MEANINGFULNESS AS A
PREDICTOR OF THE INFLUENCE
OF CATEGORIZED CLIENT
STATEMENTS UPON
COUNSELLOR JUDGEMENTS

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by

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ABSTRACT

This study tested the general hypothesis that categories of information about a client would influence the counsellors overall judgement to the extent that the categories are meaningful to the judge. Twenty subjects (13 counsellors in training and 7 professional counsellors) were given 55 statements made by a single client. Subjects were asked to form as clear an impression of the client's personality as they could from the statements. Subjects sorted the statements into categories using category titles of their own choosing. For each category subjects' operationalized their impressions of the client by completing a rating scale comprised of 12 bipolar dimensions. Subjects then rated their overall impression of the client based upon the statements in all categories. Meaningfulness of a category was defined by items (number of statements in a category), extremity (sum of the absolute difference from scale midpoint), and centrality (loading on first principle component). Category influence was defined as a category's variance-in-common with the overall judgement. For each subject the three indices of meaningfulness (items, extremity, centrality), were correlated with category influence.

The results showed the three meaningfulness indices differed in their ability to predict category influence upon overall judgement. The centrality index was found to be a better predictor than either the items or extremity

index. It was concluded that meaningfulness of a category
was able to predict a category's influence upon overall
judgement. However, predictiveness varied with the index
of meaningfulness used.

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I dedicate this thesis to my parents, Sybil and Hector, for making my academic adventures possible; to Anthony Nemec for being a model; to my wife, Ruth, for never failing to believe in me; to my friend, Huckleberry, for sharing the long-lonely hours of the early morning with me; and, to my son, Jonathan, for being.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter I

INTRODUCTION

A basic component used in the counselling process is clinical or professional judgement. Throughout the counselling process, the counsellor faces situations which require the making of professional judgements about the various aspects of the process. These judgements involve such aspects as which test(s) to use, which area of concern to explore, which approach to use, what the client's personality is like, and so on. These choice points are of considerable importance to the outcomes of counselling.

The obvious importance of clinical judgements in the counselling process make it reasonable to expect counsellors to have a good understanding of the process or processes involved in making clinical judgements. Unfortunately, as Koester (1954) pointed out:

> "Well trained and experienced
> counsellors frequently cannot articulate
> the basis of their hypothesis and thereby
> be of assistance to the counsellor in
> training." p. 473

A statement such as the one made by Koester holds serious implications for counselling. If experienced counsellors can not adequately describe their own judgement processes, how could counsellors-in-training be trained to make accurate judgements or even develop sound processes for making judgements? Furthermore, how are professionals able to discuss, examine, or compare their own judgements and judgement processes?

In the past twenty years, researchers have attempted to find out more about clinical judgement. They (the researchers) have basically fallen into two camps: one concerned with the accuracy of clinical judgement, and the other concerned with the process of clinical judgement. Unfortunately, the results of these investigations have been inconclusive, although some procedures seemed promising.

Accuracy of Clinical Judgements

Researchers in this area have focused on a number of different factors which they considered to be of importance in understanding the accuracy of clinical judgements. Several researchers (Ryback, 1967; Strickler, 1967; Levy and Ulman, 1967) have focused on the notion that the amount of professional training and experience of judges affects the accuracy with which they made their judgements. But results of these experiments did not support this hypothesis. In fact, in some situations, those subjects who were not professional counsellors did much better in the tasks than did the experienced counsellors.

Other investigators such as Oskamp (1965), Golden (1964) and Schwartz (1967) proposed that the amount of information available to the judge affects the accuracy of his judgements. In other words, the more information a counsellor had about his client, the more accurate his judgements about him. This hypothesis also was not borne out by the results of these studies. Other factors, such as

reliability of and confidence in judgement, increased with increasing amounts of information, but the accuracy of judgement did not increase.

Goldberg and Werts (1966) and Goldberg (1968) investigated the reliability of clinical judgements again with discouraging results.. Goldberg (1968) summed up the research in the area of clinical judgement by saying:

> "...clinical judgements tend to be (a) rather unreliable (in at least two or three senses of that term); (b) only minimally related to confidence and to the amount of experience of the judge; (c) relatively unaffected by the amount of information available to the judge; and, (d) rather low in validity on an absolute basis..." p.485

Judgement Process

Within the area of judgement process, researchers have, for the most part, gravitated towards one approach which may be classified as a mathematical approach.

Hoffman (1960) addressed himself to the question of whether or not the judgement process could be adequately described and in so doing provided what may be considered as a rationale for the use of mathematical models in describing the judgement process. He stated:

> "...the process is adequately described when a particular mathematical model quite effectively predicts judgements for any given set of information. This is consistent with the scientific meaning of the word 'description'." p.117

Though Hoffman's statement may be taken as a basis for research in this area, he was not the first to employ a mathematical model. Brunswick (1952) developed his "lens

model" as a framework for conceptualizing the judgement process of the individual judge. This model, which has since become referred to as the linear regression model, or simply the linear model, was based upon assigning weights to the various situational cues as a method of finding out how much influence a particular cue had upon the final judgement. The judgement itself was then described as simply the result of a process whereby the weighted cues were simply added together.

The adequacy of this rather simple model to account for the judgement process has been examined by a number of researchers. The results of investigations by Hammond, Hurch, and Todd (1964) and Hoffman (1960) indicated the linear model was sufficient to account for the judgement process. Further weight was added to these findings by Hammond and Summers (1965) who cited more than a dozen clinical and quasi clinical judgement studies in which the results suggested clinical judges were predominately linear in their process of combining cues in making their judgement.

Goldberg (1968) reported that despite the apparent capability of the linear model to account for the judgement process, most clinicians rejected the notion of a simple additive process. Instead, they described their processes as complex ones in which various cues modified the importance of other cues and, furthermore; cues could be combined in any number of different ways, not just simply adding them together. This argument prompted researchers to seek a

mathematical model which would be sensitive to the detection

of complex judgement processes. Hoffman, Slovic and Rorer

(1968) proposed that an analysis-of-variance (ANOVA) model

would be sensitive to such complex processes. The results

showed that even though the ANOVA was sensitive to non-linear

judgement, most of the process could still be accounted for

by the linear model. Subsequently, research by Slovic (1969)

and Slovic, Fleissner and Bauman (1972) found similar results,

though the latter found more evidence of complex cognitive

processes than did the other studies.

The obvious discrepancy between the findings of

researchers and the reports of counsellors deserves con-

sideration, since either counsellors are deluding themselves

about their sophistication or else the investigative tools

of experimenters are biased. The available evidence tends

to support the latter. The linear regression model and the

ANOVA (which Hoffman (1968) pointed out is a form of linear

regression) have a linear basis which cannot but be expected

to influence the results, and to possibly mask the more

complex processes. This notion was supported by Green (1968),

who reported that linearity may indeed be manifested in

results by virtue of the nature of the analysis rather than

by virtue of the judgement processes themselves.

The adequacy of the mathematical models to describe

the process at all has been considered by some to be highly

questionable. Hays (1968) pointed out that researchers who

have employed mathematical models, have had as their aim the

inferring of the judgement process' nature by observing the relationships between the information given the judge (input) and the judgement which was passed (output). Hays claimed that the extent to which this kind of analysis is indicative of the internal process which goes on during judgement is suspect. He suggested it is as impossible to infer the nature of the judgement process from the input-output relationship as it is to infer the nature of a computer by examining its input-output relations. This view was supported by Skinner (1953), Newell (1968) and Green (1968), all of whom suggested it is a waste of time to infer the nature of unseen processes from examining input-output relationships.

Despite its shortcomings, however, the mathematical model may have some measurement value. Hays (1968) noted that given a common input two or more processes which produce different outputs cannot be the same, thus input-output analysis may help to make distinctions between processes without really describing the processes themselves.

The Counselling Situation.

The difficulties encountered in the study of clinical judgement encourage the exploration of alternate models and methods. As pointed out by Mueller (1974), most dtudies involving judgements about personality have operated on the basic paradigm of providing a list of personality traits to the subjects which they must synthesize to then make some form of judgement. But, in a counselling situation,

a client does not simply say "I'm warm, friendly, trusting, and calm." Rather, this type of information must be gathered indirectly by the counsellor through the client's statements. A model more representative of this indirect process, hence more ecologically valid, may highlight certain aspects of judgement which have not been previously stressed by researchers.

In order to apply an information processing model to the analysis of clinical judgement, it seemed necessary and reasonable to view the counselling situation as an exchange of information (statements) between the client and counsellor. More precisely, for the purpose of this study, the client was viewed as an information giver and the counsellor as an information receiver since the prime concern was what information the counsellor used in arriving at clinical judgements.

The capacity of the client to generate and transmit information to the counsellor is virtually unlimited. Within a given counselling session a client may transmit information about a large variety of things, such as feelings, perceptions, thoughts, family, friends, school, and so on. He may tough lightly on several topics or may go into detail on only a few topics. But in any event he still has the potential to transmit a large amount of information to the counsellor. In contrast to this, research indicates the counsellor, like any other individual, has a rather limited capacity to process or handle information received. The notion of an individual having a limited capacity to process information is not new.

Mandler (1975) has outlined the early research in this area. In the 1700's, both Charles Bonnet and Antoine Louis Claude Destutt de Tracy suggested six as the limit of the number of objects which the mind could comprehend at one time. Later in the 1800's both Sir William Hamilton and William James suggested the limit of six applied not only to single objects but to groupings of information as well. After that the area received little or no attention until Miller (1956) rediscovered the concept and suggested the limit was in the range of 7, plus or minus 2 units or groups of information. Mandler (1975) presented data which indicated five was the processing limit for information. Though each of these researchers differed slightly on what the exact limit of a person's information processing is, they agreed on the fundamental point; there is a limit to the amount of information which an individual can process at one time.

Given this limited capacity to process information, how could an individual cope with the large amount of information received from an information source?

Miller (1956) reported individuals in an information overload situation were able to process more information by utilizing a process which he called "chunking". Chunking involves a grouping of individual pieces of information based upon some common atribute or dimension. For example, a long list of letters could be processed better if organized into words; a long list of automobile names could be better handled by grouping them together on the basis of manufacturers; and, a long list of statements could be made more managable

by grouping together those statements which shared certain themes.

Many other researchers (e.g. Tulving 1962, 1964; Bower 1970; Bower and Springston 1970; Tulving and Patkow 1962; Broadbent and Gregory 1961; Funkhouser 1968) found support for the nation that people do indeed organize information into categories or chunks, and that this organization does affect such things as retention and the ease of recall of information.

The counselling situation, with its possibilities for generating large amounts of information, can place the counsellor in an overload situation, requiring him to chunk information. Thus, when asked to form an overall judgement of a client's personality, he does not combine fifty, sixty or a hundred individual pieces of information obtained from the client, but rather a smaller number of chunks of information comprised of the individual pieces of information.

A method used by researchers to examine how subjects categorized information has been a sorting technique. A procedure used by Van Atta (1966) to study clinicians' categorization of client statements is illustrative of this technique. Van Atta had a number of client statements individually typed on cards. Subjects were asked to represent their impression of the client's personality by categorizing the statements. No limits were placed upon the number of categories which could be used. Subjects devised their own category titles and sorted the statements accordingly.

Subjects were permitted to move statements from category to category until they were satisfied with the way the statements were sorted. Since this procedure required every statement to be categorized, subjects were permitted to have a discard category in which they could place statements which they felt were irrelevant.

While this sorting technique identifies a person's categories and their contents, it does not indicate anything about how those categories influence his overall judgement of the client. In order to do this, it would be necessary to examine both the counsellor's impression or judgement of the client based upon each category, as well as the judgement based upon all the information. A method which allows such an examination is a variation of the repertory grid developed by Kelly (1955).

As Slater (1965) pointed out, a grid consists of a set of elicited or supplied constructs (bipolar concepts such as calm/anxious), a set of elicited or supplied elements (people, place, categories, etc.), and a means of sorting the elements on the construct dimensions (binary choice, rank ordering, rating scales), (c.f. Slater, 1976). By constructing a grid using a set of supplied constructs and a rating scale as the basis of sorting elements (categories) on the construct dimensions, it is possible to examine the relationship between category impression and the overall judgement. To clarify consider the following example:

Constructs	Elements (Categories)						
	1	2	3	4	5	---	Final
calm/anxious	1	4	7	3	1		2
reserved/outgoing	5	4	7	5	3		6
decisive/indecisive	2	1	6	5	3		5

FIGURE 1

SAMPLE GRID

This sample is an abstraction of three construct
sorts from a total grid. The hypothetical subject would be
asked to represent his impression of the client based upon
a single category or in the case of an overall judgement
all the categories, by completing a rating scale comprised
of bipolar constructs. Each construct is rated along a
seven point scale, e.g. calm, 1,2,3,4,5,6,7, anxious.
In the columns numbered one to five, the scores refer to
the rating that category receives for the construct on that
line. In the column labled final, the scores refer to the
rating of the overall impression. By correlating the
responses of each category with the overall response it is
possible to obtain an indication of the influence of a
category upon overall judgement.

It seems unreasonable to assume each category or
chunk of information would be of equal value in its influence

upon the overall judgement, a point which was stressed by the advocates of the mathematical model. It must, therefore, be asked which chunk(s) of information is most influential in making a clinical judgement. Brunswick (1952) attempted to deal with this question when he assigned weighted values to cues. However, it was an expost facto approach. Brunswick had no basis for explaining why some information was more heavily weighted than any other, and therefore, could make no predictions as to what information would be expected to carry the most influence. This thesis differs from Brunswick's approach in that it attempts to discover why some information influences the overall judgement more than other information.

One possible factor in determining the importance of a given category or chunk of information in influencing the overall clinical judgement is the meaningfulness of a particular category to a particular judge. The rationale for this comes from Glixman (1965), who pointed out that categorizing involves the function of dividing a meaning domain (the information presented) into subsections of meaning or categories. Thus, it is reasonable to expect that those categories more meaningful to the judge would have a greater effect upon the overall judgement than those categories which are less meaningful. In order to test this general idea it is necessary to develop an operational definition of indicators of meaningfulness. Three indices of meaningfulness were used in this study.

Meaningfulness as Number of Items in a Category.

The number of individual items (in this case sentences) which are grouped together to form a category can be seen as an indication of the meaningfulness of that category. Support for this index comes from at least three areas.

First, one of the basic assumptions of personality theory is that it is important to be able to interpret the various aspects of a person's personality in some meaningful way. To aid people in doing this, theorists devised models of man which, to all intended purposes, served as a reference point to give some meaning to the various aspects of a person. Certain behaviours, beliefs, attitudes, and so on, manifested by a person are then classified as being specific examples of some aspect of the model. For example, a Freudian would classify or categorize a certain behavior as being repre- sentative of a person's ego, while a Rogerian might classify the behavior as being indicative of a person's self concept. Regardless of the category title or theoretical inclination of the judge, he is attempting to make information meaningful by classifying it. Since people are not able to respond appropriately to stimuli which are not meaningful to them, it seems reasonable to expect that people would place stimuli in the category which would optimise meaningfulness. Thus, a category which is able to impart meaningfulness to the most stiluli is apt to be more meaningful to the judge.

Second, Bruner and Tajfel (1961) viewed a category in terms of its equivalence range, which represents the number of items included in a category. The greater the number of items in a category, the greater its equivalence range. They argued that in situations where a category was more meaningful, there would be more items in that category. This would occur in order to reduce the chance of making a judgement error as a result of erroneously excluding items from more meaningful categories. The more meaningful a category, the more important it becomes to ensure that all potentially relevant items are included in it. To accomplish this, Bruner and Tajfel suggested a person altered the criteria for membership in a category in an attempt to avoid any categorizing errors. They suggested a judge would loosen the criteria for membership in more meaningful categories to ensure items which were in any way connected to the categories could be included in them. On the other hand, judges would tighten the criteria for membership in less meaningful categories to ensure that no items which could possibly be categorized in more meaningful categories were admitted. Thus, by the alteration of the criteria for an item's membership in a category, it would be expected that more meaningful categories would have more items.

Third, support for this index stems from Noble's (1952a) associative meaningfulness index (m). This meaningfulness index (m) was defined as the mean frequency of written

associations which subjects were able to name for a stimulus word in 60 seconds. Noble (1952b) used this index in an experiment where subjects were required to learn lists of words. He found the larger the m value for the list, the fewer the trials required to recall the list without error. Mandler (1955), Noble, Stockwell and Pryre (1957), Noble (1961), Paivio, Yuille, and Madigan (1968), Amster and Battig (1965), and Amster (1966) have all used the m index, though some varied the time or number of items asked to be associated with the stimulus word, to measure the meaningfulness of words.

It is important to recognize the words associated with the stimulus word does not necessarily indicate the meaning of a word, but rather the meaningfulness of a word. For example, a stimulus word such as 'good' may have among its associated words 'bad'. It is quite obvious good does not mean bad, but there is a relationship between the words. The crucial point is, a word is meaningful to the extent other words are viewed as having a relationship to it.

Jenkins and Russell (1956 as cited by Staats and Staats 1969) tested the strength of the m index of meaningfulness against another index of meaningfulness, rating extremity (this index will be discussed in the next section) and found a correlation of .71. In addition, Noble (1958) correlated the m index with evaluative meaningfulness, which Osgood and Suci (1955) found to be one of the main factors involved

in meaning. The resulting correlation of .57 was significant at the .001 level. Together these studies indicate larger m's are associated with more meaningfulness.

Though the studies above referred exclusively to words, there is no reason to expect there will be any difference for categories since the basic principle is the same. A parallel can be drawn by considering the stimulus word of the above studies equivalent to the category title, and the words associated with the stimulus words equivalent to the sentences associated with the category title. In the above cited studies, the number of words in a person's vocubulary which were associated with the stimulus word was seen as an indicator of the meaningfulness of the stimulus word. In this thesis, the number of client statements (sentences) which can be associated with a category title is seen as an indicator of the meaningfulness of the category.

Meaningfulness as Extremity of Rating.

The relative extremity with which an element (in this case, category) is judged, is one traditional indicator of the meaningfulness of that element. Polarization or rating extremity is typically measured by the absolute distance of a given rating from the midpoint. For instance, on a scale ranging from one (good) to seven (bad), four would represent a neutral zone between good and bad. Extremity in judgement has usually been measured by the deviation of ratings from this midpoint.

Several studies have shown extreme ratings reflect the meaningfulness of both the elements being rated and the constructs used in rating the elements. Mitsos (1961), Cromwell and Caldwell (1962), Issacson (1962), Issacson and Landfield (1965), Landfield (1965, 1968), Bender (1969), and Bonarius (1970), found elements were rated more extremely on constructs which were more meaningful or personally significant to the judge. Alternatively, Kotuv (1962), Landfield (1971), O'Donovan (1965), Ourth and Landfield (1965), and Saper (1964), have found elements which were more meaningful or personally significant to the judge were rated more extremely than elements which were less meaningful. As one example, Landfield (1971) had clients rate their counsellor, as well as counsellors rate their clients. He found clients who terminated counselling prematurely rated their counsellor less extremely (i.e. construed the counsellor less meaningfully) than clients who continued in counselling.

Meaningfulness as Centrality Within Cognitive Structure.

The centrality of a category within a person's cognitive structure provides another definition of meaningfulness. According to cognitive structural theory (Kelly, 1955) a person's cognitive domain is comprised of a number of elements (categories) which do not exist as isolated entities but are connected in some way to form a structure. Within this structure the various categories are related to each other to varying degrees or strength. In addition, some categories

are related to or have implications for a great many categories
while others have implications for only a few. To clarify,
consider the fillowing diagram which represents the
implications among categories in a hypothetical cognitive
structure.
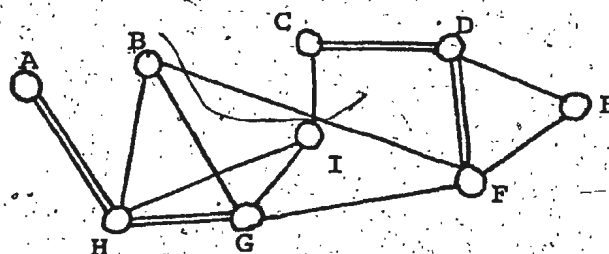
Key: O = category;   _____ = implications ═══ = strong°
                                                       implications

FIGURE 2

HYPOTHETICAL COGNITIVE STRUCTURE

The diagram indicates that there are two ways in
which one can examine the extent of a category's influence
upon cognitive structure - strength and number of implications.
For example, category F has stronger implications for category
D than it does for either category G or E. Category H has
a greater number of implications for other categories than
category I.

The centrality of a category within a cognitive
structure has been measured by the strength and number of
implications a category has for other categories. A category
which has many and strong implications for other categories
would be more central within the total structure than would
a category which has few and weak implications. If meaning

is relational, the meaningfulness can be defined by the pervasiveness of a category's implications or relations.

Asch (1946) demonstrated that some personality traits (central traits) were more influential in forming and changing impressions than other traits. Wishner (1960) later demonstrated the degree of influence depended upon the centrality of a trait, upon the strength and number of correlations to other traits.

From the standpoint of Personal Construct Theory (Kelly, 1955), people are thought to be directed toward the extension and refinement of their personal construct systems. That is, they are directed toward a meaningful elaboration of their system of construing, and elaboration proceeds (at least partially) through increasing implications. Hinkle (1965), in testing the general proposition that constructs with more implications will be more meaningful or personally significant, found constructs with many implications were much more resistant to change than constructs with few implications. Crandall (1970) found that constructs which were thought to be more predictive (more implicative) were judged to be more important. Lemon and Warren (1974) demonstrated more central constructs were more salient in descriptions of others than peripheral constructs.

Centrality as a Better Predictor of Meaningfulness

Of the three indices of meaningfulness used in this study, the centrality index is expected to be a better predictor of category influence than either the items or the centrality

index. The rationale for this stems directly from the theoretical basis of the centrality index. What makes the category meaningful, in that index, is thought to be the centrality of the category within cognitive structure. The more implications a category has, the more central it is. In other words, it is the position which the category occupies within a cognitive structure which gives the category its meaningfulness. Centrality is not a result of meaningfulness, rather meaningfulness is a result of centrality. In both the items index and the extremity index, the indices are not perceived as being the basis of defining meaningfulness of a category. In the instance of the items index the number of items contained in a category is perceived as being a consequence of the meaningfulness of the category. Items are classified as belingong to a category because the category makes them meaningful. Having a large number of items in a category does not make the category meaningful. In terms of the extremity index, the response style is perceived as being an indicator of meaningfulness, not the basis of it. A category is not meaningful because it is rated extremely. Rather the category receives extreme ratings because it is meaningful.

Hypotheses.

The preceeding discussion, while geared toward the general hypothesis that categories influence the overall judgement to the extent they are meaningful to the judge,

isolates the four specific hypotheses tested in this study:

1. A category will influence overall judgements in accordance with the number of items of statements it subsumes.

2. A category will influence overall judgements in accordance with the extremity with which it is rated.

3. A category will influence overall judgements in accordance with the centrality of its position within cognitive structure.

4. Meaningfulness as measured by centrality within cognitive structure will have more influence upon final judgements than either meaningfulness as the number of items subsumed by a category or by meaningfulness as the extremity with which it is rated.

Definitions

Category — the chunk or group of information placed under a category name.

Category influence on overall judgement — correlation of category ratings to final judgement of person.

Chapter II

METHOD

This chapter sets out the methods and procedures used
to test the four hypotheses of the study. Separate sections
deal with subjects, materials, general procedures, measures
and data analysis.

Subjects

Twenty subjects, consisting of 13 students in master's
programs in counselling and clinical psychology and 7 pro-
fessional school counsellors, volunteered for the study. All
students (5 females and 8 males) had completed their practicum
requirements for a master's degree. The professional school
counsellors (1 female and 6 males) had completed a master's
degree and had been working professionally from one to ten
years.

Materials

Client statements. Fifty-five statements were
selected from a beginning counselling session reported by
Ellis (1971). All fifty-five statements were made by the
same female client. Each statement advanced a potentially
significant characterization of herself or significant others.
To clarify the referents of pronouns, pronouns were deleted
and the referents substituted in their places. For example,

the statement "He is disturbed" was changed to "My father is disturbed". Each statement was typed on a separate 4 x 6 inch card and arbitrarily assigned a number from 1 to 55 to simplify the recording of responses.

Rating Scales

To insure the results would not be an artifact of scale two different sets of twelve bipolar concepts were developed. These concepts were selected from a variety of lists such as, Cattell's 16 PF Questionaire (Cattell, Eber, and Tatsuoka, 1970) and from a variety of personality theories thought relevant to counselling, (e.g. Rogers, 1951). This was done in an effort to provide terms with which the subjects would likely be familiar. Using terms from different sources the scales were constructed such that they were intended to be roughly synonymous in meaning. Table 1 lists the personality dimensions used in each set. The order of the items on each scale has been altered so that the terms which were intended to be roughly synonymous appear on the same line.

These personality dimensions appeared on the rating sheet in the following format:

CALM   1   2   3   4   5   6   7   ANXIOUS

The numbers one, two, and three indicated the person was extremely, moderately, or slightly like the term on the left, calm. The numbers seven, six, and five indicated the person was extremely, moderately, or slightly like the term on the

right, anxious. The midpoint of four indicated the person was neither one way or the other.

A separate rating sheet was used for each rating of a category of information. The bipolar personality dimensions were arranged in a column following the format presented above. Apendix B contains a sample rating sheet for both Set A and Set B.

Table 1

PERSONALITY DIMENSIONS OF EACH RATING SCALE

A	B
Mature/Immature	Responsible/Childish
Tense/Relaxed	Calm/Anxious
Open/Closed	Rigid/Flexible
Dependent/Independent	Self Reliant/Clinging
Clear/Confused	Organized/Scattered
Trusting/Mistrusting	Faith in Others/Cynical of Others
Insightful/Uninsightful	Perceptive/Unperceptive
Introverted/Extroverted	Reserved/Outgoing
Submissive/Domineering	Humble/Assertive
Controlled/Impulsive	Emotionally Stable/Emotionally Unstable
Sure of Self/Unsure of Self	High Self Esteem/Low Self Esteem
Faces Problems/Evades Problems	Decisive/Indecisive

Experimental Tasks

Category formation. Using a procedure similar to one developed by Van Atta (1966), subjects examined the

client statements and then sorted them into groups which were perceived as belonging together. Since no category titles were supplied, each subject expressed the basis for these groupings by writing the name of the category on a small sheet of paper. Each time a subject formed a new category, it was written on these small sheets of paper, placed on the table, and client statements piled in front of it. Subjects were allowed to use as many categories as they wished, and were free to move cards from one pile to another.

When the categorization of statements was complete, subjects recorded both the name of the categories and the groups of statements subsumed by the categories (i.e. their numbers) on a sheet of paper.

Category ratings. Each category of information was rated separately on different rating sheets. That is, given this information alone (that contained in a given category), what is the person apt to be like? For example, a subject might have entitled one group of statements as 'feelings about self'. His task would be to examine the statements within this category to form an opinion of the person. When some idea of the person had been developed, based upon those statements, this impression was expressed through ratings on the twelve bipolar personality dimensions. Subjects simply circled the number on each scale which best described their impressions of the person.

Overall rating. On the basis of all of the information (i.e. all 55 statements), subjects completed the experiment by giving their overall impressions of the person. That is, given all the information, what is the person apt to be like? The overall assessment was expressed through ratings on the same twelve personality dimensions.

Procedure

Subjects were seated at a large table upon which the 55 statement cards were placed. The following instructions were read:

> "Before you is a stack of cards. Each card contains one statement made by a client during the first session with a counsellor. All statements were made by the same client.
>
> Your first task is to organize the statements so that you are able to get as clear an impression or understanding of the client's personality as you can. You may organize the statements into as many piles or categories as you like and there is no limit to the number of statements which you can place in each category. Each time you start a new category, take one of the yellow pieces of paper and write the name of the category on it. Then place it near the pile representing that category. Feel free to move statements from one category to another if you so desire.
>
> Any statements you feel are not relevant to your understanding of the client's personality, you may place in a discard or 'garbage' pile. Be sure to label this pile as such.
>
> When you are sorting the statements, pay no attention to the numbers which appear on each card; they are arbitrarily assigned

to each statement and have nothing to do with a sequence.

When you have satisfied yourself that each statement is in the category you want it to be in, take the sheet of paper provided and list the names of your categories as well as the assigned number of each of the statements, which belong to each category. Any questions?"

After the subjects had completed the category formation task and recorded the groups, the following instructions were given.

"You now have before you a sheet of paper upon which is a rating scale comprised of 12 personality dimensions. Each dimension is defined by the terms on the left and right of the same line. Between the two terms describing the dimension, there is a scale from 1 to 7. This scale may be interpreted as follows. One is extremely like the term on the left. Two is moderately like the term on the left. Three is slightly like the term on the left. Four is neither like the term on the left nor on the right. Five is slightly like the term on the right. Six is moderately like the term on the right. And seven is extremely like the term on the right. Your task now is to rate each of your categories along each of these dimensions.

Pick up any pile of cards and enter the name of that category at the top of the sheet containing the rating scale. Considering only the information contained in that category, what does it tell you about the personality of the client in relation to these twelve dimensions?

Look at the first dimension. If you feel that the information contained in this category tells you that the person is more like the term on the left, then circle either 1, 2, or 3 depending upon the degree to which the person approaches the term on the left. If you feel the information tells you that the person is more like the term on the right, then circle either 5, 6 or 7, again depending

upon the degree to which the person approaches that term. If the information in that category does not indicate to you whether or not the person is more like the term on the left or right, then circle 4."

After the subject had completed this judgement task, the following instructions were read.

"Now look at the second dimension. Is the person more like the term on the left, right, or neither? Circle the appropriate point on the scale."

When this was completed, the following instructions were given.

"Complete the remainder of this sheet for this category. When you have finished, take another sheet containing the rating scale and write the name of another category at the top of it and rate the information contained in it the same way you did for the first category. Continue on in this manner until you have completed a rating sheet for each category except for your discard pile if you have one.

When you have done this, do one last rating this time giving your overall impression of the person's personality based upon all the information in all your categories except the discard category if you have one. Any questions?"

Measures

Meaningfulness as number of items in a category. For each subject separately, each category received a score indicating the number of statements subsumed by that category.

Meaningfulness as extremity of judgements. For each subject separately, each category received a score indicating

the extremity with which it was rated. The extremity score
was the sum of absolute differences from the midpoint across
the twelve ratings.

Meaningfulness as centrality within cognitive structure.
The ratings of categories on personality constructs form a
repetory grid (Kelly, 1955; Bannister and Mair, 1968). Slater
(1965) noted that even in small grids there was a large amount
of complex information which required ordering and simplifying
in order to make the data managable. Thurston (1947) pointed
out that factor analysis was capable of organizing and simplify-
ing data by identifying principle factors or dimensions oper-
ative in a psychological process such as that represented by
a grid. These factors may be viewed as variables, processes
or determinants which account for covariation among elements
in a specified domain of observation (Royce, 1963). Following
Slater (1964, 1965) the use of principle components analysis
(a form of factor analysis) has become a standard procedure
for the analysis of grids.

Such an analysis reveals a number of principle
components or factors which are capable of accounting for
the covariation among elements. Each principle component
may be thought of as a superordinate dimension or personality
construct which defines the common meaning of a set of
elements or constructs. Common meaning is operationalized
by the similarities with which constructs are used in judging
elements. Each principle component is orthogonal in its

relationship to other principle components. For example, the second principle component is orthogonal to the first principle component and the third principle component is orthogonal to both. A principle component analysis conducted upon a repetory grid provides one model of cognitive structure or "implicit personality theory."

The first principle component accounts for the maximum amount of rating variance in a grid which can be attributed to any superordinate dimension (or more technically, linear combination). Using variance accounted for as a criterion of centrality, the first component defines the central theme in a person's implicit personality theory. Categories differ according to the extent to which they share common meaning with the central theme. Previous studies indicate these variations have psychological meaning. For example, Zimring (1969) found that reaction time to name an associate of a central construct (one that loaded heavily on the central theme) was greater than reaction time to name an associate of a peripheral construct (one that loaded negligibly on the central theme). Zimring argued reaction time should increase with greater amounts of information (or the number of associated constructs a given construct suggests). Central constructs which have more relations than peripheral ones should consequently require more reaction time to name an associate. Asch (1946), to take another example, demonstrated central constructs tend to be more influential in

impression formation and change, and Wishner (1960) later demonstrated that influence depends upon the range of a construct's implications or correlations.

In the present study, the categories or elements were of interest rather than the constructs. Using the Bio-Med program (01M), the loading of each category upon the first principle component was used to define the centrality of that category within the person's cognitive organization.

Category influence. The three definitions of meaningfulness given above define the independent variables. Each category received three different meaningfulness scores. The fourth measure, the dependent variable, measured the influence of each category upon the overall assessment or final judgements. The ratings of each category were correlated with the ratings of the final impression. Since correlations are not additive, each correlation was squared and multiplied by one hundred to yield a variance-in-common score. These variance-in-common scores were then correlated with the three sets of meaningfulness scores to test the different hypotheses.

This chapter has dealt with the various methods and procedures used to obtain the data. The next chapter will deal with the results of the analyses.

Chapter III

RESULTS

The first three hypotheses test different versions of the notion that a person will differentially rely upon categories of information in making an overall assessment to the extent those categories were meaningful. The basic data for each test were correlations for each subject between the three measures of a category's meaningfulness and a category's influence upon final judgements.

Prior to the tests of the main hypotheses, subjects were divided into two groups (one group who used set A dimensions and another group who used set B dimensions) to see if the use of different personality dimensions affected the results. Each correlation between category meaningfulness and category influence was transformed into a z' score. Using the centrality index, the correlations between meaningfulness and category influence were not significantly different, t (1/18) = .55, NS. Using the items index, the correlations were not significantly different, t (1/18) = -.56, NS. And using the extremity index, the correlations were not significantly different, t (1/18) = -1.85, NS. The latter test approached significance primarily due to one extremely high correlation which unrepresentatively increased the average. For set A, the average z' scores for the centrality items, and extremity indices respectively were: 1.11, .392, .215. For set B, the averages were: .963, .579, .954. As the t tests did not show a significant

difference between groups on any of the indices, both groups were collapsed into one group for the main tests of hypotheses.

Hypothesis one stated that a category would influence overall judgements in accordance with the number of items contained in that category. For each subject, the items index was correlated with the category influence index. Table 2 reports the correlations for each subject. Of the twenty correlations which ranged from -.616 to .962, five of the positive correlations were significant at the .05 level and one was significant at the .01 level. By chance only two would be expected to reach significance at the .05 level for a one tailed test. It should be noted these individual tests were quite stringent since the N was frequently so low, a nearly perfect correlation would be necessary to reach significance.

To test whether this distribution of correlations was significantly different from what would be expected by chance, a Kolmogorov-Smirnov one-sample test was conducted (Siegel, 1956). Using a 10% criterion of significance, two significant negative correlations, eight non-significant negative correlations, eight non-significant positive correlations, and two significant positive correlations would be expected by chance. Cumulatively, this theoretical frequency distribution would then be 2, 10, 18, and 20. (The same distribution was used in hypotheses two and three.) The distribution actually obtained was 1, 5, 15 and 20. The maximum deviation was 10/20 minus 5/20 or .25. According to Siegel's (1956) Table E, this deviation was not significant.

Table 2

CORRELATION OF THE INDICES OF MEANINGFULNESS
WITH INFLUENCE ON FINAL JUDGEMENT

Subject	Form	Number of Categories	Items Index	Extremity Index	Centrality Index
1	A	5	-.541	.537	.827*
2	B	7	.369	.798	.859**
3	A	9	.623*	.440	.867**
4	A	6	.539	-.257	.945**
5	B	8	.671*	.685*	.532
6	A	10	.027	-.095	.580*
7	B	14	-.107	-.057	.263
8	B	6	.330	.148	.942**
9	A	11	.612*	.746**	.925**
10	B	9	.475	.509	.944**
11	A	8	.026	-.410	.680*
12	B	3	.934	.999*	.935
13	A	16	.201	.319	.219
14	B	7	.829**	.103	.882**
15	B	9	.746*	.905**	.758**
16	A	10	-.277	.542	.881**
17	A	9	.489	-.127	.644*
18	B	4	.886	.978*	.850
19	A	4	.962*	.095	.874
20	B	9	-.616*	-.341	(-) .882**

Average r		.049	.059	.776
Average variance-in-common	25.52	28.41	55.13
T test		3.01**	3.24**	10.47**
				(6.00)**
Kolmogorov-Smirnov		.25	.20	.60**
				(.59)**

* significant at .05 level

** significant at .01 level

Due to the low N for many subjects which required extremely high correlations to reach significance, it seemed advisable to use an alternative test which did not depend upon significance levels. Each correlation was squared and multiplied by one hundred to provide a variance-in-common score. The average score was 25.52 with a standard deviation of 37.65. The average score expected by chance would be zero. The obtained distribution was compared to the theoretical distribution which would be expected by chance, through the usual formula of obtained mean minus the theoretical mean divided by the standard error of the obtained mean. The results of this test indicated the two means were significantly different, t (19) = 3.01, $p < .01$.

Hypothesis two stated a category would influence overall judgements in accordance with the extremity with which it was rated. Table 2 reports the correlations between extremity and category influence for each judge. Of the twenty correlations ranging from -.410 to .999, four of the positive correlations were significant at the .05 level and two were significant at the .01 level. The cumulative frequency distribution actually obtained was 0, 6, 14, and 20. The maximum deviation was 4/20 which was not significant. Using variance-in-common scores, the average was 28.41 with a standard deviation of 36.11. This average differed significantly from the mean expected by chance, t (19) = 3.24, $p < .01$.

Hypothesis three stated a category would influence overall judgements in accordance with its centrality within cognitive structure. Table 2 reports the correlations between centrality and category influence for each judge. Of the twenty correlations ranging from -.882 to .945, four of the positive correlations were significant at the .05 level and nine were significant at the .01 level.

The one negative correlation, which was obtained by subject 20 deserves consideration. Most of the loading patterns for individual subjects were clearly weighted towards one side or the other, either negative or positive. Most were unipolar. However, the loadings for subject 20 were bipolar and, therefore, somewhat ambiguous. A somewhat arbitrary criteria of highest loading and number positive versus number negative was used to determine which side should be designated as being meaningful. The result was the acceptance of the negative side which indicated the loadings for subject 20 were negatively correlated with category influence. However, it could be justifiably argued that since the loadings were bipolar and not clearly in one direction or the other, the polarity of the score was secondary to the strength of the correlation. The reader should note the correlation was high, not whether it was positive or negative. The person's cognitive structure forced a choice between stressing one side or the other. The important result was the loadings were appraently used in some fashion to weight final judgements. Consequently,

since the direction of the relationship for subject 20 was somewhat ambiguous regarding the test of this hypothesis, tests were conducted twice, once with a positive relationship and once with a negative relationship.

With the minus sign, the cummulative distribution was 1, 1, 7, and 20. Without the minus sign, the distribution was 0, 0, 6, and 20. The maximum deviations were respectively 12/20 and 11/20, both of which were highly significant. With the minus sign, the average variance-in-common score was 55.13 with a standard deviation of 41.10. This average differed quite significantly from the zero average expected by chance, t (19) = 6.00 p < .01. Without the minus sign, the average was 62.91 with a standard deviation of 26.88. This average was also significant, t (19) = 10.47, p < .01.

Hypothesis four stated the centrality index of meaningfulness would be a more powerful indicator of category influence upon final judgements than the other two indices. To test this hypothesis, correlated t tests were conducted upon these sets of correlations (z' transformation scores). The minus sign for subject 20 was retained in both comparisons with item and extremity indices. The correlated t test between centrality and items was significant, t (19) = 3.18, p < .01. The test between centrality and extremity was also significant, t (19) = 2.34, p < .05. Centrality was more closely related to category influence than either items or extremity.

Table 3

CORRELATIONS BETWEEN INDICES

Subject	Items-Extremity	Items-Centraltiy	Extremity-Centrality
1	-.121	-.099	.579
2	.402	.346	.910
3	.194	.396	.406
4	-.503	.527	-.464
5	.654	.524	.711
6	.355	-.266	-.088
7	.328	-.193	.412
8	.565	-.180	.056
9	.615	.411	.696
10	.185	.339	.511
11	.005	-.081	.066
12	.945	.999	.946
13	.795	.011	-.155
14	.533	.609	-.284
15	.884	.430	.687
16	.126	-.152	.615
17	.720	.633	.050
18	.785	.678	.917
19	.279	.719	-.078
20	.732	-.371	-.141

Since the independent variables or the three definitions of meaningfulness were all highly inter-related, (see Table 3) it was decided to re-test hypotheses one and two using partial correlations. Controlling for the effects of centrality, were items and extremity still significantly

related to category influence? Table 4 lists the partial correlations for both indices. Each correlation was squared and multiplied by one hundred to serve as a variance-in-common score. As might be expected, the correlations were dampened considerably. For items, the average variance-in-common score was 11.32 with a standard deviation of 40.64, which did not significantly differ from that expected by chance, $\underline{t}$ (19) = 1.25 NS. For extremity, the average score was 18.33 with a standard deviation of 35.53, which did significantly differ from what would be expected by chance, $\underline{t}$ (19) = 2.31 p < .05. Even with the common influence of centrality partialled out, the extremity measure of meaningfulness was still significantly related to category influence.

It was also decided to test whether or not the correlations between the various indices differed significantly from what would be expected by chance. Table 3 on page 38 lists the correlations between the various indices. Each correlation was squared and multiplied by one hundred to serve as a variance-in-common score. For the items-extremity correlation the average variance-in-common score was 28.40 with a standard deviation of 30.48. The standard error of the mean was 6.82. This did significantly differ from what would be expected by chance, $\underline{t}$ (19) = 4.16 p < .01. For the items-centrality correlation the average variance-in-common score was 18.73, with a standard deviation of 26.81, and a standard error of the mean of 5.99. This did differ significantly from what would be expected by chance,

Table 4

CORRELATIONS FOR ITEMS AND EXTREMITY INDICES
WITH THE EFFECTS OF CENTRALITY PARTIALLED OUT.

Subject	Items	Extremity
1	−.820	.129
2	.149	.077
3	.610	.193
4	.149	.626
5	.544	.515
6	.231	−.054
7	−.594	−.188
8	−.486	.284
9	.669	.380
10	.499	.094
11	.111	−.622
12	−.754	.996
13	.222	.366
14	.781	.782
15	.713	.825
16	−.308	.002
17	.137	−.208
18	.384	.945
19	.986	.686
20	.660	−.464

t (19) = 3.13, p < .01. For extremity-centrality the average variance-in-common score was 24.96, with a standard error of 33.20, and a standard error of the mean of 7.42. This differed significantly from what would be expected by chance, t (19) = 3.36, p < .01.

In examining the data for the variance tests performed, it appeared the professional counsellors used fewer categories than did the students. To test whether or not professionals used significantly fewer categories than students, a t test was performed on the number of categories used by each. The results showed that the professionals did use significantly fewer categories than students t (18) = 3.82 p< .005 .

Hypothesis One: The items index failed to meet significance on both the KS test and the t test using partial correlations. It did reach significance on the t test using the full correlations. Hypothesis one was not strongly supported.

Hypothesis Two: The extremity index failed to meet significance on the KS test. It did meet significance on both t tests.

Hypothesis two was supported.

Hypothesis Three: The centrality index met signifi- cance on all tests irrespective of the sign value given subject 20.

Hypothesis three was strongly supported.

Hypothesis Four: There was a significant difference between the centrality index and both the items and extremity index.

Hypothesis four was supported.

Extended Analysis. The extended analysis showed the correlations between all indices differed significantly from what would be expected by chance. It also revealed that professional counsellors used significantly fewer categories than did the counsellor-in-training.

In summary, this chapter reported the results of the various statistical analysis and a restatement of the hypotheses. The next chapter presents a discussion of the findings.

Chapter IV

DISCUSSION

This chapter discusses the theoretical and practical implications of the results. This thesis examined the possibility that meaningfulness of the categories used by judges related to the categories' influence upon the overall judgement. Traditional mathematical models attempted to account for the influence of cues by the a posterori application of formulas. These seemed to adequately account for the process in that the formula fitted the data but they offered little, if any, explanation of why one set of information was more influential than another.

Meaningfulness appears to be important in determining the influence of a category and thus gives an a priori indication of which categories are more influential in making an overall assessment. The results demonstrate categories (cues) were used to the extent they were meaningful to a particular judge.

The results support an overall general hypothesis that judges rely upon the information contained in a category to the extent the category is meaningful to them in making a particular judgement. One should note the strength of the above statement depends upon the index of meaningfulness used. Clearly, some indices were better indicators of meaningfulness than others.

Items Index

Of the three indices of meaningfulness used in this thesis, the number of items contained in a category appeared to be the weakest, failing to meet significance on two of the three tests performed on the data. This may be construed in at least two ways.

One, the experimentor's selection of statements may have biased the formation of categories in such a way it "forced" categories and their contents irrespective of the meaningfulness of the category. This explanation seems plausable but unlikely since there were great variations in the category names and the statements that were included in the categories.

To illustrate, subject 18 used the categories: feelings about self, seeking help, description of father and family. Subject 9 used the categories: insecurity, lack of discipline, lack of confidence-self esteem, indecision, anxious, overwrought, loving-warmth, lack of direction, parents unaware, disappointment-resentment, struggle for self identity, for others-guilt feelings (super ego - what should do), and a miscellaneous pile. Subject 8 used the categories: externalized conflict, client's self assessment, real problem, strategies used on other occasions when dealing with ambivalence, and what client wants of self and family.

Two, the amount of information (statements) in a category was not an indicator of the meaningfulness of that category in forming an overall impression. It may

be reasoned, just as categories have varying amounts of influence on overall judgement, the items contained within a category have varying amounts of influence within that category. Hence, only a few of all the statements contained in a category account for the meaningfulness of that category. The other less meaningful statements in a category may serve only to add reassurance to the impression given by the more meaningful statements in that category. This may be supported by some of the research cited in the introduction where investigators found an increase in information did not increase the accuracy of the judgement but did increase the judge's confidence in his judgement (e.g. Oskamp, 1965). What this indicates is that the quality of the statements in a category may be more important to the meaningfulness of that category than simply the number of items in the category.

The weakness of this index should not cause it to be immediately ruled out as an index of meaningfulness since the results indicate there is some relationship. The index is promising and warrants further investigation.

Extremity of Rating

An apparently stronger index of meaningfulness is rating extremity. Although it did fail to reach significance on one of the tests, the strength of the index was indicated when it retained significance (though at a lower level) when the effects of centrality had been partialled out.

In general, the results did support the finding of Saper (1964) and others cited in the introduction. One

should note this index was strong in a condition where all
the rating dimensions were provided by the experimentor.
Studies by Bonarius (1970) indicated that the meaningfulness
of an item (category) being rated was in some way related
to the meaningfulness of the dimensions upon which it was
being rated. If such is the case, then some of the supplied
dimensions may not have been as meaningful to the subjects
as those developed on their own, thus dampening the results
for this index. The dampening may not have been large,
however, since a study by Bender (1974) found no significant
difference in rating extremity on dimensions which were
supplied by the experimentor or elicited from the subjects.

While the evidence indicated rating extremity did
relate to category influence, the theoretical significance
of the index is vague, and offers little, if any, explanation
of why any one category is more meaningful than others.

Centrality in Cognitive Structure

The results provide strong support for the
centrality index as a measure of meaningfulness. The index
attained significance on all tests irrespective of the sign
value of subject 20.

The results strongly indicate that the position
which a category occupied in a particular judge's cognitive
structure, as described by Asch (1946) and Kelly (1955),
is of great importance in making a judgement. Categories
which are more central in the judge's cognitive structure
or have more implications for other categories are more

meaningful than categories which are peripheral or have less implications for other categories.

In general, this study differed from most other studies in clinical judgement (e.g. Asch,1946) in that subjects were asked for other judgements rather than simply the overall judgement of the stimulus person. This enabled the stimulus person to be viewed not as a relatively fixed set of values on personality dimensions, but rather as an organized set of diverse values on personality dimensions. In other words, the final judgement may be viewed as a combination or synthesis of the impressions formed on the various categories. Furthermore, those impressions which were based upon some categories (those more meaningful) were more congruent with the overall impression or judgement than those which were based upon less meaningful categories.

Theoretically, the results support a cognitive structural definition of meaningfulness. Categories are meaningful to the extent they have implications for other categories. This is consistant with Personal Construct Theory (Kelly,1955) which emphasises that man seeks meaning.

The selection and meaningfulness of categories in making clinical judgements have several practical implications for counselling. Consider the situation described by Koester (1954) in the opening chapter of this thesis. Koester reported experienced counsellors frequently could not describe their grounds for making clinical judgements

and as a consequence, could be of little help to counsellors-in-training in helping him to understand the process involved in forming a clinical judgement.

The results of this study suggest that it is possible to identify the elements (categories) used by a professional in arriving at his judgement. Furthermore, on the basis of meaningfulness, it is possible to measure the significance of each element in arriving at that judgement. In this way, at least part of the process becomes more capable of being articulated and, thus communicated to professionals or students of counselling.

One of the skills which a counsellor-in-training must develop is a process for making clinical judgements. This is difficult if no one can really describe the process or provide a clear model to emulate. Within the framework discussed, it seems this problem could at least be partially alleviated by allowing the student to observe the professional's elements (categories) and their significance as well as to allow the professionals to observe the students and the significance of their elements. In this manner it may be possible for the professional to guide the counsellor-in-training either in his categorization and/or in the emphasis he places upon each category. The importance of this was confirmed by the t test performed on the number of categories used by professionals and counsellors-in-training. The results showed that professionals used significantly fewer categories than counsellors in training ($p = .005$). In

addition, those students who exceeded their processing limits
as described by Miller (1956) and others obtained the
lowest scores on the various indices of meaningfulness,
which indicated overloading. This point is interesting
and deserves further investigation as it suggests a counsellor
must modify his process 'on his own' once he is 'in the
field'. A programme of instruction sensitive to this could
help the new counsellor modify his process while still a
student and could avail of the expertise of more experienced
professionals.

Studies of Ourth and Landfield (1965) and Landfield
(1971) which showed the meaningfulness with which the
client and counsellor viewed each other was a contributing
factor in the premature termination of therapy suggests
another application of the findings. These two studies
concerned themselves with the meaningfulness of the overall
impression. However, using the framework of this thesis
it may be possible to identify the areas in which each
views the other as being meaningful to them. Steps could
then be taken by the counsellor and/or client to enhance
the meaningfulness of one to the other such that therapy
will be less likely to prematurely terminate.

Another aspect of the client/counsellor relationship
which might benefit from the findings of this thesis is
empathic understanding. Empathic understanding of the client
is stressed heavily in counselling theory. Yet, this
would seem impossible if the counsellor is unable

to discover the client's categories and the importance he attaches to each. Use of a procedure capable of discovering the client's categories and their meaningfulness would be of considerable help in developing a better understanding of the client and in identifying areas for elaboration in therapy.

The findings of this thesis also have implications for the accuracy of clinical judgements. In studies cited in the introduction (e.g. Ryback, 1967) it was found students and other non-professionals did just as well or sometimes better than professionals in the accuracy of their judgement. In terms of this thesis it may be possible judges categorized their information in diverse ways and/or emphasised different categories thus producing a variety of judgements rather than a common set. This would bear further investigation. However, it it held true, then it may be possible to develop a system which would ensure greater accuracy of judgement among professionals.

Chapter V

SUMMARY AND CONCLUSION

Using three different indices of meaningfulness
(items, extremity, centrality) this thesis tested the general
hypothesis that a category invluences overall judgements to
the extent that it is meaningful to a particular judge.
Subjects were given 55 statements which were made by a client
in a counselling session and asked to form as clear an
impression of the client as they could. Subjects categorized
the statements in any way they desired. After the subjects
had categorized the information, they were asked to indicate
what the information in each category told them about the
client by completing a rating scale composed of 12 bipolar
personality dimensions. Each category was considered separately
and a rating scale completed for each category. Each subject
completed a final rating scale which represented their overall
impression of the client.

The raw data for each category was converted into
four scores: items index (no. of sentences in a category),
extremity index (sum of absolute difference from the scale
midpoint), centrality index (loading on first principle
component) and category influence (variance-in-common with
overall judgement). The three independent variable indices
(items, extremity, centrality) were correlated with the

dependent variable (category influence) for each category of each subject. The results showed the three meaningfulness indices differed in their ability to predict category influence on the overall judgement.

Items Index

The results indicated the items index was the weakest index by virtue of its failing to reach significance on two of the three tests performed. However, the results were encouraging enough to warrant further study.

Extremity Index

This index received stronger support rating significance in two of the three tests. These results supported the findings of other researchers who used rating extremity as a measure of meaningfulness.

Centrality Index

The results strongly supported the centrality index of meaningfulness, which reached significance on all tests.

It was concluded the meaningfulness of a category indicated a category's influence upon the overall judgement. The index used to measure meaningfulness was important. The items and extremity indices seemed to fare better as empirical indicators of meaningfulness. The centrality index offered not only a strong indication of meaningfulness, but also

provided a theoretical base upon which the why of meaningful-
ness might be explained.

Implications for Further Research

      1. The possibility the experimentor's selection of
statements may have weakened the effect of the items index by
"forcing" certain categories has been discussed earlier. Further
research in which more of the client's statements were presented
may help to clarify the possible weakness of the measure in
this study.

      2. The finding that professional counsellors used
significantly fewer categories than did students warrants
further investigation as was noted in the discussion, it holds
serious implications for the training of student counsellors.

      3. Contemporary personality theory stresses the
importance of developing a model of man. As such it would be
expected a counsellor would have a relatively stable set of
categories for making the client meaningful to him. Further
research to establish the consistancy of a counsellor's
categories from client to client is warranted.

      4. This thesis has examined one factor of judgement.
Other researchers (e.g. Canter, West and Wools, 1974; Maslow
and Mintz, 1956; Mintz, 1956; Byrne, 1961; Moss, Byrne, Baskett,
Sachs, 1975) have identified other factors, such as environment
and perceived similarity between judges and persons being judged,
which also influence judgement. Further research is necessary to
clarify the relationships between these and other factors before
a complete understanding of judgement is possible.

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Appendix A
Rating Scales

CATEGORY: _____   A

CONTROLLED   1 2 3 4 5 6 7   IMPULSIVE

OPEN   1 2 3 4 5 6 7   CLOSED

DEPENDENT   1 2 3 4 5 6 7   INDEPENDENT

INTROVERTED   1 2 3 4 5 6 7   EXTROVERTED

TENSE   1 2 3 4 5 6 7   RELAXED

SURE OF SELF   1 2 3 4 5 6 7   UNSURE OF SELF

FACES PROBLEMS   1 2 3 4 5 6 7   EVADES PROBLEMS

MATURE   1 2 3 4 5 6 7   IMMATURE

INSIGHTFUL   1 2 3 4 5 6 7   UNINSIGHTFUL

CLEAR   1 2 3 4 5 6 7   CONFUSED

SUBMISSIVE   1 2 3 4 5 6 7   DOMINEERING

TRUSTING   1 2 3 4 5 6 7   MISTRUSTING

CATEGORY: _____   B

CALM	1	2	3	4	5	6	7	ANXIOUS

RIGID   1 2 3 4 5 6 7   FLEXIBLE

HUMBLE   1 2 3 4 5 6 7   ASSERTIVE

HIGH SELF ESTEEM 1 2 3 4 5 6 7   LOW SELF ESTEEM

RESPONSIBLE   1 2 3 4 5 6 7   CHILDISH

RESERVED   1 2 3 4 5 6 7   OUTGOING

SELF RELIANT   1 2 3 4 5 6 7   CLINGING

EMOTIONALLY   1 2 3 4 5 6 7   EMOTIONALLY
    STABLE   UNSTABLE

DECISIVE   1 2 3 4 5 6 7   INDECISIVE

ORGANIZED   1 2 3 4 5 6 7   SCATTERED

FAITH IN OTHERS   1 2 3 4 5 6 7   CYNICAL OF OTHERS

PERCEPTIVE   1 2 3 4 5 6 7   UNPERCEPTIVE

Appendix B

Client Statements

1. I don't know what I'm looking for.

2. The thing that ties me up mostly is my parents.

3. I've never been able to figure out what my relationship with my parents should be.

4. I never could make up my mind what to major in at college.

5. I'm basically afraid of men and afraid to find a good relationship with a man - I mean a relationship that could lead to marriage.

6. I'm worried about money.

7. For about a year and a half since I graduated from college, I've had the feeling that something was the matter with me.

8. My family thinks everything will turn out well.

9. My father's mother made him feel guilty when he got married.

10. I've always felt that I had to make up for my father, because of his lack of financial success in the world.

11. My father is a newspaper editor.

12. I always hate to create a scene.

13. My father became really alcoholic some time when I was away in college.

14. I majored in - it was a double major; advertising and English.

15. We never had much money, but we always had the feeling that love and security in life are what count.

16. My parents live in Great Neck; I moved out in March.

17. I graduated with honors.

18. I find it easier to lie than to tell the truth, if the truth is unpleasant.

19. The thing I make myself guilty about is the fact that my father doesn't earn enough money to support them.

20. My father is disturbed.

21. I tried a little experiment with God - which was one of the things that made me break off from religion.

22. I want to get away from home; I want to be myself.

23. I was very impulsive about the choice of college.

24. I was going to get married to a Jewish fellow but my family didn't accept it.

25. I don't seem to be able to discipline myself.

26. I have nagging doubts about whether or not I should go home.

27. I'm very impulsive.

28. I seem to have a tendency towards punishing myself.

29. Well the basic problem I have is that I seem to have lost sight of goals.

30. I wanted to come to you because a friend said you helped him get over his guilt about his mother.

31. I think it's a feeling I was brought up with that you always have to give of yourself. If you think of yourself, you're wrong.

32. I have tremendous self-doubts about every part of my existence.

33. The thing that made me try to straighten myself out
    was that I know I've got to learn to have confidence
    in my own judgement.

34. I've always tried to live up to my family's expectations.

35. Although I have pretty well convinced myself that I
    have talent, I'm just afraid to apply myself.

36. My family always emphasized that I couldn't do well
    in school, so I had to work hard.

37. You're brought up to believe that everything your
    parents say is right. And I haven't been able to
    loose myself from this.

38. And now when I try to break away, my parents get
    terribly hurt, and my stomach gets all upset.

39. I get so mad at myself for being so illogical.

40. I was brought up to think that I mustn't be selfish.

41. This one fellow that I've been going with - in fact,
    both of them - said that I don't have a good opinion
    of myself.

42. I can be loving, though.

43. I should think, "If they care than little about me,
    why should I care about them?"

44. I don't want to live my family's lives.

45. Yes, I'm very unconfident.

46. But the individual - whatever contributions he has to
    make, whatever his capabilities are - can be lost that
    way; and I don't want to be lost.

47. My mother thinks I should be at home.

48. I never seem to be able to relax.

49. My parents didn't want me to move out; they felt that it just wasn't right for an unmarried girl to move out.

50. And I also want to find out - I suppose it's all basically the same thing - why I have been promiscuous, why I lie.

51. I don't want to be self effacing!

52. If there were a God, he never would have cursed anybody like he cursed my family.

53. I'm very compulsive.

54. I was brought up to be a hard shelled Baptist but I can't take it any more.

55. My family makes me feel - I guess I can't say - they make me feel guilty.