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Vocational Development Research -  
Some Problems of Logical and Experimental Form\*

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Recent though the movement is, enough has already been written and spoken about the "new look" in occupational psychology so that its general status as a radical departure from the older, sterile trait-measurement model is probably well known to this audience. But how may we specify the properties which mark as innovation that which we are today calling vocational development or career development? In a paper to appear in the spring 1960 issue of the Journal of Counseling Psychology, I have tried to identify some of the distinguishing characteristics of career development theory and research. I want to repeat them here as a way of defining the newer approach to the study of occupational behavior about which we are speaking and as a means of designating some of the conceptual commitments which are involved.

1. Emphasis is upon the generation of hypothetical constructs and the consequent use of explanatory principles and causal connections rather than exclusively upon the invention and use of intervening variables in the testing of response-response laws.
2. Current formulations in psychodynamics are invoked to account for vocational development and choice in terms of the subject's need structure.
3. Ego psychology (self theory) is employed both to specify an important

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source of knowledge about the subject's behavior and to hypothesize about the relations between his perceptions and his social choices. In the first instance, self theory leads experimenters to an increased use of subjective observation tools (interviews, self-inventories, projective devices, and selected types of autobiographical records). In the second instance, it introduces into the language of explanation such terms as self-concept, identity formation, and role model.

4. Movement through major prevocational choices and subsequent vocational choices is postulated as a lawful, hence, hypothetically predictable process. The term career pattern has been invented to convey the notion of this orderly progression from position to position.

5. Vocational development theory emanates from general developmental theory and its derivable laws hold a formal relationship to those of general developmental theory. Genetic psychology, therefore, subsumes the study of the processes of vocational development as well as the processes of physical, intellectual, emotional and social development.

6. Life-long, vocation-related behaviors occur within an ordered sequence of life stages and are to be interpreted with reference to the vocational developmental tasks which each successive life stage poses in the culture.

7. Childhood experiences contribute importantly to the differentiation of capacities and motives and, consequently, to the history of the individual's career development.

8. Longitudinal research design is generally preferable to cross-sectional research design since the evolution of adequate career development theory requires the continuous mapping of the linkage between antecedent conditions and consequent behavior.

Let me make it clear that this series of descriptive principles of career development is not exhaustive nor does each person who writes in a framework of vocational development theory embrace them as a unified set. Yet, taken together, they convey the spirit of the sharp break which has been occurring with simple trait-and-factor theory in occupational psychology.

What I want to attempt to demonstrate here is that the break with traditional research strategy in occupational psychology is not yet sufficiently complete. I am referring to the fact that the prediction of occupational status still plays much too prominent a role in our design of current career development research. To put it another way, I am contending that career development research must temporarily set aside the prediction of occupational status as its objective of greatest immediacy or primacy.

The older, narrowly conceived view of vocational guidance as a process of matching assessable human traits to the worker requirements of jobs compelled a research orientation clearly anchored to the prediction of appropriate occupational choice. In the newer climate of vocational development theory, we often shift the task of prediction so that it becomes one of trying to decide how various combinations of biographical, psychometric and other variables relate lawfully, without counselor intervention, to the occupational sorting-out process at various strategic choice points and within a pattern of choice points. But this dominant concern with prediction of choice, at our current stage of vocational development research is, I think, both premature and unfortunate. We must soon recognize, for one thing, that there is nothing even remotely resembling an isomorphic relationship between the conceptual systems by which personality types are differentiated and those by which occupations are classified. There is not time here to analyze the forbidding technical problems which we face in predicting the decisions which youth will make at various choice

points, particularly ultimate choices in the occupational world. But there are reasons in addition to those of technical difficulty for which I am personally convinced that problems in the prediction of choice are not the principal ones with which we ought to be dealing in career development research, at least, not yet. I would like to develop this argument briefly.

Contributions from developmental psychology have frequently been used to attempt to synthesize a more nearly complete account of man's evolving intrapsychic and interpersonal behavior, that is, his emergent behavior in a world of emotions and feeling and in a world of people. But man also lives in a world of constructive labor. It is possible, then, to view human development and the quest for maturity through a vocational prism. This is essentially what I take to be the central concern of career development research -- a search for the psychological meaning of vocationally relevant acts (including the exploratory vocational behavior of youth), and of work itself, in the human experience. It is surprising how little vocational psychologists have had to say on this theme. Psychoanalysts and sociologists have had much to say about it. In a new book titled Identity and Anxiety (Free Press), for example, workers in these disciplines contribute a block of chapters under the section heading "The Terror and Therapy of Work." Literature, too, has had much that is vivid and dramatic to say to us about vocational striving and the meaning of human work. One recalls Richard Llewellyn's How Green Was My Valley which told unforgettably what it meant for a youth to grow to manhood in a Welsh coal mining district. But it remains for occupational psychology to frame and test researchable questions about how youth grows up vocationally. It is to occupational psychology that we shall have to look for descriptions and explanations of the ordering of events in individual careers.

Here I think we are meeting an impasse. This is not so much because vocational psychologists are unwilling to ask new questions about occupational life. It is rather because these questions call for a new set of conceptual tools that are not part of the conventional intellectual and professional equipment of vocational psychologists. Those of us in the field do not yet talk comfortably in theoretical sentences. We sense our inescapable need for theory but do not yet know how best to make it serve our purpose.

Very soon now we must begin to specify and install the methodological ground rules by which research in career development can be productively accomplished. Let me specify what I think are some of the logical considerations that these ground rules must speak about.

1. We must recognize the validity of the verdict of Blau and his associates that, for the present, it will serve us better to work not with global theories but with more modest conceptual schemes that prepare the way for theory building.
2. We must develop skills of concept formation, particularly with respect to the rules by which different classes of definitions are governed.
3. We must distinguish much more sharply between axiomatic statements about career development and testable assumptions and propositions about career development. I think it is fair to say that the quality of current work in the field suffers in not having done this well enough.
4. We must learn to make a much clearer separation between observation terms and hypothetical terms in talking about career development. In this connection, we shall have to strive soon to erect some workable coordinating definitions which will link data-based variables to non-instantual variables as, for example, the link between verbally expressed vocational indecision and inferred role conflict.

5. We must heed the admonition of Butler, Travers, and Loevinger that conventionally developed psychometric instruments are not logically constructed to help us with our newer, conceptually rich research questions. We need, as Travers has stated in reviewing Loevinger's important monograph, instruments based on a theory of test scores which has meaning for a theory of behavior in nontest situations. In short, we need tests which can be used in construct validation.

6. We must learn better than we have thus far the differences between descriptive laws and explanatory principles, and we must recognize that, in our research strategy, only the former can be directly confirmed by experiment.

7. We must become more discriminating in the selection of the analogies we use in building our models of vocational behavior. It is not enough that we make use of analogies. Analogies in science, especially in behavioral science, often purchase familiarity and intelligibility at the price of truth distortion. The models we erect in career development research must involve analogies which permit a broadened and refined account of the vocational behavior of real people.

In all of these recommendations, what is clearly implied is that our investigations in career development will bear fruit not so much as they are numerous, but as they become faithful to the logic of scientific inquiry. I do not claim that it is quite as easy for us in this topical domain as for learning theorists in theirs to make use of the philosophy of science, but I do claim that we have no choice other than to try.

But even this will hardly suffice. What it will do is to give us an indispensable framework within which fruitfully to make and interpret our ob-

servations. My own view, strongly held, is that some workers in the field have found it so edifying to work on conceptual problems that they have lost all zest for going out to observe how youth grows up and comes to maturity in a vocational matrix. Our lack of first-rate descriptions and of normative data is most serious.

But for what ultimate utilitarian purpose are we to continue to do career development research? It is, I think, because we recognize that current curricular and counseling practice as concerns vocational choice and preparation is largely based on a bizarre assortment of assumptions, folkways, intuitions, rules of thumb, and unconnected observations. As investigations in career development help us expand and rectify our conceptions of prevocational youth and vocational man, we can proceed to revamp both educational and guidance practice as a means of establishing the stimulus conditions which predispose toward more effective vocational life.