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ABSTRACT

A model of communication has been offered in response to the need for a meaningful conceptual framework generating representative, systematic, and integrated research in counseling and counselor training. The usefulness of the communications paradigm for the practitioner and counselor educator in their conceptualization of the counseling and training process at molar and molecular levels, for the theorist in his study of different counseling approaches, and for the researcher in his formulation of problems, hypotheses, and design, has been explored. Hopefully, the specification and systematic study of the complex interactions among the identified variables will facilitate the development of consistently effective counseling and training strategies by counseling researchers and practitioners. (Author)

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# "Contributions to a science of counseling"<sup>1</sup>

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Counseling practitioners hope to identify effective and efficient means to help a client achieve his goals. Counseling researchers intend to facilitate the job of the practitioner by identifying important variables and successful treatment strategies. In order to achieve this end, researchers attempt to find clear and consistent results which may be easily interpreted and generalized.

Despite this ideal vision, what is found in much of counseling literature are conceptual ambiguities, methodological deficiencies, and unquestioned assumptions, which often result in apparently contradictory results, and a disturbing difficulty in replication. There are increasing numbers of nomological studies designed to test intuitive hypotheses about often ambiguous procedural variations. These realities seem to be hindering the development of a systematically integrated body of knowledge in counseling.

The lack of a conceptual framework clearly accounts for a large part of the difficulties in replication, lack of systematization, and ambiguity of research. There is a need for a broad context through which we may put many of our nomological studies into a functional perspective.

The potential usefulness of a paradigm which conveys the complexity of counseling at a macroscopic level, while at the

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same time allowing for the intensive examination of counseling at a microscopic level, seems apparent. From a therapeutic perspective, one is interested in what treatment, administered by whom, under which conditions, is most effective for a certain individual, with a specific problem. As a researcher, one hopes for the unambiguous evaluation of those elements under investigation. Furthermore, given clear results, one must establish how these particular elements fit into the total counseling picture, if one wishes to achieve predictability for future situations.

Part of our work has been in the identification of a paradigm which allows for the systematization of counseling research by accounting for the complexity of counseling, while also facilitating detailed analysis.

### Model

The search for a functional paradigm began by studying the basic components of several fields of interest: counseling, counselor training, and research. In counseling, the basic variables of counselors, clients, treatment strategies, and goals, have been investigated. In counselor training, aspects like supervisor and counselor trainee characteristics, teaching methods, and skills are typically examined. In research itself, one studies the effects of experimenters, subjects, treatments, and outcomes. Looking closely, we found that the basic elements of counseling, counselor training, and research can be incorporated into a basic framework, a common language, a practical scheme: that of communication. In fact, the communication model

provides more than just a framework: it is, in fact, the basic unit of counseling, counselor training, and the research process.

Specifically, when one speaks of counselor, supervisor, or experimenter characteristics, the reference is to what we call "source variables" (Figure 1). In the study of counseling treatments, teaching methods, and experimental treatments, the elements under investigation are "message" and "presentation" factors of communication. Client, counselor trainee, and subject variables correspond to the "receiver" aspect of the communication process. Finally, counseling goals, skills, and research outcomes point to the "outcome" category in the communication paradigm.

By means of an interdisciplinary approach, we have found that investigations in psychology concerning personality variables, in social psychology studying attitude and opinion change, in cybernetics relating to feedback, and in teacher training regarding self-confrontation, can be usefully integrated with counseling research, in our examination of the basic process of communication. It becomes clear from this interdisciplinary investigation, that a great number of elements have been independently identified within each category of variables, which contribute significantly to any given counseling, counselor training, or research outcome. In Figure 2, we have categorized into the basic five components of communication (source, message, presentation, receiver, and outcome variables), the major elements which have been the foci of extensive experimental investigation by researchers of various disciplines.



PROCESS OF COMMUNICATION

SOURCE: WHO SAYS OR DOES

MESSAGE: WHAT

RECEIVER: TO WHOM

PRESENTATION: HOW

OUTCOME: WITH WHICH EFFECTS

Figure 1

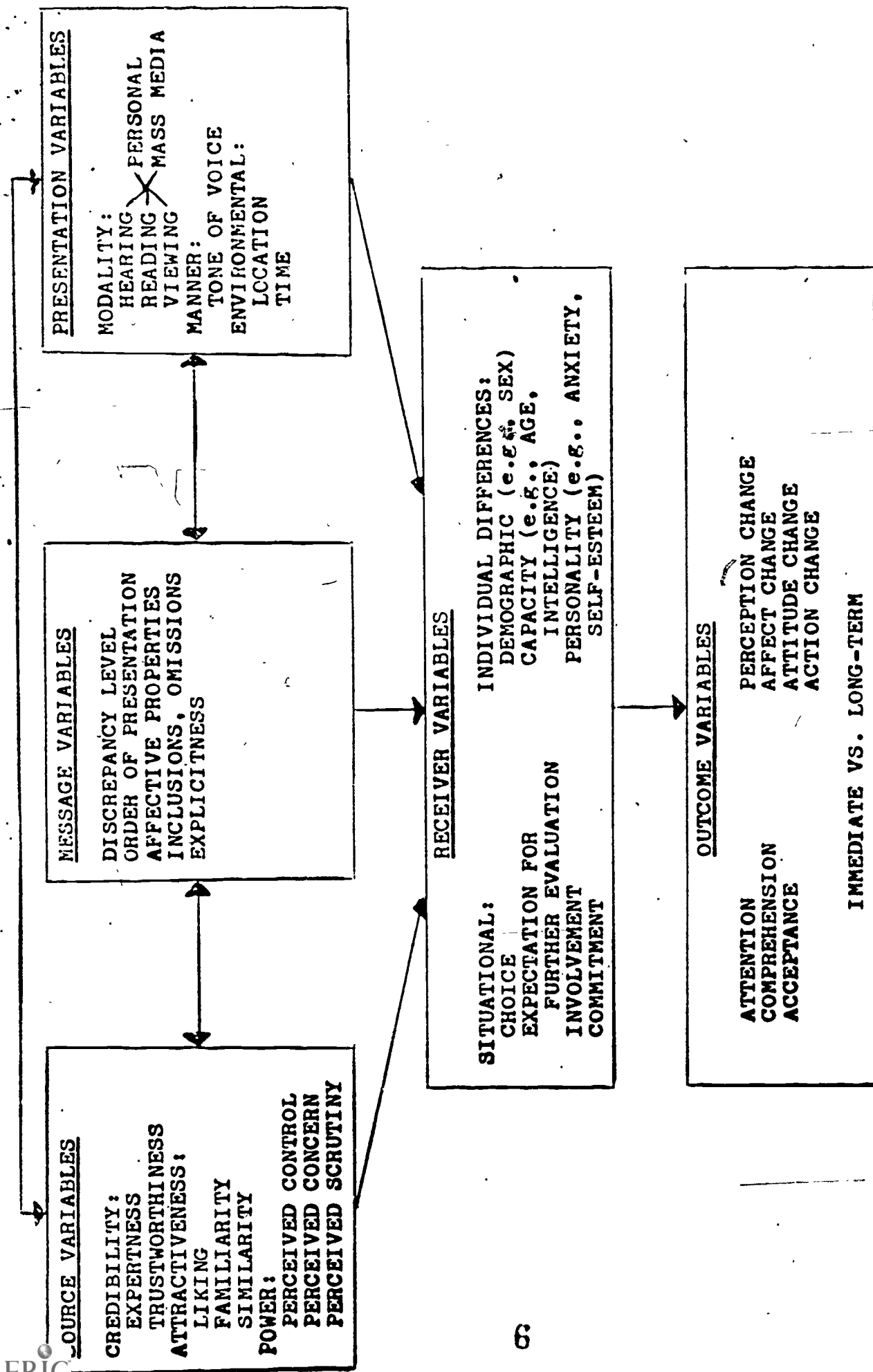


Figure 2

### Implications

As Figure 2 indicates, any counselor-client, supervisor-trainee, experimenter-subject interaction occurs amidst a complex web of dynamic, interrelated, and interactive components. In order for any counseling research to do justice to the complex process, it must necessarily take into account all the elements present which may, singly or in interaction, contribute to the experimental outcome. The identification of the multi-dimensional communication framework therefore has important implications for research design in counseling.

Interpretability. A primary goal of any research design is to create the conditions under which the effects of the independent variables can be evaluated unambiguously. It becomes evident from Figure 2, however, that a great deal of research in counseling overlooks many of the factors possibly confounding the experimental results. Typically, a few independent variables are controlled; the remainder are ignored. With the identification of all the confounding variables operating during any interaction, it becomes imperative to specify and control the influence of these variables on the experimental outcome, in order to attain interpretable results. The usual control procedures of randomization, holding variables constant, incorporating variables as independent variables, matching, or use of covariance techniques, can be meaningfully applied in the research design. The aspect of specification, although often difficult due to the subjective and individualistic nature of many of the variables (e.g., source familiarity), is

a highly significant prerequisite and adjunct to the control of extraneous elements. Although this demand for specification and control of confounding influences greatly increases the researcher's task, it is clearly a necessary ingredient in the researcher's attempt to identify exactly which variables, singly or in interaction, at which levels, under which conditions, are contributing to a well-specified outcome of an interpersonal interaction.

Generalizability. The problem of generalizability, or external validity as explicated by Campbell and Stanley (1963), questions the validity of generalizations made of an effect to other or larger populations, settings, treatment variables, and measurement variables. More recent articles by Bracht and Glass (1968) and Snow (1974) elaborated on Brunswik's (1956) work by distinguishing the concepts of population validity, ecological validity, and referent generality within the larger area of external validity. The major concern of the three areas is the extent to which the sample population, the sample treatment situations, or the dependent variables studied in an experiment, are representative, respectively, of the accessible and target populations, of the universe of situations, or of the range of possible outcomes to which the researcher wishes to generalize. The objective of true representativeness, then, would be to sample randomly from the target population, from the universe of treatments or outcome variables to which one wishes to generalize.

Such representativeness cannot be approached until we adequately define and describe the populations and universes with which we are concerned. As Fredericksen (1972), Sells (1974),



Shulman (1970), and Snow (1974) have emphasized, no taxonomies are as yet available which could aid the behavioral researcher in the description of population, ecological, and referent dimensionality. In light of this need, the compilation of information referred to in Figure 2 may be a step toward the development of such a taxonomy for counseling researchers. Although the factors identified are not exhaustive, they do indicate the range of variables that need to be accounted for within each category. In counseling research, sampling from the relevant factor dimensions within the categories of source, message, and presentation variables would approach the demands of ecological validity (Figure 3). Receiver variables and outcome variables correspond to the questions of population validity and referent generality, respectively.

Short of the ideal of representativeness, Snow (1974) stresses the need for detailed description of the sample population, the experimental treatments, and the dependent measures used, as well as for tests of interaction. Given the communication paradigm offered above, the conscientious researcher, without feasibly being able to measure all possible elements, can at least specify those source, message, and presentation variables which prior research, theory, or intuition suggest are relevant to his selected and well-specified experimental and dependent variables. With rigorous adherence to this basic principle of detailed specification of experimental conditions, replicability will be enhanced, and counseling research can move in the direction of systematic, cumulative, and meaningful research.

CRITERIA OF REPRESENTATIVENESS  
IN A RESEARCH DESIGN

TENTATIVE TAXONOMIES FOR  
THE COUNSELING PROCESS

ECOLOGICAL VALIDITY  
(GENERALIZATION TO UNIVERSE  
OF TREATMENT SITUATIONS)

SOURCE  
VARIABLES

MESSAGE  
VARIABLES

PRESENTATION  
VARIABLES

POPULATION VALIDITY  
(GENERALIZATION TO TARGET  
POPULATION)

RECEIVER VARIABLES

REFERENT GENERALITY  
(GENERALIZATION TO UNIVERSE  
OF OUTCOMES)

OUTCOME VARIABLES

### Concluding Comments

There are several additional implications derived from the model of communication. First is the clear need for multivariate studies in terms of using multiple independent and dependent variables. Experimental design must be consistent with the subject matter under investigation: complex behavior in multidimensional situations. As authors have begun to point out (e.g., Berliner & Cahen, 1972), the discovery of stable interactions from multivariate designs may be more meaningful and consequently more useful to behavioral researchers than the apparent main effects derived from univariate research.

A second series of implications addresses the realm of the counseling practitioner. The model of communication as presented has very practical applications in terms of its facilitating the counselor's awareness of the complex nature of the counseling process. The model provides not only the means for a global vision of counseling, but also the possibility for the intensive analysis of any particular unit of counseling interaction. Such an intensive analysis allows for the specification of the dynamic counseling process in the same way that performance-based approaches have detailed counseling outcomes. The usefulness of this scheme clearly has analogous implications for the counselor educator in his supervision of counselor trainees.

Finally, the communication model provides an interesting foundation for the theoretical comparison of different schools of counseling. The elements of the model offer a paradigm by which to meaningfully compare and contrast the assumptions,

techniques, areas of emphasis, and intended outcomes of various counseling theorists.

### Summary

In summary, a model of communication has been offered in response to the need for a meaningful conceptual framework generating representative, systematic, and integrated research in counseling and counselor training. The usefulness of the communications paradigm for the practitioner and counselor educator in their conceptualization of the counseling and training process at molar and molecular levels, for the theorist in his study of different counseling approaches, and for the researcher in his formulation of problems, hypotheses, and design, has been explored. Hopefully, the specification and systematic study of the complex interactions among the identified variables, will facilitate the development of consistently effective counseling and training strategies by counseling researchers and practitioners.

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