A STUDY OF REPRESSION AND ITS RELATIONSHIP TO
OPTIMISM/PESSIMISM AS MEASURED BY A
SUBJECTIVE AND OBJECTIVE
MEASURING INSTRUMENT

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A STUDY OF REPRESSION AND ITS RELATIONSHIP TO OPTIMISM/
PESSIMISM AS MEASURED BY A SUBJECTIVE AND
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CHAPTER I

INTRODUCTION

Until Freud (7) identified the phenomenon of repression in the early part of this century, the generally observed tendency of an individual to forget unpleasant thoughts, desires, or events was considered to be only an oddity of human behavior. With Freud's discovery of repression and later writings on this subject, this oddity came under close scrutiny and investigation.

Investigators in the fields of learning theory, educational psychology and psychoanalysis, have studied the constructs and dynamics of repression and offered hypotheses in attempts to explain or describe the nature of repression. However, the research on repression is so broad in scope that the exact definition of repression and its relationship to human behavior has as yet eluded scientific explanation.

Freud's theory of repression is that a troublesome but forgotten experience, whether a wish or a memory, is unconscious not because it has merely elapsed or passively
slipped out of consciousness, but because it has been forced out. This repressed material, having been pulled out of the conscious area, is held down by violence and charged with emotion and desire.

Rapaport (18), in his study of Freud's theory suggested that repression occurs in two different time-elements or levels: Primal Repression and Repression Proper.

Primal Repression originates in childhood, and is an ideational presentation of the instinct which is denied entry into consciousness. Repression Proper arises when the derivatives of the instinct-presentation are denied entry into consciousness. The closer the connection of an idea to the repressed instinct-presentation and the stronger its cathexis, the more likely it is to succumb to Repression Proper.

Rapaport (18) thinks that repression denies to the rejected idea or thought, translation of the idea or thought into words. Thus, repression is twofold. While primal (infantile) repression expels and keeps out of consciousness an instinct representation, Repression Proper affects the derivatives of instinct representations. The
effect of repression consists not only in expelling and keeping a memory out of consciousness, but also in displacing its "affect charge" to another idea or in suppressing it entirely.

Stewart (24), in his analysis of Freud's two types of repressions, describes them as primal (archaic) and after-expulsion repression. The purpose of primal repression is to deny entrance into consciousness archaic ideas attached to instinctual strivings which are unacceptable to the ego. This type of repression is commonly attributed to childhood. After-expulsion repression removes or dissociates from consciousness any anxiety laden material. Stewart (23) says that repression may be either partial or complete.

Freud (9) states that primal repression is accompanied by fixation; the ideational presentation persisting unaltered from the point of repression with the instinct remaining attached to it. That is, the instinct drive and its ideational representations are denied access to motility and consciousness, and are conceptualized as unconscious. The memory-trace cannot be cathected to become directly conscious. Thus, repression prevents unpleasant
memories. As earlier indicated, the Repression Proper, or after-expulsion, represents the repressed drives, or the thoughts connected with them which have themselves become repressed. A system of counter-cathexes develops so that Repression Proper comes to exist as a withdrawal of additional cathexes and the application of counter-cathexes.

Hall (9, p. 85) indicates similarity in his statement that a "cathexis of the id, ego, or superego which produces anxiety may be prevented from registering itself in consciousness by being opposed by an anti-cathexis."

This is, of course, speaking of Repression Proper reaction. These counter-cathexes operate so that the instinctual drive originating the need for repression is consigned to the id as a defense mechanism.

As stated by Rapaport (19) the additional cathexes, which a drive-cathected idea must obtain in order to become conscious, is conceptualized by hypercathexes or attention-cathexes. The ideas which otherwise have access to consciousness, but at any given moment are not conscious, are described as preconscious, and while not counter-cathected, are without hypercathexis. It should be noted that
Consciousness is conceptualized as a matter of distribution of attention-cathexes.

Whatever the mechanics of repression are, repression does serve as an adjustment mechanism in which the person learns to make avoidant responses to potentially painful situations. Each successful act of repression is reinforced by the resulting reduction of immediate anxiety, and serves to keep the anxiety related to a stressful situation within bounds by inhibiting responses to those situations evoking stress and tension. This adjustment mechanism might manifest itself by negation (denial of thought), in which previously repressed thoughts become free from the limitation of repression through negation symbols.

From the earlier studies, it becomes evident that some type of symbology is formed to facilitate unconscious avenues of escape from repression. These symbols are accumulated by conscious or unconscious means. These conscious or unconscious means either possess universal (invariability) meaning or represent unconscious content. Thus, an individual's behavior might be either an intellectual acceptance of what is repressed, by a modification
or denial of the image in question to enter consciousness, such as in negation or an anxiety-based acting-out symbolically of what cannot be accepted. As will be later shown, words, gestures, expressed desires, and more generally pessimistic or optimistic characteristics identified with the individual's seeking of tension-relief are often symbolical representations of anxiety and repressed drives.

Eidelberg (6) sees the need for repression as explained by Freud and other investigators as going further than mere unacceptance of undesirable instincts, thoughts, or motivations. Freud defined two regulative principles: the pleasure and unpleasure goals. An increase of instinctual tension above a certain threshold produces the signal for unpleasure. This in turn mobilizes mechanisms responsible for the discharge of the increased tension and leads to the elimination of unpleasure. Pleasure-seeking, while tension-reducing usually, might become tension-inducing, because even though unpleasure is felt, ultimately greater instinctual gratification, pleasure, and safety might occur. Thus, through either process, unpleasure (tension) is reduced and pleasure (tension-relief) is obtained.

Another principle, reacting concurrently with the pleasure-unpleasure principle, is the reality principle.
This involves removing unpleasure by an active/unconscious repetition of what was passively/consciously suffered. The basis of obsessions/compulsions possibly occurs through this principle.

As stated by Cole (4), in the operation of the pleasure-unpleasure principle, the ego banishes repressed thoughts from the unconsciousness, and in so doing, relieves the anxiety by expelling its source.

These several principles become involved in turn with the two larger aspects of Freudian psychology, cognitive and motivational psychology.

Motivational psychology relates to the primacy or primary drive organization of an individual, which might be illogical and impulsive, but through affective tension-reduction, inhibit (in the absence of a goal-object) frustration through the seeking and finding of pleasure (tension-reduction) in any generalized form. The reaction is primitive, and allows partial or complete drive reduction to occur.

Cognitive psychology is more orderly, rational, reality-oriented, and is a secondary drive. While the motivational psychology is related more closely with the
primary process of tension-reduction and co-ordinates with the pleasure principle and the id, cognitive psychology relates to the bound-cathexis (secondary) and co-ordinates closely with the reality principle and the ego.

While the primary process disregards space, time, logic, and involves "mobile cathexes" of condensation, displacement, and symbolization, the secondary process is not as compelling or pre-emptory, and is less anxiety creating in its completion. It is the interaction of these two processes that, through conflictual approaches, involves the development of repression, self-concept defenses, and similar defense mechanisms.

Schneiderman (21) states that repression may enter into a significant relationship between perception and concept formation, since repression may act to block or ward off from the perceiver parts of the perceptual field. This, combined with the irregular reinforcement characteristic of everyday learning conditions, creates a background for inaccurate generalizations, in which the self concept becomes involved.

When a physiological arousal occurs, for which an individual has no immediate explanation (due perhaps to
blockage in his perceptual field), the individual is inclined to "label" this state and describe his feelings in terms of the cognitions available to him, or react emotionally so that he describes his feelings as emotional to the extent that he experiences that state of physiological arousal.

This repression interference, as Cole (4) indicates, can be the basis of an anxiety-induced loss of awareness, as shown by Schneiderman above, and is important in the development of non-integrative behavior. The inappropriate use of symbols as a means of adjustment, resulting in non-integrative behavior, can relate directly to neurotic or psychotic conditions.

However, it is not the more obvious instances of repression that is the subject of this paper. As will be stated in the following section, this paper is concerned more with everyday integrative behavior than with bizarre or hallucinatory non-integrative personality mal-adaptions. Repression plays a very important role in the normal individual's self-adjustment to his environment: external or internal.
Purpose of the Study

The purpose of this study is to investigate the phenomenon of repression and to study its relationship to optimism/pessimism as measured by a subjective and an objective measuring instrument. The observed tendency of "forgetting" unpleasant and remembering pleasant events, will be studied and related to optimism/pessimism as a manifestation of a general tendency to use repression as a defense mechanism.

Background Significance of the Problem

The role of feeling in human remembering and forgetting is an important problem in both affective psychology and the psychology of learning. The Freudian doctrine of repression is an explanatory principle for both of these interests, and is concerned with not only the mechanisms underlying disassociation and amnesia of some unpleasant thought, impulse, or event, but also with the mechanism of learning.

From earlier studies, it appears that repression plays a very important part of one's recall. But what the relationship is of repression to the general tendency to view life as either joyful or unsatisfactory is not
clearly understood. Earlier studies offer evidence of certain qualities of pleasure and unpleasure as a reflection of repression. How these marked qualities of pleasure and unpleasure relate to optimism/pessimism appears to be significant because they afford the opportunity to further clarify the nature of repression. It is with this in mind that the phenomenon of repression is being studied.

Involved with this investigation is the question, does feeling, in the sense of pleasantness or unpleasantness, influence remembering or forgetting? If this can be assumed, then the extent to which individuals differ in forgetting pleasant and unpleasant experiences can be related to a pervading sense of optimism or pessimism in the recall of past or present pleasantness/unpleasantness.

Meltzer (14) studied the forgetting of pleasant and unpleasant experiences and found that a significant majority of his experimental subjects did recall a larger amount of pleasant memories connected to a Christmas vacation just completed than unpleasant memories. He also, in another study of the same phenomenon, found that the recall of pleasurable memories was in the significant majority and hypothesized that the tendency to forget unpleasantness is a regulative process of adjustment.
corresponding directly to the easy accessibility of some symbolical or actual escape mechanism. He defined this as a compensatory reaction, in which the recall of pleasurable memories served as an outlet for tension-reduction.

Steckle (23), in his study of affect and recall, indicates that the role of attitude in recall of affective events should show some relationship with the optimism/pessimism dichotomy. He said that repression is involved with earlier memories connected with home experiences, socio-economic background, and general culturizing events, and hypothesized that the role of affective experiences upon recall would in larger measure be determined by the extent to which emotional events harmonized or conflicted with the existing frame of reference. He went on to say that the experience which is consistent with the individual attitudinal predisposition will be remembered while that experience which conflicts with the frame of reference will be "forgotten." He indicated that an individual's life experiences, as revealed by an autobiography, would be expected to be mostly pleasurable in recall if his life was consistently fortunate. Thus, possibly an individual who is inclined to be optimistic would recall pleasant memories, with the reverse being true for pessimists.
Becker (1) notes that Freud thought that social frustrations are usually symbolic events, and says that aggression occurs when a creative means of deriving a feeling of self-value have not been made available in the particular cultural concept. If a general sense of pessimism becomes the personality adjustment to the hostile environment, the tension-reduction can occur through physical actions or indirectly through verbal responses. This is, in effect, the reaction which this paper is attempting to enlarge and study.

It is an assumption of this study that an individual reacting to an unpleasant memory will do so consistently, in accordance with Caron and Wallach's (3) description of high and low need achievers.

Sweney (25) described the repression complex as important in the study of optimism/pessimism.

Thus, it appears that through repression and the anxiety related to partial repression, an individual will adapt either pessimistically or optimistically to his environment as a perceived manifestation of an earlier environment, and will indicate his adaptation in an "obsessional" manner, responding to an objective or
subjective measuring instrument in such a manner to indicate not only pessimism/optimism but repression of pleasant/unpleasant memories.

Procedure

A comparatively new technique, devised by Dollard and Mowrer (5), measures the amount of tension found in written documents. Individuals with a high degree of tension, tend to use more discomfort words and phrases than individuals with less tension, using less discomfort words and phrases. This technique of content analysis of written material is considered to be important because it offers a quantitative measure of repression of an unstructured testing situation. The Discomfort-Relief Quotient (D.R.Q.) is the subjective measuring device utilized in this study.

The E (emotionality) factor of the Guilford-Zimmerman Temperament Survey (8) is the objective measuring device used in this study. A high E score indicates cheerfulness and optimism, while a low E score indicates neurotic tendencies, usually depressive in nature.

The E score of the Guilford-Zimmerman Temperament Survey was administered to each subject and scored to obtain an index of his emotional stability. Each subject was
then asked to write an autobiography and Dollard-Mowrer's Discomfort-Relief Quotient was obtained by computing the Discomfort and Relief words present in each report, thereby attaining measurable degrees of tension.

Assumptions and Hypotheses

The present study makes some critical assumptions. They are assumptions which have been made by other investigators of repression and related concepts and are acceptably valid for the purpose of this study. It is therefore assumed that:

1. Feeling does condition memory.

2. Memory is either generally pleasant or unpleasant.

3. The Guilford-Zimmerman Temperament Survey $E$ (emotionality) factor does measure optimism/pessimism; that is, a high $E$ score is assumed to be related to optimism while a low $E$ score is related to pessimism.

4. The Discomfort-Relief Quotient, devised by Dollard and Mowrer does measure tension. And this is assumed to be a salient signal of persistent optimistic/pessimistic tendencies of the experimental subjects.
5. The phenomenon of repression is a very important factor operating within the individuals' responses to both objective and subjective tests.

This study will test the following two hypotheses:

1. A high E factor, of the Guilford-Zimmerman Temperament Survey (seven to ten), is inversely related to a high Discomfort-Relief Quotient score.

2. A low E factor of the Guilford-Zimmerman Temperament Survey (three to zero), is inversely related to a low Discomfort-Relief Quotient score.


CHAPTER II

RELATED RESEARCH

In the past three decades, a number of investigations of repression have been made using a variety of techniques.

Meltzer (14) directed a series of studies toward recall of words, sentences, poetry, etc., in which memory of unpleasant stimuli was expected to be much less than memory of more pleasant stimuli. He noted that several assumptions were made that might, or might not, be acceptable. It was assumed that individuals' experiences equal amount of pleasantness and unpleasantness; that pre-determined stimuli can be used for evoking pleasant and unpleasant reactions from all individuals examined; that the summation of discrete responses obtained by the use of the associative method will yield results which are characteristic of total personalities; and that reactions to such stimuli as pleasant and unpleasant odors are the same as feeling reactions in everyday life.
Gilbert (8) joined in the criticism of the earlier studies by noting that the use of immediate recall to test hypotheses, drawing general conclusions about memory from the specific case of immediate recall, is obviously the fallacy of the undistributed middle range of tested population. Gilbert also indicated that the theory of repression of unpleasant memories is never applied to immediate recall. Also, the unequal affective decrements of recalled experience present a serious difficulty. That is, recalled experiences become less and less pleasant or unpleasant with an increase in the time elapsed before recall. The individual's attitudinal frame of reference influences which direction, pleasant or unpleasant, will color the recalled material. Often, tone may be reversed in retrospect, and unpleasant experiences suffer more thereby than do pleasant experiences. Gilbert concluded by stating that since the preceding fact itself tended to support the hedonistic hypothesis, it should not be used to disapprove the hypothesis by the artifact that more of the originally unpleasant experiences are sometimes recalled.

Zilling (26) attempted to study differences in male and female repression through the use of aphorisms written
by prominent authors. Half of the aphorisms expressed opinions favorable to the female sex; half of the aphorisms derided the female sex. Twenty men and twenty women were asked to read the aphorisms and were later asked to recall the aphorisms. It is interesting to note that the men recalled only 37 per cent of the aphorisms favorable to the female sex, while the women recalled 63 per cent of the favorable aphorisms to their own sex. This discrepancy is accounted for by assuming that individuals possess "basic sets" of striving for personal enhancement and these sets exert a selective influence on recall. This study contributed greatly toward the appreciation of selective influence in recalled material.

Bartlett (1) offered short stories to his subjects, and after an interval of fifteen minutes, and increasingly longer intervals, asked them to reproduce the stories. His results seem to border more on rationalization and preservation of symbols. The subjects recalled the stories from their frame of reference, and in their own singular style of reporting. This was an improvement over the previous study.

From this time on, more studies appeared that seemed more acceptable, from the psychological viewpoint, in
studying the phenomenon of repression. The earlier studies seemed to involve intuitive and "armchair" guessing.

Edwards (6) offered a ten-minute speech containing an equal number of pro- and anti-New Deal statements, and found that the subjects remembered better those portions of the speech that coincided with their own beliefs. This study reinforced earlier works done on predisposed attitudinal frame of reference in influencing recall.

Zeller (23) developed an experimental analogue for repression. He said that there were three important steps to be taken in the investigation of repression. These were that (1) material must be learned, (2) learned material must be repressed, and (3) removal of the repression should reinstate the memory of the learned material. Zeller in other studies (24, 25) used non-sense syllables to obtain experimental repression and developed the hypothesis that previously known material which has become associated with an unpleasant emotional experience (induced failure) is less well-recalled than a later association with induced success at the same task at which failure was induced, leads to an increase of measured recall of the original material.
Pintner and Forlano (16) used paired-associative words to measure pleasantness and unpleasantness. They found that unpleasant word associations were recalled less than pleasant word associations.

Lanier (12) studied the "affective conflict" and found that certain words were more often related to pleasant, unpleasant, mixed, or indifferent feelings; that is, his experimental subjects had a tendency to place a word such as father, love, mother, or home in the pleasurable column. Unpleasant words were those such as worry, war, pain, and blood. Mixed words were body, work, study, and drink, while indifferent words were such as back, street, finger, cat, or tree. It was seen upon study, that the words falling into each group seemed to involve different concepts and also are related to the propinquity of the cathected/anti-cathected object/concept to the individual.

In another study, Lanier (13) used the Kent-Rosanoff Free Association List and the Galvanomic Skin Response. However, he did not find any significant relationships between word choice and emotionality as measured by the galvanomic skin response.
Johnson (10), in a recent study, found that motivation arouses and influences drive direction toward choice of words and said that words "are formative constructs of perceptual internalization, and indicate color, shape, position, quantity, truth, cause, and life in order."

Doehring (5), in a similar study, found that certain words, used with significant frequency, were described as either "good" or "bad." He used the Thorndike-Lorge Tables and found that such words as sky, rose, home, father, mother, or birth were usually considered good, while fat, cold, war, hurt, fire, bitter were usually considered bad words.

Worchel (27) used critical associative words "individualized" for personal meaning, and found a significant difference in the recall and relearning of the affective material presented.

Rosenstock (17) used sentences with varying illumination to study repression, and decided that sex is an important variable in that females tend to repress aggressive material while males tend to repress sexual material.

LaForge et al. (11) found that women tend to repress hostility while men tend to repress weakness. That there are sexual differences seems to be a foregone conclusion.
A number of projective techniques have been used to study repression. Epstein and Smith (7) used cartoons with hostile content to measure repression of hostility, but found no significant results to support their hypothesis that hostile responses would be favored by those supposedly with repressed hostility.

Murray (15) used pictures, as in the above work, and found that those subjects which were purposively prevented from sleeping for eighty-six hours offered significantly fewer sleep themes than the control subjects. Murray decided that this was an example of mild repression as a way of coping with a conflict between a sleep drive and various responses to stay awake.

Rosenzweig (18) used jigsaw puzzles in studying the relationship of frustration to repression. He found that finished puzzles were recalled far more frequently than unfinished puzzles in a group which was threatened. He threatened the group by telling them that the task at hand was an intelligence test. The control group, merely told to complete the puzzles, recalled the incomplete puzzles more frequently than the completed puzzles. This study allowed Rosenzweig to formulate the hypothesis that
the idiodynamics of the individual made it necessary to consider the idioverse of the individual; that is, balance of experimental conditioning and personality variables as they are blended into dynamic experiences of the individual.

Taylor (19), in a similar study with puzzles discovered similar results to those of Rosenzweig.

The phenomenon of hypnotism has also been used to study repression. Bobbit (2) used a hypnotically induced conflict to study repression, and developed the general hypothesis that the major anxiety of an individual was felt in that area which was incompletely repressed.

Cannicott and Umberger (3) applied noxious stimulation as a technique in studying repression. It was found that subjects did not remember more words with accompanying noxious stimulation than those subjects who received no noxious stimulation.

A number of more objective tests have been used in the study of repression. Weisskofe et al. (21) used the F and C scales of the California Personality Inventory. He hypothesized that individuals who repressed impulses were likely to find expression for those impulses when the situation calls for it. He found that "people who repress their aggression towards their father to an extreme
degree tend to express their aggressions in inappropriate rather than appropriate situations."

Caron and Wallach (4) related personality determinants or repressive and obsessive reactions to stress, and found that a person low in achievement and achievement concern tended to repress the memory of failure experiences.

Reliability and validity studies of the use of objective tests to measure repression have been disappointing (22, 9, 2).
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHODOLOGY AND PROCEDURE

The present study was made to investigate the phenomenon of repression and to study its relationship to optimism/pessimism as measured by a subjective and objective measuring instrument in order to test the hypothesis that the observed tendency of "forgetting" unpleasant and remembering pleasant events, are related to optimism/pessimism, as a general tendency to use repression as a defensive mechanism. To determine the degrees of optimism/pessimism, the Guilford-Zimmerman Temperament Survey $E$ (emotionality) factor and Dollard-Mower Discomfort-Relief Quotient were used as the objective and subjective measuring devices.

The Guilford-Zimmerman Temperament Survey was given to three classes of psychology students. The students were then asked to write their autobiographies which were evaluated with Dollard-Mower's Discomfort-Relief Quotient.
Subjects

The subjects for this study consisted of forty-two students from the College of Arts and Sciences at the North Texas State University, Denton, Texas. Three groups were randomly selected from general psychology classes. The ages ranged from eighteen to twenty-five.

Gathering Data

The data for this study were gathered by means of the Guilford-Zimmerman Temperament Survey, which was administered as part of a battery to all general psychology students. It was thought that the student's responses would be more reliable with the test being included as part of a battery, rather than being aware of the research purpose at hand.

Two months after the battery of tests was taken, the students were given mimeographed "homework assignments" stating:

ASSIGNMENT:
Write an autobiography to be turned in at the next class meeting. Use any style of writing you desire. This assignment will not be evaluated on a grammatical basis. However, the autobiography must not be less than five pages.

The purpose for the request, for at least five pages, was an attempt to obtain autobiographies of comparatively equal lengths without forcing an exact number of words.
Classifying Data

The Guilford-Zimmerman Temperament Surveys were scored and the E (emotional stability) scale recorded for each student. A high score on the emotional stability scale is indicative of cheerfulness, optimism, and emotional stability. A low score on the emotional stability scale indicates a lazy and phlegmatic individual. A very low score on the emotional stability scale indicates poor mental health which tends toward neurotic characteristics.

The autobiographies were evaluated using the following procedure to obtain the Discomfort-Relief Quotient.

All discomfort and relief words were counted for each autobiography. A word was counted as a "discomfort" word if it indicated discomfort, pain, unhappiness, suffering, etc. "Relief" words were those that indicated enjoyment, happiness, comfort, reinforcement, etc. In general, a word was not scored as "discomfort" or "relief" unless the meaning of the word would convey discomfort or relief out of context. There were, however, a few situations in which the context had to be taken into account. When the word "pleased" was qualified by "not" or any other negating term, then the word was counted as a
"discomfort" word. In the same token, when a word like "pain" was qualified as "freed from pain," then the phrase was counted as a "comfort" word.

All discomfort and relief words were counted regardless of who uttered them and to whom they applied. If the same word appeared several times, that word was counted each time it appeared.

The discomfort and relief words were added, and this sum was divided into the number of discomfort words to obtain the D.R.Q.

\[
\frac{\text{Discomfort words}}{\text{Discomfort + Relief words}} = \text{Discomfort-Relief Quotient}
\]

Statistical Method

For the purpose of statistical analysis, correlation coefficients are used to indicate the relationship of the two variables, emotional stability factor of the Guilford-Zimmerman Survey and the Dollard-Mowrer Discomfort-Relief Quotient. The following formula was used:

\[
\gamma_{xy} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}
\]
Table I presents the data for each subject's performance, scores on the Guilford-Zimmerman Temperament Survey E factor, number of discomfort and relief words and the D.R.Q. for each student.

**TABLE I**

**SCORES MADE BY EACH SUBJECT ON GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY E FACTOR, NUMBER OF DISCOMFORT AND RELIEF WORDS, AND THE D.R.Q.**

*(N=42)*

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<th>Score for each Subject on Guilford-Zimmerman E Factor</th>
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<td>18</td>
<td>10</td>
<td>.642</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>13</td>
<td>.586</td>
</tr>
<tr>
<td>5</td>
<td>42</td>
<td>42</td>
<td>.500</td>
</tr>
</tbody>
</table>
**TABLE I--Continued**

<table>
<thead>
<tr>
<th>Score for each Subject on Guilford-Zimmerman E Factor</th>
<th>Number of Discomfort Words</th>
<th>Number of Relief Words</th>
<th>D.R.Q.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>15</td>
<td>15</td>
<td>.500</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>14</td>
<td>.300</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
<td>28</td>
<td>.450</td>
</tr>
<tr>
<td>5</td>
<td>19</td>
<td>27</td>
<td>.586</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>7</td>
<td>.363</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>13</td>
<td>.351</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
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<td>15</td>
<td>19</td>
<td>.441</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>13</td>
<td>.606</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>0</td>
<td>.100</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
<td>24</td>
<td>.400</td>
</tr>
<tr>
<td>8</td>
<td>72</td>
<td>45</td>
<td>.384</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>15</td>
<td>.600</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>38</td>
<td>.878</td>
</tr>
<tr>
<td>8</td>
<td>40</td>
<td>29</td>
<td>.579</td>
</tr>
<tr>
<td>9</td>
<td>19</td>
<td>29</td>
<td>.395</td>
</tr>
<tr>
<td>9</td>
<td>19</td>
<td>9</td>
<td>.678</td>
</tr>
</tbody>
</table>

As revealed by Table I, seventeen of the subjects' G-Z E factor scores clustered around the middle range. This group is distributed normally in the optimism/pessimism scale. This indicates that 40 per cent of the subjects have a balanced level of optimism/pessimism. The negative correlation between the low (1-2-3) G-Z E factor group and its D.R.Q. scores is -0.521, which is significant at the .05 level of confidence. This confirms the
first hypothesis; that is, individuals with low emotional stability or high degree of pessimism have high measurable degrees of tension.

The positive correlation between the high (7-8-9) G-Z E factor group and its D.R.Q. scores is 0.638. This rejects the second hypothesis that individuals with high degree of optimism on the G-Z E factor, score low on a subjective test measuring pessimism such as the Dollard-Mowrer D.R.Q.

As seen in Table I, four subjects made extreme scores, 1 or 9, on the G-Z E factor. This indicates that 9 percent of the tested population have extreme degrees of optimism/pessimism.

Table II, which shows the mean scores on discomfort-relief quotient for each Guilford-Zimmerman Temperament Survey E factor, confirms the findings on Table I. As can be seen from this table, the greatest clustering is in the area of those scores of the Guilford-Zimmerman Temperament Survey E factor, middle range of 4-5-6.
TABLE II

MEAN SCORES ON DISCOMFORT-RELIEF QUOTIENT FOR EACH GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY E FACTOR CLASSIFICATION (N=42)

<table>
<thead>
<tr>
<th>G-Z E Factor Score</th>
<th>Number of Subjects</th>
<th>Mean Age</th>
<th>Mean Discomfort Score</th>
<th>Mean Relief Score</th>
<th>Mean D.R.Q. Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>20.0</td>
<td>31.0</td>
<td>28.0</td>
<td>.473</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>19.2</td>
<td>23.2</td>
<td>15.7</td>
<td>.529</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>20.0</td>
<td>17.6</td>
<td>23.2</td>
<td>.412</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>19.6</td>
<td>21.6</td>
<td>13.2</td>
<td>.622</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>19.2</td>
<td>19.0</td>
<td>20.8</td>
<td>.435</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>23.2</td>
<td>16.0</td>
<td>14.2</td>
<td>.355</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>20.0</td>
<td>16.0</td>
<td>24.0</td>
<td>.400</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>21.0</td>
<td>31.7</td>
<td>31.7</td>
<td>.610</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>19.5</td>
<td>19.0</td>
<td>19.8</td>
<td>.526</td>
</tr>
</tbody>
</table>

Table III presents more significant findings. As might be anticipated, the largest number of subjects falling into the 4-5-6 G-Z E factor group correlates 0.830 with the D.R.Q. scores. This is significant at the .01 percent level of confidence. This definitely indicates that the D.R.Q. method could be used as a subjective measure of an individual's optimism/pessimism.
TABLE III

CORRELATIONS BETWEEN GUILFORD-ZIMMERMANN TEMPERAMENT SURVEY
E FACTOR SCORE GROUPS AND THE DISCOMFORT-
RELIEF QUOTIENTS
(N=42)

<table>
<thead>
<tr>
<th>Guilford-Zimmerman E Factor Score Groups</th>
<th>Number of Scores for Guilford-Zimmerman/D.R.Q.</th>
<th>Degree of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2-3 (low)</td>
<td>11</td>
<td>-0.521</td>
</tr>
<tr>
<td>4-5-6 (average)</td>
<td>21</td>
<td>0.830</td>
</tr>
<tr>
<td>7-8-9 (high)</td>
<td>10</td>
<td>0.638</td>
</tr>
</tbody>
</table>

As shown in Table III, the positive correlation between the high (7-8-9) G-Z E factor and its D.R.Q. scores is 0.638. This rejects the second hypothesis that individuals with high degree of optimism on the G-Z E factor score low on a subjective test measuring pessimism, such as the Dollard-Mowrer Discomfort-Relief Quotient.
CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

The purpose of this investigation was to study the phenomenon of repression and its relationship to optimism/pessimism as measured by a subjective and an objective measuring instrument. Forty-two men and women were selected at random from general psychology classes at the North Texas State University, Denton, Texas.

The Guilford-Zimmerman Temperament Survey E factor and the Dollard-Mowrer Discomfort-Relief Quotient were obtained from each subject to test the following hypotheses:

1. That individuals who showed a high degree of optimism, as measured by an objective test, would also display a high degree of optimism as measured by a subjective test. Therefore, a meaningful relationship of two different levels of repression would be demonstrated. This hypothesis is accepted in view of the significant data.

2. That individuals who showed a high degree of pessimism as measured on the Guilford-Zimmerman E factor
would also show a high degree of pessimism as measured by the D.R.O. Here, too, a meaningful relationship of two different levels of repression would be demonstrated. This hypothesis is accepted in view of the resulting data.

The results of this study were not consistent with several theories which state that the pessimistic person tends to remember more unpleasant events than pleasant events, and that this attitudinal frame of reference is used in approaching daily tasks and can be seen through symbolic behavior. Nor were the results consistent with the belief that optimistic individuals tend to remember more pleasant events than unpleasant events, and that this attitudinal frame of reference is used in approaching daily tasks and can be seen through symbolic behavior.

Conclusions

The data obtained from this study appear to warrant the following conclusions.

1. Objective measuring techniques such as the Guilford-Zimmerman Temperament Survey present a significant distribution of temperament factors.
2. The Guilford-Zimmerman Temperament Survey appears to provide a wide range of scores covering optimism and pessimism in a randomly selected college group.

3. The Dollard-Mowrer Discomfort-Relief Quotient appears to be a reliable technique for measuring the low level of optimism/pessimism in the individuals who indicate a singularly low level of optimism/pessimism in the Guilford-Zimmerman Temperament Survey.

4. The Dollard-Mowrer Discomfort-Relief Quotient appears to be sensitive in reflecting a person's optimism/pessimism degree at the time of administration. However, the degree of an individual's optimism/pessimism fluctuates greatly and no future inference can be obtained from the Dollard-Mowrer method of measuring optimism/pessimism even though the D.R.Q. may be significant at the time of measurement.
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