Effects of poetry on mood states | A test of the "Isoprinciple"

Keith Jerry Krueger
The University of Montana

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THE EFFECTS OF POETRY ON MOOD STATES:
A TEST OF THE "ISOPRINCIPLE"

by
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B.S., Washington State University, 1971

Presented in partial fulfillment of the requirements
for the degree of
Master of Arts
UNIVERSITY OF MONTANA
1975

Approved by:

[Signatures]
Chairman, Board of Examiners
Dean, Graduate School
Date
The effects of poetry on mood states: A test of the "isoprinciple" (156 pp.)

While "poetry therapy" has been coming into increasing use recently, there is no experimental evidence to indicate that any therapeutic gain from such an approach derives from the poetry per se. The present study was designed to test the idea that poetry, rather than some other factor, is the therapeutic agent, i.e., that there is a "poetic effect." It was also designed to test the "isoprinciple" approach (Leedy, 1969), which states that a poem matched in mood to that of a client will be most therapeutic, i.e., will cause the greatest mood change.

Eighty (80) male Ss were given either a depression (D) or an elation (E) mood inducement, then were presented a tape containing either a matched-mood poem (m), a matched poem with an opposite-mood ending (mo), a non-matched poem (nm), or neutral statements (c). It was hypothesized that, in terms of mood changes measured by pre- and post-test measures, (mo) > (m) > (nm) > (c). A main effect for Mood Inducement was also hypothesized, and it was indeed found, though no treatment effects were demonstrated, i.e., no "poetic effect" was established. In addition, non-significant trends suggested that (m) produced no change in relation to the other three conditions. D Ss differed significantly from E Ss after inducement as well as over time, showing a tendency to "regress toward the mean," i.e., toward a more neutral state. This regression was discussed in terms of several models of attitude change. It was felt that individual self-regulatory functions probably interacted with intellectual activity or concentration to produce the regression. Criticisms as well as implications of the study are discussed. While neither "poetic effects" nor the "isoprinciple" were disproven, questions are raised regarding the accuracy of either principle. It would seem incumbent upon those utilizing "poetry therapy" to experimentally demonstrate what actually is the agent of therapeutic change in such an approach.
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CHAPTER I

INTRODUCTION

Problem to be Studied

Currently there appears to be growing interest in "poetry therapy," i.e., the use of poetry in the assessment and treatment of mental problems. While poetry appears to have been used in a therapeutic manner from time to time through our recorded history, the literature on the subject has seemed to increase substantially, especially since the early 1960's. Much evidence has been presented in support of the claim that poetry can be effective in treating or preventing mental disorders (e.g., Leedy, 1969, 1973; Blanton, 1960; Harrower, 1972), but the evidence has been predominantly theoretical or anecdotal. The few related experiments that have been performed have been plagued by considerable conceptual and methodological difficulties, making their application to "poetry therapy" negligible. Consequently, there appears to be no reliable experimental data available to indicate that it is the poetry per se, and not some other intervening variable(s), that has caused the reported change or therapeutic effect.

The present research, then, was undertaken to investigate the idea that poetry can produce an effect that could be viewed as being "therapeutic." It was designed to provide more controls, both conceptually and methodologically, than past experiments on the subject so that the results would be more easily generalizeable to actual therapy.
situations. It was also designed to test the "isoprinciple" assumption of Leedy (1964), i.e., that a poem "matching" the particular mood of a mentally-troubled patient would be more therapeutic than a poem that did not match that mood. The ideas being tested, as well as the experimental design being utilized, are discussed more fully below. First, however, it would seem best to outline some of the broad (and, later, more specific) conceptualizations of poetry's connection with therapy, healing, and psychological health.

History and Poetry

Much, indeed, is to be learned about man's psychological development from the history of poetry. For one thing, poetry is much older than the science of psychology; "poets have revealed themselves to have analyzed man's conditions long before human behavior was conceptualized as a science" (Wolberg, 1969, p. 9). Blanton (1960) has concurred, stating that "poets, prophets, and playwrights gave us much of our insight long before the advent of modern scientific techniques" (p. 2). As the present research holds, though, insights are of value as hypotheses, and only become more valuable when empirically tested.

Also, poets have often shown themselves to be highly sensitive observers who are capable of communicating their observations in a meaningful way. Their descriptions of human behavior "often have a life-like vividness and an emotional force" (Coleman, 1964, p. 6) that the language of science usually does not achieve. Further, their writings often provide valuable clinical material for psychological analysis.
(Rothenberg, 1973; Pattison, 1973) so that a familiarity with relevant literary works might be considered a useful supplement for psychological knowledgeability or competence. Aswell (1947) has stated that "the psychiatrist will learn what he will not find in the textbooks. For if he knows only psychiatry, he does not know psychiatry" (p. 371). Stone's (1973) contention that "doubtless there is more human wisdom in Shakespeare than in all the contemporary writing on mental health" (p. xviii), while difficult to dismiss, would obviate the need for research in mental health if taken literally.

It might easily be conceded that poetry quite often goes far in describing the vicissitudes and varieties of man's behavior and emotions. Shakespeare had the following to say in "A Midsummer Night's Dream" regarding the poet's function and scope:

The poet's eye, in a fine frenzy rolling,
Doth glance from heaven to earth, from earth to heaven;
And as imagination bodies forth
The forms of things unknown, the poet's pen
Turns them into shapes, and gives to airy nothing
A local habitation and a name.

The greatest of the Greek philosophers seemed to view poetry as an improvement over history, or even over pure intellect itself. Aristotle said that "poetry is finer and more philosophical than history; for poetry expresses the universal, and history only the particular" (quoted by Leedy, 1964, p. 135). The historian Toynbee (1949) further stated that

the other great Greek master of the understanding and the use of the intellect, Plato, was so well aware of the intellect's limits and limitations, that, whenever he found himself running
up against the confines in the course of a train of reasoning, he would deliberately stop speaking the language of science and would start talking the language of poetry, because he knew that poetry lends the human soul wings to soar to altitudes above the intellect's ceiling (p. 146).

Toynbee's argument seemed to be that, at times, history and reasoning might "ceiling out" before poetry, and that poetry might thus often be a more appropriate vehicle for the communication of certain concepts or percepts that touch the "self". Pattison (1973) has helped clarify the preceding concept by discussing the distinction between signs and symbols. Signs are signals that "present," in a one-to-one correlation, "a specific substitute cue to the recipient" (p. 198), i.e., basically a "mathematical exchange." Symbols, on the other hand, "represent" rather than "present," i.e., they have organizing, synthesizing, and creative aspects that are practicably incapable of reduction to the component parts from which they have been synthesized. To view communication in, for example, psychotherapy as merely sign exchange is to miss much of the meaning of communication; its symbolic nature must also be understood, for "communicational interaction in psychotherapy is primarily symbol exchange" (p. 199). The failure of a therapist to recognize and respond to the symbolic communication of a patient leads to a breakdown of communication between the two parties because dissimilar messages are being sent and received, even though the words used might be the same; and, as Truax and Carkhuff (1967) have demonstrated, this can lead to a decreased likelihood of success in psychotherapy. Pattison (1973) has held that therapy is enhanced by the therapist and patient both emphasizing symbolic communication, in that
when a patient departs from sign language toward more symbolic or associational language, he more

... fully communicates the essence of himself ... Poetry, and prose that approaches a type of poetic communication, involves the greatest degree of symbolization of the self; that is, the greatest degree of representation, organization, and synthesis of what I am, what I feel, how I respond and react (p. 201).

The implication from the above argument would seem to be that poetry may be viewed as a means of communication that is in some, if not most, instances more efficacious than the language of science ('mathematical exchange") for transmitting certain types of messages, i.e., "inner," "personal," "private," etc. As Lawler (1972) stated, "Poetry always, then, entails the speaking of the self" (p. 231). However, were one to accept the argument, it would have to be assumed that poetry is intended to "communicate" rather than "express," which might be a debatable point. It might also be contended that communication is enhanced by accuracy, and since symbolic exchange would introduce more error of measurement than would mathematical exchange, accuracy would have to be sacrificed somewhat in reliance on symbols. Thus there would be advantages and disadvantages to either type of communication, and the relative gains of each would have to be measured somehow before total reliance were to be relegated to one or the other.

Medicine and Poetry

In that the present paper is concerned with the reported healing or therapeutic effects of poetry, it might be interesting to mention here the historical connection between medicine and poetry. Such a connection
of course, does not prove that poetry is curative, nor does it imply that other professions are incompatible with poetry. It can, however, help place the current poetry therapy movement in perspective, in that most of the literature relating to poetry therapy appears to be issuing from psychiatrists and/or psychoanalysts, i.e., medical persons.

The perceived relationship between poetry and medicine appears to be at least as old as Apollo, god of poetry and medicine. Orpheus combined the same two fields, as did his disciple Musaeus. Leedy (1964) has traced the history of the relationship between poetry and medicine, stating that the urge to utter "rhythmic cadences" that have seemed strangely able to stir man's emotions is "apparently as old as man himself" (p. 136). Poet-physicians have been with us in many ages and in many countries. Shortly after Columbus' voyage, the Spanish royal physician Francisco Lopez de Villalobos wrote a long poem on the subject of syphilis followed some years later by Girolamo Fracastoro's work on the same topic. Writings in verse covering diverse and sundry medical subjects then started appearing with more frequency, only beginning to decline after Erasmus Darwin, whose scientific poem *The Botanic Garden* appeared in 1792.

Though "noteworthy achievement in both medicine and poetry has come to few physician-poets, yet the tradition has ancient roots" (p. 138), with the third century B.C. hosting the double practice of Nicias, friend of Theocritus. More recent and familiar poet-physicians include: Goethe's friend Albrecht von Haller; John Keats, who was licensed as an apothecary at age 21; Oliver Goldsmith, similarly more
known for his poetry than for his short medical career, as was Friedrich Schiller; Edward Jenner, pioneer in vaccination research, and Sir Donald Ross, discoverer of the malarial parasite; English court physicians John Arbuthnot and Sir Richard Blakmore; Sir Charles Scott Sherrington and Ireland's Oliver St. John Gogarty, both renowned for their medical specialities; and Robert Bridges, Britain's poet laureate from 1913 to 1930. Among the better-known North American poet-physicians have been Samuel Bartlett Parris, William Henry Drummond, Oliver Wendell Holmes, Silas Weir Mitchell, John Allen Wyeth, "In Flanders Fields" author John McCrae, psychiatrist Merrill Moore, and William Carlos Williams. Williams, a lifelong small town doctor as well as an internationally-recognized poet and anthologist of high merit, felt that it was the art rather than the science of medicine that formed the bond between it and poetry. He stated that "medicine was the thing which gained me entrance to these secret gardens of the self" (quoted by Leedy, 1964, p. 142), with healing here being the mechanism leading to poetry rather than vice versa, as usually is reported to be the case.

Although the discussion thus far has basically dealt with accredited physicians, any reported therapeutic utilization of poetry certainly has not been limited to that specific genre of medical professional. "Since preliterate times poetry has been in use as a modality for dealing with pathogenic emotional states. Spells, invocations, and incantations were invariably in the form of poetry" (Dean, 1973, p. 127). Blinderman (1973) has said that song appears to be a main avenue whereby primitive man has expressed himself. He has also contended that the songs of medicine men, shamans, and witch doctors of contemporary primitive
cultures are being used therapeutically today. Shamans attending many and different tribes of Eskimoes, Indians, Africans, aborigines and other "uncivilized" cultures are performing important medical and psychological services with their songs and rituals. Blinderman felt that they were even more effective in relation to their more "civilized" professional counterparts, though such a contention might be rather difficult to prove, and a comparison between shamans and psychiatrists might be cumbersome to implement.

Freud and Poetry

It might be here worthwhile to look at what Freud had to say about poetry and creative writers, in that it seems that most of the theories offered regarding the therapeutic effects of poetry are constructed on or with psychoanalytic concepts, as will be seen below. The influence of Freud on literature in general has been prodigious, and even Freud's biographer Ernest Jones (1957) has considered the task of "discussing the vast theme of Freud's influence" (p. 417) on literature as beyond his powers. Freud first applied his new system of psychoanalysis to the study of literature with his 1907 work Delusion and Dream in W. Jensen's Gradiva, and it soon became very stylish for medical analysts to apply Freudian theories in the study of famous writers and personalities, as well as to deduce or infer psychodynamics in the genuses of literary productions (Oberndorf, 1964). Such Freudian approaches to interpretation continue; indeed, the papers and books written discussing psychoanalytic approaches to literary works, creative writing and writers, art, drama, imagination, etc., would defy any attempt at comprehensive review, and even a
A bibliographer would find before him a labor of many years. The beginning of a bibliography may be found in Jones (1957).

The effect of Freud, then, on literature subsequent to the commencement of his career has been widespread. There also seems to be little doubt that Freud himself was largely influenced by literary works and artists, and that they anticipated many of his own insights and theories (Prescott, 1926; Chaliff, 1973; Rothenberg, 1973). He gave writers much credit, recognizing, in his Gradiva book, that

. . . imaginative writers are valuable colleagues and their testimony is to be rated highly, because they have a way of knowing many of the things between heaven and earth which are not dreamed of in our philosophy. In the knowledge of the human heart they are far ahead of us common folk, because they draw on sources that we have not yet made accessible to science (Jones, 1957, p. 419).

It is well recognized that Freud was a writer of exceptional talent himself (Pattison, 1973), as the presentation to him of the Goethe prize in 1930 testifies. Jones (1957) expressed little doubt that had Freud not pursued the career of psychoanalysis "his creative faculties would have found a literary expression" (p. 418), and Jones entertained even less doubt that "from the humanistic point of view, Freud would rank as a highly cultivated and well-educated man" (p. 427).

Freud wrote very little about poetry directly, and though he never drew actual connections between poetry and therapy (Robinson and Mowbray, 1973), many scientific writers have used his ideas and statements as bases for making such connections (e.g., Leedy, 1969, 1973). "The poet and day-dreaming" (Freud, 1949) was the only work in which Freud titularly mentioned "poet", and the paper itself deals with daydreaming
and fantasy more than with creative writers, and with creative writers in general more than with poets. His thesis was that the child and writer both create a very serious world of fantasy. Fantasizing or daydreaming is acceptable for a child but not for an adult, even though the pleasure of fantasizing persists. "Imaginative creation, like daydreaming, is a continuation of and substitute for the play of childhood" (Freud, 1949, p. 182), i.e., a socially-acceptable and, indeed, desirable way of "living out" pleasurable fantasies. And the pleasure can be transmitted to the reader: we would be repelled by an adult rhapsodizing about his fantasies, "but when a man of literary talent presents his plays, or relates what we take to be his personal daydreams, we experience great pleasure" (Freud, 1949, pp. 182-183). By implication, then, poetic art can be a way of creating pleasure and of helping to break down barriers between people (Parker, 1969), whether that poetry is read, heard, or written. Freud later stated that poetry could be a means whereby a reader could achieve some individuation and separation from the crowd by identifying with the hero of the poem, who represented the poet himself (Freud, 1960).

Extensions of Freudian Influence

As indicated above, Freud must be given much of the credit for laying the foundation for the later interest by scientific writers in delineating the relationship between poetry and therapy. Such credit is suggested when it is considered that most of what has been published by psychologically oriented writers concerning the theoretical analysis of poetry therapy and poetic production has been approached from a Freudian or psychoanalytic point of view. Terms such as "unconscious", "insight", and
"catharsis", basic to psychoanalytic theory, keep reappearing when the
dynamics and therapeutic effects of poetry are being discussed. A
seemingly high proportion of writers, including established poets, also
revert to psychoanalytic jargon in explaining the poetic process (Wilson,
1954). Some groups, whether basically literary or psychological in
orientation, may choose to express their ideas on poetry more in terms
existential or metaphysical, some may wax eloquent in terms highly per­
sonal or idiosyncratic. No groups, however, appear to have ever approached
poetry therapy utilizing exclusively the language of experimental or oper­
ant psychology. This might be largely because the effect of the poem is
generally assumed to be internal, i.e., related to the private "inner
life" of a person. For the poet, this internal effect can be externalized
or made public when the poem is written; for the reader, the effect can
be externalized when the poem is read and "reacted to" in some observable
way, e.g., discussing it, laughing, weeping, etc. Supposedly, then,
"the poetic statement is both private and public simultaneously -- one
of the factors that accounts for the power and wonder of poetry" (Roth­
enberg, 1973, p. 120).

As mentioned initially, the therapeutic effect of poetry has yet
to be experimentally demonstrated. Consequently, it would seem pointless
to argue whether or not the psychoanalytic approach is the most functional
in explaining any "poetic effect." Such arguments, if indeed necessary
at all, must await the establishment of a measureable and predictable
effect introduced by the utilization of poetry. Until that effect is
experimentally established, however, it seems most practical to discuss
the current theories purporting the therapeutic usefulness of poetry in the language they use, i.e., the language of psychoanalysis. The purpose here, it must be remembered, is to review those theories rather than to evaluate them.

Conceptions of Poetic Effect

The recorded use of poetry as a therapeutic agent goes back at least as far as the Greeks, and many different interpretations have been offered since then to account for the "poetic effect." "Poetry as the Greeks knew when they adopted the Drama as a cleansing rite of religion, is a form of psycho-therapy" (Graves, 1922, pp. 84-85). That Aristotle advocated the "purging" effect of "katharsis" was attested by Butcher (1951), who stated that the term for Aristotle,

...expresses not only a fact of psychology or pathology, but a principle of art... The painful element in the pity and fear of reality is purged away; the emotions themselves are purged... The idea of "katharsis" implies, as we have seen, the expulsion of a painful and disquieting element (pp. 253-255).

Even after the advent of psychology and psychoanalysis, poetry has been considered to be "emotional catharsis without the aid of a psychiatrist" (Kerschbaumer, 1940, p. 141). According to Chaliff (1973), conscious striving to produce a cathartic effect is evident in the works of Emily Dickinson, who "seems not only to have used her poetry for a cathartic purpose, but to have been aware that she was doing so and, in fact, to have seen this as a purpose of poetry" (p. 25). She lived her life a recluse and shared her pain with humanity by means of her poetry; readers could supposedly experience catharsis by reading a poem and feeling
vicariously the same type of suffering she endured before or during the
creation of the poem.

Implicit in the above approach is the role of the unconscious, i.e.,
catharsis occurs as the ego searches for outlets to relieve unconscious
tensions or anxieties, in that when the ego becomes unable to handle or
cope with the anxieties, maladaptive or neurotic behavior develops. One
of the biggest controversies seems to be in whom to posit the greatest
amount of residual anxiety, the poet or the reader; i.e., which of the
two is more neurotic? Stekel (1923) claimed that all poets were neurotics
who were working out their neuroses through poetry. Vertue (1949) felt
that modern poets were "baffled" and there could be nothing else to do
"but to go back to the past for a renewal of our faith" (p. 294), i.e.,
read only the "classic poets." Freud (1949) indicated that creativity
was similar to, but not equated with, neurosis; the neurotic and the
poet had withdrawn from reality into imagination, but, unlike the neur­
otic, the poet could find his way back again through his art. Thus the
art could "substitute" for the neurosis (Jones, 1957; Robinson and
Mowbray, 1969). Lord Byron said that poets were near madness, prevented
from reaching it by their art (Morrison, 1973). Trilling (1950) contended
that if the poet were arbitrarily labeled neurotic, other professionals
such as scientists and lawyers would have to be similarly classified.
His reasoning was that if we "want to relate the writer's power to his
neurosis, we must be willing to relate all intellectual power to neurosis"
(p. 171), and consequently, "no profession may be so respectable or so
remote or so rational as to be exempt from the psychological interpreta­
tion" (p. 171), i.e., that of the creative power of neurosis. After
extensive evaluations, study, and synthesis of "poetic creativity" in contemporary poets and their contrasting self-reports, Wilson (1954) concluded that the good writer had "gained a certain mastery over himself" (p. 176) and his conflicts. He felt that the poet's act of "producing" created an aesthetic whole that triumphed over disintegration and contrasted with the neurotic's tendency toward self-defeatism. None of the above statements settles the issue, of course, nor is there need to seek settlement at this time. However, it should be mentioned that most current psychological theories on the subject (e.g., Leedy, 1969, 1973) have tended to indicate that the poetic process is begun because unconscious tensions or conflicts impinge upon the poet, who can basically relieve those tensions by expressing himself creatively. The resulting poem generally embodies in some way part or most of the tensions that precipitated the creative act. In this view, anxiety need not be debilitating, i.e., what may overtly seem aversive could lead to a greater benefit, as Shakespeare has demonstrated in As You Like It:

Sweet are the uses of adversity,
Which, like the toad, ugly and venomous,
Wears yet a precious jewel in his head;
And this our life, exempt from public haunt,
Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in everything.

Poetry has been reported to also act in other ways to help relieve unconscious tensions, and some of these ways will be briefly mentioned. Poetry can presumably help break down resistance by letting repressed or unconscious elements "come out" and express themselves, it often being easier to write down such elements in a socially-sanctioned way before later talking about them (Prescott, 1926; Burke, 1969). The poem can then
be used to stimulate unblocking through a free association technique (Parker 1969). It has been said that, in a psychotherapeutic situation, resistance against social verbalization can be attacked by having a non-verbal or self-conscious client practice reading his poem and respond to social reactions either in a group or in individual therapy, thus learning to interact more appropriately (Greenberg, 1969; Crootof, 1969; Parker, 1969; Edgar and Hazley, 1969; Barkely, 1973). In that some of the characteristics of poetry are seen as being similar to processes of thought and speech in schizophrenics (Forrest, 1969), it might often come closer to speaking the "language of the patient" than can many other universes of discourse (Kramer, 1969). By reading and/or writing poetry himself, the therapist might be able to relate better to his own "inner world" as well as to that of his patient (Forrest, 1969; Wolman, 1970) resulting in increased empathy and communicational efficiency. On the patient's side, writing personal poetry could increase the patient's active participation in his own therapy, thereby helping reduce his dependence on the therapist (Naumberg, 1966), for the creative act itself is viewed as being "a self-sustaining experience, and in the poetic moment the self becomes both the ministering 'therapist' and the comforted 'patient'" (Harrower, 1972, p. 3). Rothenberg (1973) has viewed the whole poetic process as a movement toward "psychological freedom." He felt that the poet could achieve some relief and freedom by managing to unearth and express some of his inner tensions, and the reader could feel reassured to see in another person, i.e., the poet, tensions similar to his own as well as an attempt toward resolving those tensions, and in working them out for himself, he too could achieve some psychological freedom.
Personal poems reportedly have been used evaluatively to help the therapist better understand the patient's current psychological and emotional functioning (Kerschbaumer, 1940; Greenwald, 1969). Barkley (1973) has divided the poetic process into different factors: writing per se signifies a "need"; the analysis or dissecting of the poem is analogous to analyzing the self; the content of the poem reflects the "feeling" of the poet; and the "creativity is the big hidden 'I'" (p. 2). Feeling poetry to be symbolic rather than signal language, the opportunity could be for the patient "to represent himself more clearly, and for the therapist to see him and understand him most adequately" (Pattison, 1973, p. 201). Also, according to some writers, the analysis of personal poems is very similar to the analysis of dreams, which, again, is fundamental to assessment and treatment in psychoanalytic theory (Chaliff, 1973; Pietropinto, 1973).

As indicated in the above quote from Byron, poetry has often been viewed as a "safeguard" to the poet and reader against neurosis or mental upset (Prescott, 1926; Harrower, 1972; Morrison, 1973). Many poets seem to have testified to this idea. In "Intimations of Immortality,"

Wordsworth wrote of poetical expression:

To me alone there came a thought of grief;
A timely utterance gave that thought relief,
And again I am strong.

Wordsworth wrote further in his "Prelude" on the "need" for reading poetry:

The tales that charm away the wakeful night . . .
These spread like day, and something in the shape
Of these will live till man shall be no more.
Dumb yearnings, hidden appetites, are ours,
And they must have their food.
Prescott (1926) has told of two clergymen, John Keble and Cardinal Newman, both writing many years before Freud's birth, who also expressed belief in the "preventative" use of poetry. Keble mentioned "one final cause of poetry: to innumerable persons it acts as a safety-valve tending to preserve them from mental disease" (p. 271); and Newman said that "Poetry is a means of relieving the overburdened mind; it is a channel through which emotion finds expression, and that a safe, regulated expression" (p. 271). Perhaps the statement on this subject quoted most widely is that of the poet Robert Graves (1922):

A well chosen anthology is a complete dispensary of medicine for the more common mental disorders, and may be used as much for prevention as cure if we are to believe Mr. Houseman's argument in "Terence, this is stupid stuff" no. LXII of his Shropshire Lad (p. 85).

In that poem, A. E. Houseman has pointed out the futility of trying to cope with the world through drinking, in that "ale's the stuff to drink / For fellows whom it hurts to think: / Look into the pewter pot / To see the world as the world's not." Houseman offered, instead, his poetry, though

'Tis true, the stuff I bring for sale
Is not so brisk a brew as ale:
Out of a stem that scored the hand
I wrung it in a weary land.
But take it: if the smack is sour,
The better for the embittered hour;
It should do good to heart and head
When your soul is in my soul's stead;
And I will friend you, if I may,
In the dark and cloudy day.

Several aspects of the above theories are contained in the approach expressed by Leedy (1964) and Blanton (1960, 1969). The term "isoprinciple" is borrowed from music therapy, where it refers to selecting music that
corresponds closely with the mood or the "mental tempo" of the patient; similarly, in poetic therapy, a poem is chosen that most closely matches the patient's mood or emotional state, i.e., the "overt theme" is paramount. Thus, if a patient is depressed, the poem that, in this view, will be most beneficial is one that is "sad and gloomy." Readers presumably can "identify" with the poet (Blanton, 1960), can realize that "others are also depressed, have been depressed and have recovered from their depressions" (Leedy, 1964, p. 144). They can also realize that it should be "no disgrace" to be subject to extreme mood alterations. The poem is felt to lead the reader to experiencing "a catharsis similar to that of the artist in the act of creation" (Chaliff, 1973, p. 26). The reader can recognize both that he does not suffer alone and that there is sympathy for his fate" (p. 26). Crootof (1969) and, in later writings on the subject, Leedy (1969) have indicated that it might be important for the sad, gloomy poem to also have more positive and hopeful stanzas, especially near the end. They suggested that it is not enough that the poet has simply gone through what the reader now feels; the poet should have found some way of surmounting, or of hoping to surmount, the difficulties confronting him. The poet should not demonstrate himself to be "emotionally bankrupt" if he is to serve as an appropriate model of emotional and social maturation, i.e., "if the reader is to benefit by borrowing from the ego of the poet" (Crootof, 1969, p. 42). Crootof has also added that the feelings of the poet as expressed in his work might "function as a resonator in the patient's psyche" (p. 45) to release repressions. Thus, in the isoprinciple approach, there appear to be
aspects of catharsis, identification and/or modeling, resonating or empathizing, and lifting of repressions.

In that most of the above aspects are basically derived from psychoanalytic theory, a test of the "isoprinciple" might serve as a useful initial step in investigating the applicability of psychoanalytic conceptions of the therapeutic effect of poetry. Thus a test of the main tenet of the isoprinciple approach, that of matching a poem to a particular mood state, has been incorporated into the present research. Results from the research were not presumed to provide proof for or against the "isoprinciple," nor were they presumed to provide proof for or against psychoanalytic theory in general. As mentioned above, poetry must first be shown to demonstrate a quantifiable effect before research can be designed to investigate the causes for that effect. Incorporating a test of the "isoprinciple" into the present design, however, was expected to possibly provide some qualitative data that could lead to more meaningful and informed research in the future.

Definitions

As has undoubtedly been noted, no effort has been made thus far to formally define any of the terms discussed above. Here, only the term "poetry" will be given any extensive consideration, and it seems best that we have viewed its practical applications in a particular area before attempting to fit those applications into a definition that might have been too limiting earlier.

Words such as "self," "unconscious," "catharsis," "identification," "therapy," "repression," "public vs. private," etc. have been used above
without defining them other than in context. To present adequate and functional definitions for each one would seem to be an impossible task; indeed, there must be as many definitions for each as there are definers, just as Levy (1970) has posited about personality theories and theorists. Each writer uses each word in a different way, based on different experiences. As the writer Pirandello (1952) has said:

...The whole trouble lies here. In words, words. Each of us has within him a whole world of things, each man of us his own special world. And how can we ever come to an understanding if I put in the words I utter the sense and value of things as I see them; while you who listen to me must inevitably translate them according to the conception of things each one of you has within himself. (p. 224)

It would thus appear impossible to attempt an adequate and comprehensive definition for, say, the concept of "self" as used by some of the different writers that have here been cited. Nor would such an attempt seem necessary; the terms given as examples are undoubtedly used widely among laymen as well as professionals, they have not comprised the heart of the present discussion, and they are not going to be directly measured in the research to be proposed.

Though subject to most of the same criticisms, some of the issues surrounding the definition of "poetry" probably should be considered. The 1960 Webster's New World Dictionary, College Edition, along with mentioning the "usual" things about rhyme, meter, etc., states that a poem expresses "facts, ideas, or emotions in a style more concentrated, imaginative, and powerful than that of ordinary speech," and also that it has "beauty of thought or language." Published poems that negate perhaps all of these definitional conditions must certainly have come, from time
to time, to the attention of all but the casual reader of poetry. There are, indeed, good poems that do not have rhyme or meter and that do not exhibit beautiful thoughts or language. Depending on the subject matter and the orator, ordinary speech may be more powerful and imaginative than some poems. We are left with the qualities of expression and concentration. The latter seems an important and necessary condition for good poetry, though it is hard to think of some book-length poems as being particularly terse, concise, or concentrated, either in the sense of being "distilled" or of being "focused."

Only "expression," then, remains, and poetry does indeed seem to always be the expression of "facts, ideas, or emotions," usually in a style unlike that of one's "ordinary speech." But not all persons who speak or write in a manner unlike they "usually" do are actually creating what is recognized as "poetry," even though they may label it so. Is it then "poor poetry?" Lawler (1972) has contended that "what is called 'poor' poetry is more conventionally, and accurately, called 'prose'" (p. 228).

Pertaining to what might constitute proper poetry for use in "poetry therapy," there appears to be some difference of opinion. Leedy (1969) has stated that

A psychotherapist will choose verse that is useful to psychotherapy, however fine or poor it may appear to critics old or new. Some of it may be of the most inferior, some of the most superior order of poetry: for poetry therapy, the standard is not whether it is good or great poetry, but whether it will help heal the ill (p. 72).

On the other hand, Harrower (1972), in discussing the frequent "adolescent" and immature quality of patients' poems, felt that it might at times be
vitaliy important in a patient's development "that he be able to express some buried feeling in a form other than prose, but this does not make the product poetry" (p. 7).

Such a debate on what to label patient poetry might be important were "poetry therapy" an established effect and ready for evaluation. However, given that no effect for poetry per se has yet been demonstrated, the debate is of no concern here. What is important, though, is that the literature to be used in the present research be recognized clearly as "poetry," so that any obtained effects could be attributable to "poetry" rather than "prose." For present purposes, then, only poetry that had "stood the test of time" was used, i.e., poetry that had been published and anthologized.

**Experimental Research Related to Poetry**

Especially following Freud, it will be recalled, much was published in terms of psychoanalytic or other theoretical approaches to literature. Almost nothing, however, has been attempted in order to experimentally establish effects of poetry. As mentioned earlier, the few studies that have been performed have suffered from conceptual and methodological flaws, greatly limiting their generalizibility. They will be reviewed here to emphasize the advantages of the present research design, and to illustrate the advisability of expanding the present design into further researches.

Rigg (1937) performed one of the first experiments studying poetry. Investigating the relationship between music and poetry, he gave 71 college subjects music and poetry discrimination tests, each of which consisted of
two short phrases of the respective art form, with the second phrase being a deliberately "spoiled" version of the first. The tests were validated by the judgments of professionals in the respective fields. Assuming that college students generally had more background in poetry than in music, a questionnaire measuring musical training was also administered, as was a test of intelligence. Rigg found that all correlations were low, the relationship between discrimination in music and in poetry being only .44, and even lower when intelligence was partialled out. Partialling out music training did not affect the music-poetry correlation. No relationship between musical and poetic discrimination was thus posited. And, no "poetic effect" is yet seen.

By replacing words with nonsense syllables in a model poem form and arranging 16 versions of the model, Hevner (1937) was able to systematically study four different variables. With 620 subjects listening to recordings of the versions and checking adjectives to report "meaning," it was found that meter was the most effective factor, with two-syllable poetic feet being seen as sad and three-syllable feet joyous. Next in effectiveness was consonant sounds, with harsh consonants paradoxically being both sprightly and gloomy, and smooth consonants appearing soothing. Voice inflection was next in importance, followed by vowel sounds. But, the results give us no idea as to the effect of the total poem.

Philip (1951) used 198 college students to measure the effects of general vs. specific labeling on judgments of melody, with the definition of "melody" left unspecified. Subjects read lines of poetry and two of
the conditions were told either the author's name or the period during which he wrote, i.e., the specific or the general label, respectively. Many different methodological and statistical procedures were performed to control for as many variables and interpretations as possible. The major finding of concern for the present research, however, was that knowing the author's name enhanced the evaluation of the melody and beauty of the poetry, while knowledge of the poetic period had negligible effect. It does not seem clear from the results, however, whether the enhancement of scale values was due to knowing the author or to other non-specified effects, such as poem content, prior experience with poetry, and prior exposure to the particular author. The instructions to "avoid concentrating your ratings on a few values for such a procedure would indicate that you discriminate inadequately" (p. 20), along with causing extreme scale scores, would also seem to have influenced subjects' attitude toward the task; i.e., they might have felt that their judgment was being evaluated rather than they themselves doing the evaluating, and thus might have responded more in a "professional critic" manner than in a personal preference or "feeling" manner. To control for the possibility that knowing a poet's name or period might affect responding in the present study, however, it was decided to not mention any poet's name or period, or even the word "poetry," during any phase of the present experimental procedure.

In that the present study employed the audio presentation of poems to the subjects by means of tape recordings, it might be worthwhile to mention Hairston's (1971) experiment investigating the therapeutic effects of the oral interpretation of literature. She gave optimistic fictional
passages from high school level literature to 28 emotionally-disturbed inmates in a state hospital. One group read the literature and another listened to it, while the other two groups under the same conditions also discussed the literature afterwards. Measures used were a modified case history, a word association task, and a cloze procedure test, where every nth word was deleted and subjects filled in blanks to complete the message. Whereas no significant changes occurred in pre- and post-test measures of the experimental and control groups, differences, expressed by agreement with the source material, were noted between those who read and those who listened to the literature. This was seen as indicating that emotionally-disturbed patients have more difficulty listening than reading. Discussion of the literature increased scores, and the discussion seemed more necessary for the listeners than the readers. Case histories indicated that patients reacted favorably to the treatment, i.e., verbalized acceptance and approval. In all, the results of this study do not seem particularly strong; no significant effects for the oral interpretation conditions were noted, and while it was mentioned that listening therapy might be helpful for those who have difficulty with reading, this is hardly a conclusion that would be unexpected. Patients reportedly reacted favorably to the treatment, but this might just as easily have been explained by a "Hawthorne effect" as by a treatment effect. And while the patients were said to have become better communicatees during the experiment, this might also have been due to non-specific effects such as practice, change in motivation due to increased attention or novel experience, interpersonal factors
introduced in the listening and/or discussion periods, etc. There appears to be no strong evidence to indicate that listening to literature provided a therapeutic effect. However, high school level fiction might not be the literary agent most conducive toward therapeutic change. If "poetry therapy" is as effective as some of the theorists already reviewed would have us believe, poetry might be a more effective literary agent. The present study was designed to test such a notion, as well as to control for such factors as interpersonal contact, content and memory rehearsal during a discussion period, different styles of oral interpretation, etc.

Tedford and Synnot (1972), stating that "as far back as Aristotle, people have realized that poetry seems to be more emotionally arousing than prose" (p. 369), used a semantic differential technique (Osgood, 1957) to measure some of the kinds of moods evoked by four different kinds of basic poetic feet. Feeling that structure might be as important as content, they wanted to remove all verbalization so that a particular component, rather than the entirety, of a poem could be evaluated. Thus 129 college students listened to four different types of poetic feet, each series of feet played twice on an Indian tabor and twice on a snare drum. One iambic foot was represented by an unaccented beat followed by an accented beat; a trochaic by accented, unaccented; an anapestic by unaccented, unaccented, accented; and a dactylic by accented, unaccented, unaccented. Speeds were varied and the order of presentation was randomized, so each foot was evaluated four times by each subject. Analysis
of the seven five-step differentials rated by subjects showed that the placement of accent did not matter as much as the number of beats or "syllables in each foot. The authors found that "two-syllable feet (iambics and trochees) evoke feelings of heavy, sad, earnest, and tragic... Three syllable feet (anapests and dactylics) evoke the cluster of light, happy, playful, and humorous" (p. 372). They felt their findings suggested that a therapist should not choose poems for therapy on content alone, that structure conflicting with content could lead to misinterpretation of patients' poems. They also concluded from their results that "the pattern of accented and unaccented syllables may be a better indicator of the patient's mood than the overt content" (p. 373). Such interpretations as forwarded by the authors, however, must be approached cautiously. The assumption that recorded drum beats would correspond to poetic feet seems a difficult and questionable generalization to make in the first place. Especially through the influence of television, motion pictures, radio, entertainment, etc., subjects would seem to have prior associations to drum and tabor beats; e.g., rock or jazz rhythm bands, African native drums, funeral processions, Indian messages, high school marching bands, even Morse code, etc. Any such association could significantly affect a subject's perception as to the "heaviness," "playfulness," etc., of the recording, and these associations might have nothing at all to do with poetry. Also, though it might be written in anapestic pentameter, interpreting a patient's graphically suicidal poem as being actually "light, happy, playful, or humorous" would not seem the most responsible procedure to follow. Certainly the notion that poetic structure might
indicate "unconscious" messages or feelings counter to manifest content is insightful and worthy of further study; however, the above experiment is not seen as strong evidence for such messages or feelings as pertaining to poetry. As a correlation of results of tabor to snare it might provide considerable information. The present design, however, chose to consider the effects of total poems rather than artificially-constructed parts of poems.

In another recent study, Powell (1973) studied whether or not sound was independent of meanings or associations in poetry. He used 453 subjects in two experiments. In the first experiment he found no differences when words having identical sounds but different meanings (e.g., night-knight) were compared, though a correlation was found between meaning and sound preferences for the same word. In the second experiment, he found that sound preferences of German words having no meaning to the subjects were correlated with the meaning preferences of English words sounding similar to the German words; i.e., meanings of unknown words were associated with similar-sounding known words. Powell saw this as failing to support the idea that sound has an aesthetic effect independent of meaning. Again, however, this might not be directly analogous to an effect that one might expect in poetry, where sounds from different words and lines work together to produce an effect, and a single sound taken out of context would probably not be representative of the effect presented by a whole line or stanza, as in Poe's "The Bells." In short, it might be that in poetry, as in many phenomena, "the whole is equal to more than the sum of the parts." The present design, again, used poems in their entirety.
Purposes of Present Research

The preceding section has mentioned what experiments have been done in the area of poetry, their major shortcomings, and the improvements implemented by the present design. As stated previously, the establishment of a measurable "poetic effect" is the first order of business. The main focus of the research herein proposed, then, is to test the assumption that it is the poetry per se that is most important, and not some other factor such as therapist-client relationship or intervening factors introduced during "non-poetry" parts of the therapeutic hour.

Given that a "poetic effect" might exist, the "isoprinciple" effect, if also supported by the data, could be very useful to the "poetry therapist" in selecting appropriate poems for different symptoms, i.e., a poem matched to the symptoms or moods of a depressive would not be expected to be suitable for a manic. The assumptions of the isoprinciple approach, then, will also serve as primary foci of the experiment.

Rationale Behind Procedure

Before proceeding to a discussion of the particular methods and conditions employed in the present study, it would seem best to briefly explain the rationale behind the procedure used.

To test whether or not poetry could be shown to have a measurable therapeutic effect, it was decided to make the procedure analogous to a clinical situation. Since many of the patients seen in a psychology or mental health clinic enter in a depressed state, and since the attempted alleviation of depression would fit in well with the assumptions of the
isoprinciple approach outlined above, it was decided to induce a depressed state in half of the experimental subjects. As indicated by the isoprinciple approach, a depressed or pessimistic poem should make a depressed person feel better. A pessimistic poem with an optimistic ending should make that person feel even better yet, while an elated or optimistic poem should have relatively little effect, as it would not be "matched" to his particular mood state. If it is indeed the "matching" or "non-matching" of mood states that is supposed to produce a "poetic effect," then such a procedure should work for "elated" persons as well, i.e., if a pessimistic poem helps a depressed person to feel less depressed, an optimistic poem should help an elated person to feel less elated. Similarly, an optimistic poem with a pessimistic ending should produce a maximum effect, while a pessimistic or "non-matched" poem should have negligible effect. Consequently, elation was induced in the remaining half of the experimental subjects, so that all of the conditions mentioned above would be met in the procedure to be explained in the next section. The hypotheses mentioned will be re-stated in graphic form below.
CHAPTER II

METHOD

Subjects

Subjects (Ss) were 80 male university undergraduates in an introductory psychology course who volunteered for an experiment entitled "Mood States." Such undergraduates are required to earn a specified number of experimental participation hours every term, though their participation in any particular study is voluntary. Representativeness of sample was assumed, and subjects were randomly assigned to experimental conditions. Males were used for two basic reasons: male subjects were more available, i.e., plentiful, in the subject pool; and since the experimenter (E) was male, the use of male subjects helped control for sex-bias factors (e.g., Rosenthal and Rosnow, 1969).

Apparatus

All experimental instructions were typed on four-by-six unlined index cards fixed on two rings so that each subject (S) could turn the cards at his own rate. Poems used were recorded on cassette tapes and played back on small cassette tape recorders. Ss completed two Profile of Mood States (POMS) test sheets, devised by McNair, Lorr, and Droppleman (1971), one before and one after listening to the poetry tape. The tests were "alternate form" versions of the POMS, constructed for use in the present experiment. Ss also completed a post-experimental questionnaire.
Outline of Procedure

1. Ss arrived at the Clinical Psychology Center on the campus. E greeted each S simply by asking his name and then saying, "Follow me, please." The S was then led to the experimental room, which was one of two classrooms in the building. Little or no conversation or interaction other than orienting instructions by E, or questions by S, ensued until the end of the experiment.

2. In the experimental room, S was seated at a desk on which were: the stack of index cards containing instructions and mood-inducing statements; a tape recorder containing a tape, which was already preset at the proper position by E; a pencil; and two POMS sheets, both face down.

3. Touching the stack of cards, E said, "All your instructions are in these cards. Follow them closely, and when you're through, come back out front (or upstairs) and find me, as I'll have some questions to ask you about your experience." If S asked any question at this point, E said, "All your instructions are in the cards." E then left the room.

4. After reading orienting instructions, S read 50 statements designed to induce either depression or elation.

5. S filled out and numbered either Form I or Form II of the POMS, the presentation of which was alternated to control for possible order effects.

6. S pressed the "play" button of the tape recorder and listened to the tape, at the end of which he heard the instructions, "End of tape. Press button marked 'Z'," which was the "stop" button.
7. S filled out the remaining POMS sheet, numbered it, and laid it face down to his left, as he had done with the first sheet.

8. Leaving both sheets, S reported back to E.

9. S was seated in a different room and asked to fill out a six-item post-experimental questionnaire.

10. Upon completion of the questionnaire, E de-briefed S on the general purposes of the experiment, mentioning that a summary of the findings would be mailed to him later in the year, and asking that he not discuss the experiment with others who might be future participants in it.

11. S was thanked and dismissed.

**Mood Inducement**

The specific aspects of the experimental procedure, covering the mood inducement, the specific instructions contained in each card stack, the POMS, and the taped poems, will now be discussed.

The procedure for mood inducement was based on Aderman's (1972) adaptation of the design originated by Velten (1967, 1968). In the latter study, Velten had 100 female Ss read structured mood statements that led from relative mood neutrality to either elation or depression. Another group read neutral statements that did not relate to mood. The tone of the elation statements was one of "happiness, cheer, liveliness, efficiency, optimism, and expansiveness." The tone of the depression statements was one of "indecision, tiredness, slowness, unhappiness, inefficiency, and pessimism." It was found that depression Ss differed significantly from
elation Ss in the expected direction in most of the several critical measures employed, and it was concluded that reading the mood statements had actually induced depression and elation. To check on the possible "demand characteristics" (e.g., Orne, 1962) of the situation, some Ss were instructed to behave as if they had read the mood statements, and were shown five sample statements. On most measures, the demand characteristic treatment means were easily within those of the depression and elation conditions, supposedly suggesting that the mood statements had been effective. Using the mood statements with 120 male Ss, Aderman (1972) found significant main effects of prior mood on four of six factors on a Mood Adjective Check List.

Since the effectiveness of such a mood inducement could vary between populations and procedures, and since the assumptions of the present study would have been invalidated by the failure of the inducement to work, a check was made after the first 16 Ss. The first POMS scores of the "depressed" (D) Ss were compared to the first POMS scores of the "elated" (E) Ss, giving a measure of D vs. E immediately after mood inducement. A one-tailed t-test between two independent means showed significant differences between D and E on both the Depression score ($p < .01$) and the Vigor score ($p < .05$) of the POMS (see below). Thus it was ascertained that the mood statements were indeed having the desired effect on Ss.

**Instructions to Subjects**

Each S read through the same number of cards, the only difference being that half of the cards contained the depression-inducing statements
(Form D), and half contained the elation-inducing statements (Form E). The first 55 cards contained the same statements as those used by Aderman (1972), and were obtained from him. The last four cards were devised exclusively for use in the present experiment.

Card 1: Please read each of the following statements to yourself. As you look at each statement, focus your observation only on that one. This is not a memory task, so you should not spend too much time over any card.

Card 2: These statements are intended to create a certain mood. Your success at coming to experience this mood will depend largely on your willingness to accept and respond to the idea in each statement and to allow each suggestion to act upon you without resistance.

Card 3: Attempt to respond to the feeling suggested by each statement. Then try to think of yourself as definitely being and moving into that mood state.

Card 4: If it is natural for you to do so, try to visualize a scene in which you have had such a feeling.

Card 5: If you feel the urge to laugh, it will probably be because humor is a good way to counteract unwanted feelings or it might be because you feel yourself going into that mood. Try to avoid this reaction.

Cards 6 - 55: (Elation and depression statements: for depression statements, see Appendix C; for elation statements, see Appendix D.)

Card 56: Now pick up the top sheet on your right, turn it over, and print your name and the number "1." Read the directions and fill in each item. When finished, set the sheet face down to your left and turn over the next card.

Card 57: Now press the "play" button (marked "X") on the tape recorder on the desk and listen to the tape. When it is completed, press the "stop" button (marked "Z" and turn over the next card.

Card 58: Now pick up the remaining sheet on your right, turn it over, and print your name and the number "2." Fill in each item, and when finished, turn over the next card.
Card 59: Now, leaving both sheets face down to your left, report back to the experimenter.

**POMS**

The POMS (McNair, et al., 1971) has been designed to measure fluctuating, transient affective states. It consists of 65 five-point adjective rating scales covering six factors: Tension-Anxiety (T), Depression-Dejection (D), Anger-Hostility (A), Vigor-Activity (V), Fatigue-Inertia (F), and Confusion-Bewilderment (C). Norms, though termed by the authors as "tentative," have been presented for male psychiatric outpatients (N = 350), female psychiatric outpatients (N = 650), and college students (N = 856). Scores can be obtained for each factor, and a Total Mood Disturbance score, felt to be a "global estimate of affective state" and presumed highly reliable due to the correlations between the factors, can also be obtained.

Internal consistency in the POMS has been demonstrated by reliability coefficients of near .90 or above for all six mood scales in the normative studies. Test-retest stability coefficients of .65 to .74 and of .61 to .69 have been reported in the manual. Though these might seem below generally expected levels of .80 or .90, it must be considered that mood states fluctuate within and between time periods and individuals, and thus high stability coefficients could indeed be seen as arguing against the presence of construct validity. Evidence of predictive and construct validity has been provided by studies of brief psychotherapy, controlled outpatient drug trials, response to emotion-inducing conditions, and concurrent validity coefficients and other POMS correlates. Those studies reported in the manual of response
to emotion-inducing situations mostly measured and found effects for T or A factors alone; one study reported no change for any factor except F following an autopsy film, and two studies reported increases in T, D, and A and a decrease in V during periods of prolonged drinking.

The factors of concern in the present research were the D and V factors. D has been reported to "represent a mood of depression accompanied by a sense of personal inadequacy" (McNair, et al., 1971, p. 7). V has been shown to be negatively related to the other factors of the POMS, and has been reported to represent "vigor, ebullience, and high energy" (p. 8). The 15 D items are: unhappy, sorry, sad, blue, hopeless, unworthy, discouraged, lonely, miserable, gloomy, desperate, helpless, worthless, terrified, guilty. The eight V items are: lively, active, energetic, cheerful, alert, full of pep, carefree, vigorous. It was felt that the factors D and V would provide adequate categorizations of depression and elation in the present study.

However, it was felt that the procedure of taking the same 65 items twice, separated only by a poem, could introduce error through the operation of memory or practice effects. To guard against such bias, alternate forms of the test were created by randomly dividing in half the items loading in each of the six factors. The number of items in each factor are: T = 9; D = 15; A = 12; V = 8; F = 7; C = 7. In addition there are seven items (friendly, clearheaded, considerate, sympathetic, helpful, good natured, trusting) that appear to load on a "friendliness" factor but are considered to have not shown sufficient evidence for
replicability, and thus are not included in the scoring. By random assignment in the present design, POMS Form I was allocated the following items per factor: T = 5; D = 7; A = 6; V = 4; F = 3; C = 4; and "friendliness" = 4. Form II was assigned: T = 4; D = 8; A = 6; V = 4; F = 4; C = 3; and "friendliness" = 3 (see Appendix E). So that Form II would have the same number of D items as Form I, one D item was randomly dropped from Form II for scoring purposes only.

As mentioned, reported internal consistency reliabilities for POMS factors are generally around .90 (McNair, et al., 1971), which would yield alternate form reliabilities of around .85 in general. For the critical factors D and V, a study involving 350 male psychiatric outpatients showed reliabilities of .95 for D and .89 for V (McNair, et al., 1971), while another study with 650 female outpatients found D = .95 and V = .87 (McNair, et al., 1971). Reliabilities would thus appear to be satisfactory for the D and V factors and for the alternate forms of the test.

Another change involved instructional set. Whereas the usual instructions to the POMS include asking S to describe "how you have been feeling during the past week including today," instructions for the present experiment asked S to describe "how you feel right now." The "right now" instructional set was used in a previous study with the POMS, and this instructional set did not appreciably alter the factor structure in a factorial study of mood (McNair, et al., 1971).

"Standardization" and Presentation of Poems

It was, of course, necessary to establish the basic "mood" of a poem
as seen by most Ss. This was accomplished by playing a number of taped poems to several pilot Ss and having them rate how the poems seemed to begin and how they seemed to end in terms of perceived mood, i.e., "happy, optimistic" or "sad, pessimistic" or "neutral." The poems showing the greatest inter-subject agreement were then selected for use in the present experiment. Details of the pilot study are presented in Appendix A, while normative data for both males and females are given in Appendix H.

To test the assumptions of the "isoprinciple" as outlined earlier, it was necessary to employ four different poems: 1) a pessimistic poem, which would be "matched" to a depressed S and "non-matched" to an elated S; 2) an optimistic poem, which would be "matched" to an elated S and "non-matched" to a depressed S; 3) a pessimistic poem with an optimistic ending; 4) an optimistic poem with a pessimistic ending.

To control for the possibility that it might simply be "verbalization" that could account for any perceived change, a control condition employing "nonpoetic" or neutral verbalization was devised, using the first 17 of the neutral statements employed in the same study (Velten, 1967) from which the depression and elation statements were taken. Thus, in addition to the four types of poems mentioned above, a fifth tape was needed, i.e.: 5) a neutral "non-poem."

The poems selected to fulfill the above four requirements were, respectively: 1) "In Death Divided," by Thomas Hardy; 2) "Laugh and Be Merry," by John Masefield; 3) "Rain after a Vaudeville Show," by Stephen Vincent Benét; 4) "Three Years She Grew," by William Wordsworth.
In addition to these four taped poems, a control tape was used, consisting of neutral statements (Velten, 1967). Texts for all five tapes are presented in Appendix F.

Limitations imposed by the "standardization of perceived mood" process, as well as by the decision to use only anthologized poems from recognized poets, made it unfeasible to exactly equate poems for such factors as rhyme, rhythm, structure, time period of poet, etc. The tapes were equated as closely as possible, however, in terms of time of presentation and total number of words. The figures for these two factors are given in Table 1.

Though rhyme, rhythm, and structure were not equated, it is felt that differences in these factors were minimized by the procedure of having the poems orally presented via tape recordings rather than having them read by the Ss, who might have had different reading speeds, rates of comprehension, etc. The poems were read by E, an experienced oral interpreter of literature. This procedure was not viewed as introducing undue demand characteristics into the situation in that S and E had minimal contact prior to the experiment. In addition, the facts that it was E who taped the poems used in the "standardization" pilot study, and that the same recordings were used in the present study, would help to minimize demand characteristics and bias factors. It was felt that the use of taped poems helped reduce rather than increase interpersonal variables, allowing any possible effects to be more easily ascribed to properties of the poem than to properties of a "relationship."
Table 1

Time and Length of Taped Presentations

<table>
<thead>
<tr>
<th># and Title</th>
<th>Time (in sec's)</th>
<th>Length (# words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Death Divided</td>
<td>130</td>
<td>158</td>
</tr>
<tr>
<td>2. Laugh and Be Merry</td>
<td>115</td>
<td>183</td>
</tr>
<tr>
<td>3. Rain After Vaud. Show</td>
<td>155</td>
<td>240</td>
</tr>
<tr>
<td>4. Three Years She Grew</td>
<td>165</td>
<td>258</td>
</tr>
<tr>
<td>5. Neutral Statements</td>
<td>143</td>
<td>210</td>
</tr>
</tbody>
</table>

\[ M = 141.6 \quad M = 209.8 \]
Post-Experimental Questionnaire

To aid in the interpretation of the obtained data and to score as a check on some of the experimental manipulations, a post-experimental questionnaire was devised. It consisted of six questions, each of which was to be answered on a nine-point rating scale (see Appendix G). By its use, self-report measures could be obtained on how Ss felt before the experiment, after the mood inducement, and after the tape. Two of the questions could also serve as checks on the "standardized" moods of the poems, i.e., whether or not the beginning and ending moods of the poems were perceived similarly to the way they were perceived by the pilot Ss. The last question, "How do you feel right now?" also aided in evaluating whether or not any significant residual depression remained from the experimental procedure. Whereas there seemed to be little ethical problem inherent in "elating" Ss, the procedure of "depressing" them could cause some concern. Thus, each D S was asked how he felt at the conclusion of the experiment, and a copy of the elating statements was kept readily available for use with any S exhibiting or expressing depression. Only two Ss actually felt that they wanted or "needed" to read the elating statements, and both reported feeling much better after reading them. All other Ss stated that they felt about the same as, or better than, they did before entering the experiment.

Conditions and Hypotheses

It would seem best at this point, after discussing the specifics of the procedure and before reporting the results of the experiment, to
re-state the hypotheses more exactly and to present them more graphically. The conditions are summarized in Table 2.

In the Table 2 summarization, Condition 1 would represent the matching of a "depressed" poem with a depressed S, which according to Leedy (1964), should have a "therapeutic" effect, and a much stronger one than Condition 3, in which the poem is not matched to the mood of S. According to Crootof (1969), the inclusion of an optimistic ending to a "matched-mood" poem as in Condition 2 should be the most "therapeutic" of all conditions, as measured by change in the desired direction between the first and second POMS scores. Condition 4 is also not matched to the mood of S, and would not, according to the "isoprinciple" assumptions, be expected to effect any significant change in test score. Similarly with elated Ss, if the presented poem per se is to be seen as the vehicle of change, a greater difference in test scores should be seen in Condition 6 than in Condition 5, and a greater difference in Condition 5 than in either Condition 7 or Condition 8, both of which would be expected to show negligible change.

Realistically, it was recognized that more factors were operating in the presented design than just the particular poems by themselves, and these factors will be mentioned in the Discussion section, below. For the purposes of the present experiment, however, the following hypotheses were offered concerning change in score: 1) Condition 2 > Condition 3 > Condition 4; 2) Condition 6 > Condition 5 > Condition 7 > Condition 8; 3) D different from E, i.e., a main effect for mood inducement.
Table 2
Experimental Conditions

<table>
<thead>
<tr>
<th>Experimental Condition</th>
<th>Mood Inducement</th>
<th>Mood of Poem at beginning</th>
<th>Mood of Poem at end</th>
<th>(Graphic Representation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depression</td>
<td>pessimistic</td>
<td>pessimistic</td>
<td></td>
<td>(↓↓)</td>
</tr>
<tr>
<td>2. Depression</td>
<td>pessimistic</td>
<td>optimistic</td>
<td></td>
<td>(↑↑)</td>
</tr>
<tr>
<td>3. Depression</td>
<td>optimistic</td>
<td>optimistic</td>
<td></td>
<td>(↑↑)</td>
</tr>
<tr>
<td>4. Depression</td>
<td>neutral</td>
<td>neutral</td>
<td></td>
<td>(→→)</td>
</tr>
<tr>
<td>5. Elation</td>
<td>optimistic</td>
<td>optimistic</td>
<td></td>
<td>(↑↑)</td>
</tr>
<tr>
<td>6. Elation</td>
<td>optimistic</td>
<td>pessimistic</td>
<td></td>
<td>(↑↓)</td>
</tr>
<tr>
<td>7. Elation</td>
<td>pessimistic</td>
<td>pessimistic</td>
<td></td>
<td>(↓↓)</td>
</tr>
<tr>
<td>8. Elation</td>
<td>neutral</td>
<td>neutral</td>
<td></td>
<td>(→→)</td>
</tr>
</tbody>
</table>
CHAPTER III

RESULTS

Statistics Used

The experimental design, featuring two mood inducements, four treatments, and repeated measures, was viewed as a $2 \times 4$ factorial with a pre-test and a post-test (pre-post), and was analyzed by the Ullrich-Pitz (1973) analysis of variance (ANOVA) procedure on the DEC 10. Separate ANOVAs were run for both the Depression score and Vigor score of the POMS, and are summarized in Tables 3 and 4, respectively. Summaries of the means from both ANOVAs are presented in Appendix I.

In addition, separate ANOVAs were computed for each of the questions contained in the post-experimental questionnaire. Summary tables for these ANOVAs are presented in Appendix J, while the means are summarized in Appendix K.

Meanings of Factor

Of the formal hypotheses presented earlier, the only one receiving strong support was Hypotheses 3, which predicted a main effect for Mood Inducement. No support was generated for either of the first two hypotheses, i.e., no Treatment effects were found.

Before mentioning the specific statistical findings that led to the above interpretations regarding hypotheses, it would seem most beneficial
Table 3  
Summary of Analysis of Variance, Depression Score

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Induce. (H)</td>
<td>452.256</td>
<td>452.256</td>
<td>1</td>
<td>14.562*</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>56.569</td>
<td>18.566</td>
<td>3</td>
<td>0.607</td>
</tr>
<tr>
<td>HB</td>
<td>59.069</td>
<td>19.690</td>
<td>3</td>
<td>0.634</td>
</tr>
<tr>
<td>Error-S(HB)</td>
<td>2236.050</td>
<td>31.056</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Pre-post (K)</td>
<td>0.306</td>
<td>0.306</td>
<td>1</td>
<td>0.040</td>
</tr>
<tr>
<td>HK</td>
<td>162.006</td>
<td>162.006</td>
<td>1</td>
<td>21.377*</td>
</tr>
<tr>
<td>BK</td>
<td>0.419</td>
<td>0.140</td>
<td>3</td>
<td>0.018</td>
</tr>
<tr>
<td>HBK</td>
<td>17.119</td>
<td>5.706</td>
<td>3</td>
<td>0.753</td>
</tr>
<tr>
<td>Error-S(HB)K</td>
<td>545.650</td>
<td>7.578</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

*P < .001
Table 4
Summary of Analysis of Variance,
Vigor Score

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Induce. (H)</td>
<td>536.556</td>
<td>536.556</td>
<td>1</td>
<td>26.842***</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>13.319</td>
<td>4.440</td>
<td>3</td>
<td>0.222</td>
</tr>
<tr>
<td>HB</td>
<td>107.319</td>
<td>35.773</td>
<td>3</td>
<td>1.790</td>
</tr>
<tr>
<td>Error-S(HB)</td>
<td>1439.250</td>
<td>19.990</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Pre-post (K)</td>
<td>37.056</td>
<td>37.056</td>
<td>1</td>
<td>5.710*</td>
</tr>
<tr>
<td>HK</td>
<td>66.306</td>
<td>66.306</td>
<td>1</td>
<td>10.217**</td>
</tr>
<tr>
<td>BK</td>
<td>31.019</td>
<td>10.340</td>
<td>3</td>
<td>1.593</td>
</tr>
<tr>
<td>HBK</td>
<td>28.869</td>
<td>9.623</td>
<td>3</td>
<td>1.483</td>
</tr>
<tr>
<td>Error-S(HB)K</td>
<td>467.250</td>
<td>6.490</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

**p < .01

***p < .001
to briefly discuss each of the ANOVA factors in the present design to see what pertinent information they would be expected to contribute. The obtained results could then be put in a more relevant context regarding experimental hypotheses and expectations.

The factor for Mood Inducement (H) gives the difference between all Ss in the Depressed (D) condition vs. all Ss in the Elated (E) condition averaged across Treatment groups and Pre-post testing: i.e., H shows the difference between D and E Ss independent of the treatment to which they were assigned. Also, by averaging the pre-post scores together, no information regarding mood change over the course of the experiment is obtained. H does tell, however, whether or not the Mood Inducement was effective. Thus, a significant H factor would show that a real difference between D and E Ss was obtained through the reading of the mood statements, whereas an insignificant H would indicate that the statements were ineffective. The latter situation would, of course, invalidate the experimental assumptions regarding response differences between D and E Ss.

The Treatment factor (B) shows the differences between the four treatment groups (matched, matched with opposite ending, non-matched, and control) averaged across H and Pre-post (K). By collapsing the K factor, information regarding the direction of mood change is not obtained, and by collapsing H, the D and E Ss are pooled together. In that it was hypothesized that D and E Ss would respond in opposite directions in the matched, matched with opposite ending, and the non-matched conditions, the process of pooling and averaging D and E tends to cancel out any obtained effect. For example, a D S with a matched poem might
be expected to obtain pre-post Depression scores of 7 and 1 (become less depressed), while an E S in the matched condition would be expected to obtain scores of 1 and 7 (become less elated). While the scores would denote mood changes in the predicted directions, the process of averaging them would yield means of 4 and 4, i.e., no difference. Consequently, the main effect for B is not of importance in the present analysis.

Similarly, the main effect for Pre-post (K) is not of prime importance because it also collapses the H and B factors, yielding a mean for all pre-test scores and a mean for all post-test scores, independent of Mood Inducement or Treatment. As in the example offered in the preceding paragraph, scores in the predicted direction for D Ss would tend to cancel out scores in the predicted direction for E Ss. For the same reason, a Treatment x Pre-post interaction (BK), by averaging across D and E Ss, is not of present importance. In short, any factor which does not include H adds negligibly to the interpretation of the main hypotheses offered earlier.

Conversely, any factor including Mood Inducement is of importance. Thus HB tells of the magnitude of the difference between the four treatment conditions of D vs. those of E, though by averaging across K, the direction of the change over time is not learned. The HK interaction gives the amount and the direction of change of all D vs. all E Ss, regardless of Treatment condition.

The most important factor regarding the experimental hypotheses is the HBK interaction, which takes into account all experimental assumptions, and shows the magnitude and direction of change in the dependent variable,
i.e., Pre-post scores. A significant HBK interaction would be viewed as evidence of a treatment effect, and then post-hoc comparisons between cells could afford information as to which of the cells produced the most change, i.e., in which cell(s) the effect centered.

Findings Regarding Formal Hypotheses

As seen in Tables 3 and 4, the Mood Inducement x Treatment x Pre-Post interaction (HBK) was not significant for either the Depression score or the Vigor score. Also, neither variable showed a significant effect for the HB interaction. Consequently, the results cannot be viewed as providing support for Hypotheses 1 or 2. In fact, the relative magnitudes of change in each cell did not even conform to the expected order as expressed in Hypotheses 1 and 2, i.e., the trend of the results was different from what was expected. As is evident from Tables 5 and 6, the "matched poem" condition clearly produced the least change of all conditions, though the magnitude was not significantly different from the other three conditions. For the Depression variable, for example, the average change in the matched condition was .9, whereas the average change for the non-matched and control conditions combined was about 2.4, the same as that for the supposedly "optimal" condition of the matched poem with opposite ending. This was, of course, counter to the predicted results, where matching the mood state of the Ss was expected to produce significant changes of a higher magnitude than that obtained in either the non-matched or the control conditions.
Table 5
Means of Pre-Post Measures,
Depression Score

<table>
<thead>
<tr>
<th></th>
<th>Matched Mood Poem</th>
<th>Matched, Opposite Ending</th>
<th>Non-Matched Poem</th>
<th>Control, Neutral Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression Inducement</td>
<td>8.2</td>
<td>8.1</td>
<td>7.4</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>7.2</td>
<td>5.7</td>
<td>4.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Elation Inducement</td>
<td>2.2</td>
<td>1.8</td>
<td>2.7</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>4.2</td>
<td>5.0</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Note. In each cell, first value is pre-test mean, second value is post-test mean; all values based on N = 10 observations.
Table 6
Means of Pre-Post Measures,
Vigor Score

<table>
<thead>
<tr>
<th></th>
<th>Matched Mood Poem</th>
<th>Matched, Opposite Ending</th>
<th>Non-Matched Poem</th>
<th>Control, Neutral Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression Inducement</td>
<td>4.2</td>
<td>5.6</td>
<td>4.6</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>4.1</td>
<td>6.7</td>
<td>6.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Elation Inducement</td>
<td>9.6</td>
<td>8.3</td>
<td>10.7</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>9.4</td>
<td>6.0</td>
<td>7.7</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Note. In each cell, first value is pre-test mean, second value is post-test mean; all values based on N = 10 observations.
The Vigor score (Table 6) produced results basically comparable to the Depression score, though there was less uniformity within cells. Also, the control condition for Ss given the D inducement tended to show a direction of change different from the trend exhibited by almost all other cells. As can be seen from Table 5, all D Ss tended to show a decrease in Depression score from pre-test to post-test (i.e., became less "depressed"), while all E Ss tended to show an increase, though, it must be remembered, all changes were insignificant. Similarly, from the data of Table 6, all E Ss showed some pre-post decrease in Vigor score (i.e., became less "vigorous" or "elated"), while all D Ss tended to show an increase. Excepted from the latter, however, was the control condition, which showed an average decrease of 1.2 score points, as well as the matched condition, which showed an average decrease of 0.1 score point. Given the consistent lack of change in the matched condition relative to the other conditions, a score of 0.1 point in the "wrong" direction is not surprising. The control condition decrease seems somewhat more anomalous. While no cause is immediately evident from the experimental procedure, the anomaly might have been primarily due to the lower number of items and range of possible score points for the Vigor score. Each pre-test and each post-test for the Depression score, for example, was based on 7 items yielding a possible range of 0-28 score points. On the other hand, the Vigor score afforded only 4 items and a 0-16 range for pre-test and post-test scoring. Scores based on 4 items would be expected to be less reliable than scores based on 7 items.
Though no treatment effects were found, highly significant results were demonstrated for Mood Inducement. Main effects for H were obtained for both the Depression and Vigor scores, indicating that D Ss were both more depressed and less vigorous or elated than their counterparts in the E condition. The Depression and Vigor scores also resulted in significant HK interactions, showing that D and E Ss were different from each other over time, independent of Treatment condition. As shown graphically in Figure 1, and as already suggested by the data of Table 5, D Ss decreased in Depression score while E Ss increased. However, the D and E Ss were still significantly different from each other on the post-test measure ($t = 2.19, df = 72, p < .025$). Results for the Vigor score (Figure 2) were basically comparable, with the post-test measure showing a significant difference between D and E Ss ($t = 4.17, df = 72, p < .001$), and with E Ss decreasing in Vigor score. The D Ss also tended to increase in Vigor score, though the slope of the line (i.e., the magnitude of change) did not represent a significant pre-post change, as did the other three lines in Figures 1 and 2. It was the "anomalous" D-control cell discussed above which basically caused the lack of change in the D line, and it was this lack of change combined with the relative steepness of the E effect (i.e., slightly steeper than either line in Figure 1) which accounted for the significant Pre-post effect (K) in the Vigor score (Table 4). As mentioned, a main effect for K was not expected, and it was here seen as an artifact rather than as a result running counter to prediction.
Figure 1. Pre-post mean values for Mood Inducement x Treatment interaction (HK) for Depressed (D) and Elated (E) subjects, Depression score; each value based on N = 40 observations.
Figure 2. Pre-post mean values for Mood Inducement x Treatment interaction (HK) for Depressed (D) and Elated (E) subjects, Vigor score; each value based on $N = 40$ observations.
Results from Post-Experimental Questionnaire

Turning aside from consideration of Pre-post and of Depression and Vigor scores, the discussion will now center on the analysis of the self-report measures obtained from the Post-Experimental Questionnaire (Appendix G). Though not devised as affording a formal test of the experimental hypotheses considered above, the Questionnaire was constructed to informally check on the validity of the experimental procedure in terms of self-report. The expected as well as the obtained results of each of the six questions will be examined in turn.

As seen in Appendix J, ANOVAs giving main effects for Mood Induction (H) and Treatments (B), as well as an HB interaction, were computed. The effect of interest was always the HB interaction, and, in some cases, the main effect for H. A main effect for B was never expected, and, indeed, never occurred. Collapsed across H, the four treatment groups would be expected to either show no difference (Questions 1, 2, and 6), or to show opposite effects which would cancel each other out (Questions 3, 4, and 5). For example, when asked with what mood a tape began (Question 4), a D S in the matched condition would be expected to respond with a low number (pessimistic), while an E S in the matched condition would be expected to give a high number (optimistic). Thus, a B main effect, had it occurred, might even have been viewed as contradictory to expected results.

For Question 1 (S mood before experiment), no differences were expected, as they would have suggested a violation of the assumption that Ss were drawn from a common population, i.e., one with no differences.
No H or HB effects were obtained (Table L), and the mean for all the D Ss was very close to the mean for E Ss, 5.88 and 5.85, respectively (Table R).

In that Question 2 (S mood after mood inducement) did not presuppose exposure to the dependent variable, no HB effect was expected. However, a main effect for H would be considered important, in that D Ss were expected to be different from E Ss after reading the mood statements. Accordingly, no HB effect appeared, whereas a highly significant H effect was obtained (Table M). As seen in Table S, the mean of 4.20 for D Ss was quite different from the mean of 6.93 for E Ss.

For Questions 3, 4, and 5, more importance was ascribed to HB than to H effects, in that the interpretation of the latter would be more ambiguous. All three questions deal with aspects of the treatment manipulation rather than the mood inducement, so that an explanation of H independent of B would have little meaning. As indicated in the formal hypotheses, above, Condition 2 was expected to change more than Condition 1, which was expected to change more than Condition 3, while Condition 4 supposedly would stay the same. Similarly, Condition 6 > Condition 5, etc. But, while conditions 2 and 6 were supposed to change the most, they would change in numerically opposite directions, thus cancelling each other out in the computation of a main effect for H. The other six conditions would act similarly. For H to be significant, then, either D (Conditions 1-4) and E (Conditions 5-8) would have to change differentially (e.g., D > E or E > D), or H might best be considered an artifact of a stronger HB effect. The latter alternative seems to be a more parsimonious
explanation for the significant H effects obtained for Questions 4 and 5 (Tables 0 and P, respectively).

The significant HB interaction of Question 3 (S mood after tape) is best understood by referring to Figure 3, where the HB means of the D Ss have been plotted against those of the E Ss. This question gives the best indication of how Ss viewed the effect of the dependent variable, i.e., how they reported feeling after listening to the taped presentations. As per the formal hypotheses reviewed in the preceding paragraph, D Ss in the matched poem, opposite-ending condition (mo) should feel better (as denoted by having a higher or more "optimistic" mean score) than those in the matched condition (m), who should feel better than the non-matched Ss (nm), who should feel better than the control Ss (c). Ss having had the E inducement should correspond inversely, i.e., (mo) should feel worse (as denoted by having a lower mean score), followed in order by (m), (nm), and (c). As seen in Figure 3, the (mo) Ss were highest in the D condition and lowest in the E condition, as expected. However, the (m) Ss, which should have been next following the (mo) Ss, were lowest and highest in D and E, respectively. While going against the expected hypotheses, this result regarding the (m) Ss is well in line with the data in Tables 5 and 6, which showed the least change in pre-post score for (m) Ss.

Figures 4 and 5 provide an easier comparison between the self-report of Ss regarding their mood changes during the experiment, and their actual pre-post scores as reported in Tables 5 and 6. Figure 4 shows the changes of self-reported mood for D Ss from Question 1 (S mood before experiment) to Question 2 (mood after inducement) to Question 3
Figure 3. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 3 (S mood after tape); each value based on N = 10 observations.
Figure 4. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 1 (S mood before experiment), No. 2 (S mood after statements), and No. 3 (S mood after tape) for Depression Ss; each value based on N = 10 observations.
Figure 5. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 1 (S mood before experiment), No. 2 (S mood after statements), and No. 3 (S mood after tape) for Elation Ss; each value based on N = 10 observations.
(mood after tape). Figure 5 gives the same information for E Ss. Questions 2 and 3 would, of course, correspond to the pre-post measures taken. By inferring amount of perceived "Pre-post" change from the slope of the line between Questions 2 and 3, (mo) and (nm) Ss appeared to perceive more change in both D and E inducements than did their (m) or (c) counterparts. In general, this might be seen by inspection as reasonably compatible with the data of Tables 5 and 6, excepting the appearance of more (c) condition change in the tabled data than in the graphed data. The wider variability seen in Figure 5 vs. Figure 4 also seems more characteristic of the variability shown in the E inducement of Table 6 vs. that of the E inducement in Table 5. The "anomalous" D-control cell of Table 6 does not seem accounted for in either Figure 4 or Figure 5.

Questions 4 and 5 were included in the Post-Experimental Questionnaire to serve as a check on the assumptions issuing from the "poem standardization" pilot study reported in Appendix A. The assumptions dealt with the perceived mood at the beginning and at the ending of each poem. For both Questions 4 and 5, highly significant HB interactions were found, which, as mentioned above, were probably most instrumental in accounting for the H effects that were also found (Tables 0 and P). Question 4 (with what mood tape began) is graphically represented in Figure 6. The results were clearly in line with the findings reported in Appendices A and H: (m) and (mo) poems were perceived as beginning in a sad or pessimistic mood and (nm) poems in a happy or optimistic mood for D Ss. The (c) tape, supposedly comprised of neutral statements, was seen
Figure 6. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 4 (mood of tape at beginning); each value based on N = 10 observations.
as being somewhat pessimistic by both D and E Ss, as was also expected. It will be remembered that the same poem was used for the D (m) and the E (nm) conditions, another for the D (nm) and the E (m) conditions, and the same tape was used for the D (c) and E (c) conditions. These are indicated by dashed lines in Figure 6, and it is evident that there were essentially no differences between D and E Ss regarding the perceived beginning mood of the same poem; e.g., D (m) Ss yielded a mean score of 2.6 for the (+++) poem, "In Death Divided," while E (nm) Ss produced a mean score of 2.5 for the same poem (see Table U).

As seen in Figure 7, Question 5 (with what mood tape ended) showed results that also were in line with the experimental assumptions as based on the pilot study. Again, the (c) tape was seen as being pessimistic rather than neutral. Also, D Ss tended to see the (nm) poem more as being "neutral" than "optimistic," though the obtained mean score of 5.1 (with 5 = neutral) was not viewed as a violation of experimental assumptions. While there was somewhat more variability in the results from Question 5 than from Question 4, there were still essentially no differences between the same tapes that were used for different conditions, as indicated in Figure 7 by the dashed lines.

For Question 6 (S mood at end of experiment), significant H and HB effects were found. As seen in Figure 8, the main effect for H was probably an artifact of, or is better explained by, the HB interaction. Experimental hypotheses would suggest that D (m) and D (mo) Ss should feel better (i.e., have a higher score) than D (nm) and D (c) Ss.
Figure 7. Mean values for Mood Inducement x Treatment Interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 5 (mood of tape at ending); each value based on N = 10 observations.
Figure 8. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control conditions for Post-Experimental Question No. 6 (S mood at end of experiment); each value based on N = 10 observations.
Similarly, E (m) and E (mo) Ss should have lower scores than E (nm) and E(c) Ss. Figure 8, however, shows (mo) highest and (m) lowest for D, and (mo) lowest and (m) highest for E, with (nm) and (c) close together in the middle. Again, then, (m) Ss showed the least change after mood inducement.

Further information can be gained by comparing the data of Question 3 with those of Question 6. Figure 9 shows the change in perceived mood between the end of listening to the tape and the end of filling out the Post-Experimental Questionnaire for D Ss. Figure 10 gives the same information for E Ss. The reported E (m) mood stayed the same, while all others became more elated (i.e., increased in score). The E (nm) Ss reported changing the most (from $M = 4.4$ to $M = 5.9$), followed by D (mo) and E (mo) conditions ($M = 5.0$ to $M = 5.9$, and $M = 4.2$ to $M = 5.1$, respectively).

Summary

In general, the main results of the experiment can be summarized as follows: 1) no support was demonstrated for Hypotheses 1 or 2 (i.e., no Treatment effects were found); 2) support was generated for Hypothesis 3 (i.e., a main effect for Mood Inducement was found); 3) the matched (m) condition appeared to effect the least amount of change; 4) in general, D Ss tended to decrease in Depression score and increase in Vigor score, while E Ss tended to increase in Depression score and decrease in Vigor score; 5) D and E Ss differed from each other on the post-test measure; 6) Ss reported no pre-experimental differences; 7) self-reported mood changes
Figure 9. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 3 (S mood after tape) and No. 6 (S mood at end of experiment) for Depression Ss; each value based on N = 10 observations.
Figure 10. Mean values for Mood Inducement x Treatment interaction (HB) for matched (m), matched with opposite ending (mo), non-matched (nm), and control (c) conditions for Post-Experimental Question No. 3 (S mood after tape) and No. 6 (S mood at end of experiment) for Elation Ss; each value based on N = 10 observations.
of Ss were basically compatible with obtained pre-post measures;
8) assumptions regarding the perceived beginning and ending moods of poems appeared to be upheld.
CHAPTER IV

DISCUSSION

Negative Findings

In that no treatment effects were found, it cannot be said that any "poetic effect" was demonstrated in the present experiment. Thus no conclusive support was found for the conceptions that poetry per se has a general and quantifiable therapeutic effect, nor that a poem matching an individual's mood state, as compared with a poem that does not match, will be more effective in altering that mood state. However, the limitations of the experimental design also do not permit a refutation of either the possibility of a "poetic effect" or the validity of the isoprinciple approach. The design necessarily only provided a narrow rather than an exhaustive test of any "therapeutic" effect of poetry. Because the study was basically a first step in investigating a "poetic effect," it could not, of course, approach the problem area from all angles; and while the study was felt to have definite and important methodological and conceptual advantages over previous researches with poetry, its inability to control certain relevant variables hampered its generalizibility. More specific limitations and implications of the study will be discussed below.

Definition of Induced Moods

The main positive finding of the study was that Ss given the
Depression (D) Inducement differed from those given the Elation (E) Inducement. This does not imply that the D Ss were actually "depressed" or the E Ss actually "elated" in either general or clinical uses of the terms; it simply means that the D vs. E scores for both pre-test and post-test measures were significantly different when measured by either the Depression score or the Vigor score of the POMS. Similarly, the article summarizing the study from which the mood statements were derived (Velten, 1968) reported differences between D and E Ss on the critical measures taken, without recourse to normative data that would have placed Ss within distinct "depression" or "elation" categories. Thus, though Ss differed significantly in the predicted directions on several measures, they might actually have been closer to one anchor or the other on a theoretical depression-elation continuum. A similar situation existed, of course, in the present experiment, in that no normative data are available for the specially-constructed split-half forms of the POMS that were utilized. However, McNair, et. al. (1971) presented tentative college norms for the POMS, and by dividing the raw score normative values in half, it might be possible to obtain a very rough estimate of how Ss in the present study compared with the normative sample. A raw score on the Depression scale of 14, for example, would correspond to a mean standard \( T \) score of 50 for college students. In that the Depression scale of the POMS was standardized on 15 items and the current study used 14, the comparable raw score for \( T = 50 \) might be set at 13, so that by halving 13, a rough approximation of an expected mean standard score is obtained. Thus, if a line were drawn across from the HK mean value of
6.5 on Figure 1, it could be seen that all but the D pre-test scores would be below that expected for a normal college sample, i.e., the experimental Ss in general scored lower in Depression score than "normal" college students, even though exposed to the Mood Inducements.

For the Vigor score, a raw score of about 15.5 would correspond to a T score of 50 for the full POMS. Thus, in halving the expected raw score value, if a line were drawn across from the HK mean value of 7.75 in Figure 2, it could be seen that D Ss were below and E Ss above the expected mean standard value for the pre-test. For the post-test, E Ss dropped down to the very tentative "mean", while D Ss remained about the same. The lack of slope in the D line in Figure 2, it will be remembered, was attributed to the "anomalous" D-control cell of Table 6. Except for that cell, the D line would probably also have reverted to the "mean" expected value, and Figure 2 would have corresponded to the general trend of the experimental results, i.e., that D Ss became generally less depressed and more elated over time, while E Ss became more depressed and less elated. Such an interpretation was gained above from Figure 1, though the present discussion raises questions as to whether or not D Ss could actually be described as being "depressed." The tentative expected mean standard value loosely derived and described in the preceding paragraph would tend to suggest that D Ss were not as high in depression as they were low in vigor or elation.

Depression and Fatigue

One possible explanation for the tendency to not conform to the expected Depression score levels as suggested in Figure 1 would be that
the mood statements did not work, i.e., while E Ss might have become
elated, D Ss did not become depressed. Thus the significant differences
found would have resulted from the relatively strong effect of the ela­
tion statements, i.e., would have been artifactual. If such were the
case, however, the slope of the D line in Figure 1 should have been
relatively flat, signifying little mood change. Similarly, there should
have been less change in the D cells of Tables 5 and 6, as, given the
lack of treatment effectiveness, D Ss would not have needed to evidence
as much mood change to return to "normal" or neutral. Also, inspection
of the differences between D and E Ss on Post-Experimental Question 2
(S mood after statements) as shown in Figures 4 and 5 reveals that the
means for all D Ss were on the "sad" side of the neutral value of 5,
while all E means were on the "happy" side. Thus the self-report of Ss
would tend to indicate that, on a happy-sad continuum, Ss tended to
perceive the statements as operating in the predicted directions.

A more plausible explanation might be that the D statements primarily
invoked a mood other than depression, i.e., that the Depression score did
not most efficaciously measure what the mood statements were producing.
The tone of the D statements was described as "one of indecision, tired­
ness, slowness, unhappiness, inefficiency, and pessimism" (Velten, 1968,
p. 475), thus seeming to load on fatigue as well as depression factors.
Indeed, post-experimental debriefing revealed that many Ss reported that
the D statements made them feel more tired than unhappy, and inspection
of the Depression score items reveals no "tiredness" items, as these have
been loaded onto the Fatigue-Inertia factor of the POMS. Thus the
Depression score might only have been giving part of the story. Factor studies of mood done by Jacobs (1971) and others have led to the hypothesis that "depression appears to be more highly related to inactivity, weakness, and illness factors than it is to fear" (p. 134), and the POMS Depression score items "desperate" and "terrified," among possible others, would certainly seem to fit in more with "fear" than with "inactivity."

However, the speculation that the D statements might have induced a mood state related to fatigue was not felt to have invalidated the experimental results. The addition of a fatigue measure would most probably have resulted in an interaction very similar to that in Figure 1, i.e., the trend of the data would most likely have been complemented rather than contradicted. Also, the findings reported by Jacobs (1971) suggesting that "negative emotions cluster around an inactivity or weakness factor" (p. 134) would support the hypothesis that fatigue and depression are correlated, and consequently that mood-inducing statements leading to fatigue would be expected to also contribute to a depression factor. The further Jacobs (1971) conclusion that "positive emotions cluster around energizing or activity factors" (p. 134) would also lend credence to the hypothesis that the POMS Vigor score could act as a suitable indication of elation or positive affect. And, as mentioned previously, the highly significant H effect for Question 2 (Table M; Figures 4 and 5) suggested that D Ss reported feeling "sad" while E Ss reported feeling "happy," indicating that depression and elation were operating to some degree in the predicted directions.
Summarily, then, it cannot be definitely ascertained that depression and elation were the "actual" mood states manipulated and measured in the present experiment. However, there does not appear to be substantial evidence to negate the possibility that depression and elation were tapped to an "adequate" degree. For purposes of simplicity and coherence of the present study, the ensuing discussion will assume the presence of appropriate depression and elation factors, and the symbols D and E will continue in use, though the cautions of the preceding few paragraphs will not be further mentioned but will remain implicit below.

"Regression" Effect

As indicated previously, the study's main positive finding was that D Ss differed from E Ss on both pre-test and post-test measures, i.e., they were very different after the mood statements and were still different after the taped presentations. Also, as suggested by Figures 1 and 2, as well as Tables 5 and 6, D Ss tended to become less depressed and more elated or vigorous over time while E Ss became more depressed and less elated. Most Ss, that is, appeared to return to a more neutral or "normal" state over time following the mood statements. Borrowing a descriptive term from statistical theory, the Ss might better be described as having "regressed toward the mean." A vital question concerns the reasons for this regression back to a more neutral state. Had significant treatment effects been found, the regression could easily have been related to the effects of the poetry utilized. However, the lack of a treatment effect leaves the interpretation of the phenomenon
open to conjecture, and it must be clearly understood that the explanations that follow are highly speculative and have no concrete support in the experimental data.

In that the taped presentations intervened between the pre-test and the post-test measures, it might indeed have been the poetry that produced what will be referred to as the "regression" or the "regression effect," though the differential magnitudes and directions of the four treatment groups did not conform to the predictions issuing from the isoprinciple approach. However, it cannot be said that some other factor was not responsible for the effect. For instance, the mood states of the Ss might simply have regressed over time. The failure of the experimental design to include a "time-control" group, i.e., one that either received no treatment or listened to a blank tape, negated the possibility of testing whether such a condition would change in a manner similar to that of the other experimental conditions actually employed. The interpretation of such a condition, however, would be quite ambiguous, as it seems quite inconceivable that Ss listening to a blank tape would be passing away "empty" time; i.e., some intellectual processes would be occurring. The cognitive activity of a "time-control" S would be harder to control or interpret than that of an S receiving taped poetry or neutral statements, as specific stimuli would be presented to the latter S while none would be presented to the former S. Having little or no idea of the thoughts or stimuli impinging on a "time-control" S, any number of interpretations could be made with equal justification. At least when presented a tape, an S can usually be assumed to be listening
to that tape. Thus, the neutral statements employed in the present design would be expected to provide better controls than would "empty" time, though the latter, of course, would no doubt supply some useful information.

**Regression and Models of Self-Regulation**

Several different models of attitude change or affective arousal could also be employed to at least partially explain the apparent regression effect obtained in the present study, and it might be of interest to briefly list some of them. Festinger's (1957) theory of cognitive dissonance, for example, might posit that Ss, in finding themselves in an unnatural and dissonant state after reading the mood statements, would attempt to cognitively reduce that dissonance by regressing to the mean, i.e., by increasing consonance between their present state and their "natural" state. In this view, conflict would produce a drive state aimed at resolving that conflict in ways most conducive toward the best functioning of the organism.

Quite compatible with the preceding in relation to our present purposes is the Freudian or psychoanalytic view, which deals with the resolution of conflicting impulses. Ego defense mechanisms are posited to operate unconsciously to protect the organism from situations leading to tension or anxiety, and thus they would act to lead an S from an uncommon and conflictual state (mood inducement) to a more comfortable and natural state (normality). Though focusing more on environmental rather than internal conflict situations, the view of Lewin's (1935) field theory would accordingly suggest that sources of conflict, while
leading to states of tension, would also mobilize the organism to relieve tension by means of acting to restore the state of equilibrium, i.e., regression back to the mean. Brown (1962) and Harvey (1965), in discussing the organism's tendency to reject incongruities and strive after equilibrium, have mentioned the similarities running through the above views as well as through the models of balance (Heider, 1946; Abelson and Rosenberg, 1958), congruity (Osgood and Tannenbaum, 1955), symmetry (Newcomb, 1953), homeostasis (Cannon, 1962; Richter, 1942), and others. Concentrating mostly on the congruity, dissonance, and balance models, Brown (1962) concluded that "The good idea that is central to all three models is the notion that nature abhors incongruity-dissonance-imbalance (Zajonc, 1960) and continually strives to eliminate it" (p. 74-75).

Regarding the present findings then, the self-regulatory functions, assumed indigenous to each $S$, might have contributed toward the attitude or mood change evidenced in Figures 1 and 2, as well as toward the tendency of $SS$s to report continuing mood moderation even after leaving the experimental room, as seen in Figures 9 and 10. Thus, any or all of the above models might serve an explanatory function, and the data at hand can hardly be seen as supportive of one view over another. Had a "time-control" condition been utilized and had it shown changes no different from the trend established by the (mo), (mm), and (c) conditions actually employed, more credence would have been given to the notion that self-regulatory functions were operating, in that the "time" $S$s would have been left to their own devices to produce a mood change. Such a finding
would not have aided in sifting out advantages of one explanatory model over another, however.

**Effects of Treatment**

A definite disadvantage of the above self-regulatory explanations is that they rely only on internal cognitive or even physiological constructs, without presuming effects of the treatment used in the study, i.e., they stand alone without recourse to the taped presentations. In fact, however, each S was exposed to a tape, and it would be irresponsible to assume that the tapes had absolutely no effects, even though any effects obtained did not reach statistically significant proportions in the desired directions. What did occur was that Ss tended to regress back toward the mean after listening to the tapes. While the regression might have taken place because of dissonance reduction or the like, a more parsimonious explanation would seem to be that concentration on the taped presentations, i.e., engagement in intellectual activity, worked to mitigate the effect of the mood inducement and bring the S back closer to a more neutral state. Perhaps by concentrating on the taped material, the S was able, to some degree, to forget or alter his feeling immediately after reading the statements. The alteration, possibly through self-regulatory functions, would naturally lead closer to, rather than further away from, a more neutral state. Since that neutral state would represent the "norm" to the S, he would be more likely to remain there rather than revert to the unnatural, mood-induced state.

Such a view would seem fairly compatible with retroactive inhibition theory. In short-term learning situations, Melton and von Lackum
(1941) found that more forgetting occurred for a list of nonsense syllables learned prior to the learning of an interfering list, i.e., retroactive inhibition was greater than proactive inhibition. Similarly, the taped presentations in the current study might have served as interference in remembering or retaining the feeling gained from the mood statements. The principle of recency, as well as rules applying to longer-term retention, would not seem to apply here, as the time interval between the pre-test and the post-test was quite short (Table 1). Under the retroaction assumptions, a "time-control" group would be expected to show negligible mood change, as less change occurs over time in the absence of intervening activity.

Factors other than just interference and inhibition might have been at work in the tendency of Ss to regress, however. Perhaps concentration was not as important as attention, which is a less active process than concentration. The moderation of mood seen in Figures 9 and 10 would seem to have been based more on attention than on concentration, for during the time indicated on those figures, Ss were simply moving from the experimental to the debriefing room, and were filling out the questionnaire. Perhaps any type of attention-getting activity would have produced the regression effect. It might have been helpful to include groups that underwent other attention-getting activities, both verbal and non-verbal, both easy and difficult, both physically active and non-active, etc. Such combinations were, of course, beyond the range of the present study, but might be considered for future researches.
Given the present results and the above discussion, however, it might be best to conclude that the regression was most likely a result of a combination of self-regulatory functions and intellectual activity or concentration. In this view, poetry had some effect on mood change, though it probably issued from interference or inhibition rather than from anything essentially poetic.

**Folk Use of Congruence of Moods**

Thus far it has been implied in the discussion of mood change that no "poetic effect" was involved, and that the assumptions of the isoprinciple approach were contradicted. However, the experimental results cannot be seen as providing strong support for the invalidation of poetry therapy, poetic effects, or the isoprinciple. Certainly there is much evidence of an experiential and/or anecdotal nature, as has been indicated earlier, that poetry has been of therapeutic benefit, and that the matching of a mood state has in many instances proven more useful than the contradicting of that mood. There are probably few people who have failed to experience, or at least envision, instances where the expression by another person of a congruent mood state was what was most desired or needed; e.g., at a funeral, a statement such as "I know how you feel," or "I feel deeply hurt too," usually is more appreciated and comforting than a statement such as "Cheer up, things will look better tomorrow," or "You'll hardly even miss him in a year or two."

The therapeutic usefulness of expressing congruence with another's mood state is not recent, nor is it passé. Two or three centuries B.C., the writer of Proverbs 25:20 stated, "As he that taketh away a garment
in cold weather, so is he that singeth songs to a heavy heart." And a song currently quite popular on the radio at the time of this writing intones the refrain, "Hey, won't you play another 'somebody done somebody wrong' song, and make me feel at home while I miss my baby." While these two examples, of course, do not exhaust the possible illustrations of the principle being discussed, they give some indication as to the amount of time the principle has evidenced folk use.

Criticisms of Procedure

In the event that the matching of mood states does possibly have validity in terms of therapeutic benefit, then, why were no treatment effects found in the current study? No concrete answers issued from the experimental results, but several speculations are possible and warrant some consideration. The experimental design could not, of course, control all factors related to the utilization of poetry, so that, in the interests of cost, only the factors considered most important were controlled. The factors have been mentioned previously. Some aspects that could not be either controlled or equated, however, were such things as S's background or interest in poetry, rhyme and rhythm scheme of the poetry, number of words in each poem seen as loading on a particular mood factor, etc. The effects of rhyme and rhythm were minimized by the decision to have the poems on tape, in that they were read in a "phrased thought" rather than in a rhythmic manner, and the effects of emotional word frequency minimized by the standardization of the effect of each entire poem rather than just a portion of it. It was possible, and indeed likely, that many Ss did not really comprehend the meaning of a
particular poem with just one play-through. It might have helped to instruct Ss to play the tape back again if they wished. Also, they might have been presented a copy of the poems to read in accompaniment to the tape, or comparisons might have been made between Ss listening to a poem versus those reading it. The reasons why the preceding variations were not included, in addition to cost factors, were that the allowance of reading or of multiple playbacks would have failed to control time of presentation of the stimulus material, and that seeing the poem on paper would have been a large clue to Ss that poetry was being utilized, whereas the term "poetry" was never actually used in the procedure for reasons outlined previously.

Probably the most crucial criticism of the study's attempted test of the isoprinciple assumptions, and one that may have played a large part in the failure to support those assumptions, deals with the definition of a "matched-mood" poem. The poems used were standardized on a "happy-sad" or an "optimistic-pessimistic" continuum, and matched to "depressed" or "elated" Ss. In a "poetry therapy" setting, however, a depressed client would presumably not be given just any sad poem. Instead, a poem would be selected whose content was directly related to the client's presenting problem, i.e., the content and specific mood of the poem would be more precisely matched to the symptoms and mood of the client. Using standardized poems and a random sample of Ss, of course, obviated the possibility of precise matching in the present experiment. Such a matching, however, might profitably be the goal of future researches. Whereas it might take a long time to find a selected sample
of Ss who would present symptoms appropriate for matching to a particular standardized poem, a more efficient procedure might be for suggestible Ss to be given certain symptoms hypnotically. Then, in a non-hypnotic state, they could be presented with an appropriate poem, or with (m), (mo), (nm), and (c) tapes as in the present study. That such a procedure might hold promise was suggested by the performance of one S who was known to be a good hypnotic subject, i.e., he mentioned during debriefing that he had been an S in a demonstration of hypnotic phenomena during a previous quarter on campus. While several other Ss would also have been expected to have been highly suggestible, he was the only known one, and happened to be in the condition that was the most important test of the isoprinciple, i.e., the D (mo) condition. His scores were 13-1 for pre-post on the Depression score, and 5-14 for pre-post on the Vigor score, i.e., he clearly became less "depressed" and more "elated" after the (mo) poem, just as the isoprinciple would predict. While it would be quite irresponsible in the present situation to generalize too strongly from an N=1 case, the scores of the suggestible S are interesting and would support the possibility that hypnotically susceptible Ss and/or hypnosis might prove fruitful in a future study of the precise matching of moods.

One further procedural criticism, regarding the failure to support the isoprinciple assumptions, warrants mention here. Given the shortness of the taped presentations (Table 1), Ss might not have had time to change their moods significantly and in the predicted directions. A "poetry therapy" session, after all, would be expected to last considerably
longer than did the tapes. Perhaps, therefore, the taped presentations were too short or too abrupt. A future study might present Ss in, say, the D (mo) condition with a longer poem with a more gradual mood shift, or with a number of tapes that gradually move from pessimism to optimism. Difficulties in such a procedure, however, would include precise matching, S comprehension of each of the different tapes, attentiveness, motivation to stay with the task, etc. Such difficulties would presumably be minimized in a "poetry therapy" session, and mitigated somewhat by the utilization of hypnotic procedures.

**Evaluation of Isoprinciple**

An evaluation of the isoprinciple approach in the current study would seem to hinge on one question, e.g., given the limitations of the procedure, was the approach given a reasonably fair test? This question, in turn, would depend on how the matching of a mood would be defined by the approach. Were it to simply say that "depressed patients are helped by poems which are sad and gloomy" (Leedy, 1964, p. 144), i.e., that a generally depressed client would be helped by a generally depressed poem, then it would seem that the study met this assumption fairly well. The poems utilized were standardized as to perceived mood at beginning and ending (Appendix A), and the experimental Ss concurred with the pilot Ss concerning those perceived moods (Figures 6 and 7). D Ss differed significantly from E Ss after mood inducement and before presentation of the tapes, both by POMS score (Figures 1 and 2; Tables 3 and 4) and by self-report (Figures 4 and 5; Table M).
Assuming for the moment that the test of the isoprinciple was adequate, serious questions regarding that approach would be raised. First of all, no significant treatment effects were found (Tables 3 and 4), casting doubt on the validity of the approach. Also, speculating on the non-significant trends issuing from the data of Tables 5 and 6, as well as Figures 3, 4, and 5, it would appear that the (m) condition clearly caused the least change in comparison with the other three conditions, which would contradict the assumption that it is the matching per se which is supposedly therapeutic. It is recognized that Leedy (1969) later amended the position held in his 1964 paper so that he was more in agreement with Crootof (1969) that the client should not "be left in a morass of despondency" (p. 42) in which the poet also seemed lost, i.e., that maybe the (mo) condition should cause the most change. However, while the (mo) Ss appeared to change to a non-significant degree in the predicted direction (Figure 3), they were no different from Ss in the (nm) or (c) conditions (Tables 5 and 6; Figures 4 and 5), though the isoprinciple would predict that they should be different. Indeed, the present results would tend to indicate that the way to prevent a person from changing his mood would be to present him with matched-mood material. Given the above findings, any actual change emerging from a "poetry therapy" session might more likely be seen to issue from "non-poetry" parts of the session, such as, for example, therapist-client relationship, other interpersonal or verbal interactions, session content not including the poetry, etc.

In the event that the present experiment failed to provide a reasonably fair test of the isoprinciple assumptions (i.e., the
definition of "matched-mood" implies more than the statements of Leedy (1964) and Crootof (1969) suggest), then further studies are needed to test the assumptions more adequately. Even in such an event, however, the above speculations regarding the lack of change in the (m) condition, as well as the lack of differentiation between the (mo), (nm), and (c) conditions, would still tend to cast some doubt on the validity of the assumption that it is the matching of a mood state that causes any obtained therapeutic benefits.

Conclusion

The present study was, of course, only a first step. The number of second steps from this point are many and various, seeming, as Tennyson says in "Ulysses," much like "an arch wherethrough/ Gleams that untraveled world, whose margin fades/ For ever and for ever when I move."

That poetry can be used therapeutically has been attested to by history. That poetry per se is the therapeutic agent has been unproven by "poetry therapists." If poetry is to be viewed as the agent, it would seem incumbent on such therapists to so experimentally demonstrate, or else to get on with the task of finding more accurate or more appropriate causes of therapeutic effect. In terms of efficiency in theoretical approaches to therapy, there would seem to be a great difference between agent and artifact. As Swift said in "My Lady's Lamentation,"

Find out, if you can,
Who's master, who's man.
CHAPTER V

SUMMARY

Currently there appears to be growing interest in "poetry therapy," i.e., the use of poetry in the assessment and treatment of mental problems. Though much experiential or anecdotal evidence has been offered in support of the therapeutic effects of poetry, no meaningful research findings have been reported. The few studies in the literature that relate at all to poetry have seemed to be clouded by methodological and conceptual difficulty, making their application to "poetry therapy" negligible. Thus, the present research was undertaken to investigate the possibility that poetry might have a "therapeutic" effect, and that such an effect could be ascribed to the poetry per se rather than to other intervening variables.

The value of poetry in the conceptualization of the "human condition" has been indicated by many writers of scientific, philosophical, medical, or literary backgrounds. Poets have been viewed as being keen observers and analysts of human behavior, and also as being uniquely able to express or communicate their observations and analyses through their particular art. Poetry itself has been hypothesized as being useful in helping to mitigate or even to prevent neurotic or maladaptive behaviors. Nearly all current hypotheses as to this supposed "poetic effect" appear to have utilized psychoanalytic explanations or terminologies, e.g., catharsis, expression of repressed feelings, identification,
relief of unconscious conflicts. One such hypothesis is the "iso-
principle" approach of Leedy (1964, 1969), which states that a poem
most closely matched to a person's current mood state will prove most
beneficial, e.g., a depressed client will be best helped by a sad,
gloomy poem. Presumably the client can feel that he is not alone in
his depression, and that it is not disgraceful to be subject to mood
fluctuations. Crootof (1969) added that it would be best were the
"sad" poem to include more optimistic stanzas at the end, so that the
reader is not left without apparent hope in sight, i.e., the reader
must realize that others have recovered from depressed states similar
to his. Thus, the poet must not show himself to be "emotionally
bankrupt" if he is to serve as an appropriate model of social and
emotional maturation.

If indeed valid, the isoprinciple approach could prove very
useful to the "poetry therapist" in selecting poems for different
symptoms, i.e., a poem matched to the symptoms of a depressed client
would not be expected to work as well with a manic client. Thus, the
isoprinciple assumptions were also included for evaluation in the
present experimental design. According to those assumptions, a
matched-mood poem (m) should be more therapeutic, i.e., should cause
more mood change, than a poem non-matched (nm) to a person's current
mood. A matched-mood poem with an opposite-mood ending (mo) should
be even more therapeutic than the (m) poem. If it is indeed the
"matching" or "non-matching" of mood states that produces the desired
mood change, then the above assumptions should hold for "elated" persons
as well, i.e., if a pessimistic poem helps a depressed person feel less
depressed, an optimistic poem should help an elated person feel less elated. As per the reasoning above, the (mo) poem should produce the greatest effect or change, while the (nm) should only produce negligible change.

To test the isoprinciple assumptions and to test for a "poetic effect," then, experimental subjects (Ss) were presented with mood-inducing statements (Velten, 1967) leading to either relative depression or relative elation, followed by a taped presentation comprised of either an (m) poem, an (mo) poem, an (nm) poem, or a "control" (c) tape consisting of neutral statements, i.e., neither pessimistic nor optimistic. The mood-inducing statements, along with all instructions, were on 4 x 6 unlined note cards that the S read through at his own speed. Ss filled out alternate forms of the Profile of Mood States (POMS) (McNair, Lorr, and Droppleman, 1971) before and after the taped presentation to provide pre-post measures on the dependent variable, i.e., the effect of the treatment. It was hypothesized that, for the 40 Ss receiving the depression inducement (D) and the 40 Ss receiving the elation inducement (E), that (mo) > (m) > (nm) > (c) in terms of relative mood change, and that there would be a main effect for Mood Inducement, i.e., D would differ from E, for both the Depression and Vigor scores of the POMS. Ss were also given a six-item Post-Experimental Questionnaire to aid in the interpretation of the results.

Analyses of Variance (ANOVAs) were computed for POMS Depression and Vigor scores, as well as for each of the Post-Experimental Questionnaire items. While a main effect for Mood Inducement was found, no Treatment effect was found, indicating that the poems did not produce
the expected mood changes. Indeed, the (m) condition appeared to consistently produce the least change, with negligible differences between (mo), (nm), and (c) conditions; however, differences between all four treatment conditions were statistically insignificant. An interaction between Mood Inducement and Pre-post was found, indicating that D Ss differed in the predicted direction from E Ss on pre-test as well as post-test measures. Also, D Ss tended to decrease in Depression score and increase in Vigor score over the course of the treatment, while E Ss tended to increase in Depression score and decrease in Vigor score; i.e., all Ss tended to "regress toward the mean." Post-Experimental Questionnaire analysis revealed that, while Ss appeared to enter the experiment in the same general mood state, they saw their moods changing basically in directions compatible with the results obtained from the Pre-post measures. Also, assumptions regarding the perceived beginning and ending moods of the poems utilized, which had been standardized earlier in a pilot study, were upheld by the experimental Ss.

Given that no significant Treatment effect was found, any explanation of the tendency of Ss to regress to the mean would, of course, be highly speculative. It is possible, for example, that self-regulatory functions indigenous to the individual organism were invoked when the S found himself in a state of dissonance or conflict, i.e., when, after the Mood Inducement, he found himself in a mood state far different from that in which he had entered the experiment. Or, the taped presentation might have afforded the S a focus of concentration which, in a retroactively inhibiting or interfering manner, might have helped him
alter or "forget" the mood state proactively invoked by the Mood Inducement. More probably, self-regulatory functions might have interacted with concentration or intellectual activity to produce the regression.

The lack of a significant Treatment effect along with limitations of the experimental design obviated the possibility of providing strong support for or against the isoprinciple approach. It was possible that the isoprinciple assumptions were not adequately met; i.e., a more precise matching of the symptoms of a person's mood with the poem's actual content might be necessary, though the available definitions of the approach (Leedy, 1964, 1969; Crootof, 1969) do not so specifically state. Whether or not the assumptions were precisely met, however, the approach must be called into some question because of the present results regarding the lack of change in the (m) condition, and the lack of differentiation between the (mo), (nm), and (c) conditions. Further, the failure to find any "poetic effect" would seem to make it incumbent upon "poetry therapists" to either experimentally demonstrate such an effect, or else to proceed with the task of finding and describing more accurate or appropriate causes of therapeutic effect.
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APPENDICES
APPENDIX A

STANDARDIZATION OF PERCEIVED MOOD OF POEMS: A PILOT STUDY
Standardization of Perceived Mood of Poems:
A Pilot Study

INTRODUCTION

"Poetry therapy," the utilization of poetry for the alleviation or prevention of mental disorders, has received considerable support through experimental or anecdotal accounts (e.g., Leedy, 1969, 1973; Blanton, 1960; Harrower, 1972). However, few experiments have been performed which even relate to poetry at all, and no research data is available which demonstrates that poetry has a significant effect on changes in mood states. The "isoprinciple" approach (Leedy, 1964, 1969) would seem to provide a good conceptual basis from which to test a possible "poetic effect." That approach holds that a poem matched to a person's current mood state should be therapeutic, i.e., should have a greater effect in changing that mood state than a poem not matched to that mood state. Thus, a "depressed" or pessimistic poem would cheer up a depressed person more than an "elated" or optimistic poem would. Crootof (1969) added that a pessimistic poem with an optimistic ending should be even more "therapeutic" than a poem that is simply pessimistic all the way through. If the "isoprinciple" were indeed accurate, then it should also hold that a poem matched to an elated mood would alter, i.e., decrease, that elation, and a matched or optimistic poem with a pessimistic ending would alter that elation even more effectively. A poem not matched to the mood state should have no effect.
To test the above "isoprinciple" assumptions was the purpose of the experiment to which this work has been appended. Incorporated into the experimental design was the need for four poems that would be seen as beginning with a certain mood and ending with a certain mood. The four types are summarized in Table A.

The poems to be used in the research were selected by the experimenter from widely-distributed poetry anthologies. All poems were equated as nearly as was practical for total length. However, to ascertain that the moods of the poems used would be similarly perceived by nearly all subjects, and to assure that the perceptions would conform to the assumptions of the experimental design, it was necessary to "standardize" the perceived moods of the poems. It was to this standardization that the pilot study reported here was directed.

METHOD

Subjects

Subjects (Ss) were undergraduates taking an introductory psychology course at a two-year community college. Course instructors donated the time periods from three different classes to the experimenter (E). The particular periods were approached as practical learning experiences in psychological research for class members; the experimental procedure occupied the first 25-30 minutes of the period, after which E discussed the purposes of the experiment and talked about research methodology in general for the remainder of the class time. Among the three classes, Ns ranged from 9 to 14 for males, and from 19 to 24 for females. (Ns for
Table A
Mood Movement of Poems

<table>
<thead>
<tr>
<th>Mood at beginning</th>
<th>Mood at ending</th>
<th>(Graphic Representation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. pessimistic</td>
<td>pessimistic</td>
<td>(+++)</td>
</tr>
<tr>
<td>2. pessimistic</td>
<td>optimistic</td>
<td>(+++)</td>
</tr>
<tr>
<td>3. optimistic</td>
<td>pessimistic</td>
<td>(+++)</td>
</tr>
<tr>
<td>4. optimistic</td>
<td>optimistic</td>
<td>(+++)</td>
</tr>
</tbody>
</table>
the poems themselves, as may be seen from the tables in Appendix H, show a variation of more than three for either sex. This was because any particular S at times might have rendered invalid responses to one or two of the items on the rating sheet (see Appendix B), though such responses did not invalidate the rest of his or her record.)

**Apparatus**

The only materials necessary to conduct the study were: the poems, which were recorded onto cassette tapes; a portable cassette recorder, to which a small external speaker was attached; and a rating sheet for each S.

**Procedure**

After being introduced by the class instructor as "a graduate student working toward his doctorate in psychology," E briefly explained that the class was going to take part in an experiment, which would be discussed toward the end of the period. Rating sheets were passed out, and the instructions on the sheet were verbally paraphrased by E (see Appendix B). Then either 7 or 8 of the 23 poems used in the study were presented to the class via tape recordings. E stopped the tape at the conclusion of each poem long enough to be sure that every S had completed the particular rating. (In that only six rating spaces were provided on each sheet, Ss were instructed to continue rating in a similar style on the back of the sheet after the sixth tape.) At the conclusion of the taped presentations, as indicated above, the particular study per se, and psychological research in general, were discussed with the class.
Ranking of Poems

It was necessary to devise a scoring system whereby the poems could be evaluated and ranked according to how effectively they fulfilled the assumptions of the experimental design. An obvious scoring category was to rank the mean score of the beginning of the poem vs. the mean score of the ending of the poem. Thus, since 1 = most optimistic and 9 = most pessimistic, the higher mean scores would be correspondingly ranked higher for pessimistic poems (++, a higher score for the beginning and a lower score for the ending would be ranked higher for a pessimistic poem with an optimistic ending (+), etc. However, it was not felt that such a category should comprise the only scoring in the evaluation. The best mean scores would not in themselves indicate that most Ss had agreed on the perceived moods of any particular poem. For example, five scores of 4 (optimistic) together with five scores of 9 (pessimistic) would yield a mean score of 6.5. While such a score would clearly be in the "pessimistic" range, yet only half of the Ss would actually have perceived the poem as being pessimistic. Ten scores of "6", on the other hand, would result in a lower mean score of 6, but with 100% S agreement. Thus it seemed important to consider in the scoring system what percentage of the Ss agreed with the experimental assumptions regarding the beginning vs. the ending moods of each poem. Such a category would not take account of the neutral score of 5, since "neutral" does not imply pessimism or optimism. On the other hand, it was felt that some information might be lost by not including those neutral scores in the scoring system, since they were not seen as expressing perceptions opposed to the experimental
assumptions; i.e., a score of 5 did not necessarily imply that a poem assumed to be "pessimistic" was being viewed by the S as "optimistic." Thus a further "correction" category was considered which would include any score of 5 in the percentage of those Ss agreeing with the experimental assumptions. One more category that seemed worthy of consideration was the total difference between mean scores of the beginning and ending of poems; i.e., the largest differences in the (+++) and (+++) poems would receive the highest ratings. However, no assumptions regarding either magnitude or direction of difference were made for the (+++) or (+++) poems; i.e., it was not felt to be important whether an optimistic poem became slightly more optimistic or slightly less optimistic, as long as it did not become pessimistic. Were it to become pessimistic, it would be rated lowly in the other scoring categories.

It was according to the above considerations, then, that the poems were evaluated. Values of "1" were assigned to the best poem(s) in the particular category, "2" to the next best, and so on. In summary, the categories and scoring used in ranking the data of Tables B through I were as follows: 1) Highest mean score of beginning of (+++) and of (+++) poems, and of ending of (+++) poems, received 1 point; lowest mean score of beginning of (+++) and of (+++) poems, and of ending of (+++) poems, received 1 point; (next best received 2 points, etc; 2) Largest difference between means of beginning and ending moods of (+++) and of (+++) poems received 1 point; differences of (+++) and of (+++) poems not considered; 3) For all poems, highest percentage(s) of Ss in agreement with predicted beginning mood of poem received 1 point, and highest percentage(s) of Ss in
agreement with predicted ending mood of poem received 1 point (with any score of "5" not included in analysis); 4) Same as No. 3 above, except that any score of "5" included in percentage of Ss in agreement with predicted moods. Rank scores were then obtained by averaging the points received by each poem in each category. Thus the (++) and (++ poems were ranked in six categories, and the (++) and (++) poems in seven categories.

RESULTS

Rank scores, as well as the data used in deriving them, are presented in Tables B through I in Appendix H. While only data for males were used for the present purposes, data for females were presented for future reference.

Perusal of the tabled data for males shows very adequate consistency of ranking across categories: i.e., the highest ranked poems were consistently high in each category. It was thus concluded that those highest-ranked poems exhibited good face validity, and were suitable for use in testing the "isoprinciple" assumptions as outlined above.
APPENDIX B

RATING SHEET FOR PILOT STUDY
You are going to hear a number of taped presentations. Your task is to decide with what kind of mood they seem to you to begin, and with what kind of mood they seem to end. At the end of each presentation, place an "X" along the proper continuum to denote whether the presentation began in an optimistic (ie, happy, elated, cheerful, etc.), pessimistic (ie, sad, depressed, downcast, etc.), or neutral mood. The lower the number (eg, 1, 2), the more optimistic the mood, whereas the higher the number (eg, 8, 9), the more pessimistic the mood. If completely neutral, place an "X" above the number 5.

(Optimistic) (N) (Pessimistic)

1. begins: 1 2 3 4 5 6 7 8 9
    ends: 1 2 3 4 5 6 7 8 9

2. begins: 1 2 3 4 5 6 7 8 9
    ends: 1 2 3 4 5 6 7 8 9

3. begins: 1 2 3 4 5 6 7 8 9
    ends: 1 3 5 7 9

4. begins: 1 2 3 4 5 6 7 8 9
    ends: 1 3 5 7 9

5. begins: 1 2 3 4 5 6 7 8 9
    ends: 1 3 5 7 9

6. begins: 1 2 3 4 5 6 7 8 9
    ends: 1 3 5 7 9

begins:

ends: 1 3 5 7 9
Appendix C

DEPRESSION STATEMENTS
SET OF FIFTY DEPRESSION STATEMENTS

6. Today is neither better nor worse than any other day.

7. However, I feel a little low today.

8. I feel rather sluggish now.

9. Sometimes I wonder whether school is all that worthwhile.

10. Every now and then I feel so tired and gloomy that I'd rather just sit than do anything.

11. I can remember times when everybody but me seemed full of energy.

12. Too often I have found myself staring listlessly into the distance, my mind a blank, when I definitely should have been studying.

13. It has occurred to me more than once that duty is basically useless, because you forget almost everything you learn anyway.

14. I do feel somewhat discouraged and drowsy--maybe I'll need a nap when I get home.

15. I'm afraid the war in Viet Nam may get a lot worse.

16. There have been days when I felt weak and confused, and everything went miserably wrong.

17. I've had daydreams in which my mistakes kept occurring to me--sometimes I wish I could start over again.

18. I'm beginning to feel sleepy--my thoughts are drifting.

19. I feel terribly tired and indifferent to things today.

20. Just to stand up would take a big effort.

21. I'm getting tired out. I can feel my body getting exhausted and heavy.

22. At times I've been so tired and discouraged that I went to sleep rather than face important problems.

23. My life is so tiresome--the same old thing day after day depresses me.
24. I couldn't remember things well right now if I had to.
25. I just can't make up my mind; it's so hard to make simple decisions.
26. I want to go to sleep—I feel like just closing my eyes and going to sleep right here.
27. I'm not very alert; I feel listless and vaguely sad.
28. I've doubted that I'm a worthwhile person.
29. I feel worn out. My health may not be as good as it's supposed to be.
30. It often seems that no matter how hard I try, things still go wrong.
31. I've noticed that no one seems to really understand or care when I complain or feel unhappy.
32. I'm uncertain about my future.
33. I'm discouraged and unhappy about myself.
34. I've lain awake at night worrying so long that I hated myself.
35. Things are worse now than when I was younger.
36. The way I feel now, the future looks boring and hopeless.
37. Some very important decisions are almost impossible for me to make.
38. Things are easier and better for other people than for me. I feel like there's no use in trying again.
39. Often people make me very upset. I don't like to be around them.
40. It takes too much effort to convince people of anything. There's no point in trying.
41. I fail in communicating with people about my problems.
42. It's so discouraging the way people don't really listen to me.
43. I've felt so alone before that I could have cried.
Sometimes I've wished I could die.

My thoughts are so slow and downcast--I don't want to think or talk.

I just don't care about anything. Life just isn't any fun.

Life seems too much for me anyhow. My efforts are wasted.

I'm so tired.

I don't concentrate or move. I just want to forget about everything.

I have too many bad things in my life.

Everything seems utterly futile and empty.

I feel dizzy and faint. I need to put my head down and not move.

I don't want to do anything.

All of the unhappiness of my past life is taking possession of me.

I want to go to sleep and never wake up.
Appendix D

ELATION STATEMENTS
6. Today is neither better nor worse than any other day.
7. I do feel pretty good today, though.
8. I feel light-hearted.
9. This might turn out to have been one of my good days.
10. If your attitude is good, then things are good, and my attitude is good.
11. I've certainly got energy and self-confidence to spare.
12. I feel cheerful and lively.
13. On the whole, I have very little difficulty in thinking clearly.
14. For the rest of the day, I bet things will go really well.
15. My judgment about most things is sound.
16. I'm full of energy and ambition--I feel like I could go a long time without sleep.
17. My judgment is keen and precise today. Just let someone try to put something over on me.
18. If I set my mind to it, I can make things turn out fine.
19. I feel enthusiastic and confident now.
20. There should be opportunity for a lot of good times coming along.
21. My favorite song keeps going through my head.
22. Some of my friends are so lively and optimistic.
23. I feel talkative--I feel like talking to almost anybody.
24. I'm full of energy, and am really getting to like the things I'm doing on campus.
25. I'm able to do things accurately and efficiently.
26. I know good and well that I can achieve the goals I set.
27. Now that it occurs to me, most of the things that have depressed me wouldn't have if I'd just had the right attitude.
28. I have a sense of power and vigor.
29. I feel so vivacious and efficient today--sitting on top of the world.
30. It would really take something to stop me now!
31. In the long run, it's obvious that things have gotten better and better during my life.
32. I know that in the future I won't over-emphasize so-called "problems."
33. I'm optimistic that I can get along very well with most of the people I meet.
34. I'm too absorbed in things to have time for worry.
35. I'm feeling amazingly good today!
36. I am particularly inventive and resourceful in this mood.
37. Things look good. Things look great!
38. I feel an exhilarating animation in all I do.
39. I feel highly perceptive and refreshed.
40. My memory is in rare form today.
41. In a buoyant mood like this one, I can work fast and do it right the first time.
42. I can concentrate hard on anything I do.
43. My thinking is clear and rapid.
44. My life is so much fun; it seems to offer so many sources of fulfillment.
45. Things will be better and better today.
46. I can make decisions rapidly and correctly; and I can defend them against criticisms easily.
47. I feel industrious as hell. I want something to do!
48. Life is firmly in my control.
49. I wish somebody would play some good loud music!
50. This is great--I really do feel good--I am elated about things.
51. I'm really feeling sharp now.
52. This is just one of those days when I'm ready to go!
53. I feel like bursting with laughter--I wish somebody would tell a joke and give me an excuse.
54. I'm full of energy.
55. God, I feel great!
APPENDIX E

POMS FORMS I AND II
Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in the space under the answer to the right which best describes how you feel right now.

The numbers refer to these phrases:
- Not at all
- A little
- Moderately
- Quite a bit
- Extremely

<table>
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<th>Word</th>
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</tbody>
</table>

Make sure you have answered every item.
Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in ONE space under the answer to the right which best describes HOW YOU FEEL RIGHT NOW.

The numbers refer to these phrases:

<table>
<thead>
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<th>Number</th>
<th>Description</th>
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</thead>
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<td>Not at all</td>
</tr>
<tr>
<td>1</td>
<td>A little</td>
</tr>
<tr>
<td>2</td>
<td>Moderately</td>
</tr>
<tr>
<td>3</td>
<td>Quite a bit</td>
</tr>
<tr>
<td>4</td>
<td>Extremely</td>
</tr>
</tbody>
</table>

| 1. Tense         | 0 1 2 3 4 | 17. Lonely   | 0 1 2 3 4 |
| 2. Angry         | 0 1 2 3 4 | 18. Miserable| 0 1 2 3 4 |
| 3. Lively        | 0 1 2 3 4 | 19. Muddled  | 0 1 2 3 4 |
| 4. Sorry for things done | 0 1 2 3 4 | 20. Cheerful| 0 1 2 3 4 |
| 5. Peeved        | 0 1 2 3 4 | 21. Bitter   | 0 1 2 3 4 |
| 6. Sad           | 0 1 2 3 4 | 22. Exhausted| 0 1 2 3 4 |
| 7. On edge       | 0 1 2 3 4 | 23. Anxious  | 0 1 2 3 4 |
| 8. Hopeless      | 0 1 2 3 4 | 24. Ready to fight | 0 1 2 3 4 |
| 9. Unworthy      | 0 1 2 3 4 | 25. Good natured | 0 1 2 3 4 |
| 10. Spiteful     | 0 1 2 3 4 | 26. Sluggish | 0 1 2 3 4 |
| 11. Sympathetic | 0 1 2 3 4 | 27. Weary   | 0 1 2 3 4 |
| 12. Restless     | 0 1 2 3 4 | 28. Full of pep | 0 1 2 3 4 |
| 13. Unable to concentrate | 0 1 2 3 4 | 29. Worthless | 0 1 2 3 4 |
| 14. Fatigued     | 0 1 2 3 4 | 30. Forgetful| 0 1 2 3 4 |
| 15. Helpful      | 0 1 2 3 4 | 31. Carefree | 0 1 2 3 4 |
| 16. Annoyed      | 0 1 2 3 4 | 32. Guilty   | 0 1 2 3 4 |

Make sure you have answered every item.
APPENDIX F

TEXTS OF POEMS
LAUGH AND BE MERRY
- John Masefield (1878-1967)

(†† poem used for: Condition 3, D non-matched; and Condition 5, E matched.)

Laugh and be merry, remember, better the world with a song,
Better the world with a blow in the teeth of a wrong.
Laugh, for the time is brief, a thread the length of a span.
Laugh and be proud to belong to the old proud pageant of man.

Laugh and be merry: remember, in olden time,
God made Heaven and Earth for joy He took in a rhyme,
Made them, and filled them full with the strong red wine of His mirth,
The splendid joy of the stars: the joy of the earth.

So we must laugh and drink from the deep blue cup of the sky,
Join the jubilant song of the great stars sweeping by,
Laugh, and battle, and work, and drink of the wine outpoured
In the dear green earth, the sign of the joy of the Lord.

Laugh and be merry together, like brothers akin,
Guesting awhile in the rooms of a beautiful inn,
Glad till the dancing stops, and the lilt of the music ends.
Laugh till the game is played; and be you merry, my friends.
RAIN AFTER A VAUDEVILLE SHOW

- Steven Vincent Benét (1898-1943)

(†† poem used for: Condition 2, D matched with opposite ending.)

The last pose flickered, failed. The screen's dead white
Glared in a sudden flooding of harsh light
Stabbing the eyes; and as I stumbled out
The curtains rose. A fat girl with a pout
And legs like hams, began to sing "His Mother."
Gusts of bad air rose in a choking smother;
Smoke, the wet steam of clothes, the stench of plush,
Powder, cheap perfume, mingled in a rush.
I stepped into the lobby—and stood still,
Struck dumb by sudden beauty, body and will.
Cleanness and rapture—excellence made plain—
The storming, thrashing arrows of the rain!
Pouring and dripping on the roofs and rods,
Smelling of woods and hills and fresh-turned sods,
Black on the sidewalks, gray in the far sky,
Crashing on thirsty panes, on gutters dry,
Hurrying the crowd to shelter, making fair
The streets, the houses, the heat-soaked air,—
Merciful, holy, charging, sweeping, flashing,
It smote the soul with a most iron clashing!
Like dragons' eyes the street-lamps suddenly gleamed,
Yellow and round and dim-low globes of flame.
And, scarce-perceived, the clouds' tall banners streamed.
Out of the petty wars, the daily shame,
Beauty strove suddenly, and rose, and flowered . . .
I gripped my coat and plunged where awnings lowered,
Made one with hissing blackness, caught, embraced,
By splendor and by striving and swift haste—
Spring coming in with thundering and strife—
I stamped the ground in the strong joy of life!
THREE YEARS SHE GREW IN SUN AND SHOWER

- William Wordsworth (1770-1850)

(++) poem used for: Condition 6, E matched with opposite ending.)

Three years she grew in sun and shower,
Then Nature said, "A lovelier flower
On earth was never sown;
This child I to myself will take;
She shall be mine, and I will make
A lady of my own.

"Myself will to my darling be
Both law and impulse: and with me
The girl, in rock and plain,
In earth and heaven, in glade and bower,
Shall feel an overseeing power
To kindle or restrain.

"She shall be sportive as the fawn
That wild with glee across the lawn,
Or up the mountain, springs;
And hers shall be the breathing balm,
And hers the silence and the calm
Of mute insensate things.

"The floating clouds their state shall lend
To her; for her the willow bend;
Nor shall she fail to see
Even in the motions of the storm
Grace that shall mould the maiden's form
By silent sympathy.

"The stars of midnight shall be dear
To her; and she shall lean her ear
In many a secret place
Where rivulets dance their wayward round,
And beauty born of murmuring sound
Shall pass into her face.

"And vital feelings of delight
Shall rear her form to stately height,
Her virgin bosom swell;
Such thoughts to Lucy I will give
While she and I together live
Here in this happy dell."
THREE YEARS SHE GREW IN SUN AND SHOWER (cont.)

Thus Nature spake--the work was done--
How soon my Lucy's race was run!
She died, and left to me
This heath, this calm, and quiet scene;
The memory of what has been,
And never more will be.
IN DEATH DIVIDED
- Thomas Hardy (1840-1928)

(++) poem used for: Condition 1, D matched; and Condition 7, E non-matched.)

I shall rot here, with those whom in their day
You never knew,
And alien ones who, ere they chilled to clay,
Met not my view,
Will in your distant grave-place ever neighbour you.

No shade of pinnacle or tree or tower,
While earth endures,
Will fall on my mound and within the hour
Steal on to yours; One robin never haunt our two green covertures.

Some organ may resound on Sunday noons
By where you lie,
Some other thrill the panes with other tunes
Where moulder I;
No selfsame chords compose our common lullaby.

The simply-cut memorial at my head
Perhaps may take
A rustic form, and that above your bed
A stately make;
No linking symbol show thereon for our tale's sake.

And in the monotonous moils of strained, hard-run
Humanity,
The eternal tie which binds us twain in one
No eye will see
Stretching across the miles that sever you from me.
Neutral Statements
- from Velton (1967)

Oklahoma City is the largest city in the world in area, with 631.66 square miles.

Japan was elected to the United Nations almost 14 years after Pearl Harbor.

At the end appears a section entitled "Bibliography Notes."

We have two kinds of nouns denoting physical things: individual and mass nouns.

This book or any part thereof must not be reproduced in any form.

Agricultural products comprised seventy percent of the income.

Saturn is sometimes in conjunction, beyond the Sun from the Earth and is not visible.

Some streets were still said to be listed under old names.

Many states supply milk for grammar school children.

The typography, paper, and binding were of the highest quality.

The desk was old, and scratched into its surface was a profusion of dates, initials, and pleading messages.

When the banyan bent down under its own weight, its branches began to take root.

The hope diamond was shipped from South Africa to London through the regular mail service.

The review is concerned with the first three volumes.

The ship was ancient, and would soon be retired from the fleet.

Slang is a constantly changing part of the language.

There is a small article in the local newspaper which indicates acceptance of the kidnappers' terms.
APPENDIX G

POST-EXPERIMENTAL QUESTIONNAIRE
Below are some questions about the experience you have just had. Please place an "X" along each continuum to denote whether your mood or feeling at the time in question was happy, sad, or neutral. The higher the number (e.g., 8, 9), the happier your mood (elated, cheerful, optimistic, etc.); and the lower the number (e.g., 1, 2), the sadder your mood (depressed, downcast, pessimistic, etc.). If completely neutral, place an "X" above the number 5.

1. What was your mood immediately before coming to, or taking part in, the experiment?

   1 2 3 4 5 6 7 8 9
   (sad) (N) (happy)

2. How did you feel after reading the mood statements?

   1 2 3 4 5 6 7 8 9
   (sad) (N) (happy)

3. How did you feel after listening to the taped presentation?

   1 2 3 4 5 6 7 8 9
   (sad) (N) (happy)

4. With what sort of mood or feeling did the taped presentation seem to begin?

   1 2 3 4 5 6 7 8 9
   (sad) (N) (happy)

5. With what sort of mood did the taped presentation seem to end?

   1 2 3 4 5 6 7 8 9
   (sad) (N) (happy)

6. How do you feel right now?

   1 2 3 4 5 6 7 8 9
   (sad) (N) (happy)

Thank you for your participation. If you would like to receive a summary of the purposes and results of this experiment, please be sure that you clearly fill in your name and address at the top of the page so that the summary can be mailed to you later in the quarter.

Please do not discuss this experiment with anyone who might take part in it later, as doing so might influence the way they respond to the experiment. Again, thanks for your cooperation.
Table B
Normative Data for Poems with
Pessimistic Beginning, Pessimistic Ending (++)
Males

<table>
<thead>
<tr>
<th>Rank Score</th>
<th>Poem (Poet)</th>
<th>Mbeg</th>
<th>Mend</th>
<th>% in agr. (b/e)</th>
<th>% with neut. incl.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>In Death Divided (Thomas Hardy)</td>
<td>8.31</td>
<td>7.85</td>
<td>1.00</td>
<td>1.00</td>
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<tr>
<td>1.67</td>
<td>Tears, Idle Tears (Alfred, Lord Tennyson)</td>
<td>7.41</td>
<td>7.79</td>
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<tr>
<td>2.00</td>
<td>Lines: When the Lamp (Percy Bysshe Shelley)</td>
<td>6.64</td>
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<td>There's Not a Joy (Lord Byron)</td>
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NOTE:

Rank Score = average score of poem across either 6 or 7 categories, with 1 given for best, 2 for second best, etc., in each category.

Poem (Poet) = name of poem and its author.

Mbeg = mean score of beginning of poem over mean score of end of poem, taken over a 9-point scale with 5 = neutral, 1 = most optimistic, and 9 = most pessimistic.

% in agr. (b/e) = percent of subjects in agreement with predicted direction of beginning of poem over percent of subjects in agreement with predicted end of poem (with "neutral" not included).

% with neut. incl. = percent of subjects in agreement with predicted direction of beginning of poem over percent of subjects in agreement with predicted end of poem (with "neutral" included in predicted direction).

N = number in sample.
### Table C

**Normative Data for Poems with Pessimistic Beginning, Optimistic Ending (++) Males**

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<th>Rank Score</th>
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<th>% with neut. incl.</th>
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<td>Stephen Vincent Benét</td>
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<td>The Darkling Thrush</td>
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<td>2.43</td>
<td>On Growing Old</td>
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**NOTE:** See note to Table B, page 129.
Table D
Normative Data for Poems with Optimistic Beginning, Pessimistic Ending (++)
Males

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<th>Rank Score</th>
<th>Poem (Poet)</th>
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<td>1.00</td>
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NOTE: See note to Table B, page 129.
Table E

Normative Data for Poems with Optimistic Beginning, Optimistic Ending (++)

Males

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<th>Rank Score</th>
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<th>% with neut.</th>
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<td>1.00</td>
<td></td>
</tr>
<tr>
<td>1.50</td>
<td>Song of the Open Road</td>
<td>2.33</td>
<td>.89</td>
<td>.89</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>(Walt Whitman)</td>
<td>1.67</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>2.33</td>
<td>Ode to Autumn</td>
<td>3.08</td>
<td>.83</td>
<td>1.00</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(John Keats)</td>
<td>2.92</td>
<td>.83</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>3.33</td>
<td>Song of Myself</td>
<td>3.83</td>
<td>.67</td>
<td>1.00</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(Walt Whitman)</td>
<td>3.92</td>
<td>.83</td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td>3.83</td>
<td>Great Things</td>
<td>3.31</td>
<td>.69</td>
<td>.85</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>(Thomas Hardy)</td>
<td>4.15</td>
<td>.54</td>
<td>.77</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: See note to Table B, page 129.
Table F

Normative Data for Poems with Pessimistic Beginning, Pessimistic Ending (++)
Females

<table>
<thead>
<tr>
<th>Rank Score</th>
<th>Poem (Poet)</th>
<th>Mbeg</th>
<th>% in agr. (Mend)</th>
<th>Neut. (b/e)</th>
<th>% with incl.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.17</td>
<td>Tears, Idle Tears (Alfred, Lord Tennyson)</td>
<td>7.33</td>
<td>.92</td>
<td>1.00</td>
<td>.96</td>
<td>24</td>
</tr>
<tr>
<td>2.33</td>
<td>There's Not a Joy (Lord Byron)</td>
<td>6.75</td>
<td>.83</td>
<td>.92</td>
<td>1.00</td>
<td>24</td>
</tr>
<tr>
<td>3.33</td>
<td>Lines: When the Lamp (Percy Bysshe Shelley)</td>
<td>6.57</td>
<td>.74</td>
<td>.96</td>
<td>.91</td>
<td>23</td>
</tr>
<tr>
<td>3.50</td>
<td>In Death Divided (Thomas Hardy)</td>
<td>7.05</td>
<td>.84</td>
<td>.89</td>
<td>.95</td>
<td>19</td>
</tr>
<tr>
<td>4.67</td>
<td>The Going (Thomas Hardy)</td>
<td>6.00</td>
<td>.65</td>
<td>.88</td>
<td>.88</td>
<td>17</td>
</tr>
</tbody>
</table>

NOTE: See note to Table B, page 129.
Table G

Normative Data for Poems with
Pessimistic Beginning, Optimistic Ending (++)
Females

<table>
<thead>
<tr>
<th>Rank Score</th>
<th>Poem (Poet)</th>
<th>Mbeg</th>
<th>% in agr. (b/e)</th>
<th>% with neut. incl.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>Rain After Vaudeville Show</td>
<td>7.65</td>
<td>1.00</td>
<td>1.00</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>(Stephen Vincent Benét)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.00</td>
<td>The Darkling Thrush</td>
<td>7.32</td>
<td>.95</td>
<td>1.00</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>(Thomas Hardy)</td>
<td>3.48</td>
<td>.95</td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td>3.29</td>
<td>Sonnet 29</td>
<td>7.20</td>
<td>1.00</td>
<td>1.00</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>(William Shakespeare)</td>
<td>3.85</td>
<td>.60</td>
<td>.90</td>
<td></td>
</tr>
<tr>
<td>3.54</td>
<td>Prospice</td>
<td>6.58</td>
<td>.68</td>
<td>1.00</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>(Robert Browning)</td>
<td>3.21</td>
<td>.79</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>4.57</td>
<td>On Growing Old</td>
<td>6.95</td>
<td>.80</td>
<td>.95</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>(John Masefield)</td>
<td>4.10</td>
<td>.70</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>4.86</td>
<td>Self-Dependence</td>
<td>5.75</td>
<td>.46</td>
<td>.83</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>(Matthew Arnold)</td>
<td>3.75</td>
<td>.85</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>5.43</td>
<td>Self-Analysis</td>
<td>6.84</td>
<td>.84</td>
<td>.95</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>(Anna Wickham)</td>
<td>5.21</td>
<td>.68</td>
<td>.68</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: See note to Table B, page 129.
Table H

Normative Data for Poems with Optimistic Beginning, Pessimistic Ending (++)
Females

<table>
<thead>
<tr>
<th>Rank Score</th>
<th>Poem</th>
<th>Mbeg</th>
<th>% in agr.</th>
<th>% with neut. incl.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three Years She Grew (William Wordsworth)</td>
<td>2.95</td>
<td>.79</td>
<td>.89</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Stanzas Written in Dejection (Percy Bysshe Shelley)</td>
<td>2.53</td>
<td>.89</td>
<td>1.00</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Dover Beach (Matthew Arnold)</td>
<td>3.91</td>
<td>.65</td>
<td>.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Richard Cory (Edward Arlington Robinson)</td>
<td>4.15</td>
<td>.50</td>
<td>.90</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Jubilate (Thomas Hardy)</td>
<td>5.37</td>
<td>.26</td>
<td>.53</td>
<td>19</td>
</tr>
</tbody>
</table>

NOTE: See note to Table B, page 129.
### Table I

Normative Data for Poems with Optimistic Beginning, Optimistic Ending (++)

**Females**

<table>
<thead>
<tr>
<th>Rank Score</th>
<th>Poem (Poet)</th>
<th>M beg</th>
<th>% in agr.</th>
<th>% with neut.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>Song of the Open Road (Walt Whitman)</td>
<td>2.00</td>
<td>1.00</td>
<td>1.00</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.74</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>2.00</td>
<td>Laugh and Be Merry (John Masefield)</td>
<td>2.75</td>
<td>.95</td>
<td>.95</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.70</td>
<td>.95</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>2.83</td>
<td>Great Things (Thomas Hardy)</td>
<td>2.54</td>
<td>.88</td>
<td>.92</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.83</td>
<td>.79</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>3.33</td>
<td>Ode to Autumn (John Keats)</td>
<td>3.47</td>
<td>.79</td>
<td>.95</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.11</td>
<td>.47</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>4.17</td>
<td>Song of Myself (Walt Whitman)</td>
<td>3.74</td>
<td>.68</td>
<td>1.00</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.53</td>
<td>.42</td>
<td>.68</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** See note to Table B, page 129.
APPENDIX I

TABLES OF MEANS FOR ANOVAs FOR DEPRESSION AND VIGOR SCORES
Table J
Summary of Means for
Analysis of Variance (Depression Score)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>6.35 2.99</td>
</tr>
<tr>
<td>B</td>
<td>5.15 4.95 4.93 3.65</td>
</tr>
<tr>
<td>HB</td>
<td>7.70 6.90 6.00 4.80 2.60 3.00 3.85 2.50</td>
</tr>
<tr>
<td>K</td>
<td>4.71 4.63</td>
</tr>
<tr>
<td>HK</td>
<td>7.40 5.30 2.03 3.95</td>
</tr>
<tr>
<td>BK</td>
<td>5.20 5.10 4.95 4.95 5.05 4.80 3.65 3.65</td>
</tr>
<tr>
<td>HBK</td>
<td>8.20 7.20 8.10 5.70 7.40 4.60 5.90 3.70</td>
</tr>
<tr>
<td></td>
<td>2.20 3.00 1.80 4.20 2.70 5.00 1.40 3.60</td>
</tr>
</tbody>
</table>
Table K

Summary of Means for Analysis of Variance (Vigor Score)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>5.19 8.85</td>
</tr>
<tr>
<td>B</td>
<td>6.83 6.65 7.33 7.28</td>
</tr>
<tr>
<td>HB</td>
<td>4.15 6.15 5.45 5.00 9.50 7.15 9.20 9.55</td>
</tr>
<tr>
<td>K</td>
<td>7.50 6.54</td>
</tr>
<tr>
<td>HK</td>
<td>5.03 5.35 9.98 7.73</td>
</tr>
<tr>
<td>BK</td>
<td>6.90 6.75 6.95 6.35 7.65 7.00 8.50 6.05</td>
</tr>
<tr>
<td>HBK</td>
<td>4.20 4.10 5.60 6.70 4.60 6.30 5.70 4.30</td>
</tr>
<tr>
<td></td>
<td>9.60 9.40 8.30 6.00 10.70 7.70 11.30 7.80</td>
</tr>
</tbody>
</table>
APPENDIX J

SUMMARY TABLES OF ANOVAs FOR POST-EXPERIMENTAL QUESTIONS
Table L
Summary of Analysis of Variance for Post-Experimental Question No.1 (S mood before experiment)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Inducement (H)</td>
<td>0.125</td>
<td>0.125</td>
<td>1</td>
<td>0.004</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>5.638</td>
<td>1.878</td>
<td>3</td>
<td>0.548</td>
</tr>
<tr>
<td>HB</td>
<td>4.738</td>
<td>1.580</td>
<td>3</td>
<td>0.460</td>
</tr>
<tr>
<td>Error</td>
<td>247.100</td>
<td>3.432</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: No values of F reached statistical significance.
Table M
Summary of Analysis of Variance for Post-Experimental Question No.2 (S mood after mood inducement)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Inducement (H)</td>
<td>148.513</td>
<td>148.513</td>
<td>1</td>
<td>64.222*</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>3.338</td>
<td>1.113</td>
<td>3</td>
<td>0.481</td>
</tr>
<tr>
<td>HB</td>
<td>9.338</td>
<td>3.113</td>
<td>3</td>
<td>1.346</td>
</tr>
<tr>
<td>Error</td>
<td>116.500</td>
<td>2.313</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

* p < .001
Table N

Summary of Analysis of Variance for Post-Experimental Question No.3
(S mood after taped presentation)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Inducement (H)</td>
<td>8.450</td>
<td>8.450</td>
<td>1</td>
<td>3.822</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>10.050</td>
<td>3.350</td>
<td>3</td>
<td>1.515</td>
</tr>
<tr>
<td>HB</td>
<td>31.050</td>
<td>10.350</td>
<td>3</td>
<td>4.681*</td>
</tr>
<tr>
<td>Error</td>
<td>159.200</td>
<td>2.211</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

* p < .01
### Table 0

Summary of Analysis of Variance for Post-Experimental Question No. 4 (with what mood tape began)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Inducement (H)</td>
<td>24.200</td>
<td>24.200</td>
<td>1</td>
<td>8.127*</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>1.900</td>
<td>0.633</td>
<td>3</td>
<td>0.213</td>
</tr>
<tr>
<td>HB</td>
<td>172.300</td>
<td>57.433</td>
<td>3</td>
<td>19.287**</td>
</tr>
<tr>
<td>Error</td>
<td>214.400</td>
<td>2.978</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .01$

** $p < .001$
Table P
Summary of Analysis of Variance for Post-Experimental Question No.5 (with what mood tape ended)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Inducement (H)</td>
<td>35.113</td>
<td>35.113</td>
<td>1</td>
<td>12.266*</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>11.638</td>
<td>3.880</td>
<td>3</td>
<td>1.355</td>
</tr>
<tr>
<td>HB</td>
<td>175.638</td>
<td>58.546</td>
<td>3</td>
<td>20.453**</td>
</tr>
<tr>
<td>Error</td>
<td>206.100</td>
<td>2.863</td>
<td>72</td>
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</tr>
</tbody>
</table>

* p < .01
** p < .001
Table Q
Summary of Analysis of Variance for Post-Experimental Question No.6
($S^mood$ at end of experiment)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Inducement (H)</td>
<td>12.013</td>
<td>12.013</td>
<td>1</td>
<td>4.884*</td>
</tr>
<tr>
<td>Treatment (B)</td>
<td>0.138</td>
<td>0.459</td>
<td>3</td>
<td>0.019</td>
</tr>
<tr>
<td>HB</td>
<td>22.638</td>
<td>7.546</td>
<td>3</td>
<td>3.068*</td>
</tr>
<tr>
<td>Error</td>
<td>177.100</td>
<td>2.460</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$
APPENDIX K

TABLES OF MEANS FOR ANOVAs FOR POST-EXPERIMENTAL QUESTIONS
Table R
Summary of Means for Analysis of Variance for Post-Experimental Question No. 1
($s$ mood before experiment)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>5.88 5.85</td>
</tr>
<tr>
<td>B</td>
<td>5.50 5.85 6.25 5.85</td>
</tr>
<tr>
<td>HB</td>
<td>5.20 6.10 6.10 6.10 5.80 5.60 6.40 5.60</td>
</tr>
</tbody>
</table>
Table S
Summary of Means for Analysis of Variance for Post-Experimental Question No. 2 (S mood after statements)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>4.20 6.93</td>
</tr>
<tr>
<td>B</td>
<td>5.50 5.35 5.50 5.90</td>
</tr>
<tr>
<td>HB</td>
<td>4.20 4.40 3.60 4.60 6.80 6.30 7.40 7.20</td>
</tr>
</tbody>
</table>
Table T
Summary of Means for Analysis of Variance for Post-Experimental Question No. 3
(S mood after tape)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>4.55 5.20</td>
</tr>
<tr>
<td>B</td>
<td>5.25 4.60 4.45 5.20</td>
</tr>
<tr>
<td>HB</td>
<td>4.00 5.00 4.50 4.70 6.50 4.20 4.40 5.70</td>
</tr>
</tbody>
</table>
Table U
Summary of Means for Analysis of Variance for
Post-Experimental Question No. 4
(with what mood tape began)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>3.65 4.75</td>
</tr>
<tr>
<td>B</td>
<td>4.10 4.05 4.20 4.45</td>
</tr>
<tr>
<td>HB</td>
<td>2.60 1.90 5.90 4.20 5.60 6.20 2.50 4.70</td>
</tr>
</tbody>
</table>
Table V

Summary of Means for Analysis of Variance for
Post-Experimental Question No. 5
(with what mood tape ended)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>4.90 3.58</td>
</tr>
<tr>
<td>B</td>
<td>4.75 4.45 3.80 3.95</td>
</tr>
<tr>
<td>HB</td>
<td>3.40 7.10 5.10 4.00 6.10 1.80 2.50 3.90</td>
</tr>
</tbody>
</table>
Table W

Summary of Means for Analysis of Variance for Post-Experimental Question No. 6
(S mood at end of experiment)

<table>
<thead>
<tr>
<th>Source</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>5.08 5.85</td>
</tr>
<tr>
<td>B</td>
<td>5.40 5.50 5.50 5.45</td>
</tr>
<tr>
<td>HB</td>
<td>4.30 5.90 5.10 5.00 6.50 5.10 5.90 5.90</td>
</tr>
</tbody>
</table>