

Nomothetic vs. idiographic

The distinction between nomothetic and idiographic methods was raised on an internet list for statistics educators. Since this distinction is so important in Brunswikian research, I asked Ken Hammond to comment on the message. The original message and Ken Hammond's response are reproduced below.

..Tom Stewart

The message from Kubovy:

Date: Thu, 05 Jan 1995 09:05:32 -0500 (EST)
From: mk9y@faraday.clas.virginia.EDU
Subject: Re: nomological and nomothetic
To: Multiple recipients of list edstat-l@jse.stat.ncsu.EDU;

In Article 1995Jan4.163413.311@tanuki.twics.com,
malangthon@tanuki.twics.com wrote:

>I am looking for some information on the terms nomothetic and
>nomological. I can not find a standard reference that defines them.

For the first, see Nagel, E. (1961). *The structure of science: Problems in the logic of scientific explanation*. London: Routledge & Kegan Paul, p 547-8, thinks that Aristotle is source of the distinction between nomothetic sciences, "which seek to establish abstract general laws for indefinitely repeatable events and processes; and the ideographic, which aims to understand the unique and nonrecurrent" (p 547). He attributes the terms to Windelband, W. (1915). *Geschichte und Naturwissenschaft, In Praeludien* (Vol. 2, pp. 136-160). Tuebingen. See also Bunge, M., & Ardila, R. (1987). *Philosophy of psychology*. New York: Springer, pp. 223-224.

I can't give you a reference to the latter. I believe the term comes from the debate in psychology between operationalism and more liberal conceptions of the meaning of scientific terms. Is it Paul Meehl who coined the term "nomological network" to describe the structure within which many theoretical terms are embedded, without individually receiving operational definitions?

| \ / | / Michael Kubovy (kubovy@virginia.edu)
| \ / | / Dept. of Psychology, Univ. of Virginia, Gilmer Hall
| | \ Charlottesville, VA 29903-2477
| | \ (804)982-4729, FAX 982-4766

Hammond's response:

I agree with Kubovy that these terms are important; they are also highly relevant to Brunswikian approach because Brunswik was virtually the only experimental psychologist from the 1940s onward who was drawing the distinction and coming down on the idio side. The distinction is described in the glossary (Anderson, B. F., Deane, D. H., Hammond, K. R., McClelland, G. H., & Shanteau, J. C. (1981). *Concepts in judgment and decision research* Definitions, sources, interrelations, comments. New York: Praeger, p. 166) and in Hammond, K. R., McClelland, G. H., & Mumpower, J. (1980). *Human judgment and decision making: Theories, methods, and procedures*. New York: Hemisphere/Praeger in which there are 14 references in the index to each of these terms, including definitions. It is no accident that there is this much material in the latter inasmuch as one of the authors was a student of Brunswik. Neither these terms nor nomological net appear in Meehl's 1954 book. Brunswik's 1956

book contains 2 references to "nomothetic laws" at least in my index (the original contains no index): One reference is to 2 pages of text in which Brunswik's general theory of behavior is described and is contrasted with "nomothetic-reductionism" as part of his summary of the book. His 1943 Psychological Review paper also treats this topic. Kurt Lewin should not be forgotten in this regard; he was scornful of averages of population scores, noting that they generally represented the behavior of no single person. (See his "Dynamic theory of personality," 1935, pp. 1-26.) Brunswik showed his agreement with Lewin's idiographic position in this way: "I agree with Lewin when he makes it clear that there is no place for statistics in a strictly [note "Strictly") nomothetic . . . discipline." (Example: The law of the lever or the gravitational constant were not produced by statistics.) "In fact, not even averages from a large number of cases [of subjects] . . . are in order. Indeed, those psychologists who have accepted the ideology of accumulated observation have already deviated from the strictly nomothetic path. If all the relevant conditions are known, or rather if all disturbing influences are eliminated, only one observation is needed to ascertain a general law [which is what nomotheticism is about once and forever. Lewin . . . refers to Galileo's study of falling bodies as an example" (Brunswik, E. (1943). Organismic achievement and environmental probability. Psychological Review, 50, pp. 265-266). Brunswik then stated his own view: There must be recognition of the fact that there can be no truly molar psychology dealing with the physical relationships of the organism with its environment unless it gives up the nomothetic ideal in favor of a thoroughly statistical conception" (p.270) (of the organism environment relationship). I think that the relinquishment of averages will be the big accomplishment of the next 50 years, roughly a century after Brunswik's and Lewin's attempts.

I also think that the nature of Brunswik's emphasis on organismic environmental relationships makes him the first modern evolutionary psychologist. I try to follow up on this aspect of his work in my book.

I do not think that the nomo v. idio distinction has anything to do with operationalism arguments. Brunswik made a point of saying that idio terms were just as conducive to operational definition as nomo terms, as, of course, they are. The distinction is one of theoretical direction, that is, defining the task of psychology, and methodological arguments over generalization. (See Hammond, K. R., Hamm, R. M., & Grassia, J. (1986). Generalizing over conditions by combining the multitrait-multimethod matrix and the representative design of experiments. Psychological Bulletin, 100, 257-269 which says quite a bit about this and offers a current example of how the nomo ideal fails us.)

I am glad Kubovy brought this matter to our attention and I hope he pursues his interests in it.

Kenneth R. Hammond