *International economic intercourse . . . confines the freedom of countries . . . by embedding each country in a matrix of constraints* (p. 4).

Comment: Why are countries constrained? Because the costs of foregoing international economic intercourse are so high.

The competitive firm, if it finds the environment too constraining, can go out of business; the nation does not even have that option (p. 4).

Comment: Why does the nation “not have that option”? Because it would be too costly.

Such passages, together with Cooper’s frequent references to the “need” for cooperation (p. 11), suggest that he has in mind the opportunity costs of self-sufficiency. “Mutual sensitivity” does not capture the meaning of the above passages. Relations of “mutual sensitivity” can always be severed—except when they are “necessary” in the sense that it would be costly to extricate oneself or one’s country from them. “Compel,” “must,” “need,” and “constraint” imply more than mere sensitivity or influence; they imply something about the cost of one’s other options.

One of the most revealing passages in Cooper’s discussion of interdependence is the following:

As with marriage, the benefits of close international economic relations can be enjoyed only at the expense of giving up a certain amount of national independence.⁶⁵

Although it is not specifically acknowledged, the concept of interdependence as relations that would be mutually costly to forego is embedded in this

⁶⁴ This point is noted by Keohane and Nye, “International Interdependence and Integration,” pp. 401–02.

⁶⁵ *Economics of Interdependence*, p. 4.

passage. If the benefits of marriage can be acquired *only* by a loss of independence, it follows that dissolving the marriage will entail a loss of such benefits. Cooper's explication of the "gains from marriage" exactly parallels Hirschman's explication of the relationship between the "gains from trade" and "dependency."⁶⁶

Cooper's book is not really "about interdependence" at all, at least not if that implies a major concern with describing the *nature* of interdependence. That the world is highly interdependent is not so much a hypothesis to be tested as it is an assumption to use as a springboard for what really interests Cooper—i.e., the policy implications and consequences of interdependence. Cooper makes this clear at the end of his introduction, when he notes that "the remainder of the book discusses the problems created by a growing economic interdependence and explores some of the possible ways for solving these problems."⁶⁷ Now discussing the nature of power is one thing; discussing its effects is another; just as discussing the nature of sovereignty is one thing and discussing its consequences is another. Likewise, discussing the nature of interdependence and discussing the problems it creates are two separate issues. The key to understanding this alleged "classic study of interdependence" is the realization that it is *not* about interdependence, but rather about the consequences of interdependence.

Two years after the publication of Cooper's *Economics of Interdependence*, Waltz published an article disputing what he perceived as a widely held contention that international interdependence was high, growing, and/or likely to promote peace.⁶⁸ He pointed out that the cost of disengagement from a given relationship was a measure of dependency. There is no indication in the article that Waltz perceived himself as inventing a new or unusual concept of dependency; yet other scholars repeatedly credit him with having "proposed,"⁶⁹ "developed,"⁷⁰ or "introduced"⁷¹ this notion. Indeed, Waltz himself has apparently been convinced, since he has recently described himself as "offering" this concept as an alternative to the "common" conception of sensitivity interdependence.⁷²

⁶⁶ *National Power and Foreign Trade*, p. 18.

⁶⁷ *Economics of Interdependence*, p. 22.

⁶⁸ "The Myth of National Interdependence." Shortly after the publication of this article, Morse criticized it for failure to provide an explicit definition of interdependence and depicted Waltz as opposed to "conceptualizing international politics in terms of notions of interdependence." [Edward L. Morse, "Transnational Economic Processes," pp. 380–81.] These are puzzling charges. Waltz's concept of interdependence as relations that would be mutually costly to break is simple, straightforward, and clear; it is even contained in a section subtitled "The Meaning of Interdependence." The observation that Waltz objects to analyzing international politics in terms of interdependence is even more baffling. Waltz objects to the "rhetoric of interdependence" and to certain generalizations about the magnitude and implications of interdependence in today's world; but he does not deny the utility of the concept in analyzing world politics.

⁶⁹ Tollison and Willett, p. 259n.

⁷⁰ *Ibid.*, p. 255.

⁷¹ Kal J. Holsti, "A New International Politics? Diplomacy in Complex Interdependence," *International Organization* 32 (Spring 1978): 518. Rosecrance and Stein (p. 2) say the concept "comes from" Waltz.

⁷² *Theory of International Politics*, p. 139. In fairness to Waltz, it should be noted that he ex-

Although Waltz does not refer to Hirschman's *National Power and the Structure of Foreign Trade*, the concept of dependence he "introduced" in 1970 was basically the same as the one that Hirschman explicated in 1945. The concept of "gains from trade" is, *mutatis mutandis*, just another name for the opportunity costs of foregoing trade.

From a conceptual standpoint the period since 1968 has contributed very little to thinking about international interdependence. Although scholars seem to vie with one another to invent yet another definition of "interdependence," the need for new concepts has not been demonstrated. Concepts and theories developed by earlier generations of scholars are often more relevant than is generally recognized. For example, John Ruggie lists a number of world developments that have caused students of international organization to predict that "nation-states will have to accept a degree of international regulation and control over their nominally domestic activities that goes well beyond the situation today."⁷³ This, however, is essentially the same argument presented by Muir, Delaisi, and others before World War II. When Ruggie asks what it means to say that these limitations on state autonomy "will have to be accepted,"⁷⁴ one might appropriately answer that it means that such states are interdependent; and this, in turn, means what it has meant for the last two, three, or four centuries—i.e., that the opportunity costs of autonomy are prohibitively high. Ruggie describes his application of the theory of collective goods to international collaboration as posing "the basic problem of international organization as one of national *choice under constraints*: that is, given the structure of the contemporary interstate system, what are the general conditions under which states, with differing objectives and different capabilities, choose to collaborate with others?"⁷⁵ This, however, is basically the same question addressed by the English classical economists with respect to foreign trade. If one substitutes "trade" for "collaborate," one has an excellent characterization of international trade theory. This theory constitutes a powerful conceptual tool for the student of international politics that should not be overlooked. It should not be necessary to develop a separate theory to cover each issue-area of international exchange relations.⁷⁶

Interdependence: "sensitivity" versus "vulnerability"

The distinction between "sensitivity interdependence," defined in terms of mutual "effects," and "vulnerability interdependence," defined in terms of the opportunity costs of disrupting the relationship, has become

explicitly points to the correspondence between his concept of "interdependence as mutual vulnerability" and "everyday usage" (p. 143).

⁷³ Ruggie, pp. 874–75.

⁷⁴ *Ibid.*, p. 875.

⁷⁵ *Ibid.*

⁷⁶ The best source for broadening one's view of "exchange relations" is Blau's *Exchange and Power in Social Life*. Trade is only one of many forms of exchange among countries.

widely accepted and is usually attributed to Keohane and Nye.⁷⁷ The question to be addressed here is whether this distinction should be maintained, reformulated, or perhaps relabeled. The arguments in favor of retention of the distinction will be considered first.

The first, and most important reason to maintain the distinction is that it differentiates quite different phenomena. Sensitivity and vulnerability do not necessarily covary to the same degree or even in the same direction.⁷⁸

Second, as Duvall⁷⁹ has noted, the distinction corresponds to the two basic meanings of "dependence" for the last four hundred years. It thus seems to be more fundamental than such distinctions as "strategic interdependence," "systemic interdependence," or "public goods interdependence."⁸⁰

And third, there is a tradition of a decade or so of "conventional usage," at least by students of international relations.

The arguments against maintaining the distinction concern conventional usage, the possibility of confusion, and alternative ways of making the distinction.

The first objection to the distinction is that it contravenes common usage. As Caporaso, Waltz, Muir, and the *OED* have pointed out, "vulnerability interdependence" corresponds to everyday usage, at least with reference to world affairs.⁸¹ Contrary to Keohane and Nye, in common parlance "dependence" does *not* mean a state of being "significantly affected by external forces."⁸² A person that has been "significantly affected" by the "external force" of alcohol is called a "drunk," not an "alcoholic"; there is a difference. The Internal Revenue Service does not allow one to claim as "dependents" everyone on whom one has significant effects. When the "man-in-the-street" refers to American "dependence" on foreign oil, he has in mind the opportunity costs of doing without it, not the elasticity of prices.⁸³

⁷⁷ "World Politics and the International Economic System," pp. 121–25. In previous writings I have characterized this as a "useful distinction," although I have disputed some of the empirical generalizations about the relationship between power and the two types of interdependence put forward by Keohane and Nye. ["Power Analysis and World Politics," pp. 175–179.] What follows constitutes a change in my position regarding the value of this conceptual distinction or at least the labeling of the distinction. It also constitutes a modification of the view of "interdependence" presented in David A. Baldwin, ed., *America in an Interdependent World* (Hanover, N.H.: University Press of New England, 1976), p. 13.

⁷⁸ On this point, see Cooper, "Economic Interdependence and Foreign Policy," pp. 178–179; and Waltz, *Theory of International Politics*, p. 142.

⁷⁹ Duvall, pp. 62–63.

⁸⁰ These "forms of interdependence" are identified by Morse, "Interdependence in World Affairs," 666–71.

⁸¹ Caporaso, pp. 18–19, 24; Waltz, *Theory of International Politics*, p. 143; Muir, p. 1.

⁸² *Power and Interdependence*, p. 8.

⁸³ Those who would like to submit this proposition about the views of the mass public to empirical testing might frame questions along the following lines: "If you lived within easy walking distance of ten drugstores, would you feel dependent on any one of them?" "If there were only one drugstore within fifty miles of your home, would you feel dependent on it?" The "man in the street" may not speak in terms of "the opportunity costs of foregoing a relationship," but he has a firm grasp of the underlying concept.

Price sensitivity of oil would not matter one whit to the man-in-the-street if he had affordable alternative ways to heat his house and run his car. The price of caviar in the U.S. may be “sensitive” to price changes in other countries, but no one has suggested that America is “dependent” on caviar.

Although scholarly usage during the last decade favors retention of the distinction, the case is less persuasive if one examines scholarly usage during the last two or three centuries. The works surveyed earlier in this essay suggest that “vulnerability interdependence” has a superior claim to the mantle of conventionality, at least in international relations, and perhaps even in economics.

A second objection to the distinction is that it is factually misleading. Cooper identifies the problem in the following passage:

The value of trade to a country, in terms of its contribution to national welfare [i.e., the gains from trade], may depend neither on the sensitivity nor on the magnitude of the flows, although it is more likely to be related to the magnitude than to the sensitivity. Indeed, value and sensitivity are inversely related in one important respect: high sensitivity results precisely from the capacity of a country to substitute domestic for foreign production or investment, in response to relatively small margins of advantage; yet when such substitution is easily possible at relatively low cost, the value per dollar of trade or investment to the country is correspondingly diminished.⁸⁴

In effect, Cooper is admitting that what he calls “interdependence” may be *inversely* related to what Hirschman has called “interdependence.” It is bad enough to ignore and/or to distort conventional usage; but it is worse to introduce a concept that is *inversely* related to common usage.

The third, and perhaps the most telling, argument against maintaining the “sensitivity/vulnerability” distinction is that other terms are available for making the desired distinction. As Duvall has observed, statements about dependence in its first sense are so broad as to be almost devoid of substantive content; they tell us that two variables covary, but that is about all.⁸⁵ Many terms can be used to convey the idea of covariance—e.g., “influence,” “affect,” “impinge,” “change,” “induce,” or “cause.” It is fine for Cooper to emphasize the importance of “the *sensitivity* of economic transactions between two or more nations to economic developments within those nations”;⁸⁶ but why call this “interdependence”? Terms like “mutual influence,” “mutual responsiveness,” or “mutual sensitivity” convey the idea at least as well without debasing the time-honored, and still useful, concept of vulnerability interdependence.

In sum, there is a distinction between drug users and drug addicts, be-

⁸⁴ “Economic Interdependence and Foreign Policy,” pp. 178–79.

⁸⁵ Duvall, p. 63.

⁸⁶ “Economic Interdependence and Foreign Policy,” p. 159.

tween drinkers and alcoholics, between being sensitive to others and being dependent on them, between influence in general and dependence as a special type of influence. It is a distinction that has been recognized and understood by scholars and laymen alike for centuries. It is a distinction that the concept of "sensitivity interdependence" blurs, but which is captured with precision and parsimony by the Hirschman-Waltz concept of dependence. Let us retain the concept of "sensitivity interdependence" but change the label to something less misleading, such as "mutual sensitivity."

"Dependence" versus "dependency"

Caporaso and Duvall have recently suggested that a fundamental distinction should be made between "dependence" and "dependency."⁸⁷ Whereas "dependence" refers to "external reliance on other actors," "dependency" refers to "the process of incorporation of less developed countries (LDCs) into the global capitalist system and the 'structural distortions' resulting therefrom."⁸⁸ Although both Caporaso and Duvall admit some similarity between the concepts, they emphasize the differences. "Dependence," as used by Caporaso, corresponds to "common sense" usage and to "vulnerability dependence."⁸⁹ "Dependency," however, has no basis in conventional usage, "can only be understood (i.e., its original and intended meaning is preserved) only within a certain body of historical, political, and sociological thought," and perhaps cannot be reduced to a concept at all.⁹⁰

All of this sounds rather mystifying until one considers the purpose of the essays by Caporaso and Duvall. Duvall's purpose is to promote and facilitate a "dialogue" between what he calls "First World" scholars committed to "rigorous empirical social science"⁹¹ and "Third World" scholars, mostly Latin American, committed to "*dependencia* theory." Caporaso states his purpose more broadly, but he is also obviously interested in "understanding" *dependencia* theory. After stating the need to differentiate between "dependence" and "dependency," he justifies it as follows:

What I am saying is that, should one want to use the concept of dependency and be reasonably faithful to the meaning of those [Latin

⁸⁷ Caporaso, pp. 18–20 et passim; and Duvall, pp. 52–68 passim.

⁸⁸ James A. Caporaso, "Introduction to the Special Issue of *International Organization* on *Dependence and Dependency in the Global System*," *International Organization* 32 (Winter 1978): 1.

⁸⁹ Caporaso, "Dependence, Dependency, and Power," pp. 19, 31.

⁹⁰ *Ibid.*

⁹¹ Duvall, pp. 51–61. It is not clear who gets to claim the dubious distinction of being committed to "lax empirical social science." Duvall names only himself, Bruce Russett, and Caporaso as representatives of the "rigorous empirical" tradition.

American] scholars who in a sense invented and contributed most to this line of thought, then one has to respect the complexity in that thought.⁹²

This, then, is the first and most important reason for defining “dependence” and “dependency” in fundamentally different ways—it facilitates understanding of the writings of a group of Latin American scholars during the last fifteen or twenty years. Obviously, if one wants to understand someone’s discussion of dependency, it helps to know what they mean by the term.

A second and related justification for the distinction implies that the concept of dependency was “invented” in Latin America; and this, in turn, leads to the assertion that the concepts of dependence and dependency “have different intellectual ancestries.”⁹³ This interpretation ignores the etymology of the two concepts. The *OED* clearly indicates that the concepts of dependence and dependency have *fundamentally similar* ancestries stretching back several hundred years, i.e., dependency is the state or condition of being dependent.

The first objection to defining “dependency” à la Latin America is that it constitutes a sharp deviation from several centuries of common usage. Although Caporaso⁹⁴ admits this divergence, there is no indication that he sees it as a drawback of the proposed redefinition of “dependency.” To admit this redefinition of “dependency,” however, is to start down the proverbial “slippery slope.” What if scholars in the Philippines and Russia propose new concepts of “dependency?” Must we then speak of “Filipino-dependency,” “Russo-dependency,” “Latino-dependency,” and “Gringo-dependency?” To redefine “dependency” in terms of “a certain body of historical, political, and sociological thought” is to open the floodgates for numerous redefinitions based on different bodies of “historical, political, and sociological thought.” It is, in short, a corruption of language.

Corrupting conventional language, however, can sometimes be justified—if the benefits outweigh the costs and if alternative means of achieving the benefits are unavailable. It may well be that a group of Latin American scholars have used the term “dependency” (or “*dependencia*”) in a sense that is fundamentally different from the long body of common usage,

⁹² Caporaso, “Dependence, Dependency, and Power,” p. 19. The title of the special issue of *International Organization on Dependence and Dependency in the Global System* can easily mislead one as to the contents. With a few notable exceptions, this volume is definitely slanted toward Latin America. As Richard Fagen points out, “despite the efforts of the editor to cast the theoretical net as widely as possible . . . the bulk of the writings in this volume respond in some fashion to . . . ‘the [Latin American] dependency way of framing the question of development and underdevelopment.’ It could hardly be otherwise, for the majority of authors represented here have had their primary research experience in or on Latin America.” [“A Funny Thing Happened on the Way to the Market: Thoughts on Extending Dependency Ideas,” *International Organization* 32 (Winter 1978): 287.]

⁹³ Caporaso, “Dependence and Dependency,” pp. 19-20.

⁹⁴ *Ibid.*, pp. 18-19, 24. It should be noted that the divergence from common usage involved here is not confined to English, but also applies to Italian, French, and Spanish.

but it does not necessarily follow that other scholars should therefore redefine their terms to bring their usage into line with these Latin American scholars. We must first ask whether the phenomena these authors wish to describe can be analyzed without the concept of dependency. The answer is almost certain to be "yes." In the first place, the "process of incorporation of less developed countries into the global capitalist system and the 'structural distortions' resulting therefrom" can be described adequately without reference to "dependency." In the second place, according to Caporaso and Duvall, the concept of "dependency" is *not* an important analytical tool for the *dependantistas*, but rather a mere "label for a body of theory."⁹⁵ Unless one is prepared to deny the well-known hypothesis about roses, odors, and names, it would appear that "*dependencia* theory" can get along quite well without the concept of "dependency."

Redefinition of "dependency" would also violate Oppenheim's criterion of establishing definitional connections, since it would no longer be possible to define it as a state of being "dependent."⁹⁶ And Malthus would surely point out the violation of his fourth rule, that new definitions must be consistent with the remaining terms—e.g., "independence," "dependence," and "interdependence."

Two additional objections to redefining "dependency" along the lines proposed by Duvall and Caporaso are directly related to the *dependencia* literature. The argument, in effect, is that understanding this literature is so important that other social scientists—or, at least the readers of *International Organization*—should change their concept of dependency. Yet the *dependencia* literature contains vague, contradictory, and ambiguous concepts, objections *in principle* to precise concept definition, objections *in principle* to generalization, and objections *in principle* to the criterion of empirical falsifiability.⁹⁷ The scientific advantages of adapting a well-known and generally understood concept to conform with such a literature are not self-evident.

An additional objection is that despite the arguments of Caporaso and

⁹⁵ *Ibid.*, p. 22; Duvall, p. 63. Bath and James have suggested that "it might be better to change the name from 'dependency theory' to 'linkage politics.'" (p. 33.)

⁹⁶ Oppenheim, pp. 303–304.

⁹⁷ For documentation and further references regarding these points, see especially the incisive and telling critique by Robert A. Packenham, "The New Utopianism: Political Development Ideas in the Dependency Literature," *Working Paper* No. 19, Latin American Program, Woodrow Wilson International Center for Scholars, Washington, D.C., 1978. See also, Robert A. Packenham, "Latin American Dependency Theories: Strengths and Weaknesses," paper presented before the Harvard-M.I.T. Joint Seminar on Political Development, Cambridge, Mass., February 6, 1974; Lall, pp. 799–810; Duvall, pp. 52–57; 68n; Caporaso, "Dependence, Dependency, and Power," pp. 22–24, 43; Cardoso and Faletto, pp. vii–xiv; Fernando Henrique Cardoso, "The Consumption of Dependency Theory in the United States," *Latin American Research Review* 12 (Fall 1977): 7–24, esp. pp. 15–16; and Tony Smith, "The Underdevelopment of Development Literature: The Case of Dependency Theory," *World Politics* 31 (January 1979): 247–88.

Duvall, it is not yet clear that the *dependencia* theorists always use “dependency” in a sense that diverges fundamentally from ordinary language. In a literature so fraught with ambiguity, inconsistency, and vagueness, it is difficult to say with assurance precisely what *is* meant by “dependency.” It is a safe assumption that those who first began to use the term in the context of *dependencia* theory were aware, at least in a general way, of its common sense denotations and connotations. Furthermore, some students of *dependencia* theory have suggested that it is concerned with asymmetrical power relations.⁹⁸ Since both Caporaso and Duvall⁹⁹ view “dependence,” but *not* “dependency,” as closely related to the standard social science concept of power, such interpretations of *dependencia* theory suggest that the conceptual gap may be narrower than Caporaso and Duvall imply. Indeed, if all the ambiguities, inconsistencies, obfuscation, and emotional biases could be eliminated from *dependencia* theory, I suspect that the Latin American usage of “dependency” might often turn out to be closer to the Hirschman-Waltz version of the concept that is generally supposed. Thus, Tony Smith argues that the international economic system “has at its disposal sanctions for transgressing its basic rules which are all the more powerful since their greatest force comes *not from an active threat of intervention* so much as *from a threat of withdrawal*, which would abandon these dependent regimes to civil and regional conflict. . . . So far as I am aware, this last point has not been made by any of the dependency theorists. Nevertheless, it is clearly implicit in their form of analysis.”¹⁰⁰ This, of course, sounds very much like Hirschman’s concept of dependence, which brings us back to the special issue of *International Organization*. Hirschman’s description of himself as the “founding grandfather” of dependency theory should at least make one suspicious of assertions that his concept of dependency is fundamentally different from that of the *dependentistas*.¹⁰¹

Dependence as power

References to the literature on social power¹⁰² are sparse in both the Latin American *dependencia* theory and the North American literature on in-

⁹⁸ Fagen, p. 288; Robert A. Packenham, “Trends in Brazilian National Dependency since 1964,” in Riordan Rvett, ed., *Brazil in the Seventies* (Washington, D.C.: American Enterprise Institute, 1976), p. 91; T. Smith, pp. 249, 251, 282–83, 288 and Johan Galtung, “A Structural Theory of Imperialism,” *Journal of Peace Research* 2 (1971): 81–117.

⁹⁹ Caporaso, “Dependence, Dependency, and Power,” pp. 28–29; Duvall, pp. 60–61, 65.

¹⁰⁰ Smith, p. 251.

¹⁰¹ Albert O. Hirschman, “Beyond Asymmetry: Critical Notes on Myself as a Young Man and on Some Other Old Friends,” *International Organization* 32 (Winter 1978): 45.

¹⁰² For references to the social power literature, see Baldwin, “Power Analysis and World Politics,” p. 161n; and “Power and Social Exchange,” *American Political Science Review* 72 (December 1978): 1233n, 1241–42.

terdependence. Except for the recent article by Caporaso and an occasional passing reference to Bachrach and Baratz, both sets of literature are almost bereft of references to the social power literature.¹⁰³ Galtung asserts that imperialism is a kind of power relationship but proceeds to ignore the social power literature altogether. Packenham, on the other hand, declares that one advantage of treating dependence as a form of power is that it “allows the literature on power to teach us something about what dependency means.”¹⁰⁴ It is in this spirit that the issue will be considered here. It will be argued that dependency can be treated as part of a large family of social science “power terms” *without distorting the basic common sense meaning of the term* and that such treatment would eliminate much conceptual confusion, thus making dependency terms more useful tools for social science research. I will discuss seven dimensions of power with reference to dependency relationships. Although these dimensions are well known to power analysts, each of them has been virtually ignored by either *dependencia* theory or North American writers on interdependence, and often by both. The dimensions to be discussed include the relational nature of power, the multidimensional nature of power, actual versus potential power, actors’ intentions, costs, power resources, and reciprocity.

Power as relation

One of the most important elements of social power analysis since 1950 has been the relational definition of power. Instead of defining power as a property of the power wielder, it has been defined in terms of an actual or postulated relationship between two or more actors.¹⁰⁵ Thus, to treat dependency as a power term is to imply the existence of at least one other actor. Thus, when an individual or a state is described as “dependent,” the obvious question is, “with respect to whom?” It should be specifically noted that the actor on whom one is dependent may be another state or it may be a rather vague conglomeration of other actors, such as “other countries,” “the rest of the world,” or “the international capitalist system.”¹⁰⁶

¹⁰³ Peter Bachrach and Morton S. Baratz, “Decisions and Non-Decisions: An Analytical Framework,” *American Political Science Review* 57 (September 1963): 632–42; and Caporaso, “Dependence, Dependency, and Power,” pp. 27–31.

¹⁰⁴ Packenham, “Trends in Brazilian National Dependency,” p. 91.

¹⁰⁵ The term “actor” can refer to groups as well as individuals. The actor doing the influencing is usually called “A,” while the actor being influenced is usually called “B.” On the relational definition of power, see Harold D. Lasswell and Abraham Kaplan, *Power and Society* (New Haven: Yale University Press, 1950); Herbert A. Simon, “Notes on the Observation and Measurement of Political Power,” *Journal of Politics* 15 (November 1953): 500–16; Dahl, “The Concept of Power,” pp. 201–15; Dorwin Cartwright, “Influence, Leadership, Control,” in James March, ed., *Handbook of Organizations* (Chicago: Rand McNally, 1965), pp. 1–47; and James N. Rosenau, “Capabilities and Control in an Interdependent World,” *International Security* 1 (Fall 1976): 32–49.

¹⁰⁶ Cf. Caporaso, “Dependence, Dependency, and Power,” p. 29.

Power as multidimensional

Power relationships vary on many dimensions. Some of these dimensions are essential to specifying a power relation, while others are simply useful ways to distinguish one kind of power relation from another. Thus, a *complete* description of a power relation would include who is trying to get whom to do what, by what means, where, when, how, at what cost, with what degree of success, and so on; but a *minimum* specification of a power relation requires less detail. There is general agreement in the social power literature that a *minimum* specification of a power relation must include both scope and domain.¹⁰⁷ The implication of this multidimensional characteristic of power is that the same actor can be simultaneously strong and weak—e.g., powerful with respect to some scopes of some actors and weak with respect to other scopes of other actors. The same state may be strong with regard to deterring nuclear attack on its homeland by other nuclear states but weak with regard to “winning the hearts and minds” of Third World peoples.¹⁰⁸

Dahl has taken an unambiguous position on the importance of specifying scope and domain.

Any statement about influence that does not clearly indicate the domain and scope it refers to verges on being meaningless. When one hears that A is highly influential, the proper question is: Influential over what actors with respect to what matters? The failure to insist on this simple question often leads political observers astray.¹⁰⁹

The same could be said about statements of dependency. When one hears that a nation-state is highly dependent, the proper question is: Dependent on what actors with respect to what matters? The United States may be dependent on Saudi Arabia with respect to oil, but it is not dependent on Saudi Arabia with respect to Strategic Arms Limitations Talks. Discussions of dependency relations in world politics seldom specify scope and domain. No single change in scholarly writing habits would bring a more dramatic improvement in the clarity and precision of such discussions than the practice of specifying who is dependent on whom with respect to what.

In addition to scope and domain, power relations vary in weight or amount. This dimension concerns the degree to which A causes a change in the probability of B's behavior with respect to a given scope.¹¹⁰ For our purposes the important implication of this dimension is that power becomes a matter of degree. Dahl has labeled the tendency to ignore variations in the degree of power as “the lump-of-power fallacy.”¹¹¹ Likewise, one might identify the

¹⁰⁷ Lasswell and Kaplan, pp. 75–76; Robert A. Dahl, *Modern Political Analysis*, 3rd ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1976), pp. 29–33; and Jack H. Nagel, *The Descriptive Analysis of Power* (New Haven: Yale University Press, 1975), p. 14.

¹⁰⁸ Baldwin, “Power Analysis and World Politics,” pp. 162–75.

¹⁰⁹ *Modern Political Analysis*, p. 33.

¹¹⁰ Power relations can also affect B's attitudes, beliefs, or policies as well as his behavior. I am using the term “behavior” loosely to refer to all such outcomes. Cf. Nagel, p. 29.

¹¹¹ *Modern Political Analysis*, p. 26.

“lump-of-dependence fallacy.” In each case differences of degree are ignored, and arbitrary and misleading dichotomies are introduced.¹¹² Dividing all the states in the world into the dependent and non-dependent, while ignoring differing degrees of dependency among states, is likely to obfuscate more than it clarifies.¹¹³

Actual versus potential power

The distinction between actual and potential power is essential but often confusing.¹¹⁴ Both are relational concepts in that one refers to actual social relations while the other refers to potential social relations; and both vary in scope, weight, and domain. The primary difference concerns the motivation of the actual or potential power wielder. The distinction allows for the common phenomenon of unused power resources; an actor may have the ability to get B to do X but lack the desire to do so.

The distinction between actual and potential power is helpful in understanding dependency because vulnerability dependence implies potential power but not necessarily actual power. Thus, Hirschman has recently argued that dependent countries may be able to offset their disadvantage in terms of *potential* power because they are more strongly motivated than the dominant country.¹¹⁵ In a similar vein, Holsti has pointed out that one of the strong points of Keohane and Nye’s *Power and Interdependence* is that “it does *not* assume, as do dependency theorists, dependency-as-vulnerability researchers, and many traditional international relations scholars, that disparities in economic capabilities or vulnerability *necessarily* lead to inequitable bargaining outcomes, much less to permanent hierarchy.”¹¹⁶ I agree with Holsti’s assessment.

Intentions

In addition to motivation, the role of intentions in power relations is relevant to discussions of dependency. There is some dispute among students of social power as to whether the exercise of power must always be intentional on the part of the power wielder.¹¹⁷ This dispute need not be addressed here;

¹¹² Cf. Lall, p. 803.

¹¹³ Cardoso and Faletto (p. xii) argue that there is “little sense in attempting to measure ‘degrees of dependence.’” Duvall (p. 56) implies that if dependency is conceived of as a “situation,” it cannot be a matter of degree. This seems contrary to common usage, however, since we often refer to “situations” as “good or bad,” “pleasant or unpleasant,” “political or nonpolitical,” “dangerous or safe,” and so on, all of which are matters of degree.

¹¹⁴ Nagel, pp. 172–74; and Cartwright, pp. 7–8.

¹¹⁵ “Beyond Asymmetry,” pp. 47–48.

¹¹⁶ Holsti, p. 520. Italics mine.

¹¹⁷ Cartwright, pp. 10–11; Nagel, pp. 12–34; Dennis H. Wrong, “Some Problems in Defining Social Power,” *American Journal of Sociology* 73 (May 1968): 676–77; and Felix E. Oppenheim, “‘Power’ Revisited,” *Journal of Politics* 40 (August 1978): 597–601.

but the possibility of unintended or undesired influence should be noted. Dependency implies something about the vulnerability of B to an influence attempt by A, but it implies little or nothing about the desires or intentions of A. The dependence of B on A may or may not be the result of A's preferences. Indeed, A may be rather unhappy with the situation. If some states find themselves dependent in some respects on other states, it does not follow that this situation is attributable to the preferences of the dominant states.¹¹⁸ The dependency of children on their parents with respect to livelihood is probably caused more by biology and society than by the preferences of the parents. Concepts of power that allow for the possibility of unintended influence may be more useful to the student of dependency and autonomy than other power concepts.

It is also possible for the intentions or preferences of A to influence B without any specific attempt by A to make this happen—and perhaps even without A's awareness that it has happened! This phenomenon, known as “the rule of anticipated reactions,” refers to situations in which “one actor, B, shapes his behavior to conform to what he believes are the desires of another actor, A, without having received explicit messages about A's wants or intentions from A or A's agents.”¹¹⁹ “Anticipated reactions” could be helpful in understanding dependency relations in which the dependent actor's behavior is modified despite the absence of any explicit demand by the dominant actor. Thus, if Japan were dependent on Saudi Arabia with respect to oil, it might modify its position on the Arab-Israeli dispute without any explicit request or demand by Saudi Arabia. Some things “go without saying.” Likewise, some influence attempts “go without making.”

Power costs

The concept of cost is particularly relevant to analyzing dependency, since dependency implies that the opportunity costs of foregoing the relationship are high. If state B must forego warm homes, fully employed factories, adequate transportation systems, and high living standards, when state A stops exporting oil, state B is dependent on state A for oil. If, on the other hand, state B can easily get its oil elsewhere or if it is indifferent to warm homes, etc., it is not very dependent on state A with respect to oil.

Caporaso notes Emerson's definition of dependence:

The dependence of actor B upon actor A is 1) directly proportional to B's *motivational investment* in goals mediated by A, and 2) inversely

¹¹⁸ In *The Social Contract* Rousseau explicitly pointed out the disadvantages of dominance: “If one of two neighboring peoples could not do without the other, the situation would be very hard for the former and very dangerous for the latter. In such a case, any wise nation will very quickly try to relieve the other of its dependency” (p. 74n).

¹¹⁹ Nagel, p. 16. There is a rich scholarly literature treating “anticipated reactions,” which could be useful to students of dependency. For a thorough discussion and bibliography, see Nagel.

proportional to the *availability* of those goals to B outside the A-B relation.¹²⁰

Caporaso points out that “a full specification of the structural existence of dependence . . . would include: 1) the magnitude of B’s interest in or desire for a good (x); 2) the extent of control of x by another actor A; and 3) the ability of B to substitute for x or B.” Although both Emerson and Caporaso provide useful explications of dependency relations, both are compatible with describing such relations in terms of the magnitude of the opportunity costs of severing the relationship. Indeed, the latter concept subsumes *all* of the components identified by Emerson and Caporaso.¹²¹ If one seeks a parsimonious way to explain dependency relations, it is difficult to improve upon the idea of the opportunity costs of breaking the relationship.

Another reason the concept of costs is helpful in treatments of dependency is that policy alternatives can be discussed more sensibly. Discussions of dependency often portray the dependent actor as “having no alternatives,” or as having “alternatives closed off.” “This kind of rhetoric,” as the Sprouts observe, “*never* means what it appears to mean. The statesman always has alternatives.”¹²² When someone says that the United States has no alternative to importing oil or that Canada has no alternative to trading with the United States, they really mean that alternatives involve costs that the parties are unwilling or unable to pay. Clearer understanding of dependency relations would be achieved if alternative relations were described as more or less costly rather than as existent or nonexistent.

Power resources

The concept of power resources has generated much confused and tautologous thinking about power relations.¹²³ Since it has been suggested that dependency can be viewed as a type of power resource, wariness and caution are in order. Power resources are usually defined as the means by which one actor can influence the behavior of other actors.¹²⁴ By definition, then, those

¹²⁰ Emerson, “Power-Dependence Relations,” p. 32, paraphrased in Caporaso, “Dependence, Dependency, and Power,” p. 21. Caporaso and Emerson use “A” to refer to the dependent actor and “B” to refer to the dominant one. In the quote I have reversed this usage in order to maintain congruence with the more common practice in the social power literature.

¹²¹ Emerson (p. 32) notes the similarity between opportunity costs and the possibility of alternative relations but does not recognize that B’s motivational investment is also subsumed by the concept of opportunity costs. The magnitude of the opportunity costs to B of breaking a relationship with A varies directly with the magnitude of B’s desire for the good or service involved. Thus, “cornering the market” for brussels sprouts is not likely to be a very effective way to make others dependent on you.

¹²² Harold Sprout and Margaret Sprout, *Toward a Politics of the Planet Earth* (New York: Van Nostrand Reinhold, 1971), p. 98.

¹²³ See Baldwin, “Power Analysis and World Politics,” pp. 163–75.

¹²⁴ Cf. Dahl, *Modern Political Analysis*, p. 37.

with the most power resources will have the most *potential* power or *ability* to get others to do things they would not otherwise do. If possession of such resources did not give one the ability to influence others, they would never have been classified as power resources in the first place. Thus, most statements that “explain” variations in the distribution of potential power in terms of variations in the distribution of power resources are tautological.¹²⁵ Since power resources often go unused, however, it is not tautological to explain variations in the distribution of *actual* power in terms of variations in the distribution of power resources.

Keohane and Nye suggest that “a parsimonious way to conceptualize diverse sources of power—and *therefore to explain distributions of power-resources among actors in world politics*—is to regard power as deriving from patterns of asymmetrical interdependence between actors in the issue-areas in which they are involved with one another.”¹²⁶ Caporaso cites this passage by Keohane and Nye as identifying one of the “two primary links between dependence and power.”¹²⁷ The difficulty with this position is that patterns of interdependence are *defined* in terms of two basic dimensions, one of which is the *relative power resources of the actors*.¹²⁸ Thus, to some extent, at least, distributions of power resources are being “explained” in terms of distributions of power resources.

The idea of regarding B's dependence on A with respect to x as a power resource for A can be interesting and useful, but only if we are careful to avoid tautology. If dependency is defined in terms of the magnitude of the opportunity costs of severing the relation, then—by definition—A has the ability to inflict costs on B. If the ability to inflict costs on another actor is considered a measure of potential power, then all dependency relations *are* power relations in the following sense: To the extent that A can make B go without oil by severing the relation between A and B, A has potential power over B with respect to the consumption of oil. This is precisely what it means to say that B is dependent on A with respect to oil consumption.

It does not follow, however, that all statements linking dependency to power are tautologies. Although dependency relations are a form of influence

¹²⁵ I refer to “most” rather than “all” such statements because some avoid tautology in a technical sense by excluding one or two items—usually “skill” or “bargaining ability”—from the list of power resources. Skill is similar to other power resources in that it may not be used in some situations. Parents who play games with their children, for example, rarely use all the skill they possess. Since skill is obviously one of the means by which an actor can influence the behavior of other actors, its arbitrary omission from the power resource category should at least be explained. Dahl admits that skill could be treated as a power resource, but his only explanation for not treating it as such is that “it is generally thought to be of critical importance in explaining differences in the power of different leaders.” The same could be said, of course, for a number of other power resources. [Robert A. Dahl, “Power,” in *International Encyclopedia of the Social Sciences*, vol. 12 (New York: Free Press, 1968), 409.]

¹²⁶ “World Politics and the International Economic System,” pp. 122–23. Italics added.

¹²⁷ “Dependence, Dependency, and Power,” p. 28.

¹²⁸ *Ibid.*; and Keohane and Nye, “World Politics and the International Economic System,” pp. 122–23.

relations,¹²⁹ it is quite possible, and even probable, that one form of influence can serve as the basis (or power resource) for a different form of influence.¹³⁰ Thus A's ability (potential power) to make B go without oil can serve as the basis for A's influence on B with respect to other activities. Saudi Arabia, for example, might use its ability to make Japan reduce its oil consumption as the basis for influencing Japan's position on the Arab-Israeli dispute. The effectiveness of an explicit or implicit threat to cut off Japan's oil supply unless it withholds support for Israel is likely to be greater if Japan really is dependent on the threat-issuing state with respect to oil. A threat by Egypt to stop exporting oil to Japan would probably not be very effective as a means of changing Japanese behavior.

The proposition that dependency (specified as to scope and domain) can serve as a power resource (specified as to scope and domain) is useful and non-tautologous. As long as one is careful to specify scope and domain, tautology can be avoided. The foregoing arguments suggest that dependency is simply a particular type of potential power relation.

Variations in the fungibility of power resources are also a frequent source of confusion. In general, political power resources are much less fungible than economic power resources.¹³¹ Any particular economic power resource can usually be converted into another kind of economic power resource. Money, as a highly liquid medium of exchange that also serves as a standard of value, facilitates such resource conversions. In the political realm, however, there is no close counterpart to money; therefore, it is much more difficult to convert one kind of power resource into another. This lack of fungibility of political power resources, together with the multidimensional nature of power relations, increases the probability that an actor may control large amounts of potential power with respect to some scopes but relatively small amounts of potential power with respect to other scopes. Thus, a nation may be powerful with respect to deterring nuclear attack but weak with respect to getting one of its citizens elected Secretary-General of the United Nations.

If there were a standardized measuring rod in terms of which the power to deter attack could be compared with the power to secure foreign aid, political power analysis would be much easier—almost as easy as economic analysis.

Dependency poses a similar problem in that a state can be dependent on another state with respect to cultural enrichment or industrial machinery but may not be dependent with respect to military security or oil. Caporaso notes the question of whether "dependence" is to be regarded as an "issue-specific

¹²⁹ Lasswell and Kaplan (p. 84) define a "form of influence" as a "kind of influence relationship specified as to base value and scope." (It should be noted that in this essay I am using the terms "influence" and "power" interchangeably.)

¹³⁰ A table in which Lasswell and Kaplan (p. 87) portrayed various forms of power is often criticized for listing power as a power resource (base value). This is a misinterpretation of the table. The point that Lasswell and Kaplan were making is that "power over some values often constitutes the condition for influence or power over other values" (p. 86).

¹³¹ Baldwin, "Power Analysis and World Politics," pp. 163-75; "Money and Power"; and Dahl, *Modern Political Analysis*, pp. 32-35.

concept or a multi-issue 'net' property," but fails to face up to its implications.¹³² He apparently believes the issue has been resolved, however, since later references depict dependence as "net reliance on others."¹³³ His observation that "our uncertainty about a 'net' figure is in part an uncertainty about the facts" misses the essential point—i.e., that the uncertainty is inherent in the nature of the problem. No amount of fact-gathering will enable us to overcome what Catlin has called the "*supreme difficulty*" of a science of politics—i.e., the absence of a political counterpart to money.¹³⁴ Caporaso implies that the problem can be solved by Harsanyi's utility analysis, which Caporaso views as converting "power" from "a series of observed measurement readings, registered in quantities representing amount [i.e., weight] of power, scope, and extent [i.e., domain]" into a "generalized production function."¹³⁵ This, however, is tantamount to a game of "let's pretend." It is easy to "solve" the problem of comparing different scopes of dependency or power by *imagining* a political counterpart to money, but it is not very helpful.

To the extent that one is concerned with economic dependency, money may be a useful measure for comparing dependency in one issue-area with dependency in another issue-area. Difficulties arise, however, when dependency involves costs that are not easily measured by money. When costs are political, psychological, or cultural, there is no generally agreed-upon common denominator of value in terms of which they can be measured and compared. While some kinds of dependency relations are easy to compare, others are not. As Dahl has reminded us, "the problem of how to 'add up' an actor's influence with respect to different scopes . . . has proved intractable."¹³⁶ To treat "dependence" as a "net" concept is to run head-on into this intractable problem.

Reciprocity

Reciprocity is a possibility in both power relations and dependency relations.¹³⁷ Neither power nor dependency is inherently asymmetrical if that term is meant to rule out mutual influence or dependence. States may be

¹³² "Dependence, Dependency, and Power," p. 20.

¹³³ *Ibid.*, p. 22.

¹³⁴ G. E. G. Catlin, *The Science and Method of Politics* (New York: Alfred A. Knopf, 1927), p. 251 (italics mine). Blau (pp. 94–95) points out that "in contrast to economic commodities, the benefits involved in social exchange do not have an exact price in terms of a single quantitative medium of exchange. . . . It is essential to realize that this is a substantive fact, not simply a methodological problem." For detailed discussions of the implications for political analysis of the absence of a political counterpart to money, see Baldwin, "Money and Power"; "Power and Social Exchange"; and "Power Analysis and World Politics."

¹³⁵ Caporaso, "Dependence, Dependency, and Power," p. 31.

¹³⁶ *Modern Political Analysis*, p. 34.

¹³⁷ For discussion and further references on this point, see Baldwin, "Power and Social Exchange."

simultaneously dependent on each other with respect to similar kinds of scopes, such as cultural enrichment, military security, tariff levels, standards of living, or recreation. States may also be *simultaneously* dependent on each other with respect to different kinds of scopes. Thus, state B may be dependent on state A with respect to oil; but state A may be dependent on state B with respect to food. Wrong uses the term “intercursive power” to describe situations in which the control of one person or group over another with respect to a particular scope is “balanced” by the control of the other in a different scope.¹³⁸

In a stable social relation (where there is a recurrent interaction between the parties rather than interaction confined to a single occasion) a pattern may emerge in which one actor controls the other with respect to particular situations and spheres of conduct—or *scopes*, as they have often been called—while the other actor is regularly dominant in other areas of situated activity. Thus a wife may rule in the kitchen, while her husband controls the disposition of family income.

Of course, whether ruling over the kitchen “balances” ruling over the disposition of family income depends on whose wife one has in mind! One wife may view such a situation as “balancing out”; another may not. A wife who regards ruling over the kitchen as lower in status and importance than ruling over the checkbook is likely to view the situation described by Wrong as “unbalanced.” Similarly, state A may depend on state B for raw materials and foodstuffs, while state B depends on state A for manufactured goods and technology, a situation that could be labeled “intercursive dependency.” Some states may view this as “balanced” dependency, but others may regard it as “unbalanced.”

Conclusion

This essay concludes as it began, with a review of Oppenheim’s criteria for judging scientific concepts.

1. *Operationalization.* In explicating the concept of power, Dahl noted that to define it “in a way that seems to catch the central, intuitively understood meaning of the word must inevitably result in a formal definition that is not easy to apply in concrete research problems. . . . In practice, the concept of power will have to be defined by operational criteria that will undoubtedly modify its pure meaning.”¹³⁹ The same could be said about “dependence.” Both the concept of power and the concept of opportunity costs involve counterfactual conditions, and this makes both concepts hard to operationalize. Since opportunity costs are the basic defining characteristic of

¹³⁸ Wrong, pp. 673–74.

¹³⁹ “The Concept of Power,” pp. 202, 214.

dependence, at least in its second meaning, the difficulty also applies to research on dependency.¹⁴⁰ This is an awkward situation; but then, no one has ever seriously suggested that power analysis or dependency analysis is easy.

2. *Definitional connections.* By this criterion the dependency analyst has a potentially easier task than the power analyst. In the English language, at least, there is no verb form of the word “power”; but “dependency” has one, along with several closely related and potentially useful semantic cousins: “dependent,” “dependence,” “independence,” and “interdependence.” All of these terms share the underlying intuitive notion of relations in which the opportunity costs of severance are high (low in the case in “independence”) for at least one of the actors. Such a family of related terms can provide the dependency theorist with a useful vocabulary as long as the underlying conceptual unity is preserved.

3. *Factual connections.* Defining interdependence in terms of mutual sensitivity merely draws attention to the fact that one thing affects another, a fact that is obvious and can be established without the concept of sensitivity interdependence. Defining interdependence in terms of opportunity costs, however, directs attention to “certain features of the subject matter which are of theoretical importance but often not readily apparent.”¹⁴¹ Counterfactual conditions, such as the opportunity costs of altering a relationship, are an example *par excellence* of facts that are not readily apparent.

4. *Not precluding empirical investigation.* Defining power and dependency in terms that allow for variations in scope, weight, and domain might be viewed as necessitating a “pluralist” view of social relations as opposed to a view emphasizing monolithic power structures. Such is not the case. Insisting that power and dependency relations be specified as to scope, weight, and domain *allows for the possibility* that the pluralists might be right, but it does not prejudice the truth or falsity of their position. If, indeed, dependency relations do not vary significantly in scope, weight, or domain, this will become apparent and will provide support for the monolithic dependency structure position.¹⁴²

5. *Ordinary language.* The main body of this essay has emphasized conventional usage, especially with respect to the “sensitivity/vulnerability” and “dependence/dependency” distinctions. The most salient weakness in the literature on these distinctions is the complete absence of any work that (1) acknowledges alternative definitions, (2) treats unnecessary deviations from common usage as an undesirable characteristic in scientific concepts, and (3) considers both the costs and benefits of introducing a new distinction or redefining an old concept. If one’s definition diverges significantly from

¹⁴⁰ Caporaso’s admission that with only one exception “a serious explanation of counterfactuals was not taken up” by the contributors to the special issue of *International Organization* is, in effect, admitting that the heart of the matter was virtually ignored. [“Introduction,” p. 11.]

¹⁴¹ Oppenheim, “The Language of Political Inquiry,” p. 305.

¹⁴² The weakness of the position of Cardoso and Faletto is that their approach precludes empirical investigation of certain dimensions of dependency (pp. viii–ix). Cf. Nagel, pp. 5–6, 177.

conventional usage, it is not enough to make one's definition clear; nor is it enough to note the divergence. It is not even enough to cite advantages of one's own definition. One must show that these advantages are not offset by accompanying disadvantages and that alternative means of achieving these alleged advantages are either unavailable or less acceptable. It is a formidable hurdle; and it should be, in order to prevent needless debasement of the language. If there is a single scholarly work on "sensitivity interdependence" or on "dependency" as the process of incorporating the less developed countries into the global capitalist system that meets these requirements, it has not yet come to the attention of this writer.

6. *Openness of meaning.* Scientific concepts must be allowed to evolve and should never be fixed for all time, but this does not relieve scholars of the need to justify new definitions. The tradition of using the second meaning of dependence in discussions of international and transnational relations is hundreds of years old. Although I believe this concept of dependence is still enormously useful, I am prepared to accede to any reformulations that are in accordance with basic principles of scientific inquiry. However, there is not much to be said in favor of simply "drifting" into new definitions of "dependence." Instead, let us *choose* our concepts in accordance with clearly specified criteria, such as those set forth by Malthus and Oppenheim. All those genuinely committed to scholarly communication—whether they are behaviorists, empiricists, formal modelers, conservatives, liberals, Marxists,¹⁴³ mercantilists, or whatever—should share an interest in the explication of the concept of interdependence, which has borne such a heavy analytical burden in recent years. One does not have to agree with Adam Smith, Hirschman, or Waltz in order to use the concept of dependence they explicated.

Understanding interdependence is no mere semantic exercise. Unless the inhabitants of this shrinking planet improve their understanding of interdependence and its perils, mankind's survival is endangered. Conceptual analysis can help by clarifying the nature of interdependence, but it cannot answer questions regarding the magnitude, rate of change, direction of change, or consequences of interdependence. Only empirical research can do that. The important thing is not to lose sight of what we are talking about as we employ our necessarily imperfect operational definitions of the abstract concept of interdependence.

¹⁴³ The concept of interdependence used by Karl Marx seems to correspond with that used by Adam Smith, Montesquieu, and Rousseau. Cf. Karl Marx, *The Communist Manifesto* (1848), reprint ed. (Chicago: Henry Regnery, 1954), p. 14; Walter C. Clemens, Jr., *The U.S.S.R. and Global Interdependence* (Washington, D.C.: American Enterprise Institute, 1978), p. 1; and R. N. Berki, "On Marxian Thought and the Problem of International Relations," *World Politics* 24 (October 1971): 101-4.